Of Places, People and Nature

A selection of stories
by John Endersby

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Front Cover photo: River Red Gums on the banks of the Marne River near Cambrai, the Mount Lofty Ranges seen in the background. (Glen Taylor)
Back cover photo: The Marne River near Cambrai. (Glen Taylor)

Dedicated to the late

John Eckert
of Langhorne Creek

In natural history a great inspiration and teacher.

Acknowledgements

Firstly, I thank my wife Barbara and our family who have been my loyal companions through good times and hard times. Their support has enabled, and in some cases inspired, me to write the stories in this book.

I am grateful in having the opportunity to volunteer with the Natural History Society through which I have been able to contribute in a practical way to the well-being of the natural environment that is so dear to my heart and in the process make some firm friendships.

Thanks are due to Peter Clements, Karen and Peter Collins for their helpful comments and particularly to Karen for the work she has done investigating affordable avenues to have the book published. My thanks go to Glen Taylor for typing the manuscript and arranging illustrations. Though most of the photographs are from my own collection, I am grateful to Glen and Gary Taylor who kindly provided photographs of birds and some of the locations.

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Foreword

Author John Endersby grew up on a dairy farm, later worked as a Jackaroo, stockman and share farmer. John spent eleven years as a Prison Officer with the Department of Correctional Services. He has written of his prison experiences in a book entitled "Monsters in the dark". The tensions of the prison environment led to him suffering Post Traumatic Stress Disorder. He now lives on his hobby farm at Cambrai.

When John retired, he joined the Natural History Society and in 1994 was appointed a Fellow. He keenly participates in the management and maintenance of the Society's Moorunde Wildlife Reserve, nearly seventy square kilometres of mallee bushland near Blanchetown.

John is a regular writer of articles in the Society's journal "Natural History", more than sixty having been published from 1993 to 2011. Many of them and others that had not been previously published, are included in this book.

He also conducted a seven-year bird study, the results of which are being compiled into a book "A Handlist of the Birds of Moorunde with annotations".

As a conservationist, John usually writes about people and their relationship to the environment with birds and their habitats being prominent. He writes with deep sentimentality born of a love of the Australian bush, but tempered with the practicality of his experience as a farmer wresting a living from the land, aware of the need for coexistence of primary production and conservation of natural habitat to maintain a healthy balance of life on earth.

His style of writing can evoke, in words, vivid mental pictures which can, at times, be brutally confronting, but more often serene and peaceful in their natural beauty, generally with a strong message for conservation. John does sometimes meander in his stories, leaving the reader wondering where it is leading, but, as with the great train journeys of the world, the travelling experience makes the destination a secondary consideration, indeed almost irrelevant. So, enjoy the journey!

Glen Taylor OAM

A Brief word

On behalf of the Fellows of the Natural History Society of South Australia Inc. I would like to wish John well with this publication of a collection of his essays on a variety of topics including natural history. The Society is pleased to have John as a volunteer on projects of an environmental nature on its wildlife reserves. John's involvement has been crucial to several important projects on the reserves.

Therefore we are particularly pleased that John has offered the proceeds of the sale of this book to go towards the Natural History Society's many projects on its reserves. For John, his work at the reserves has been therapeutic and so it is for many of us who also volunteer as a release from the stresses of life in the city. The importance of this aspect comes out in many of John's stories and I am sure that all who read them will find some resonance in them.

Peter Clements PhD

Public Officer
Natural History Society of South Australia Inc.

Prologue

"Dying ain't hard for men like you and me; it's living that's the hard part..."
From the film "The Outlaw Jose Whales".

A group of us had been sitting in the shade, after a hard day's work on various projects at Moorunde during one of our volunteer weekend campouts. Mostly we had been discussing what each of us had done that day and plans for the next. Then I asked Glen, the Editor of the Natural History Journal, if he had read the last article I submitted to him and if he thought it suitable for publication. We were discussing that and a few other articles still awaiting publication, when somebody asked why did I write them, what was I hoping to achieve by writing them and then wanted to know why I was so keen to have them published?

You can't give a definitive answer to questions such as that in the environment of a group discussion, when others are waiting to say something themselves. The best I could manage at the time was an answer to the second part of this three-tiered question, which was that I hoped it gave people more value for their membership money, through the journal, and that perhaps it took them one step further in what they thought about in life, nature and its conservation, or that it broadened their outlook and concepts in Natural History.

I have always written with the view that each article could be my last, or that the one you are reading now may be your last. With that stated, here is the rest of the answer to the questions. I spent eleven years working in South Australia's prisons and gaols and have therefore experienced things most people may never imagine. Unlike what is depicted in many American television programs and films, South Australian prison officers walk amongst and talk with prisoners while <u>un-armed</u>. So one becomes acquainted with a range of lives from the tragic to the totally evil, while your only defence is the capacity to communicate; and the prison's best security lies in developing a rapport with the inmates.

James was serving a life sentence for a particularly cruel and hideous crime, but I had always got on well with him; and it's an officer's duty to <u>not</u> concern himself with the crime itself, but with the man who committed it. It was a Sunday, and he was looking quite distressed after a visit from his sister, so I asked him why he was looking so 'down'? The visit was part of the reason. His sister had been a very obese woman, and the emphasis here is on the 'had been', because when I saw her that Sunday, she was extremely and unhealthily emaciated. The flesh of her skin hung like empty, water-soaked bags from the bones of her arms; her ankles were covered, down to her feet with great rolls and folds of the drooping skin from her legs. She was dying from anorexia and James knew it and was afraid for her.

'I'm the only one she has that loves her' he told me. 'And she is the only person that loves me. I'm all she has and she is all I have to love and she is going to die soon; you can see that for yourself'. And I could! 'I have to keep living until my parole comes, for her sake, not mine. She has nobody else. Just look at her, nobody wants to be near somebody looking like that; except me! I have to live for her sake'.

His sister certainly looked grotesque and repulsive, although I tried not to think that way, but what could I say? What is there to say to a man serving a life sentence for his crime? Once committed and sentenced there is no turning back; it's unrelenting from there on. I tried to say something, but knew I was drowning before even getting started. I knew though, that while not being religious myself, some prisoners drew comfort from it and, like a fool, mentioned something from the New Testament. I cannot remember what it was and now I know better.

James exploded! With a verbal outburst of extreme outrage and venom. 'Don't talk religion to me', he shouted. My father was a ..... minister of religion, and almost every day he would bash me and my sister, and when I tried to stop him from

hurting her, he would bash me some more and rape me. Every week after church he would rape us both; and my righteous Godfearing mother just looked on and stood on his side when he thrashed us. Then thrashed us some more if we cried out to her for help'. 'DON'T EVER talk about religion or that "honour your father and mother" s...t to me again. I wish my loving f.....g parents were dead and their b....y f....g religion dead with them'.

I could barely croak out a 'sorry', given the volume and venom and content of his eruption; but oddly enough, for some reason, he didn't stomp off and leave me. I tried again to talk, but he could see I couldn't; and so he talked some more, now in a defeated tone, more about his concern for his sister's health and how much she had meant to him 'back then'. Of the extra bashings and the raping he got from his father whenever he tried to protect her. About how he refused to stop trying regardless, knowing each time he would fail anyway - until he grew bigger. About the grief she had for him in getting locked away, and his own shame, not for his crime, but for not being out of prison to protect her now and save her, which, if he was out, he was sure he could do! How afraid he was for her life and his fear in living without her. That he was afraid he wouldn't be released on parole in time. And then about how they had comforted each other when they had been children together.

The next day he was dead! The prison officer who unlocked his cell door saw the vomit on his face, caused by a heart attack and knew his body was already going cold; but he tried to save his life regardless of that by breathing air through his vomit covered mouth and pumping his already cold and unresponding chest. Then he was assisted by some prisoners who had attended St. Johns First Aid courses while in prison. But it was hopeless! Yet my friend and fellow officer was never quite the same again, because of his failure to save a life. I don't think he failed!

James had committed a very barbaric crime, but I'll not tell you what it was, because although the crime was amongst the worst one can commit, he wasn't a bad man. And you may wonder about that! But you see, there is a difference between the man and the crime. There are some men who are purely evil, (regardless of their crime), and if you ever look into their eyes, you will be afraid! With other men, you can see bitterness or anger or nothing but the absence of hope. Some, like James on that Sunday, what you see is grief, for a tragedy partly of their own making. These men can haunt you, when it would be better, far better, to just be afraid!

And that's just it, you see! My mind is still infiltrated with events that are, or were frightening, or worse still, mostly sickening, repulsive or sad; and too, it's invaded with the faces of those that are evil and cruel, hopeless or grieving. However, when I write, particularly when I write about Natural History, I can block them out and it all goes away - I am insulated from it for the duration of time in penning the articles. All of the incidents, a hundred and more, can be blocked by the concentration required to write. Except this one and a few others too, but mainly this one. The ghost of that man comes to visit me, day or night and I know of nothing to stop it, which is a paradox, because I chose his story to tell you why I write!

As for why do I want what I write to be published? Well, if it wasn't, that would be like cooking a meal with nobody to eat it and there is no sense in that. Also, it's so that although 'dying ain't hard for men like me...', I can hope it won't be the last article I write - or the last one you read.

A CRESTED BELLBIRD

For some hours I had been travelling in station country up north through a woodland of Black Oaks (*Casuarina cristata*) that had varied in density on the landscape from a few scattered trees to the odd copse with one tree every five, ten or twenty metres. Then occasionally interrupted by a broad belt of Mallee (various eucalypt species). I made camp for the night in one of the denser thickets of Black Oak. Where the light wind whispered through their strange thin wire-like drooping foliage. Sighing amongst the branches like the voices of a gathering of ghosts, saying 'you are alone here; this is a sad, sad place to be'. Breathing, whispering and sighing amongst themselves in some sort of conspiracy, as these trees are known to do. As though the place belonged to them and the advancing dark of the night.

So I quickly got my fire going to have the flickering flames and the crackling wood to protect me from whatever may lurk in the darkness. To make it home, at least for the night. But when I lay down on the ground close to this source of comfort, the fire gradually started to die, and the moaning whispers came back. I covered my face with my blanket and told myself there were no phantoms here; but I was on my own, and it was dark, and I couldn't quite believe it.

I woke in the dark of the early morning of this night; the breath and shiver of the wind in the trees had stopped. There was no longer sighing voices but a low mist was stealthily drifting in. Everything was being enveloped in its shroud, up to the waist of the trees, but not the upper branches. It took in the wafting smoke from the dying fire, as though that was meant to be. With the mist came the very first dim light of the new day, but it was high above with the fading stars. It was still dark where I lay. With the Black Oaks standing around, their trunks as silent sentinels. Dark gross shapes, but their haunting sigh had gone, with the mist coming in; and I could see enough to know that all about me it was beautiful, and I couldn't get back to sleep because of that.

Then just as the stars were losing against the strength of the light, but with the earth still wrapped in a shroud of dark ghostly grey, it came to me! The soft low oboe notes, the 'plonk plonk de plonk' of a muffled bell, deeper into the copse. As the mist and the darkness still cloaked the tree trunks; keeping the rest of the earth silent and still. There it was again, 'plonk plonk de plonk', and again. With that, the mist was slowly and gently, forced to waft up into the branches, to keep the sigh and mournful breath away, as the sun rose. 'Plonk plonk de plonk' went the bell, and the sun broke the resisting mist, found a crevice in amongst the trees, with their ragged trunks and its light came rushing in; making the campsite divine, and more beautiful still.

With the light and its warmth the mist conceded defeat, and silently retreated, stealing away, and dissipating into nothing. As though it was never there, and with another 'plonk plonk de plonk' the dark azure sky exploded into sparkling opal blue. The dull grey trees were bathed in gold and silver; surprised and welcoming. Looking glad even! As though a little ashamed of their inhospitable voices of phantoms from the evening before. Then with the fire crackling again, as I poked and prodded and added sticks, the Bellbird seemed to think its job was done, and I heard it no more.

I was only eighteen back then. Almost a full life span ago in time. But of all the things and places I once knew, and since forgotten, those hours as the night advanced to day where the mist silenced the trees, and the Bellbird heralded the sun, have never left.

Every time I hear a Crested Bellbird's muffled tune, I'm taken back to that morning, that campsite. As much as one can grasp hold of a place and time, I cling to it for a few moments again. The mist and the phantom trees in the slowly growing light beautiful in their silence. Then the stab of golden sun, rushing in, through and around the trunks and grotesque branches, more beautiful still.

You cannot purchase such things as this. There is no price on it; and no matter how hard you try, even if one returns to the very same place, it remains elusive to you. Except...! When, or if you hear something from the past. Then your memory can place you there - Just for a moment!

THE MALLEE

The title is a somewhat generalised term that covers a variety of different types of land or vegetation, depending on who or where you are. Farming land that was once covered, then cleared of mallee trees, scrub land that has mallee trees in it, or the vast area of country in South Australia, Victoria and New South Wales that is now cropping country, but with remnants along roadsides and fencelines and occasional blocks, large and small, still remaining uncleared, or as regrowth.

It is now difficult to comprehend, but in the 19th century this area was literally feared and looked upon in trepidation by explorers and overland stockmen. Once it was an immense sea of endless low scrub stretching from the eastern foothills of the Mount Lofty Ranges to about half way across Victoria and New South Wales, both sides of the River Murray, an expanse larger than Spain!

Travelling through or bringing stock from N.S.W. to the newly settled districts of South Australia presented extreme hazards. There were no landmarks and it was impossible to see further than thirty, perhaps fifty metres into it. After a few hours of penetration one was well within its grasp, just below a low thin canopy that tormented for days, perhaps weeks. There was no water and little fodder for stock or horses, nothing to be seen in any direction except the multi-stemmed trees that were not so much evergreen, but ever grey.

On rare occasions a tree could be found higher and strong enough to climb above the others to gain a view, but it would be more dismal and depressing than on the ground, for everywhere one looked it was an undulating green and grey sea to the horizons with nothing, absolutely nothing else. And gradually, on the ground, the scrub closed in, with a cruel and claustrophobic grip, eroding the nerve of even the very stoutest hearts. It never ended, never changed and the trees were always just too high to see over by standing on the saddle, but frustratingly low and as nothing changed, they could not quell the sense that they would never get out.

Eventually this immense area was ‘cut down to size’. Huge teams of bullocks dragging massive River Red Gum logs and later bulldozers with ships’ anchor chains, reduced one of the world’s unique environments to isolated remnants. However, even today there are some very large tracts to be found. And even now there are places where one can climb a vantage point, such as a windmill, and see nothing in every direction but the tops of mallee trees to the horizons. Then realise just how much effort and courage it must have taken for those explorers and overlanders. In such a place one is truly in the mallee.

Contrary to the perceptions of those bygone men, whose intentions were to get through, the mallee scrubs are by no means continuous places of monotony. They are by no means just mallee trees alone. These scrubs contain countless varieties of shrubs and bushes and there are other trees in it as well. The low multi-stemmed eucalypt trees are simply the dominant tree, which provides the ‘canopy’. Only to the person merely trying to pass through does it appear featureless and boring.

Every tree out of a large range of different species has the genetic ability to be a tall, single trunk and only the ‘conditions’ in which it grows forces the trunk to form underground as a stump and then to send its limbs to the surface.

Pristine mallee (that is, scrub that has never been cut down) and its associated vegetation is one of, if not the richest types of environments, for wildlife in Australia, rivalling, if not exceeding even rain forest; and for the purpose of observing wildlife it certainly exceeds any rain forest. This is because of its relative ease of access, its lower canopy and by being able to see further through it.

But there is one more advantage. As opposed to most rainforests which are a continuation of similar environment types, mallee is not. Frequently it is broken up into what is known as ecotones; that is places where two different habitat types meet. It may be hard to believe that ‘mallee’ is more than one habitat, but it is and, in fact

there are several habitat types. Obviously at some point they meet, and (for example) it's possible to see up to thirty or so birds in an hour of observation in and around these places.

Lush and green it certainly is not, and people tend to have a bias towards lush and green as though it's some sort of comfort zone. However, that is hardly the point. Mallee scrub is unique and restricted to Australia and one needs to recognise this bias and then relook at its beauty and atmosphere for its own sake.

Setting aside the array of wildlife, there is still variety. The more subtle colours, different greys, browns and greens, soft blues running to silver and to an array of pinks. Changing soils from hard red clay, soft white sand covered in vegetation litter; red stones and grey and white limestone covered in moss and lichens from soft green, blue-green to pink and black.

Then the sounds of singing birds that blend with the surrounds; their absolute silence just before it rains to a burst of song afterwards. The mist in the early morning sun rising low over the ground and in the heat of the day with the sun burning through thin shade, the hypnotic fragrance of eucalypts, clean and sleepy. Gold and silver sparkles on the tips of the leaves in the early morning dew with a bracing chill. Silence and heavy heat at midday; then chill again under a clear sky full of stars with night birds calling in the shadows.

No, the mallee is monotonous, featureless and boring, give me a high mountain view any time! Where all there is to see is a mountain, all there is to hear is the wind and all there is to feel is the fatigue in getting up there.

Most Eucalypt species have the genetic ability to be 'a mallee'. On rare occasions even the River Red Gum can be found with its branches coming straight from the ground.

Jan - Feb 2002

HABITAT ON MOORUNDE

The aim of this dissertation is to give a brief overview of the habitat for birds on the reserve. Some measurements and experiments were conducted for the author to arrive at various conclusions; however, the following description is by no means extensive or comprehensive.

There are places that, once visited, hold a special attraction that defies logical explanation. They draw you back, time and again, with a gravity one is unable to justify. Alternatively, it simply comes down to being part of your life and no further explanation is then necessary.

Moorunde Wildlife Reserve is managed by the Natural History Society of South Australia Inc. It is (in 2002*) approximately 2000 hectares (5000 acres) of 'Open scrub and Tall Shrubland' situated 18 kilometres north-east of Sedan. The primary purpose for setting it aside was to protect the Southern Hairy-nosed Wombat. However, its value as a haven for birds is not to be ignored; especially as some uncommon and rare species in the state are well represented.

The reserve is in the shape of a reversed capital L and set amongst adjoining scrub (of varying quality) on all sides. It is about 1.6 kilometres wide and about 14 kilometres along its southern and eastern boundaries. These two features (setting and length) enhance its value for birds as the setting gives it an effective larger area of scrub and its length lays it over a wider range of habitats.

The climate is somewhat harsh, with a low (275 mm.) average annual rainfall. Summer temperatures are usually 2 or 3 degrees higher than in Adelaide on any given day. Winter frosts can be severe with the ground temperature dropping several degrees below zero. Frequently the rain comes as light showers, further reducing its value. However, the general area is prone to occasional heavy thunderstorms and 'cloudbursts'. Although the reserve is situated in a 'Mediterranean' climate zone consisting of the traditional four seasons, it can be considered, from a practical point of view, as having only two seasons – summer and spring. Breeding activity commences immediately after the first good 'opening rains'. Then the reserve really comes to life.

Wildflowers are never outstanding compared to other well-known areas in Australia and are most abundant through August and September. However, it is a botanically interesting place and there is always something in flower throughout the year. From about December through to when good seasonal rains come any time from April to July, bird life is subdued and very quiet. A remarkable feature is the contrast in activity between the months before and the days after the first good rain. The reserve undergoes a transformation of atmosphere in less than 48 hours.

Habitat is remarkably variable despite first impressions and a brief description is somewhat complicated to compile. But it is reasonable to say that there are three major types, from the point of view of bird studies.

These are as follows:

1. Open scrub,
2. Tall open shrubland and
3. Ecotones.

Strictly speaking, ecotones are not a habitat in their own right but a term given to areas where two habitat types meet. Consequently, they will not be described here. However, ecotones are the places where fauna numbers and species are at their greatest, as animals (particularly birds) capitalise on the advantages of both habitats. Moorunde has a multitude of ecotones.

The Open Scrub on Moorunde is made up from four species of mallee as the dominant trees, in fact, usually the only trees. They form a canopy of approximately 50% with a similar percentage of shade density.

Unfortunately, due to charcoal burning during World War II, most of the mallee areas had the trees cut down, so what we have today is mainly regrowth. There are however, some notable exceptions, from single untouched trees to a number of fair sized groves. These give us a good idea of the former pristine nature of the scrub and provide excellent breeding hollows.

Second storey shrubs are generally sparse and low and made up mostly of various salt- and blue-bush species. However, there are frequent 'islands' of shrubland within the scrub, some of sufficient size to influence the makeup of the bird population. One other notable feature is the scattering of tall shrubs immediately beneath some mallees, probably germinated from seeds dropped by birds.

Ground cover is represented by a heavy leaf and twig 'litter' immediately under the trees. While a range of lichen species binds the topsoil where it is exposed. This ground area (not covered in litter) is on average about 50% of the floor. And with the lichen ranging in colour from black, brown, white, pink, off-white and light green, there is a distinctive mottled appearance.

The soil is generally a red-brown clay-loam over sheet limestone (or calcrete). It has very good moisture retention ability and once wet is very slippery and will form a paste. Under the litter the red colour is displaced and the clay nature is less obvious, probably due to the increase in organic matter. Even the exposed areas have a comparatively soft crust. Depth of the soil over the calcrete varies from about 15 cm. to one or two metres. However, there is considerable outcropping of loose stones, due mainly to uplift from the mallee roots. Visibility is restricted by the multiple but bare mallee stems to around 60 metres (on average) at one metre above ground level.

The remainder of the reserve (about one third) is made up of 'Tall Open Shrubland', which varies in density from a visibility (at one metre above ground) of a few metres or less to photographic infinity. An almost negligible canopy is made up from scattered Myoporum trees - the numbers of which are declining. There are also Casuarinas, Native Pine, Native Apricot and occasionally, a tree form of 'mallee' Eucalyptus. Contrasting with the former habitat, there are islands of mallee scrub within the shrubland, once again of sufficient size to influence species numbers and variety. The predominant shrubs are species of Geijera, Dodonaea, Eremophila, Melaleuca, Acacia and Heterodendron. What shade they provide is generally denser than the mallee, but being shorter, the overall shaded ground is much less.

Regrowth since the commencement of rabbit baiting in 1994 has been nothing less than dramatic. The number of shrubs has increased from two to five times post baiting - depending on which area one decides to count. Wards Weed covers most of the ground; however, when fenced off from any grazing, Wallaby and Spear grass can become quite dense.

Once again the ground is covered in a wide range of lichen species and in places, moss and liverworts. But the mottled effect is generally hidden by the Wards Weed. The soil is somewhat darker than in the scrub, probably due to an increase in sun exposure. It is still a clay-loam over calcrete with a depth on average much shallower. In places, there are exposed sheets of calcrete and no topsoil.

Dried Dodonaea flowers carpet the ground in late spring, but in late summer the ground is covered in dried leaves. These leaves are shed by the shrubs to reduce transpiration at a time when exposure to heat and light are at their greatest and soil moisture is at its lowest. It's the shrubland that displays the changing seasons most dramatically, waiting silently poised in the heat, ready to leap away at the moment their roots lick that first refreshing rain.

May - June 2002

** Editor's note: This article refers to the reserve of 2000 hectares as it existed in 2002; in 2007 adjoining lands were purchased increasing its area to 7000 hectares.*

BROWN WEEBILLS

It was hot! Over 40°C in Adelaide, 46 in the shade at Moorunde. The air wrapped around you, crisp and parching. And the Mallee leaves drooping inert against an hallucination of movement. A glittering mirage. Refraction of light through different layers of air temperature generating the illusion of movement when there really is none. Ironically reinforcing the very stillness itself. And quiet! You could hear nothing but the the blood rushing through your own head. So quiet it almost crackled and burst. Smoke, from the "roly" in my mouth, tumbled out, became saturated in the inert surrounds, hung listlessly as though anticipating direction from something. Then slowly and wearily dissipated in silent objection to the brazen air.

Anything that could move didn't, anything that would move couldn't. Even the shade seemed to falter, with the sun frozen in the pale sky. Glazed in by its own glare. The wombats were deep inside their burrows, kangaroos lay in the best shade they could find, their eyelids drooped shut, rather than closed, with the flies too tired to bother them. A lone honeyeater, perched on a twig, its mouth gaped open, but too stifled to pant; and conscious only of its own exhaustion. So, I was watched by nothing except the glimmering eyes of the mirage drifting aimlessly across Portee Station.

What was I doing here?! Ranger duty on a day like this? One has to be a little twisted. 'Only mad dogs and Englishmen go out in the midday sun' – with the inference that Englishmen are mad too. But, then my not too distant ancestors were Anglo-Saxon. Even so? But Moorunde is that sort of place where one desires to experience it in all types of weather, even the heat. Its atmosphere, its ambience changes from day to day, morning to afternoon, evening to night and season to season. To experience it all, one has to be there, even at the expense of comfort; and on days of extreme heat there is almost absolute peace.

At all other times there is always some noise, some movement, some activity to divert one's attention. But in this place and others like it, when it is so hot and you can dissociate from this, there is nothing moving and no sound. Then you can be haunted simply by the stillness and mesmerised by the glare.

Then suddenly a half dozen little feathered bodies, noisily appear from the scrub. Dropping into the foliage above with gay abandon and enviable activity. Dashing here and there, chattering and calling to each other without constraint, defying the heat. They have no intention of being quiet or still and emit a crazy little tune as they fossick busily for sustenance amongst the leaves. As suddenly as they appeared, universally they decide to leave; and off they go to another tree canopy, which is examined with equal effervescence. They broke the spell, of course! And it requires a sustained effort to detach from the heat and revive it. Usually too much effort and one is left with mixed emotions of annoyance for the loss and intrigue over the incident. I didn't have to see these little birds, I already knew what they were. Brown Weebills! One of Australia's smallest birds and noted for the very event just witnessed. That is noise and activity when nothing else can sum up the energy. Only mad dogs and Englishmen, and Brown Weebills!

Jan - Feb 2003

THE MARNE RIVER

The 'jewel in the crown' in the Cambrai/Sedan district is, without doubt, the Marne River. It has only a relatively small catchment area of some 238 square kilometres, surrounding the towns of Keyneton, Eden Valley and Springton, with the main stream flowing east. The catchment includes the Somme Creek (now renamed the North Rhine), which rises north of Keyneton and flows south to join the Marne roughly halfway between Eden Valley and Cambrai. This stream takes in approximately half of the total catchment area.

The Marne rises west of the Eden Valley to Springton road, at the crest of a gentle ridge, on the other side of which is the beginning of the Torrens River catchment.

The Somme falls from an elevation of 430 metres to the junction with the Marne, which falls some 500 metres from its catchment to the junction. The length of the River Marne to this point is 37 kilometres and from here on it drops 110 metres in 11 kilometres.

Between the junction of the two streams to where it breaks its way out of the ranges it flows through rugged gorges with savage twists and turns and sudden rock-strewn drops, the last feature being a beautiful gorge lined at the bottom with red gums and rocky outcrops. The entrance to this gorge is marked by a small disused weir a few kilometres south of Cambrai.

'...where it breaks its way out of the ranges...'

From here on the Marne flows gently to its destination, the River Murray. Much of its course meanders over a wide flat valley and flood plain, ever accompanied by stands of giant red gums. The lush flat ground forms a stark contrast to the semi-arid sides and high ground, which is marginal cropping and grazing country or patches of Mallee scrub land.

As by far the largest portion of the Marne water (in this stretch) flows underground, numerous farmers pump water from wells and bores to irrigate lucerne, the green crops adding to the lush appearance of this section of the river's course.

A gravel road runs along the valley close to the river from where it breaks away from the hills, almost to its mouth at the Murray, so one can enjoy much of the scenic beauty from the luxury of a car. Unfortunately for those that don't like to (or can't) walk, the last section of the river is no longer followed by the road, so a very interesting stretch of the river can only be appreciated on foot.

At an old settlement marked on the map as Kongollia, the road crosses the river by means of a small bridge and shortly after this you pass the corner of the Marne Valley Conservation Park. The park is set at an angle to the road, so it touches only a corner. You can walk into it from here; but a much more spectacular entrance is gained if one takes the track that follows the ridge on the north side of the valley. You travel along this track until descending an incline to an intersection, where you can see the red gum forest on your right. Take the track down to the gums, get out and walk into the forest and you find yourself in a different world.

It's only a small park but the forest within is, without doubt, the finest and most beautiful red gum forest close to Adelaide and, but for its size, compares with the best further up the Murray around Renmark. The cathedral-like trees can rejuvenate the soul as you stroll amongst them. Although at times the screeching cockatoos and galahs may be excessively loud, contrasting with the silent trees, ironically they add to the atmosphere and enhance the prevailing tranquility, perhaps by their contribution to the spirit of the forest.

The Marne flows through this forest and in wet years spills over and floods a low-lying area, forming a tranquil lagoon – a beautiful little lake studded with giant trees and surrounded by the remaining forest. It soon fills with water birds of various species and, in time, the ducks breed in the hollows of the flooded gums. Soon after, the lagoon has dozens of ducklings, scurrying after their mothers as the intruder approaches to see them.

However, there is a disadvantage during these wet times – one can't walk through the forest. You have to content yourself with walking along the edge and looking in, you can no longer lose yourself amongst the magnificent trees and absorb their tranquility.

Further downstream the valley starts to narrow and although still accompanied by red gums, it starts to lose the lush appearance. The area takes on a different atmosphere and the river tends to become a mere channel. About here you pass through the town of Black Hill. Almost a ghost town, a sense of almost overpowering nostalgia descends upon those who are prone to tactile sensations.

Travelling on from Black Hill, the road crosses the Marne again, by means of a ford, to the north side, where the river puts on one last effort to throw off the sense of unease (almost depression) as the traveller comes to a small park-cum-picnic ground. There is a barbecue and a grotty little toilet, it's a pretty spot nonetheless, with red gums lining the river which is now filled with reeds. The flat picnic area is carpeted with short sedge with vehicle tracks running through it. However, one can't quite throw off the sense of alienation that prevails, or even be able to grasp exactly what it is.

Throughout this area are huge gullies of soft limestone, pitted with small caves and wombat burrows. Although a very dry area, the caves have been eroded out with water and inside hundreds of ancient marine fossils are exposed. These gullies also indicate the various levels of the sea as its level dropped and they have curious rounded tops and sides. They run down to the Marne and every one looks as though it would be interesting to walk up and explore.

Just as the road starts to leave the river, which is now choked with reeds and dead trees, the traveller comes to a well-known landmark. Shell Hill was once a quarry, a huge hill of fossilised oysters, over five million years old and the largest of its type in the Southern Hemisphere. Before all the material was trucked away, someone must have realised the immensity of the vandalism of using ancient marine oysters as road material. A section about the size of a large house has been left. However, the vandalism continues; almost everybody who visits the remnants of Shell Hill takes away a few pieces of oysters as souvenirs.

After Shell Hill, the road to the mouth of the Marne leaves the river and doesn't rejoin it until the traveller reaches Wongulla.

Shell Hill

Fossilised oysters five million years old and all that's left of them.

The mouth of the Marne is reached by driving as far upstream along the Murray as you can and then walking a short distance along a narrow peninsula that divides the two rivers. After scrambling over a few logs and pushing through some reeds, you are finally there. The great river on your right, the tranquil pools of the Marne on the left.

Rising above these pools is a ridge with the same rounded sides and top as the gullies mentioned before; contrasting with the sheer cliffs of the Murray. From here one gains a spectacular view of the two rivers and you can see a small section of what was missed by taking the road.

Sadly though, the Marne is dying. In 1982 an E&WS hydrographer wrote a report on *'The impact of development on streamflow in the Marne River'*. At that time it was estimated that an average of 20% of the flow was held back by the 500 dams in the catchment area. These dams were approximately 5 to 10 acres in surface area.

Today, the Marne no longer flows. It floods in extremely wet years, but there is no longer a yearly stream of water. With the boom in the wine industry, there are approximately 1500 dams with surface areas of 20 to 30 acres. To add insult to injury, areas in the catchment have been cleared of the red gums to make way for vines, despite this district having less than 2% of remnant native vegetation. So, what the lack of water is starting, salt will finish and there we have it – a paradise lost.

The Hills behind Cambrai

If the Marne River is the 'jewel in the crown' of the Cambrai/Sedan districts, then the setting for this jewel must surely be the eastern slopes of the Mount Lofty Ranges. They are an outstanding feature if only by virtue of being so visible. Looking at them from the Cambrai to Sedan road, they rise some 300 metres and stretch from horizon to horizon - a bare and barren range of rolling skull-shaped hills apparently devoid of any other features. They are a stark contrast to the lush middle and western expanses of the ranges.

For the conservation-minded they stand as a monument to a nightmare! Once covered by a woodland of She-oak, Golden Wattle and other Acacias, your imagination has to extend in order to visualise them as they were before settlement. The predominant image of these hills lies in the ghosts of the past and one can sense the loss as you gaze at them. The complete extinction of a once confined and unique ecosystem is the reason these hills have such a despairing appearance. However, there is some charm embraced by these apparent bare slopes and, in themselves they embrace a resplendent realm not beautiful in the traditional sense of green and lush but a rugged, worn, haunting beauty.

To appreciate most of it we must approach and enter these hills and look more closely. Some of the native grass species still exist and cloak the slopes, along with odd pockets of the original trees. On occasions one finds delightful patches of Xanthorrhoea with their thick black stems, fine spiky grass-like leaves and, of course, the beautifully smooth hard stalks holding the head of flowers or seeds. River Red Gums line the larger creeks and gullies and on the rises there still remains the odd acre or two of mallee scrub.

In the steeper rugged gorges where grazing sheep have difficulty on the almost cliff-like faces we can, in the main, still see how it was. On scaling amongst the rocks into the thickets one has the chance of seeing birds associated with ground-cover of various shrubs. Or, on looking down there may be a flash of blue as a Kingfisher darts over the pools in the rocky creek. Euros and kangaroos are quite common and are to be found resting from the sun's heat under rock ledges.

These hills, though appearing from the distance to be quite globular, are deceptively rugged, cut by savage gorges and steep gullies. Many of these have semi-permanent or permanent springs trickling with crystal water into pools, some of which, where terrain permits, are surrounded by swamp ground-covers, reeds and sedges, each with its own collection of frogs and other aquatic life, holding out despite the pollution from grazing stock and fertilisers.

Most of the gullies cut out onto the plain as tree-lined seasonal creeks or intermittent waterways. They are rough and rock-strewn and as one enters them the walker is tempted to go further and further in, with an almost irresistible compulsion

just to see what lies around the next bend, what can be found as you go higher and deeper into the hills. An illusionary luring that is hard to resist. Despite more rocks and steep sides that duplicate themselves over and over again, one expects something startling to suddenly appear. But, except for the occasional gold mine shaft, or an oddly interesting rock outcrop, there is never much else that is significant to justify the urge to go on further. But go on you do.

When heavy rains fall, what appears as a docile little trickle suddenly heaves down as a roaring torrent, powerful enough to swallow and wash away even a large truck or tractor. Evidence of these occasional vindictive torrents can be seen by the scars on the Red Gums, as logs carried by the raging water smash into them, gouging away great slabs of bark as they slam into the trees. When the water is gone, these scars can be seen well above head height leaving the evidence of the fearful current.

Alternatively, one could tackle the remorseful slopes. They are covered in clumps of tough native grass, littered with outcrops of rock and huge 'moss boulders', rolling in a deceptively steep and ever-rising climb. Just as you gasp your way to the top of one dome, slipping and tripping on loose stones and rocks hidden amongst the clumps of grass, there appears another rise and then another. The rolling skulls seem endless, yet from the plain below there appears only one round hill to ascend. Of course, there is eventually the last one and finally one is at the top.

From here the view is inspiring. Not breathtaking as in most mountain views, but as you look east one sees the immense featureless mallee scrub and farmland plain below, stretching away to infinity, flat and silent. In gazing at this immense plain you can see that the rest of the world is stretching away below you forever. The eye is caught by no distant feature, it stops nowhere on anything in particular and here, in your solitude, indeed infinity lies beneath you.

Despite what we have seen so far, there is something more outstanding. Ironically we must move away and view this range from some distance again. Not every day, but frequently enough to spoil us, as the sun goes down, the rolling hills turn to the most exquisite purple hue. The clouds blown in from the west are broken up by the barrier of the western side. As the sun continues to fall they turn to slashes of pink and burning orange, stretching up into the blue sky. And the twilight of the day is embraced in slowly fading colours.

Jan - Feb 2001

ADMISSION FREE ...

The moon was bright and almost full and there was a crisp chill in the air, bringing the promise of a frost by morning. It was midnight and I had gone outside to enjoy one or two 'rollies' prior to preparing for bed. I stepped away from the house, beyond the glow coming from the kitchen window. And there the moonlight rivalled the crisp air. Leaves hanging from the tree in front of me were motionless, as though frozen in time and space. But the smoke from my cigarette was caught and drifted, before dissipating, betraying the illusion of stillness. Tempting me to 'stub out' and preserve the delusion. But I was caught by the fascination, the intent in the smoke to drift purposely, when everything else indicated inertia. The cold seeped into me, but despite its icy grip, I sat down to listen to a chorus of song.

Amongst the trees along the road and the dry creek, the clear clarinet-like notes came to me. Even further away (nearly two kilometres) along the Marne River, softened by distance, the chorus embraced me. From time to time there was silence, and then one performer would recommence to carol again, briefly as a soloist. Only to be answered by several other competitive warblings. Wherever one orchestra terminated, others would pick up the composition in competitive gusto, and then another pause. Sometimes recommencing in the distance, at other times close by.

As with the best professional entertainers, the perfection of the notes takes second place to the harmonising. The enjoyment of listening comes from the singer's capacity to hold the listener in suspense. To keep them captivated and spellbound. Their ability to remove, even if only for a short period, the worries and preoccupations of living; to bring some peace of mind, which is more than many of us can hope to achieve alone. This is what sets them apart.

And so it was with these performers, even though the songs were something of a repetitive chorus. The combinations set it apart. At times drifting to me and then away, like the dissipating smoke. At other times crisp as the chilled air and clear like the bright moonlight, without the harshness of the sun. Mixing a rise in volume in one choir with a fall from another. Making imprecise notes harmonise, sudden bursts fading to a lingering end with solo singers between. Only to burst out again then drift away.

People pay to hear a performance of this quality. They come to the theatre frustrated from searching for a car park, and jostling in the crowd while looking for a seat. Sit throughout in an overheated, stuffy room and tolerate the rowdy applause. Then jostle with the crowd again, on leaving and dodge the traffic to get home.

I was eventually and reluctantly driven inside by the cold. But my seat on the log was free, with nobody to protest about my smoking. And the choice of the time to leave was mine. With the only complaint, the crunching of the gravel under my feet.

The concert would go on and on like this until dawn, after the sunrise revealing and starting to melt the white frost-covered grass. And then a final crescendo, a finale of chorus that would terminate with the odd individual here and there continuing to sing. Attempting to be heard as the last performer. All this with the sole intention that their only audience would be amongst themselves.

Daylight signifies 'business as usual', time to get back to foraging for sustenance, and housework. To collect sticks and other suitable materials required for nest-building.

These night time performances herald the oncoming of Spring; and as appealing as they may sound, they are in fact a raging war. A war of song, to establish territory in which to nest and raise offspring. Still and calm nights allow the voices to carry greater distances. And let the competitors know, 'this is my place, do not encroach beyond the boundary of where my song is clear'.

Humans usually consider the first of September as the beginning of Spring. But in this dry country White-backed Magpies know better. They know the Winter is short and the long Summers are harsh and dry, that Spring is, in reality, merely a brief interlude between the two; when the weather is fickle and at its most unpredictable period. At best it begins in mid-August and is over before two months have passed.

More importantly still is they are aware that a war of song is preferable to one where blood is shed. To 'rattle their sabres', and only draw them as a last resort. Even if it requires the sacrifice of going without sleep on cold frosty nights.

May - June 2005

THE RIVER RED GUM

Every caring person has some sort of reverence for trees and they are without doubt the most beautiful things in all creation. Apart from their obvious benefits as shade and shelter, they have the ability to embrace and sustain one's flagging spirit. A walk amongst a grove of them on a day in any weather, rarely fails to provide some benefit. Of course with a sunny day and the light streaming through the leaves and glittering amongst the mottled shade, one gains that little extra ambience for the soul.

Perhaps of all the trees in the world the most beautiful is the River Red Gum? It is the epitome of everything that is resplendent in creation, and coincidentally, the most widespread and well known Eucalypt in Australia. Its huge trunk mottled and ragged with flaking sheets of bark bears the weight of massive twisted branches that are clothed with graceful draping leaves. Admittedly, the leaf canopy is somewhat sparse, but this allows the grass to grow right up to the trunk. On mornings with the dew still clinging to the leaves, the sunlight glitters down in shafts, the tree feels all embracing of its environment.

In a practical sense, this is also true! Like no other tree (to the same extent) the River Red Gum is almost a complete ecosystem within itself. Nothing is entirely of course, but just think about this majestic tree. The loose and flaking bark provides a home, roost or nest to numerous animals, from bats, beetles, lizards, spiders and birds. Broken off boughs produce hollows with a size range to accommodate many animals and birds, and afford them the means to survive the ravage of fire. While the leaves and twigs support a comparatively high density of varied life forms and the blossom is all important to the transient nectar feeders. What appears to be a nuisance factor, its habit of dropping limbs, is in fact the tree's own built-in recycling and self pruning system. The boughs rot down, ultimately providing the surface fertility for the future growth of offspring. The original nutrition coming from deep in the subsoil, brought up by the immense root system. As the boughs decompose, they create an environment for all the soil and humus living animals, many yet to be classified and studied. In turn, these animals are a food source for another range of birds, mammals and reptiles.

A serious threat to this cycling and recycling is the pot bellied and other solid fuel stoves. Going 'back to nature' can sometimes destroy it!!

The exuberance these huge trees provide to those who would wander beneath the cathedral limbs is not brought on entirely by aesthetic impact. There are a few mundane and physical factors also contributing. A big 'Old Man Red Gum' pumps at least ten gallons of water from the soil each day and this moisture transpires into the atmosphere that one breathes in beneath. Photosynthesis from the tons of foliage provides three times the oxygen that is available from grass. So the weary observer breathes in purified, moisturised air as he/she stands beneath, enjoying the cool shade, dancing with the splotches of light.

River Red Gums are a commanding feature of the landscape and dominant trees grow from 20 to 50 metres high, with trunks a metre or two, sometimes several metres thick. They have the inbuilt genetic code to alter their form to accommodate and grow in a wide range of topographic conditions. For instance, on flood plains, in the South East of South Australia and on acid-silt loams of the Mount Lofty Ranges, they are generally a large to medium tall tree. In open woodland formations, typical of the rain shadow side of the Mount Lofty Ranges, it adapts to a smaller form of lesser frequency. Here the trunk tends to be stubby, tapers quickly and supports fewer branches. A typical tree of the former type, is the one growing on Glynburn Road in Kensington Gardens. Of the latter type an excellent example is a tree growing at Springton, the Herbig family lived in for some years, (a fire having burnt out the centre). However, its widespread distribution is facilitated mainly from favouring waterways and flood plains in warm areas of low rainfall.

They line the terraces of the Murray Darling system, they grove the inland lakes and mark the course of the dry desert streams. Their shape, size and bark colour, inter dependent with the soil, the moisture quantity and frequency and with their proximity to other trees.

Few trees are so resilient! They are drought, frost and fire resistant. They tolerate salt to a fair degree and can withstand long periods of flooding. Half of their bark can be hacked away to make a canoe, yet the tree survives, its beauty enhanced. The species can be, and is, cloned to reproduce individuals in their thousands for the purpose of pumping out saline subsoil water tables. This enables man to reclaim areas he once destroyed by over clearing and letting the salt come to the surface.

Eucalyptus camaldulensis is a remarkable plant, its seeds are little more than specks of dust, yet surprisingly it grows very rapidly. This makes it an important firewood species, as well as being ideal for shelter and providing good hard timber. It is easy to grow and is the most planted Eucalyptus in the world but I think it a little sad that its name has derived from the Camanduli Garden in Italy, where the first seedlings were cultivated. Such an Australian tree, so indicative of this land, to be first planted and then named from somewhere else.

May-Jun 1995

"**WHAT A DUMP**!"

I was still trying to sell my farm when I first started work as a prison officer. And so, while waiting, I spent several months renting a house in Adelaide,. Meaning, I can claim some experience of 'city living'; and that's not necessarily a wasted episode in my life. Eventually I was free to move into the country again, and commute to work. But to me, the district around Mt. Pleasant, even with a 'hobby farm', was still only the 'outer suburbs', the limit in time and travel expense for me, yet still not far enough from the city. Then a new prison to work in was established at Murray Bridge; making Cambrai (in 'the Mallee') conveniently close enough. And for me, a life back in the 'real' country again; at least for my 'free time'.

'Cambrai...!! That's the middle of nowhere!' exclaimed most of the members of my family. 'Wherever is that?' queried most friends. 'You mean...., that place!?' 'There's nothing there, even the rain stays away' , 'You like it!?.' 'After living in a beautiful place at Mt. Pleasant,...Cambrai...!?' 'What a dump!' 'What's the population - five!?'

Well, the sign on the edge of town had it at 95 people - and I doubt that's changed all that much over the past 20 years. Although the surrounding district has significantly increased in people also wanting to do what I have done - live on a small farm with their own 'space' around them. And I have never ever regretted the move, and wouldn't want to live anywhere else - even now I am retired.

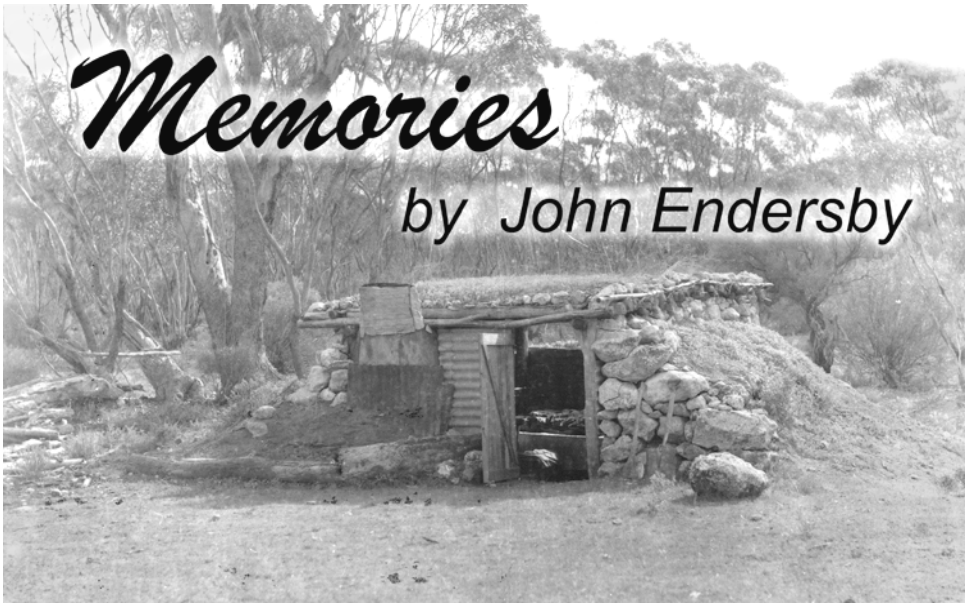
As for the host of deriders, well...!! Only yesterday (Monday 25 May 2009) a Koala was seen walking along the street and going into the cemetery and climbing a Sugar Gum there. My wife took me to see it after she 'knocked off' work. And it was munching away on the gum leaves. Next day it was seen by the school children, feeding in a gum tree, in the teachers' car park.

From time to time there have been kangaroos within the town boundaries. Emus have been within a few hundred metres of 'the metropolis centre'; along with the occasional lost wombat. They are only temporary visitors I know; but along with nearly 100 different species of abundant birds, within a kilometre of the Post Office, we don't fare too badly concerning variety of wildlife. Too many to describe here. The Red Gum lined Marne River flows (sometimes) alongside the town; host to possums, flocks of Galahs and other cockatoos. While the nearby Mt. Lofty Ranges generate sunsets of inspiration and exceptional beauty. Even though these hills do 'block off' much of the rain coming from the west.

Yet being in a rain shadow has its advantages for people such as me, who don't rely on rain to provide their living income, because it means more hours (or days) of sunshine (and 'perfect' weather) than the Gold Coast in Queensland. I don't want to live close to a large town or city; I've had my 'city experience!' So don't come here to live - thank you! We have enough people around already, and any more will only clutter the place up.

As for Cambrai being a 'dump'..., well! It's apparently not so! Not when one has Koalas crossing the street and strolling along the footpath. You don't see that on Pitt Street or Rundle Mall!

Nov - Dec 2009



"The two-roomed house is built of round timber, slabs and stringy-bark and floored with slabs. A big bark kitchen, standing at one end, is larger than the house itself, verandah included."

(Henry Lawson – The Drover's Wife)

Every time I see the 'woodcutter's' hut on Moorunde, I am reminded of the above short story of Australia's late 19th and early 20th century. You may wonder why and not see the connection and similarities between the two houses.

After all, the 'woodcutter's' hut has been built by digging into the ground, through the limestone, to form part of the walls.

The remaining part of the walls are formed up with limestones – probably from the dug out portion. Then earth has been piled up against the stones, on the outside, almost to the roof. The ceiling, if one could call it that, is made from mallee sticks, about arm thick, spanning from one wall to the next. And the roof material is sod – earth with grass and weeds growing in it, so that the soil is bound by the root growth and making it more or less waterproof.

The north wall is a three quarter stub, with the remainder filled in with a roller blind of heavy hessian and a mallee bough roller. Entrance is gained through a short door of planks, at the southeast corner. And a fireplace, with flattened kerosene tins for a chimney, has been cut into the south west corner.

So, at a surface glance, one may not see the similarities between the two structures. Although at one time there probably would have been an outdoor kitchen, of sticks and bark, at the 'woodcutter's' hut too – long since fallen and scattered – as cooking during the summer heat would have overheated the 'sleeping/lounge' quarters. But despite the material and structural differences, there are some strong similarities.

Firstly, the original occupants would also have been the builders of these two separate homes. And as for the actual materials used, in both cases, the builders simply made use of whatever was immediately 'to hand'. Probably the timber in the Queensland house had to be cut out to make room to build; as for the hut on Moorunde, the limestone was right there on the site.

But in what one can't see lies the most significant resemblance; which is so stark and haunting. And that is the life styles of the original occupants. The poverty and deprivation of the families, their devastating loneliness and isolation. The hard work and endurance required to live under the prevailing conditions.

And the ever pressing monotony of the locations. Coupled with everything else they were deprived of, in terms of conveniences, that we take for granted today.

'----All days are much the same to her; but on Sunday afternoon she dresses herself, tidies the children, smartens up baby, and goes for a walk along the bush track ---- There is nothing to see, however, and not a soul to meet. You might walk for twenty miles along this track without being able to fix a point in your mind, unless you are a bushman. This is because of the everlasting, maddening sameness of the stunted trees ----'

Those who have walked down the track to the 'woodcutter's' hut, and read the story, must surely see and feel the impact Lawson portrays for this lonely woman. When you arrive at the hut and realise that a family with children lived in this place too; then one only has to read the seven pages of that story to get an insight into their lives.

It was when I was constructing the first 'kangaroo gate', in the north-west fence line, that I took my parents to see the hut on Moorunde. The day before, Dad had come out to give me a hand, and we had most of the work done. However, Dad suggested a modification in design. I no longer remember just what now, but thought it a good idea, and so we knocked off for the day to take the relevant parts back to my shed.

As we were not going to be long, the next day, I suggested to Mum that she should come out to see Moorunde too. And we finished in time for an early picnic lunch that Mum had packed. It was a beautiful, calm, warm and sunny day and we had the bulk of the afternoon at our disposal. Consequently I decided to show off something of Moorunde to them; but due to their age, decided on just one place of interest. The restored 'woodcutter's' hut.

On approaching the hut, via the track that is engulfed by *'everlasting, maddening sameness of stunted trees',* I pointed out the low forked poles and the broken rails that ran into and were once fixed to a mallee. 'She would have had a few goats to provide milk for the children', said Mum, in a noncommittal tone. 'They would have been held in those bails to milk them and it was probably the job of the oldest child'.

Dad was quite impressed with the structure of the hut and keen to step inside and have a look. Mum however, stood outside the open doorway. 'Don't you want to come in and have a look, Mum', I asked. Once again, in a noncommittal tone, she replied, 'Oh, I can see enough from out here'. Dad and I stepped out of the hut and we walked around to examine the building more. Mum remained standing in the same spot, 'You don't seem to be very interested in it', I said, casually waving my hand over the general area. There was a pause in her reply, and I could detect on her face an inner struggle. She didn't wish to disappoint her son; who had tried to show them something of interest, but she was still obliged to reply. Without looking up she started walking towards the access track, and as she did so she said, 'I have lived in too many of them'. She stopped to wait for us at, and facing, the old milking bail. But from the pan expression on her face, I could tell she wasn't looking at it.

Her father (my grandfather) had always intrigued me, as I often thought he could have been one of several of the characters that Lawson wrote about. I frequently imagined that he had just stepped out of the pages of one of those short stories. He had been a bushman all his life, in Queensland, and despite his broad brimmed 'bush tucker man' hat, his face was burnt as dark as his arms and calloused hands. His legs were bowed from too many years in the saddle and I could pass both my fists between his knees, without touching them. But it wasn't just his appearance, he had a personality that matched some of Lawson's character descriptions too.

Dad finished his inspection and rummaging around and we left the hut to join my mother. As we approached I could see her eyes were glazed over; and then I remembered! She had been the oldest in her family of five children.

Nov - Dec 2005

'Down came the squatter mounted on his thoroughbred.....'

From the song 'Waltzing Matilda'

'They have got it wrong you know', said my mother. 'The song "Waltzing Matilda", its written and sung wrong these days'.

My mother was born and grew up in the bush, of what was then the outlying areas of settled Queensland. And it would be fair to say she was a daughter of the places and times of A. B. Paterson and Henry Lawson. 'Police officers were so scarce back then, that some districts were lucky to have even one, let alone three.' 'And they covered hundreds of square miles of territory, on horseback, on their own.'

'Oh, I know it sounds trivial of me now, but I can't help getting annoyed when a song that has become such an Australian icon gets so distorted.'

'The story you know was based on a true incident; and no doubt the facts of that were distorted at the time,' she continued, displaying an insight into human nature. 'But one fact I know is that there never were three troopers - only one!' 'Just one you see, and his badge number was 123; trooper one hundred and twenty three.' 'Somebody should say something to put it right," she said, and pounded her tiny fist on the table in unusual frustration.

So, I *have* said something. And I hope the Editor sees my mother's point!

Editor's note: John's mother has a valid point which inspired the Editor to research the literature on the subject. It seems there has been a good deal of controversy about the origins of 'Waltzing Matilda' and a number of books have been published over the years, the most recent being 'Once a Jolly Swagman' by Matthew Richardson who rigourously researched the available sources of relevant material.

Perhaps the condensed story should begin at Dagworth Station, managed by the Macpherson brothers, near Winton in Queensland. In 1894, the Dagworth woolshed had been torched during the shearers' strike, in spite of Senior Constable Michael Daly being on patrol there. Daly, with Bob Macpherson, Manager of Dagworth, rode to Kynuna where they received news that a swagman, thought to be the arsonist, had killed himself at a nearby billabong. Macpherson and Daly set out with two Kynuna policemen to the billabong where the suicide had occurred and several shearers still camped there 'beheld the unusual spectacle of a squatter riding down with not one, but three policemen'.

'Banjo' Paterson visited Dagworth Station in 1895 and would certainly have been told the story along with others of occasional sheep being killed by a swagman to stock his tuckerbag and of accidental drownings in billabongs. Always looking for new bush stories, he did not miss the opportunity to pluck facts from each to weave into a single poem. He and Christina Macpherson, who was visiting Dagworth at the time, gathered at the piano and put together words and music to create the original song 'Waltzing Matilda'. A copy in Christina's handwriting is held in the National Library.

The words and tune of the song changed with time as it passed from singer to singer around central Queensland, but its major change came when 'Banjo' Paterson gave the original to James Inglis, a tea merchant. Marie Cowan, wife of his manager in Sydney, modified the words and tune in 1903 to promote the firm's Billy Tea.

Of the sixteen lines in the four verses, only four lines remained unchanged from the original, but approved by Paterson. It has remained virtually unchanged since, though various artists have created their own arrangements.

Two World Wars carried the song across much of the world where it is accepted as Australia's best-known song - so much so that in Helsinki in 1952 when Marjorie Jackson stood on the podium with an Olympic gold medal, 'Waltzing Matilda' was played as Australia's national song, to the consternation of Australian officials, but I imagine to the delight of most Australians.

As for the number of troopers (policemen in the original version), a commentator did suggest, as John's mother asserts, that three troopers were excessive to patrol a paddock and that only one specific trooper, with service number 123 was involved.

R. Magoffin, an author of several publications on 'Waltzing Matilda', researched through the Queensland Police files and found that No. 123 was Acting Sergeant Gallagher with a coastal posting in 1867, and details which precluded him from 'Waltzing Matilda'.

However, in the context of 'Banjo' Paterson's ballad, it might well have been more appropriate for there to be only one policeman, but 'Banjo' had heard of the incident with three policemen and it fitted the cadence of his poem, justifying some poetic licence.

When one sees the extensive alterations that have been made to the original lyrics, a little poetic licence about the 123 and dropping the 's' from troopers is a small concession.

Take your choice and I am sure every true Australian would sing 'Waltzing Matilda' with equal gusto with, or without, the 's'.

GLEN TAYLOR

Sep -Oct 2007

WHAT'S IN A NAME

Many people are under the erroneous concept that the 'Scientific names' for plants and animals are all Latin words; and some even speak of 'the Latin name'. However, this perception is quite wrong! In the first instance. the 'scientific name' is really a Biological Name; and if one is referring to plants in particular, it is a Botanical Name, while with animals it is a Zoological Name. As for Latin, not all Botanical or Zoological names use this language. English and French are sometimes in a name and frequently Greek is used; in fact any language can be acceptable.

Latin however is predominant and for the reason we have to look back into the uglier side of scientific history. Although biology had been studied since ancient times, it was not until the eighteenth and nineteenth century that it became fashionable and really took off as a serious study. These were still the years of strict class separation amongst people; and in the main only the nobility or the very wealthy were formally educated. One of the most important subjects to take up then was Latin and in fact, it was expected of every 'well-educated person' to learn it.

The reasons for this date even further back in history and have religious connections. Around the time Biology began to be looked at seriously, Latin was, in keeping with the past, predominantly a tool used to separate the 'upper classes' from the 'lower classes'. As more 'common' people were beginning to learn to read and write and study mathematics they generally did not bother with Latin, as it is a 'dead language' and for all practical purposes quite useless to them.

Even up until the l970s Latin was still regarded as an 'important subject'. As the old class system was gasping its last, it was used as a method in schools to divide the 'brighter' students from the 'duller' ones – to establish the future leaders in society. Ironically, the 'duller' students were usually relegated to study art which was then about the only subject where a child could express and develop their own ideas.

As for studying Biology. one doesn't need to know a single word of Latin – just pick up an English to Latin dictionary.

I mentioned the ugly side of science and what I meant by this is class distinction and snobbery; encasing a deliberate attempt to make even natural history the province for only a select few. This has hampered both the study and the conservation of our natural world; and is the reason I am so bitter about it.

There is one advantage to using Latin in naming species and that is, as it is a 'dead language', it doesn`t create any international jealousy. But as I mentioned earlier. Latin is not the only language used and so even this so-called advantage is somewhat minimal.

When a new species is discovered it can be named by the person who found it and he/she is permitted to call it whatever he/she sees fit. Any language can be used and provided he/she describes the species correctly and 'writes it up' in some appropriate science publication, the discoverer can call it whatever he/she likes – within reason.

Should the discovery be totally new, that is, in no established genus, then you gain the responsibility of choosing the genus name and the species name. In naming the genus some descriptive word is usually chosen and frequently this applies to the species name too, but not always. You could name it after a friend or someone you hold in esteem (a common practice) or you can even give it your own name.

One would expect common-sense to prevail and given that only two words can be used (except in a subspecies) it usually does. There are some ludicrous exceptions and some that are rather amusing. The Spotted Pardalote is Pardalotus punctatus; pardalotus is Greek for spotted, punctatus is Latin for spotted! In the case of a subspecies an extra name is added such as Homo sapiens neanderthalensis - referring to the extinct Neanderthal Man, as it is considered a subspecies of modern humans.

With the exception of birds, common names are hardly worth the air you use to express them. There is no established and laid down model for common names in plants and animals. Some species have a list of common names ‘as long as your arm’. They vary from country to country, state to state, district to district and worse still, within a district. In fact, you can call a plant any name you like and be as correct as anybody else`s name for it. Mammals and reptiles are a little more uniform but ‘Scrubber’ and Grey Kangaroo are still the same animal.

Some years ago birds in Australia were named under a ‘CSIRO checklist of common names’. However, they still have an assortment of local names as well. The checklist nonetheless worked quite well until a group of amateur and professional ornithologists with an apparent loyalist/royalist bent decided to pressure everybody into naming our Australian birds to fall in line with birds in England. They have been in the main successful, but I refuse to change over from the old checklist and I would like to know if I’m not alone. In any case they threw the whole common naming of birds into confusion. All of the publications printed after this system was established came out with their changes in them. Bad luck for those of us who still have bird books pre-dating this change.

l must admit that a few alterations are perhaps appropriate, such as the larger Plovers to Lapwings, but to call a Little Falcon a Hobby. or the Spine-tailed Swift a Needle-tail – l ask you ... ? To add insult to injury, they are too afraid to re-name our Magpie even though it`s not; and several other birds fall into this category. They drew the line when knowing they had gone too far and so the job was only partly done. To make matters worse, if a suitable name wasn`t forthcoming, then, Heaven forbid, a Zoological name was dropped in; so now one has to be a half-baked scientist just to enjoy bird watching!

Well, l refuse to have my fun spoilt. l learnt about 95% of the birds l know as a child and, call me dogmatic, but l`ve known them for too long to change. And. as they are only common names, surprise, surprise, l can call them with the old names and nobody can argue.

The purpose of the ‘Scientific names’ is to establish beyond doubt what species one may be referring to. They can be changed too, but it is a rare occurrence and not done without meticulous research and solid reasons must be given. Then the change has to be published in an appropriate science publication. Because a Biological name is the foundation to the study of a species, scientific history is attached to it and it is its ultimate connection to all other forms of life. And that’s why we have them.

Sep - Oct 1999

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MISTLETOE-BIRD

One of the most beautiful of Australia's bush birds, but one with very destructive feeding habits, is the Mistletoe Bird. It is so named, of course, because it feeds on mistletoe berries. Unfortunately only the soft part of the fruit is digested, the hard inner seed passes through and if the droppings happen to fall on a suitable tree bough, then the seeds grow there. Eventually some trees are so burdened with the parasite that they die, and when there is no regeneration this results in a gradual but very definite decline in tree numbers.

Mistletoe Birds are the major means for widespread dispersion of all the mistletoe species in Australia, so this very tiny, brilliantly coloured bird is indirectly responsible for the destruction of many trees in our landscape. In a totally natural environment this merely means older trees dying out to make room for younger ones. However, in most areas natural environments no longer exist. The regenerating ability of trees has been greatly reduced, for various reasons, and it is now necessary for each individual tree to live longer.

Despite these unfortunate circumstances I still find the Mistletoe Bird very intriguing and it is always a pleasure to see a full plumage male. They are amongst Australia's smallest birds about the length of a man's index finger, with iridescent blue-black head, back and wings, brilliant red throat and breast, red under tail coverts and a bold black streak down the otherwise white abdomen. Females are just a 'plain Jane' grey with whitish breast and pink under tail coverts. There should be no identification problems with the bird being so tiny and plumage so striking and chances are you won't notice the female unless she is accompanied by her 'escort'.

You may think that such a small bird should build an equally dainty nest and in fact they do. Most bird books love to describe the nest as being similar to a Baby's booty hanging by its heel and I must confess that it is difficult to be original and describe it otherwise. Made of cobwebs and other fine material and hung in draping leaves in a pendulous manner it does look like a finely knitted booty.

These birds are considered to be common, nevertheless one can't just walk out into the scrub and expect to see them. However, should there be fruiting mistletoe about then your chances are very good. Their range extends all over Australia from mistletoe in the rainforest, to mistletoe in the desert and anywhere in between. As they are nomadic, appearance coincides with the seasonal requirements of their host plant. I guess this is one of the exciting things about them, like meeting old friends in strange places, you never know where you might come across them and be reminded of things familiar to you.

But then again there are the trees with cancerous like parasites hanging from outer limbs and their own foliage insidiously replaced until eventually they die. A little iridescent bird is responsible for lingering death and eventually they will have instigated their own decline.

Mar-Apr 1994

SECTION 270, WATER RESERVE No. 2. HUNDRED OF BAGOT

'Away in the lonely graveyard
Under the lonely sod
Lie our darling parents
Resting in peace with God'

John and Maria Moody both lived for 75 years; John dying in 1901 and Maria in 1914. They are both buried together near Cambrai with the above inscription on their grave marker. As you may guess from that inscription it is a lonely spot, leaving one to speculate on the anguish of their children to have been prompted to write this.

Standing in the small rundown, dilapidated yard, with its litter of tiny graves and a few of full size, overgrown with shrubs and weeds, brings on a wave of nostalgia, with the bare, windswept paddock, surrounding the broken rusty wire yard; the stark and barren hills as backdrop and stretching away from them to infinity, the vast mallee plain. There seems no reason now, for the graves to be sited there, but I guess there was reason enough at the time; so many of them children too, babies mostly. Their mothers' grief perpetuated by the isolated and lonely site.

A few hundred metres to the south, Pine Hut Creek breaks away from the bare hills and meanders its way down an extensive incline to the plain. Its sand and gravel bed, dry most of the time; the course marked by Red Gums and Mallee Box, indicating that a considerable quantity of water actually flows underground, along its course. It being said that one large Red Gum sucks up to 45 litres of water per day. The creek never makes it to the River Murray, some 40 kilometres to the east. In fact it barely comes off the hilly incline. A few kilometres after crossing the Cambrai-Sedan road, and after passing through a patch of remnant scrub, it terminates at a small lake.

Lake Moodie

An enchanting area, with or without water in it, described these days by ecologists as 'dry wetland'. This silt depression, that collects and holds water during heavy rains and fringed by River Box trees, is called 'Lake Moodie', after the man buried in the lonely graveyard.

One can stand at his grave and, looking to the east down the incline, you can pick out the patch of scrub in the distance, with the fringe of River Box trees that hides the site his name was given to.

Some months ago I spoke to Mr Jack Starick who is retired now and lives at Nuriootpa, but grew up and lived near Cambrai. Jack was born not long after John Moody died, and he remembers the story about the lake's discovery. Apparently the area was leased as part of Rosebank Station in the early to mid 19th century, with the homestead then situated where the Marne River breaks away from the Mount Lofty Ranges. John Moody was one of the shepherds and at one time had been missing long enough that the owner went looking for him. He was found safe and well, camped by a small lake nestled in the scrub.

One doesn't feel the loneliness at this place, the birds are ever moving and calling. The beautiful stands of River Box trees seem to exude a promise of things to come, an atmosphere of a place to be. On a sunny day, even when the lake is dry, there is almost the presence of a subtropical micro climate, brought on I guess by the Eucalyptus oil haze from the trees and the uncalculated volumes of water stored below ground that the trees draw upon and transpire. Whatever the cause for the shift in emotions, for me it illustrates the importance of trees, without having to resort to economic and practical justification. Elation is a form of happiness and standing here, it's free. Try standing at the two sites for a time (the area around the graves and then Lake Moodie in the late afternoon) and experience the difference for yourself. Enjoy what John Moody discovered nearly 150 years ago. Had he and his wife been buried there, I suspect their children would have thought of a different grave-site inscription. Just what, one cannot know, but I guess 'lonely' would have been a word left out of the verse.

Nov-Dec 1994

KANGAROOS

I guess most people are reasonably familiar with kangaroos and on Moorunde they are still a common sight. To the extent that some readers may be inclined to ignore anything said about them. But seeing plenty of them perhaps clipping off the newly sown crop and knowing much about them can be two separate subjects. So in addition to disclosing the odd fragments of data on kangaroos an explanation of a few concepts about their relations with us could be quite pertinent. They are, after all, the symbol of Australia, and in the unlikely event of them becoming extinct, most Australians would be somewhat ashamed. Needless to say, the great bulk of responsibility for their existence is burdened by those people who are having their newly sown crops clipped off!

The lifting of the embargo on skin exports to America created an outcry from many groups and individual conservationists fearing for their existence. One can only assume from this that 'roos must be very scarce on Rundle Mall and Collins Street. But, of course, there are kangaroos and there are kangaroos, and although in many places they are quite common and numerous, the fact remains that in some places they are now rare or 'locally extinct' where they were once abundant.

In addition to this is the conceivable instance of some rare species becoming extinct because their management is coupled with an abundant species whose numbers are being reduced. How many people know of all the different species of 'roos in Australia - there being quite a number? Just how many depends on what one defines as being a kangaroo. But a point anti-conservationists clearly miss, and many conservationists do too, is that on every different species of kangaroo lives a range of little or unknown forms of life. Ranging from skin parasites, intestinal parasites, stomach flora and many other bacteria and viruses. All adapted to survive on only that particular species they are on! It would be reasonable to make the assumption that there are more unknown species of life forms in or on a kangaroo than there are different species of kangaroos.

One may well ask 'so what?'. Well, should just one of the species of 'roo become extinct, then a whole range of virtually unknown animals goes with it. This of course applies to many other animals besides 'roos. So a few lice we never heard of and a worm or two you didn't want to know about becomes extinct, who cares? Perhaps nobody! But then again, if we only knew more about them, who knows how they may be used in scientific research to our advantage. The host animal itself has already featured in research on infant nutrition and breast feeding. In a world of diminishing resources and increasing life style demands, we can't afford to let unknown potential resources become lost. It's in these hidden animals that the real potential lies.

At present there is high pressure on researchers who realise the hidden potential that exists in our wild plants and animals. The pressure comes from two sides. Firstly from those people who believe only in the traditional forms of primary production. Then from misguided sentimentalists who are insulated from the realities of life and throw their hands up in horror when a few 'roos are culled somewhere. This pressure is forcing researchers to concentrate on conservation requirements instead of capitalising on the benefits of what should already be safely conserved.

There are fifty-nine species in the family that embraces kangaroos but most of these are not usually referred to as kangaroos. The common term is applied to the four largest members of the family, two of which can be found on Moorunde.

One should bear in mind though that there are no real structural differences to distinguish kangaroos from wallaroos or wallabies. Even the size factor is eliminated by 'overlapping'; some 'old man' wallabies being larger than 'doe' kangaroos. So the term wallaby, wallaroo or kangaroo is only for general and common classification and has no taxonomical basis. The question of size in these animals is complicated further

by the fact that males continue to grow even during their maturity. Which explains why some ‘old man’ ‘roos are so big while many ‘does’ carrying joeys are quite small. Perhaps this phenomenon could be used in research on growth defects in children?

Nov-Dec 1994

ON NEWTON, EINSTEIN, KANGAROOS AND G.P.S. (GLOBAL POSITIONING SYSTEMS)

'Nature and nature's laws lay hid in the night;
God said, Let Newton Be! and all was light'.
Alexander Pope

By the way, Sir Isaac Newton was the first person to be knighted by a British Monarch, for his contribution to science.

Now Newton's laws of physics were the stepping stones for Einstein's theories; and one of these theories states that time slows with an increase in velocity. Then stops altogether at the speed of light. I was a sceptic when first hearing of this. But it has apparently been proved by an experiment where a super accurate atomic clock was placed on the earth's equator, then another at the North Pole. The equator spins on the earth's axis at approximately 1600 kilometres /hour; but of course the North Pole is (relative to the earth) not moving at all. Eventually the clock on the equator was found to be running (slightly) slower compared to the clock at the Pole. From there it's only a matter of mathematics to continue the calculation onwards until one arrives at time stopping at the speed of light. I was still a sceptic. And I suspect that 'time' instead of stopping goes into another dimension that enables it to continue – but who am I to question Einstein!?

My scepticism (over the years) has prompted me to pose this hypothetical question – what would happen if wo giant (but accurate) hour glasses replaced the two clocks? Would the one on the equator have less sand poured in at the bottom, if left long enough? The answer is – 'as there is less time on the equator, there will be less sand falling through to the bottom of the glass'. I was still a sceptic! Until I learnt that the accurate G.P.S. instruments used in navigation and mapping, have to take this slight time difference into account to remain accurate!!

These devices are quite amazing. They 'fix' a position on earth by calculating the triangulation from orbiting satellites (while allowing for the slight time difference). You can purchase a hand held one, to find your way about while walking in the bush. They can draw a little map (on their screen) for you to see where you have been walking. They are available (another type) to be used in cars. Supplying street and road maps and indicating one's position on these maps; in addition to 'voice over' instructions on where to turn or to stop at any destination you require. But the most accurate systems are used by national defence forces. Where one can sit in a 'control room' in say Washington USA and guide a 'smart bomb' to drop on somebody sipping a cup of coffee outside a restaurant, anywhere in the world!! And also, at the same time, watch it and the target come together and turn into dust. Newton and Einstein didn't really give us 'all of the light', now did they!?

So there we have a little on Newton's and Einstein's theories and postulates; leading to such amazing devices that could never have been contemplated around the time I was born. Even though they were possible in principle, it's a very short period from then to now. But how do kangaroos come into all of this!?

Well, some time ago the Natural History Society acquired two large sections of land adjacent to Moorunde, and the dividing fences are in the process of being taken out. So, in places, the fence is no longer there. However, Rangers have reported seeing startled Kangaroos rush (in an effort to get away) towards the old fence line and leap over it.

They jump a fence that's no longer standing!! Obviously they don't see the fence; but they also don't see that it's gone. So why do they jump at exactly that spot?

I believe the answer is because these 'roos know precisely where they are and don't rely on their vision to provide the cue to leap a fence. This hypothesis is

reinforced by observing kangaroos running into, and hitting a fence, when they don't know it's there. Or, when (for some reason) they are not familiar to the area they are in. They literally crash into the wires with sufficient force that the spectacle can be quite distressing to the observer, and sometimes resulting in injury to the kangaroo.

This little observation (by the Rangers) has implications concerning the kangaroos' ability to navigate in their vast territories. We have always just casually assumed they know how to find their way around in the bush (in which most people would get lost) to return to a waterhole, go out to forage in a specific area, then find a known location to 'lie up' during the hot part of the day. And we have neglectfully thought little of it. But this particular observation indicates an ability to be extremely precise in determining their location. Because they don't leap a fence by seeing it, but because they must know (within a few centimetres) the fence is – 'there'! And 'now' is the time to jump higher! In other words, they have a clear picture (of some sort) in their brain, of their terrain and position in it. Perhaps as good as that operator watching the satellite photography of a target area, as they guide a 'smart bomb' to its victims.

Now kangaroos have never heard of Newton, Einstein or satellite triangulation for a G.P.S.. And nobody has ever thought they were all that smart. But in an area the size that Moorunde now is (17,000 acres) it's not wise for a human to wander about in it (on foot) without at least a compass. As for time passing slower with a corresponding increase in speed, I guess I should take a lesson from the 'roos and realise there is still an amazing number of phenomena to learn of, with concepts outside my capacity to understand. Even so.., on the equator (where time moves slower) does the shadow of a sundial pass slower over its face!??

AM I QUALIFIED?

'I was only eighteen when a wave took me off the deck during a storm. I was much older when the next wave washed me back on.'

(The reminiscing of a retired North Sea fisherman.)

After leaving school, my daughter did an apprenticeship and became a Beauty Therapist. Within a year or so she became bored with this and so did a second apprenticeship and became a Hairdresser. Again only working a short time before losing interest in this craft too. And so, with my son-in-law, she left Australia and acquired the necessary qualifications to become an Able-seaman on an ocean sailing yacht, based in the Mediterranean.

This yacht was owned by an American billionaire; so from time to time Lena crossed the Atlantic Ocean for the West Indies, Panama and up and down both sides of North America. On one occasion, after leaving the coast of Canada, they returned to the Mediterranean via Iceland and the North Sea. Prior to leaving Canada, she e-mailed my wife to let us know she would be out of contact for a few weeks, and why. With the news of this venture having all the ice in Iceland clamped around my heart!

However, it was during the few weeks that they spent exploring the coast and the interior of this island, that my daughter was so impressed with the birdlife, she finally realised what it was that held my interest in them.

When they eventually reached Denmark she e-mailed again to let us know they were safe and well. And eventually (from our son-in-law) we received a photocopy extract from the yacht's log book, for that part of their sailing. After clearing the South tip of Iceland they turned East. All the way from there to Denmark they had sailed through a North Sea storm. From leaving Iceland to their next landfall they had sailed 'blind' through heavy mist and six-metre waves. The wind had been so strong that the $250,000 space age technology 'stay sail' was torn. The sail that kept the vessel from swaying (and capsizing) in the wind; and my daughter was on deck helping to bring it down to be repaired. She also assisted in the re-rigging of it! Somewhat paradoxically, she was the only member of the crew (in this double mast vessel) that knew how to sew. Consequently the task of repair was hers alone. After the sail was reset and the boat stabilised again, she sat inside the comparative safety of her cabin and wrote the following poem for and about her father –

Daddy you showed me how to wear rubber boots
You showed me how to save animals
And you showed me how to kill them
And you showed me how to love them

My father taught me how to be proud
My father taught me to be happy
Even when others thought I was crying
My father taught me to do anything I could think of.

Dad you keep showing up in my life
No matter where I go
And I know that you will always protect me
Even when I am alone you are always there
Only you made me the happiest little girl in the world
And maybe Mum and Michael help a bit too

Now, although she was in her late twenties at the time, and therefore an adult, the content and style is somewhat childlike. And for a poem, rather lacking in rhyme

and rhythm. It is also written in pencil, and on an old scrap of paper. While on the bottom of the page, under the writing it's strewn with 'xxx,ooo,▽▽▽", that is loves, hugs and kisses. Then at some stage later, and with a red 'biro', she has written – 'PS. – I have kicked arse,*(an earlier generation may have said "so there")* my poem is much better - ha,ha.' Now you may then wonder how or why an exquisitely beautiful mature woman would write like this. And the red biro part refers to my own poetry being inferior. So there is a returning air of confidence containing a degree of arrogance being displayed to emphasise it. Which (the arrogance) has been inherited from her mother!!

But why this simple style in writing? The answer, of course, would be immediately apparent to all those of you who have stood on the deck of a small vessel in a North Sea storm. With the waves towering above you and a force 12-15 gale blowing, as you try to help bring in a stay sail. Which has to be repaired quickly to reset and prevent the vessel from capsizing! You would be amazed at how simplistic your own thoughts become when the prospect of dying looms itself in this fashion, in such a vivid form, as in the heaving water bearing down from above washing over the deck; and the wind, the strength of which is far beyond anything you have ever known or could believe, buffeting in partnership with the ice cold sea just one or two steps away.

For those of you who haven't been there, you may imagine at least, how one can be reduced to seeing and recognising the more simple and more important things in life. And to see that some degree of sophistication can easily be dispensed with as not being entirely relevant, shortly after having returned to a position that is a little safer. Her cabin.

But this poem was written by my daughter; and I doubt that anyone would deny my right to be proud of her, knowing of the circumstances in which it was written. For me though this scrap of paper represents my qualifications, and is more valuable than any degree from a university. And once again, any of you who have 'stood your ground' and struggled to hold onto 'the deck' and your 'lifeline', will understand this immediately. The rest again will just have to use their imagination. Yet for those who can't see how a scrap of old paper with a few words practically scribbled in pencil, can qualify me to write about controversial issues on the ecology and conservation, I don't really know what to say! Except perhaps to point out that my daughter knew I too had at times stood, stared at and challenged the likely prospect of dying!

But her poem is about living and the preparation required to face the adversity and the potential sacrifice involved in living. To know that there are times when animals do have to be killed or culled; and to accept that, despite the tragedy of it. And she wanted me to know that in experiencing this event, in that storm, she 'had been there too', and received something of a revelation in the way one views the world. Yet still, during the time of danger she knew and remembered where and how she had learnt 'to wear rubber boots'. And the full scope this ability applies, particularly in this new century of uncertainty and diminishing resources (such as clean air, water and fertile soil), where all of us fear for the future.

Yet even accepting the point that wearing rubber boots is symbolic, you may still be asking, how can this poem be seen by me as any qualification? It's not something that is easy to explain. So perhaps if I put it this way – <u>How</u> <u>does</u> a former Beauty Therapist and Hairdresser (and a blonde one at that!) <u>face</u> <u>up</u> to setting a stay sail on a small vessel, in danger of capsizing, while riding out a North Sea storm? When I hold this poem, I am holding the evidence that I prepared this woman to experience, with her fear in perspective, one of Natural History's most daunting but spectacular events. While in the same envelope with the poem, was a picture post card of Iceland birds and her telling me how wonderful the birds and Iceland itself was. then the little smart-alec comment in red biro, written some time later, indicating she had 'brushed

off' the storm as all part of her job, in which she had 'held up her end'. Thereby knowing who she is; and in the same stroke telling me who I am!

But the poem is meant (by me) to stand alone, divorced from the storm and post card, as a 'certificate' on its own merits. As the reader may never hear of the circumstances in which it was written. So my explanation still falls short. Perhaps then, to answer this, we first need to look at what is controversial in the world of conservation and ecology, and so below are listed:

- Wildlife culling
- Wildlife harvesting and/or farming
- The often blurred line between animal rights and conservation
- The killing of 'off target species' in baiting pest animals
- Poison sprays in weed control and killing 'off target' native plants
- Provision of artificial water or food to attract native species
- Hunting reserves
- Collecting specimens for study, classification and recording.

There are many more, but that's enough for one to grasp the concept that most (if not all) in some way involve killing animals or native plants. Something that many people refuse to do or even permit others to do. And therein lies the controversy.

I'm not able here to explain my stand on each of these above issues, as an attempt to do so requires the inclusion of other and often more controversial and complex issues as well. But all of these topics require making either hard decisions, hard effort or hardened resolve or all three, no matter on which side you stand.

But notice the priorities made on the points in the poem. It's within the first few lines that animals are mentioned, with the rest basically standing as an illustration of who I am and what I'm seen as. And the last six lines highlighting the continuity of all else that's written above it. Now, I hated poetry in school (with a passion) and even now, when I actually write poetry, I still hold some loathing for it. But poetry does serve some useful purpose – provided one can understand it and the poet isn't some 'nut case'. The purpose is, one can illustrate, in just a few lines, something that can take pages to do by conventional writing, for basically the same topic.

Although it's my daughter who wrote the above poem, prompting one to the belief that there is some bias; that is not so! It's just an advantage she has over others! And rather than expend some fifteen hundred or two thousand words as I am doing right now, she describes her subject matter in a few scribbled lines. It's brief, but still very descriptive on what she wants others and myself, to know. Seen in this light, and that is, an attempt to inform others of something they may never meet, one is given an insight by way of a brief 'word picture'.

And it's somewhat of a paradox that you also get to see something of her as well. Sufficient to realise there is no bias as there is no need for it.

But it's here that I must stop writing, because poetry is meant to be interpreted by the reader (and I have already taken too many liberties on that). Yet I see myself in it as a person qualified to pass informed comment on even controversial issues - in this case on conservation and ecology. Simply by virtue of somebody important to me, having made that point. Therefore, by default, the poem is my 'degree', from a particularly brave observer, who knows her subject. As for your interpretation I can only ask – do you know 'how to wear rubber boots'? And do you understand and appreciate what the old Fisherman was trying to tell you?

Nov - Dec 2008

‘WHY DON’T WE FARM KANGAROOS’

Of all the large herbivorous mammals in the world, only fourteen species have been domesticated. Why have we humans failed to capitalise on the remaining species, especially those that seem better adapted to specific areas or conditions? The answer lies in the fact that to domesticate an animal it has to possess several different characteristics. Lack of any one of these attributes inevitably dooms efforts for domestication to failure.

Before going into these essential characteristics one must first realise that there is a difference between domestication and taming an animal. For instance, Elephants are tamed, not domesticated! Because replacement stocks are captured from the wild; as instances of captive breeding are extremely rare.

There are basically six criteria that have to be met to achieve domestication; and they are – diet, captive breeding, growth rate, disposition, tendency to panic and social structure. To answer the title question we shall look at each criterion in turn.

Firstly diet! In station areas (known as ‘outside country’) this isn’t a problem, except that income from these areas is a very small percentage of our ‘Gross National Product’. In farming areas (known as ‘inside country’) the situation is quite different. The land is too valuable to waste without lifting stocking rates to their maximum. This is done for sheep and cattle by using ‘improved’ (imported) pastures that kangaroos don’t thrive on.

The next criterion on our list is captive breeding. With sheep, the ram to ewe ratio is from 1% to 3% depending on management requirements and practices. So the numbers of otherwise non-productive animals (males) is almost insignificant. In addition to this, rams are kept away from the ewes until the stock manager decides the optimum time for ‘joining’. So the ‘lambing drop’ can be artificially manipulated to capitalise on maximum feed or market prices etc. But with kangaroos the ‘buck’ to ‘doe’ ratio is comparatively very high. Certainly high enough to affect profitability and they cannot be managed to optimise breeding times.

Criterion number three on the list is growth rate. With sheep, the gestation period is only five months and saleable lambs can be ‘turned off’ within 3 - 4 months. If they have to be ‘held over’ for longer, they can be shorn for their wool to compensate for the extra time. They will then ‘grow out’ faster as a result of the wool ‘coming off’. However, with Red Kangaroos (for example) the gestation period is only 33 days; but ‘pouch life’ lasts for about seven months and at the end of that period the young only weigh between 4 - 5 Kg. This deficiency is offset to some degree by the fact that there is another ‘joey’ already growing in the pouch. But this still isn’t an economically viable advantage, as the older sibling continues to suckle for a further four months.

In the case of Disposition it usually refers to whether or not the animal is nasty. As, (for example) zebras opposed to horses. Zebras can survive in areas in Africa where horses cannot; and so domesticating them would be very advantageous. But they are just too savage, and even tamed zebras are very unpredictable and dangerous. I guess Kangaroos would pass on this one, as even males are probably no more dangerous to handle than rams or bulls.

Criterion number five – ‘tendency to panic’. Here, as with diet, captive breeding and growth rate they definitely fail. Cattle, sheep and horses etc. can all be yarded in close confinement. They can be run through a drafting race and loaded onto trucks. All this with little or no damage to the animal. Even large flocks or herds from ‘outside country’ can be handled in confined spaces, without panicking and dashing about and smashing themselves into the rails. They can also be rounded up (mustered) and driven for considerable distance into yards with a good degree of predictability.

The last requirement is 'social structure'. This involves the ability to live in large single herds or flocks, maintain a hierarchy that allows humans to assume the dominant role and to live in herds that occupy overlapping home ranges. Here again kangaroos fail! Apart from the fact that the cost of fencing required to contain kangaroos is prohibitive; one cannot put a thousand or so into a comparatively small paddock and expect them all to 'get on' together. Then shift them into the next paddock after the first one is 'grazed out'. They just don't and can't live that way.

Now, the above information was put to you from researched material and my own experience as a farmer. There is one more important point to make and I deliberately left it out of the above six required characteristics as it really falls under a different title, - 'Why we must not farm kangaroos'. This can be summed up with three words – 'breeding to type'. There are some exceptions, but most of our domesticated animals bear little resemblance to their original wild stock ancestors. Domestication involves breeding out undesired characteristics and breeding in the desired ones. Until eventually almost nothing remains in common with the wild animals they came from – if they still exist. Then what happens when domestic animals escape back into the wild, become feral and then breed with existing wild animals. Only the naive would think that stock breeders would not do the same with kangaroos. And this could be the road to extinction for our wild kangaroos as we know them now.

Jan - Feb 2004

TO CULL OR NOT TO CULL?
THAT IS THE QUESTION.

'You wouldn't believe what people will believe' (from CNN).

What would a farmer know about Natural History and Conservation of Wildlife? For over forty years this farmer's interest/hobby/pursuit has been these particular topics. I have read a multitude of books, attended countless lectures presented by various qualified experts; and spent a large portion of my spare time 'in the field', making my own observations.

I have had, through other occupations, met and interacted with a wide variety of people; and therefore acquired a good working knowledge of humans too. You may wonder what that has to do with Conservation. It's simple – people are the reason why we need to concern ourselves with Conservation. People are the driving force behind Conservation, and their attitudes are what make the issue a problem – not the wildlife. Paradoxically it is frequently the very people who have an interest and knowledge on the issue that create the biggest obstacle to success. If the subject wasn't so important it would be amusing that many well-qualified people (some with science degrees) cannot solve simple mathematical problems. Because the answer to the title subject comes down to mathematics.

Enter the farmer cum amateur naturalist! Good farming requires a working knowledge of Animal Husbandry and Land Management, both of which can be quantified, hence the importance of mathematics. But we are not dealing with farms I hear you say. What have farms got to do with the preservation of wildlife and its habitat? After a period of over two hundred years of European settlement almost every area of wild habitat has become enclosed by cleared land, roads or towns etc., so that in effect any given area is no longer limitless but 'fenced in'. So a conservation park for instance is in practice a farm. It does have different projected or required outcomes and different conditions to traditional concepts of a farm. This requires different expertise in the management of the land and its inhabitants; but these differences are still a farm requiring Animal Husbandry and Land Management. It's simply a matter of translocating the principles!

One of these principles uses the acronym D.S.E. which means Dry Sheep Equivalents – the dry sheep usually referring to a wether. This term is used to calculate how many animals (of any species) you can 'run' on any given area of land by using a dry sheep as a standard or base point. For example, an area of land that can carry 1.5 D.S.E. will support one ewe that will have a lamb through part of the year. Or eight D.S.E. per acre will support one steer per acre, and so forth. The term does not necessarily only apply to food requirements, it can take into account other limiting factors.

I own an 80 acre hobby farm with a D.S.E. of 0.75 per acre, so I can 'run' sixty wethers or forty ewes with lambs. Once I go over that number the 'habitat' suitable to 'run' this number deteriorates. Initially the D.S.E. for wethers may not drop very significantly, but it drops to zero for ewes and lambs very rapidly. But eventually (without some artificial intervention) conditions reach a point where the population will 'crash'. Ironically starvation is NOT what they will die from; and from a wildlife point of view this is a very important factor to take into account. Once their body condition drops too low the animals become susceptible to various parasites, diseases and toxins; and treating these complaints ultimately results in an increase in mortality. I cannot stress this aspect too much, as many people don't or will not grasp this concept.

Now in practice I 'run' a mixture of ewes and wethers. The reason for this is because the Cambrai district is in a 'rain shadow', and therefore the chances of any given year being 'average' fluctuates more widely than in wetter areas. Which could well be the case in our hypothetical conservation park/farm. By having some wethers I can have a number of animals that I can 'sell off' (cull) on those years that prove harder; while still preserving my base breeding stock. It's a bit more complicated than that; and in fact I could use up half a dozen Natural History Journals to properly explain my management system/technique. You may be wondering, or even getting bored with the rambling on about my hobby farm; but it is a simple way to make a point. And that is, even on a small property one has to be flexible with your management. So consider just how flexible you would have to be to take care of an 80,000 acre conservation park/farm, with its vast range of different species of 'stock' and pastures/habitat. One has to be able to anticipate events, be observant and patient.

By using my own property it enables me to simplify and at the same time highlight, one aspect of management. Let's dispense with my wethers and simplify it even further, and say I 'run' forty ewes; and their lambing percentage is 100%. At the end of a twelve month period I am going to have eighty sheep. Although the lambs are by now independent of their mothers, they are still growing and therefore equate to 1.5 D.S.E. each. So at this point I have doubled my numbers and the property is forty D.S.E. over its carrying capacity. Any fool should be able to guess what is going to happen to the pregnant ewes on the following year.

BUT! The situation has drastically changed now. I have sold all my sheep and gone into Koala Farming! Being the innovative and inventive person that I am, I have solved all the problems associated in domesticating this otherwise wild species. By putting in a bore I can now irrigate Manna Gums and Blue Gums. Due to the irrigation my D.S.E. for Koalas is such that I can 'carry' two hundred female bears. I have developed an artificial technique for breeding and therefore only need four males, which are kept separate. My breeding ratio is 100%. Mustering has been solved by providing artificial day time sleeping 'tree forks'; and by pressing a lever the bears are catapulted into pre-set nets and transferred to a caged trailer.

I have discovered and developed a market for Koala fur. Harvesting (shearing) is simply a matter of using a syringe dart filled with a fur shedding hormone a few days before muster. I push the bears through a modified cotton harvester to remove the fur and then inject another hormone to recommence fur growth for next year.

Next year did I say? But next year I have four hundred Koalas due to my breeding technique. That's double the D.S.E. carrying capacity. With some marketing research and promotion I have a market overseas for Koala meat. I renamed it 'cinereus - an Australian Aboriginal Bush Tucker'; and it is 'selling like hot cakes'. But it just breaks my heart to do this! I have to though because the fur alone doesn't make the enterprise viable – considering the capital outlay.

What else can I do? Such lovely cuddly, cute animals sent off for slaughter and then minced. But I just can't be so cruel, so hard, so unfeeling to such lovely animals, they are so cute and cuddly. I'm just going to send them all off to Kangaroo Island and go back to running sheep. It was no trouble with sheep, but that's different isn't it!

Is it?

Sep - Oct 2004

WILDLIFE MANAGEMENT

'*You are different to all the rest. You sit here without judging us for what we are supposed to have done'.*

(I was told this by a man convicted of an assassin-style murder:
Yatala Prison, South Australia, 1983)

You had been outside in your garden earlier this morning and on coming into the house a few bush flies had come in too – on your back.

Today it's your day off and you are now relaxing in your favourite spot in the house, on a comfortable chair, with your feet up. Perhaps reading a book or magazine, maybe a newspaper? It's lovely and warm as the sun streams through the window. Not too strong, just warm on your skin, with that alluring hypnotic grace that gradually has you relaxing further yet – almost into a light sleep. A sleep where you dip in and out, in gentle waves like the undulation of a long ribbon in a light breeze, from just conscious, then a gradual slipping back in and out, free of worries and the daily concerns of life banished, in a most exquisitely pleasant way. Conscious enough to enjoy and not too deep, so that one doesn't let it feel wasted of time.

Until...!! One of those flies lands on your bare leg and tickles you back to that unwanted alert. You don't want to be like that – just now! So you try vainly to ignore it. But you can't. And the effort to try simply raises your state of consciousness further. You resent that too. In desperation you reach for the fly swatter. This fly is going to pay for its theft – with its life!!

But there is a problem. It flew off as you stretched out to reach the swatter and it's not coming back either. It and the other one or two are staying well clear of you – now! They seem to know of your intentions and stay well away. You wait, with that dreadful sense of loss, knowing that sleepy bliss will not return either. You resent the time and effort spent on a state of consciousness required to either stalk them across the window, or laying ready, poised to strike from a posture of entrapment.

Well the reality is, these flies did know of your mood shift and flew off because of that. They detected the faint odour that comes from your body the moment it went into its state of 'stalk to kill' or 'entrapment to kill'. They know, probably even better or before you, what you were thinking. And they are not coming back as they continue to sense this mood of yours.

So you change tactics! Lay back and close your eyes, then deliberately try to relax, regretfully knowing it can't be quite like it was just a few moments earlier. So now it's revenge! For that blatant disregard on their part, in robbing you of one of your treasured moments – a very desirable state of rest. Despite these thoughts, your concealment to them is enough – the flies start to return, as you knew they would. The swatter is held poised and ready, one of them alights again. Slap...! Got the little b.....d! He he he ! That will teach him! As the two others race away.

Now some flies are not native to Australia: but as it happens, this one was. You have just (almost joyfully too) slaughtered a native Australian animal. You not only don't care about that, but performed the act with almost compulsive glee. Then, probably, like me, you don't care about <u>that</u> either! Why should you? It's a question that never needs (and doesn't ever get) an answer. But at what point does your conscience start to lay a claim on your actions? Still no answer?

Where, through the whole scale or spectrum of variety in all the world's animals, should your compassion come in? From flies to amphibians, reptiles, birds and mammals and even people! Where in all this does your compassion and conscience no longer permit you to kill? Still no answer?

Let's go back a little in time, to that state of mind when the fly first escaped. You may not have known, or considered it a coincidence that it flew off just as you reached for the swatter. But, your decision to relax again was very deliberate! Then in doing so your invisible body emissions changed from those of a state to kill, back to a state closer to not alert but to an alert rest, a subtle but significant difference. You managed to conceal your true emotional intent from the flies, while laying in wait, ready to refocus, then strike before the fly has time to realise and react to the emotional mood swing. And that's all it takes to kill anything!

But when it's say a bird or mammal, it's much harder to get into that strike mood or even prepare to refocus for it, then much harder again to conceal the intent. And the easier these things come, the closer any given person is to being a psychopath. Paradoxically the harder these changes are for one to make, the more likely you are to be able to sustain the ability to kill and over a longer period with your compassion intact. Whereas for those who refuse to contemplate killing any animal, the more likely they are to lose compassion once they are forced to do so. And that happens, to people, sometimes.

Yet nobody cares about the fly! What about a koala or kangaroo? True compassion is displayed when one has to do battle with their conscience, both before and after such animals are killed – but not during! Hence in wildlife management, where culling is employed for the sake of saving a whole species or community, with the removal of demand on resources necessary to enable the species (and not the individuals) to survive, the people who have this task have taken up "the hardest row to hoe", not the easiest, as many may imagine.

So don't judge them 'for what they are supposed to have done', because your judgement will be misguided. Rather, 'be different to all the rest'. You might be amazed then, on what doors open, what new things you (but not others) can be told. What 'flies' of knowledge may come to 'alight' in your mind. Then choose what to do about that, or think about that. Standing in judgement of others only closes doors to clear thinking; when the judgement has already been done.

RABBIT HABITS

Pre-Calicivirus

The natural distribution for the rabbits introduced to Australia is Mediterranean Europe. They were introduced to England by the Normans.

However, conditions in England are not favourable to them so they have never been numerous there. So much so that Landlords hired, and still do hire, game Wardens to protect them. In English law, a warren was a place, privileged by grant from the King, for keeping game animals, including rabbits, and a man appointed to care for them was referred to as a Warrener. Hence the name warren for a collection of burrows here in Australia.

Australia's climate and conditions are very similar to that of Spain, which is where the 'genetic pool' of our rabbits comes from. However, in Spain they are part of the bio-diversity of their natural habitat, having evolved there. Evolved is the key word here as that is what determines a balance in the world of nature. Our rabbits were brought out from England, which is a relatively cold country, and they came without many of the diseases and parasites existing in Spain. Plus the fact that Spain would have a bigger range of native predators. They came to Australia and found a place where their almost staggering breeding abilities went unchecked. Mostly!

'Bio-mass' is a term used to describe the total mass of a species, or all the species of animals in a given area. The biomass of rabbits generally exceeds the 'carrying capacity' of most of the areas in which it is found, resulting in environmental degradation.

However, they do have (or did have) some inbuilt modifiers in their breeding. Take a hypothetical area of, say 100 hectares; there may be 20 warrens. This becomes the maximum number of warrens, as each warren has a dominant pair of adults, in particular, a dominant male. These dominant rabbits have absolute control of the warren and its immediate surrounds. Then they loosely control an extended feeding area in which no further burrows are allowed (although 'outcast' rabbits may live there).

After each breeding and when the young are about half grown or less, they are aggressively evicted from the warren and its immediate surrounds. As the hypothetical 20 warrens is the maximum number collectively allowed by all the dominant pairs, then a large number of rabbits grow up as squatters. They are not permitted to establish another warren and so, live under bushes etc.. Consequently they never breed; and they are more susceptible to predators; but they can give an area the appearance of having large numbers. What they really indicate is the existing warrens are healthy and active. They are obviously the first rabbits to die off when conditions become severe.

However, should 1 to 19 of these hypothetical warrens be wiped out for whatever reason, then there are plenty ready to re-establish them in a very short time. Competition for abandoned warrens is fast and fierce. This is what makes eradication measures so difficult or impossible to attain. It is the reason why ripping and fumigating warrens is pointless without 1080 trail poisoning.

So, in effect rabbits do have, to a degree, their own population control measure; but when disaster occurs they have a quick recovery system built into the plan.

Post-Calicivirus

Initially for rabbits it was almost devastating. However, the effect of the virus has faded even more quickly than myxomatosis. The virus affects only adult rabbits and unfortunately, rabbits are capable of breeding pre- full maturity.

Originally, these immature rabbits were prevented from breeding by the dominant rabbits evicting them into outlying territory, so they never breed even as adults.

But now there are no ‘dominants’ and the warrens are full of immature delinquents. They fight around the warrens to gain that dominance and ultimately the very small are pushed out. However, there is no ‘parental control’, no established social structure to abide by; and so the breeding has gone on largely unchecked by any ‘family rules’.

The result has been an increase in rabbit numbers to the point where their total biomass exceeds that of pre-calicivirus days. They aren’t so big but the extra numbers make up for that.

There are less ‘squatters’ as the young lack the maturity for survival; but more young rabbits are establishing warrens in areas of previously ‘forbidden’ territory because the young rabbits that manage a degree of dominance are not able, due to their immaturity, to extend their influence past the immediate warren area.

Rabbit habits are not what they used to be; and it may turn out that the calicivirus that was meant to save us, becomes a curse instead!

Mar - Apr 2000

KITES

Travellers in the 'outback' could hardly fail to notice large flocks of hawks to be seen around meat works, refuse dumps and wherever may be a lucrative proposition. Few species of hawks in Australia are to be seen in flocks and none in such immense numbers as the Black (Fork-tailed) Kite. These flocks apparently do come south on very odd occasions, although I have never seen such an occurrence. However, from time to time one sees single birds in these southern districts.

The Black Kite is very widespread not only in Australia but also in other countries. It can be found in Europe, Asia and Africa, so it is quite an international bird; although most of our hawks can be found outside of Australia, and the Peregrine Falcon is a world-wide species.

From time to time, a motion picture taken 'on location' somewhere in Africa or the Middle East will show scenes of circling raptors, waiting for our hero to gasp his last breath as he staggers across the desert. Or something to that effect. No doubt the viewers are meant to think that these birds are vultures patiently waiting for their next meal, but I have noticed that often they are in fact Black Kites. Genghis Khan and other marauders would have had a constant following of these birds, and I would imagine the meat supply would have been enough to support quite large flocks.

Black Kite is something of a misnomer, as the birds although often dark, are not at all black, and they can in fact be just light brown during immature stages. Their most noteworthy physical feature is the forked tail (which by the way is not always forked) and for which they are also named. Most illustrations go to some trouble to exemplify this forked tail in an effort to distinguish it from other similar hawks. This can itself be an aid to its identification should you see it in your district. A large dark brown hawk, effortlessly gliding over a paddock or along a road, with no obvious markings, and occasionally displaying a deep fork when the tail is folded, can be the same bird seen together in hundreds up north.

Although well known as a scavenger and therefore called a Kite, the increase in numbers in this district, coinciding with the mouse and rabbit plague, leads one to believe they are also accomplished hunters.

Nov-Dec 1994

BLACK-CAPPED SITELLA

A small bird with quite distinct markings which often go unnoticed due to its rather odd behaviour diverting one's attention, is the Black-capped Sitella.

If you spend enough time walking through scrub, occasionally you may see a flock of twittering little birds suddenly fly into a tree and alight amongst the upper branches. This does not sound at all odd. However, the birds immediately work down the tree head first. At no time do they cease their twittering and quite suddenly they will unanimously decide there is a better tree elsewhere, and fly off.

By the time one recovers from the pleasant surprise of seeing these quaint little birds again, after what is usually a fairly long interval, and wondering about the logic of their methods of descent, they are gone. You possibly didn't notice the beautiful golden orange wing patch as they flew into the tree, and the very distinct black cap, contrasting with the white underparts, probably didn't impress you much as you watched to see how they can hop down a vertical branch while upside down.

However, I find the nest that these birds build even more fascinating and deserving of comment. It is without doubt 'the last word' in camouflage construction. Built of woven cobwebs and other fine fibre, and placed in an upright fork of a usually dead branch, the whole arrangement is overlaid with strips of bark. The bark, being from the tree the nest is in (which is often a stringy bark tree of some sort), is tightly laid down in strips, like long shingles on a roof, and 'flushed' in with the supporting branch. This results in the nest being completely invisible when viewed from below and having the appearance of a thickened or knotted fork when viewed side on. For all this I am sure camouflage is only a secondary consideration and something of a coincidence in the building of their nests.

Many bird nests are nothing more than a bundle of sticks or grass or both, woven roughly into the resemblance of a cup or bowl. Give their makers their due, they only have one bill for manipulating and weaving and no doubt a very limited grasp of physics and engineering, but the result is still a bundle of sticks. However, the main effort for the bird is in collecting enough suitable material and carrying it to the site. The nest, although rather shoddy looking, is practical and serves the purpose for which it is intended and this I feel is all the Black-capped Sitellas have in mind when building theirs. They spend their lives looking under the very bark that is used on the nest and the most readily available item under bark is cobwebs, with which the nest is bound. So construction material for them is less a problem than for many other birds.

With the bird sitting in the nest, the whole arrangement would be very weather proof, the bark strips serving exactly the same purpose as any shingles in shedding water. As for the camouflage point of view, they make little or no effort to conceal their approach while many birds that do hide their nests go to considerable effort to avoid detection, some resorting to quite complicated techniques to divert any would be intruder.

Black-capped Sitellas can be found practically anywhere in South Australia, wherever there are enough trees. Due to their behaviour they can't be confused with any other bird and it is thought that the four interstate species are merely variations

of the one species (Varied Sitella). They are however, uncommon so consider yourself fortunate should you see these pretty little birds descending the tree under which you are having your picnic lunch.

Nov - Dec 1993

"WHY DO YOU BOTHER TO GO BIRDWATCHING?"

When Sir Edmund Hillary was asked what was his reason for making the effort to climb Mount Everest, his reply was 'because it's there!' I don't believe that is what he really wanted to say. Therefore, by deduction, it wasn't the real reason. I suspect it was a 'spur of the moment' reply to a question he wasn't expecting, because he had never really asked it of himself. In any case, 'because it was there' hardly ranks as an information bursting reply; and at best very open to interpretation. The ultimate achievement of the two men, to be the first to reach the summit of the world's highest mountain is, if one wants to be grounded in logic, considerably less than the science needed to know it's the world's highest. But that's side-tracking at this stage of the discussion! The event roughly coincided with the coronation of Queen Elizabeth II, and both made headline reading in the same edition of an English newspaper.

Buried deeper within the pages of that paper and taking up only a few lines, was the final answer to the process and question pertaining to evolution. And I doubt if the two scientists who discovered the physical characteristics of the DNA molecule were ever asked 'why did you do it?' With the amount of newsprint covering this discovery indicating the importance placed on the three events by the majority of the community. Nothing much has changed there!

But the riddle of genetics and DNA, once explained, provides the reason on how evolution can work; and so by default proving that Charles Darwin's theory is essentially correct. And the 'flow on benefits' from medical science alone (provided by accepting the theory of evolution and the discoveries stemming from it) will in time easily overshadow the other two coinciding events.

Now I can reasonably guess, nobody has ever asked Queen Elizabeth, 'why did you choose to become the Queen of England?' It's not such an idiotic question (to at least ponder on) because it was, and is not 'cast in bronze' that she had to take on the immense task. In terms of personal effort expended over the duration of her reign, it dwarfs that of climbing Everest and discovering the physical structure of a molecule combined. Her reply however, I assume, would be 'because it is my duty,' or words to that effect. But we don't have a reply!

I don't remember the names of the two men that enabled 'us' to put together DNA; and they pinched some ideas off other scientists to do it anyway! While Hillary didn't get to the top alone; and, in addition to Tensing, he had a considerable support team, plus advanced technology earlier climbers did not have access to. Meaning all three had considerable support from others. More importantly, one way or another, the three coinciding events that have all, in different ways, contributed to the course of world history, don't come with adequate reasons supplied. Yet the people involved in these tasks still did make the effort. But why??

All of this preamble has been made to make 'a mountain' without the 'molehill'. The mountain being a question I was asked over forty years ago and it occasionally still is. A question I have never been able to adequately reply to. 'Why do you bother to go birdwatching?' It's only just recently that I have realised for the first time the question was asked with the word 'bother' in it. as though an interest in birds was some sort of awful chore! Which connects the asker to whoever put the question to Hillary, because the phrasing is presented as a challenge to answer and not with a genuine need to know.

While my reason in discussing the above three events, recorded in the same newspaper, is to illustrate that even bigger issues don't or can't necessarily come with understandable replies.

Strangely enough, I can still remember the person who first asked, plus where I was, what I was doing at the time and how old I was too. Yet just as strange, I still

haven't produced a satisfactory answer for them or myself. Between then and now, I learnt that when Sir Edmund Hillary received a phone call at his home, from his son, from the top of Mount Everest, he no longer considered that effort as his most important achievement. And I can understand that! With practically 'everyone and their dog' making it a pilgrim destination – leaving all their rubbish along the way!

Since the time of receiving my first question, I have searched, not just for birds, but for an adequate answer. In the process and the effort, I discovered the answer to something else! One aspect that sets humans apart from all other animals. And I suspect the reason for activities related to Natural History is bound up with this issue. But I am yet to work out how! The effort to discover at least one factor that separates humans and which is uniquely human, took a 'body blow' when the use of tools was eventually seen in a number of other animal species. And it has been surprisingly elusive to find a substitute. Even the claim that it's uniquely human to push our skills to the limits, and enjoy doing so, can easily be shredded by many people who know something about animals.

However, my contribution, 'hot off my brain' is to simply reverse the last mentioned claim. *Humans are unique amongst the animals because not only do we have an immense capacity to tolerate pain and grief, but we are inspired to greater effort and achievement by pain or grief or both. By this I mean not just those who suffer, but the achievements of those who are inspired by witnessing or care for the suffering. No other animal does that!* And it is here that we connect again to the start of this discussion. The achievements of the people who make discoveries in science, to or for the benefits of humanity, the achievements of people like Hillary, who went on to considerable effort to improve the living standards of the Sherpas. While nobody in their right mind would want the job and responsibility of being the Monarch of England.

So I still don't really know why I have an interest in what has now become 'Natural History', except to say that even though it's a pastime, it's an important one – and the importance is increasing! While those who need to ask why, will never understand any answer, such as 'it's there' or 'because it's my duty'.

Mar - Apr 2010

THE SOUTHERN SCRUB-ROBIN

Recently while performing my 'Ranger Duty' on Moorunde I was delighted to see a Southern Scrub-robin. The name Robin is inclined to conjure thoughts in many people's minds of red breasted birds sitting on snow covered windows, but Scrub-robins are very much an Australian bush bird. Visitors to Moorunde can reasonably expect to find one or two from time to time. However, they are scarce and, in the main, restricted to Mallee formations. Although I have seen them as far south as Padthaway/Bangham.

Southern Scrub-robins are ground-feeding birds and, although ostensibly very shy, at times they seem to deliberately attract your attention to themselves with their loud call. Having once gained your attention and, provided you remain, they will hop to view you from all angles. Whenever they can get close and remain 'undercover', they will alternately approach and retreat, uttering a harsh chatter. They will only pause briefly in any given spot and never remain motionless in the sunlight. Their little act of investigation can be encouraged and prolonged by making clicking or squeaking noises which will bring them quite close but would-be photographers should be armed with a strong flashlight.

Although they 'sport' the name 'Robin', authorities of classification at present have placed them in the Thrush family. However, they were once classified with Babblers and originally they were grouped with the Australian Robins. As you can see then, a fair amount of taxonomic confusion exists around this species and you should cast off all thoughts of the traditional Robin when looking to identify these birds. Superficially they resemble the common Grey Thrush, which incidentally is classified in the Shrike-thrush family. Scrub-robins (there is also a Northern Scrub-robin) are a little shorter and lighter than the Grey Thrush, and they do have that typical Robin 'expression'. But there the similarities end. Should you be familiar with them, then you must be sympathetic with the difficulties involved with their classification. The English Blackbird happens to be in their current family, and certainly their behaviour is similar in many ways. Unfortunately Scrub-robins are unable to make the adaptations to a changing environment that Blackbirds have made in coexisting with humans. Blackbirds are actually far more elusive and are only frequently seen because there are so many of them. But you can't get a Blackbird to come and 'check you out', within reaching distance, as you sit quietly and still in the shade of a tree making clicking noises with your tongue. And I guess therein lies the essential difference for survival. Scrub-robins, despite their apparent act and semblance of being shy are far more trusting and inquisitive.

Most photographers of Southern Scrub-robins 'fall very short of the mark' in their attempts to depict this bird, including those in expensive books. They are grey-brown with a rufous rump and often have their long tail cocked to a forty-five degree angle. Two white bars can be seen on their wing and a white circle around their eyes is broken above and below by black flecks. This all sounds simple enough but they are real 'characters' of the bush and it's part of their identity and no photograph can capture that.

As with many other ground frequenting birds, they glean a living from turning over leaf and twig 'litter' on the scrub 'floor'. This life-style excludes them from areas that are 'control burnt' or grazed heavily by stock. Their existence is dependent on areas where the 'ground litter' is allowed to build up unhampered, making Moorunde and Nardoo Reserves, and hence the Natural History Society, important contributors to their ultimate survival.

CONSERVATION - COMMUNICATION

In this day and age the key to a success story is proper communication. The people who are actively involved in trying to conserve our natural resources are few - in comparison to the indifferent and the actively hostile against. Success will only come if the numbers swing more the other way. The concerned but not involved must be persuaded to get involved. The indifferent must be persuaded to become interested and concerned. The actively hostile must be placated and calmed and at least convinced that conservation is inevitably in all our best interests.

To date none of this is happening. Conservationists are labelled as 'greenies', 'bleeding hearts', 'radicals', '.....meddlers' and 'anti progress bludgers'. None of these terms are endearing and even 'conservationist' is uttered with spite and venom. All terms indicating small hope for ultimate success. There is at present a war on between the people trying to save the planet and people trying to make money as fast as they can regardless of the expenses to the environment.

There are two questions. Why can't people see for themselves what they are doing to the world for the sake of 'progress' and 'prosperity'? Given that they can't, then why can't they be convinced, by us conservationists, what they are doing is destructive?

The first question I will not answer here in this discussion, but think about it none the less, as part of the key and strategies to saving our environment lies in the answers. The second question can be summed up simply by saying that you, me, us are telling the message the wrong way. Bad communication!

So far the methods used by conservation minded people, to convert others, has been mostly confrontational. Maybe you don't think so, but to the people hearing it, it is! That's what counts. Who is hearing your message not who is giving it. Criticise a person or group for an activity that you see as wrong and they will instinctively defend themselves and get hostile in that defence.

Thinking that your criticism is justified by the 'rightness' of your cause, you continue to push the issue. The people on the other end who you are trying to convert and trying to stop from this activity feel further threatened. They become alienated and ultimately wind up as your enemies. You have lost a vital battle in the war for conservation, as all battles big or small are vital in this particular struggle.

You could try starting by first making an attempt to understand the motivation behind this activity, and you may be surprised at the insight you gain from this. Then get all the facts about it and get them all right. Offer some alternatives or perhaps some short term compromises. Wait for the right opportunity (nobody lives or holds a position for ever) and then activate your campaign.

At no time should you make the people you are trying to persuade feel that they are wrong for their activities, but rather, just the activity itself is wrong. This is a vital component, as is getting all your facts correct. Making people feel threatened and then quoting incorrect information arms your adversary with the old 'standing ground' of 'they are just ignorant emotional meddlers who don't know what they are talking about'. You have their 'backs to the wall' but you have still lost because they will continue their activities now regardless, if only to 'save face'. Also, what you really need in this war is not to just stop this or that activity but to make friends and allies, not enemies.

No matter how important, how right, how much merit or how vital your issue is, that is not enough. It still has to be 'sold' to the other side and it will not be on merit alone.

About two thousand years ago there was a man in Israel, considered by some to be the son of God. He was said to be pure and without sin. He set about trying to teach people a better way and approach to life and had thousands coming to hear his speeches. But his ultimate lesson was to illustrate what people are prepared to do if

they feel cheated of what they want. Despite doing and saying nothing but good, despite the purest motivations, the same thousands who came to listen to his lectures, screamed for his execution.

The conservation movement does not have divine powers. It will not rise again from the dead if it should fall too far from favour. You have to win more people over, not push your own personal agenda. You have to, for the time, allow people some 'sins', so that they don't feel threatened, in order to bring them into the fold. Once you have them you have a chance of getting them around to your point of view. If you don't have them with you or you alienate them for their transgressions, then they go to the other side and you have lost an opportunity. You have then also created one more enemy to deal with, and the battle to convince the wider community becomes that much harder.

Jan - Feb 1997

THE SYMBOLIC THIRD DAY

'And God said, Let the waters under the heaven be gathered together unto one place and let the dry land appear: and it was so'.....'and the evening and the morning were the third day'.

(Genesis 1: 9 & 13).

Recently I gained a new acquaintance, who lives in British Columbia (Canada). I have never met her and she has not been to Australia. So in my first letter to her I gave a brief description of South Australia.

As other personal business had a priority, I kept my 'word picture' to just two brief paragraphs. The second paragraph is the inspiration for this article; but as I mentioned I had to be brief. Today I am writing for you the 'extended' version.

'...I have seen pictures of British Columbia and it is a remarkably beautiful place. With its rugged coast line, slashed with deep inlets and rimmed by high cliffs. Its tall dense forests and majestic mountains, abounding with vast streams, rapids and waterfalls to take one's breath away.

South Australia isn't totally devoid of mountains, forests and streams; but there is no comparison in grandeur; and that would be an understatement.'

Our somewhat dubious claim to fame is the fact that South Australia is the oldest, driest and flattest state in Australia (which is the oldest, driest and flattest continent in the world). I have been to places in the north of the state where one can stand on the roof of your vehicle and, in any direction you care to look it is flat, all the way to the horizon. There is nothing to see except the red-brown stones that cover the ground, which is the same colour. From where one stands you can't see anything growing and the only movement is the occasional illusion created by a mirage. On a calm day these places are so silent the only noise one can hear is a 'distant roar'; which is the sound of the blood running in your own head. If however, your hearing is acute and one listens carefully, a soft rhythmic thudding can also be detected; that is the valves closing in your heart. The view may not be considered as awe-inspiring as one from the Rocky Mountains; but, if you have ever been in such a place as this, you would be aware that it can take a grip on your soul. And you will know the meaning of isolation, like you have never known it before.

There is something else about this place, this view, this particular area on the earth. Everywhere else in the world the landscape has been shaped and re-shaped, time and time again, by earthquake and volcanic eruptions. Consequently the soil has been kept fresh and fertile with constant recycling. The Rocky Mountains themselves are relatively new by geological standards. Even the Grand Canyon is just a pre-school child, despite its appearance; it's merely a piece of relatively new ground that is starting to erode.

But here, in this flat place of silence, here in this state of apparent barren nothingness, here in this place of isolation, you are looking at the earth when 'the waters were gathered unto one place and the dry land appeared', on that 'third day'. No other country is so old, so very old. Nowhere else in the world can you find the earth at its origins.

Then you can drive on for some miles and come across something different. Such as a dry salt lake, or a sand ridge covered in low scrub, a worn down outcrop of rocks, or a dry watercourse lined with stunted trees that resemble overgrown bonsai's.

One may stop and look with some interest that cannot be explained, except perhaps because of the sheer and vast 'nothingness' that surrounds. It's all a matter of perception, isn't it? But, do you know what? That dry creek bed is the remnant of a stream that may well have been flowing along the bottom of a 'grand canyon'.

That worn rock outcrop could be all that is left of immense cliffs that once wrapped around the stream, at the bottom of this one time vast chasm. The salt lake is the remains of a huge inland sea; while the sand ridges mark its shrinking foreshore.

It might well be the land of 'the third day', but that was a long time ago and there have been a few alterations since then. That grip on your soul remains. Not because of, as one might suppose, the desolation; rather it is because the age of the surrounds reminding you, unconsciously, of just how insignificant one is. And how short your life will be.

If you look carefully at the photo you can see, on the horizon, on the right, the sand dunes that line the southern end of Lake Eyre. Running along the remainder of the horizon one can just pick out a line of stunted trees, that indicates the presence of a dry watercourse. So I have indulged in some 'poetic licence' with this picture (for which I make no apology) as it isn't flat 'in any direction you care to look'.

Apart from the 'water' course and sand ridge on the horizon, there is a rocky outcrop about one hundred yards or so behind me. It rises some twenty or so feet above the immediate surrounds; and I mention this because the ground level here is about twenty feet below sea level.

Paradoxically, the area embraced by this photo can contain more different species of plant and animal life than an equivalent area of tall magnificent forest in North America. And it is because of and not in spite of the harsh and barren environment. But that's another story.

Anyhow, it wasn't *all* flat, in the foreground you can see the edge of the track. It wasn't silent, under the bonnet of my truck it was creaking as the engine cooled. And as for isolated, well, about half an hour's driving south, as I left Lake Eyre, I passed another vehicle going north!

Jul - Aug 2004

BABOONS AND CHIMPANZEES HUNT FOR MEAT TOO!

'The invincible ignorance of experts'
(The late Peter Aitken; former Curator of Mammals, SA Museum of Natural History.)

Peter Aitken was one of those 'experts' in his field of work and study, who knew very well that there was always something to be learnt from us 'mere mortals'. He coined the above phrase for the sole purpose of getting 'ordinary people' to feel at ease when talking about his area of expertise. Because he never forgot that sometimes pieces of information (as with gold nuggets) could be picked up 'where you find them'. He knew too, this also applied to ideas, theories and opinions.

And this ethic provides me with the courage to write, and ignore the potential for ridicule if found wrong in what I say on Evolutionary Anthropology, that is human evolution, the topic of this article, as I have only studied the subject in books and have no field experience.

Only a week or so ago I watched a programme on television, Channel 2, called 'Catalyst', in particular, the segment dealing with the expansion of humans (Homo sapiens sapiens) and the timing of the migration of this species out of Africa. By using DNA (deoxyribonucleic acid) evidence and comparing that to fossil records, it has now been shown that humans expanded out of Africa about 45 to 50 thousand years ago and reached Australia in the relatively short period of about 5,000 years. And although the programme didn't say so, I can reasonably assume this species reached Australia before settling in Europe.

However, the Neanderthal subspecies (Homo sapiens neanderthalis) evolved earlier than sapiens sapiens and established themselves in Europe and Asia well before then. But archaeological digging for human remains in Australia is prohibited and so we shall never establish the status of Homo sapiens neanderthalis or any early Homo species here. This is a shame in a way, especially as Homo erectus remains have been unearthed as close as Java in Indonesia. Could they have reached Australia too? We will never be given the chance to unearth any evidence to know.

Neanderthals are no longer considered to be in the same lineage with modern humans; and are on a separate 'branch' in evolution. Some DNA evidence has been found to support this, but not enough to form a solid statistical base. But my focus goes back much further in time. Thirteen million years or thereabouts. DNA has put an end to speculation on the time frames when we had a common ancestor with apes. We evolved all together within the same hominid species until then.

About thirteen million years ago Orang-utans diverged from our common line. Then around ten million years ago, Gorillas went their own way too. Our most closely related mammal in which we share 98% of common genetic 'make-up', is the Chimpanzees. We are more closely related to Chimpanzees than horses are to donkeys. And now we know that our evolutionary lines separated approximately five million years ago. While mainstream theory is that the common ancestor looked very much like a Chimpanzee, lived in the rainforest of Africa and there the Chimpanzee stayed, while the early potential human (hominid) species moved into an ecological niche outside the rainforest and continued to change in anatomical form, producing multiple species (Australopithecines) along the way.

One eventually evolved further into a Homo species and the rest going extinct. This is a very brief and therefore over-simplified account, making me feel rather like the first writer in the book of Genesis must have done.

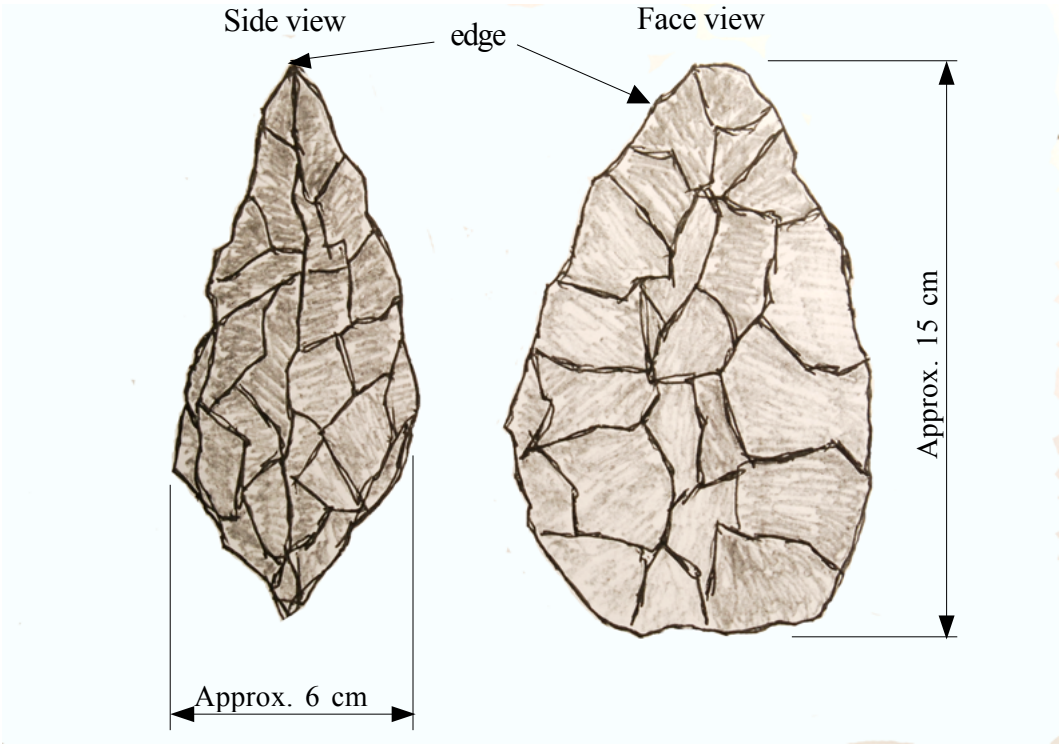
The Catalyst documentary revealed answers to a long and vexing question. It also prompted me to write this article, as I have ideas and theories of my own on human evolution. Ideas that run against the current and most popular scientific thought.

Hence my quote from Peter Aitken, as some of the claims made by prominent scientists seem to be not based on logic or good old 'common sense'. Some seem to be biased to fit preconceived ideas, while other issues are still being 'wrestled' with, trying to find answers. Answers that can be found by the application of logic and imagination. And for me, by using my memory going back in time to my childhood days, playing the 'cave man'.

Now, I'm prepared to be convinced otherwise, but I see reason to question the idea of starting from the rainforest and coming out into the woodlands and African Veldt land. I see an opening for it to be the opposite way around. A common ancestor with Baboon-like behaviour in the woodlands and Veldt, with the Chimpanzee line finding an ecological niche into the rainforest. And I have some good arguments and see advantages for posing this alternate view. For now I will leave it there and stand to be corrected.

We will move on for a few million years, to when 'our line' becomes a Homo species and the first sophisticated or more precision made flint tools appear, still before the days of sapiens sapiens. For my theory (or more correctly hypothesis), the flint tool to be discussed here is the Acheulian Hand Axe. This implement is about the size and thickness of a man's hand, is shaped like a teardrop and has no handle. It tapers towards the edges to an almost razor sharp circumference.

Acheulean Handaxe made from Flint Stone and invented by Homoergaster and also used by Homo heidelbergensis



By placing the edge in the palm of their hand and wrapping the index finger around the pointed end, the 'axe' can be thrown without cutting the finger, even though the edge is near razor sharp. Multiple wounds from such a weapon place an animal into a state of 'shock', rendering it helpless.

Diagram by Author

None of the experts can agree on what its real function was, despite hundreds being found. The sheer number adds to their confusion, while for me, this clarifies the issue. One scientist claims that, for a tool, they are made 'unnecessarily beautiful', while another goes a step or two further and attaches a 'sexual purpose or connection' to them and to support his argument he brings in the behaviour of some species of birds, which I found at least interesting, but not convincing.

The tool itself was very 'popular at the time', as it was used for a few million years without any discernible modifications. Then production stopped when flint tools became fixed to handles and shafts; and the species of Homo using them went extinct. Now here is where my 'cave man' days as a boy come in. And remember, none of the experts hold a firm idea on what they were made for. While 'little Johnny', tearing around in a loincloth and behaving like a complete brat, was already using them only fifty years ago! I invented a crude version of my own, as a child, years before picking up my first creditable book on human evolution. They are meant to be thrown! At game! For killing animals! To eat! And they work rather well too! But first to the question of this 'beautiful teardrop shape'. If they were round, you would cut your fingers trying to throw them. But with one's index finger wrapped around the edge at the tip, they don't cut when thrown because the stone then does not slip in your hand as a round one would and does. So then! An extremely sharp missile can be propelled without injury to the operator. It is also thrown faster than a round object of the same weight, as there is a 'flick effect' from the tip to finger action. A kind of 'inbuilt woomera action'.

As to it being 'unnecessarily beautiful', I see a fundamental practical purpose in it. It has been made aerodynamic! To the stage where it remains airborne much longer and projectile velocity is much enhanced. It is, in effect a sophisticated stone 'boomerang', with a rapid spin that gives a good (50/50) chance of the pointed end lodging into the target. And it's this spin that multiplies many times its capacity to penetrate, as either end is moving much faster than the stone as a whole. So much faster that in fact it hardly matters which end strikes, as either penetrates; just leaves a different type of wound.

I 'killed' many an 'antelope', drawn on the bark of a River Redgum, leaving multiple stones stuck into its 'flesh' by either end. A long but shallow gash from the round end or a narrow but deeper 'wound' from the pointed end.

Now for the reason so many hand axes are found around unearthed kill sites (Ref. 'As We Know It', by Marek Kohn, Chapter 8 - 'Boxgrove Kill Site'). Contrary to the claims made in this book, I believe it is not for attracting 'that blonde' with how beautiful they made them.

You see, it's not that hard, with a group of five or six, to cut out one sheep, or one steer from a flock or herd. In fact, two or three people can achieve it; as I have done so for stock husbandry reasons, but I mention five or six as that would be about the number in a tribal hunting party, and the prey would be appreciably wilder. Then with each member 'pelting' their surrounded quarry with six or eight 'hand axes' each, carried in a pouch, it wouldn't be long before their prey went into shock from all the wounds. With that done, one hunter rushes in to despatch their antelope or wild horse with a spear made from a pointed stick of wood, leaving the prey surrounded by thirty or forty sharp teardrop shaped stones - waiting for some archaeological study team to dig up the remains, thousands of years later.

The above-mentioned book makes the claim that so many stones were around the prey because the hunters were trying to impress the 'ladies' with their skills in making their 'excessively beautiful' weapons. Ah, ...'the invincible ignorance of experts'.

An eight to ten year old child reinvented them thousands of years after the last Homo species to use them went extinct. I prefer to believe that they were made to be

very effective, deadly hunting devices that could then be used to butcher the animal into convenient carrying pieces. The stones were just left because so much meat had to be carried back to the campsite and it was easier to make new ones, rather than go back to collect them. And, like so many items of today, they were disposable. Nothing much has changed! We are the rubbish animals of this earth, started the habit rather early in terms of our evolution, then pride ourselves in how advanced we have become!

Jul - Aug 2008

DEEP WITHIN THE EARTH

When (as a teenager) I slaughtered my first sheep (to provide us with meat) my father asked me how I felt, after cutting its throat and breaking its neck. I told him, 'I hated it'. 'That's good,' he replied. 'Because you should; and now you know the cost of living!' It took some time before I really understood that statement and to know, that for everything that lives, something else has to die. It was though, the answer Dad wanted from me; he expected as much respect for the dead animal as the living. That one should experience some sense of loss when an animal dies; especially when it dies 'by your own hand', even if the killing was necessary or not.

This principle (surprising to some) has to be extended so that it also applies to vegetarians as well!!! For two reasons – 1. If we all gave up eating meat and relied entirely on grain, fruit and vegetables, then all 'livestock' animals would have to be destroyed to provide the extra land for cultivation. 2. there still isn't enough suitable land to do this, so more forests would have to be cleared. Forest where wild animals live. There is no escaping the basic principle - 'For everything that lives, something else has to die!'

Discounting the 'guns and beer yobs', after killing an animal, for whatever reason, one should (and I do) experience a sense of loss or regret. It doesn't matter if it was (in life) vermin, or for humane reasons, or even for the pleasure of hunting, that the killing is done - my hunting is restricted to vermin species only - something still feels lost!

Every animal eventually dies! When the death is due to 'natural causes', it's never with any dignity, and almost always it involves considerable suffering. So I don't trouble myself about the issue of hunting and the potential outcome. In fact, almost always, the dying from hunting is a much less painful way. Yet a life span is reduced and hence the sense of loss.

It was this persistent emotion of loss or regret, even though it may be during hunting and the animal was vermin; or perhaps a humane reason such as an animal badly injured or sick, that started me pondering. Thinking about this in terms of what it meant, from a 'Natural History' point of view. And now I have an answer. An answer that if listened to, and taken seriously by professional anthropologists, would have some considerable effect on current thought and theories. Because my ideas concern the ancient cave painting art found in Europe in such places as (for example) Altamira in Spain and Lascaux in France. Painted by people who could (potentially) be my own ancestors; and the ancestors of many other people in Australia too.

My theory embraces two ideas that run against current scientific thought plus two more ideas that explain anomalies or aspects still in debate or not understood (at least, not in any of the literature I have read so far). These issues are - 1. Why the paintings were done in the first place 2. Why they are found so deep inside the caves 3. Why so many are painted over, or overlap previous paintings 4. Why the human hunters are always and only depicted as black 'stick figure' people.

Now remember it didn't matter to me if the killing was done to rid vermin, or for humane reasons, or for the enjoyment of hunting. Once the body is viewed closely, one experiences a sense of loss or regret. And I know of other hunters that experience this too. So...! The animals were painted on the walls of the caves as a mark of respect, and regret, for their loss of life. Not for any cult or religious reasons that scientists put forward today! The artist is wanting some relief, some escape to offer some compensation for the life that had to be taken to sustain their families. They are beautiful paintings - as the animal was in life. However, the hunters couldn't help feeling elated and excited and couldn't suppress the enjoyment of the chase or the stalking. Until! they stood over the dead body of their quarry and realised the gravity and implications of their actions.

Somebody had died for them to live! And died while they were happy and excited in their actions and priding themselves on their endurance or skills. So the animal (once so proud and beautiful in life) had to be painted to help quench their guilt. And painted deep within the earth, where they believed all things came from, and eventually returned to. Yet when the meat was all eaten, the hunting had to begin again; until all of the suitable space (deep in a cave) was painted on. Which meant the animal that had just lost its life, to sustain them, was painted over one already there! This didn't matter. Even if there was still available space, the artist wanted the animal to rejoin those already gone - to create or re-establish a herd. But how do I know I'm right? Because, it's something I would do, if I had to live that way! A lifetime of constant killing to provide for my family – as opposed to the sporadic, take it or leave it of hunting for sport today.

And I wouldn't have the gall to paint myself there as well. The artist knew it was no place to celebrate the hunt – this was a grave for what couldn't be buried. A place to honour the dead, the dead that was eaten, and couldn't be buried with respect. They couldn't bury it, as they did with members of their own family. So it had to be captured in art, and painted deep in the earth where its spirit had gone. The hunters in the art were black 'stick figures' – the colour of death! They were not important here, not even welcome, but as they were unavoidably present at the time of death, they were depicted as 'stick figure' people – in black!!

Even today the Kung people (Bushmen) of the Kalahari Desert still apologise to their dead quarry. Nobody would deny them the right to hunt. Despite their access to government ration handouts. So why draw distinctions between them and other (civilised?) hunters such as me? Who still feel the instinct of our ancestors within ourselves. As people cannot be successful on need alone. Hunting is an extension of sitting around a campfire, having a barbecue and telling stories of the past. As we look into the flames of the fire, some (such as myself) experience a strong pull and at times have a need to answer a distant call. It's just the spear or the bow is now replaced by a rifle or shot gun; and only the practical justification is gone.

Perhaps you object to that - even refuse to acknowledge it; and so you can if you wish to. But as with the artist in those caves so long ago (or is it all that long?) it doesn't matter! But like the artist, true hunters know the real 'cost of living' and the losses we have endured between then and now. My heritage dates back for a period equally as long as that of any other race. And the bad or the wrong is only where the lost life isn't respected.

Because today's alternative for 'the cost of living' is represented, not in respectful art, but as a set of numbers on some economist's note pad!! Tell me that isn't heartless and cruel!? When you can tell me that something has been lost on the journey from the entrance of those caves to today's brick-veneer houses - when you can do this; then you will see the need within some people to still hunt! People looking for something lost! Just that it can never be found! That's what motivates them; acknowledgement of or to an instinct from our past. This is the reason for it to be something of a tradition for men cooking the meat at a barbecue, while women prepare the salads! An acknowledgement of the past. An ancient (but once practical) division of the gatherers and the meat providers. Who got it (the food type) – prepares it too!

Nov. 2008

A LITTLE MORE ON EVOLUTION

They hadn't seen the old man, out and about in his garden, for a few days. He was eventually found still sitting (dead) at his kitchen table. There was a plate on the table, from which he had eaten a meal; plus a bowl and spoon in front of him. From which he had apparently eaten some preserved peaches. As there was a preserving jar opened and only partly full of peach halves, also on the table. Initially it was presumed he had died of a stroke or heart attack.

About the only thing agreed upon (by scientists involved in human evolution) is that at some stage our preceding species consumed large amounts of protein rich foods. To enable us to develop a larger and more sophisticated brain, compared to other animals. And this increase in brain capacity started before our species (Homo sapiens sapiens) had evolved. A popular theory is that we separated from chimpanzees and 'came from' one of several species of the Genus - Australopithecus. Or at least Australopithecus was the second step; with some other ape-like species evolving (yet not discovered) between these two. But even this is in dispute and there are other theories. However, the issue for this discussion is, how and where the extra protein (for whoever) was derived – how it was obtained? All of the literature I have read has been produced by authors who go down pathways of very dubious logic; despite their qualifications.

It's generally accepted that the largest proportion of energy, or calorie intake, of our former diet (as hunter/gatherers) came from the 'gathering' part. This assumption arises from observations of, or by, scientists on remnant primitive hunter/gathering tribes, such as the Kung people (the Bushmen of the Kalahari Desert) and, at one time, Australian Aboriginal tribes. But these scientists make a major mistake, out of these observations. Which is – remnant tribes (now) only live on remnant land!! The species that eventually evolved into sapiens sapiens (us) evolved in the game rich areas of Africa, where meat could be obtained from the extensive herds of grazing animals, on or at any given day.

The next generally accepted theory that I wish to contest, is that this protein (needed to evolve a larger brain) was obtained by our predecessors being scavengers. The application of practical logic is once again absent. As even access to already dead animals requires fairly specialised endowments or equipment.

With the advent of more sophisticated night vision instruments, it is now known that in Africa in many locations or situations, hyenas do most of the hunting. And it's the lions that scavenge off the hyenas!! Next morning (after the hyena kill) we see the lions munching away on a wildebeest or zebra carcass, and the hyenas (who killed it) waiting around for the lions to go. But lions carry superior equipment to take and hold animals to be gained by scavenging. Such as retractable and permanently sharp claws; and they are much larger and stronger than hyenas. Who, as it happens, are better equipped for hunting than lions. Such as having far superior stamina and more powerful jaws

While our still evolving ancestors were deprived of powerful jaws and claws. In fact the ability to stand upright was our only advantage for securing previously killed or dead animals on the African Veldt. We were (back then) only about the size and weight of chimpanzees. And although we now consider 'possession is nine tenths of the law', that law (on the African Veldt) is superseded by the law of 'might is right'. As, at least, all hyenas well know!! But apparently some people don't! Perhaps hyenas have heard the lines from that old 'Country and Western' song, with the advice - 'you have to know when to hold them, know when to fold 'em; and know when to walk away.' When it comes to lions wanting to take away something you have, hyenas (at least) know this; and I'm certain Homo habillis did, as well as the Australopithecus species.

Alongside the partly used jar of preserved peach halves (on the old man's table) was another bowl. In it was a fork and two discoloured peach halves, which the old man had separated from the rest. On the shelves in a cupboard were a few more jars, with the top two or three peach pieces in some jars also discoloured. The jars had not sealed properly by the home preserving kit, during the preserving process. So..., *Clostridium botulinum* bacteria had entered some of the jars, via the faulty lids. The old man had died of Botulism poison!

Our lions spent the first day eating the wildebeest and left when the sun made the day too hot. Then the hyenas reclaimed 'their kill'. By the time they had finished the remnant carcass had been in the hot African sun for two days. Two days! In the hot sun!? Now... Clostridium botulinum, although not fussy, likes meat and marrow even more than peaches!! This poses six questions to ask of the advocates on the scavenger theory. 1. Where, 2. when and 3. how did we acquire (like lions, bears, hyenas, dogs and wolves) an immunity to this deadly poison - Botulism!? Then 4. where 5. when and 6. why did we then lose such a useful advantage? To be able to make use of rotten meat? Which is a prerequisite for all the scavengers where we evolved.

The answer is, we never had this advantage! We started killing our own meat, and ate it fresh. As baboons and chimpanzees still do. It's easier to do than scavenging, as you are first on the scene, and can then quickly relocate the meat to a safer place. We may well have opportunistically scavenged (almost certainly did at times) but it could never have been frequent and reliable enough to maintain continuity for surviving. As fresh to rotten is a very short time; when it's hot! And too, one must take into account 'gathering competition' from other apes; once our body configuration became more 'human like'. Then, it's only through developing more sophisticated styles for hunting, that all other hunting or scavenging species would learn to fear an otherwise helpless creature on the African Veldt – us!

Yet after all of that, there is still one more piece of compelling evidence to dismiss the scavenger theory. With the exception of animals such as vultures and kites, all the successful scavengers can find their food because of a highly developed sense of smell. There is something of a paradox here, because (even compared to lions and other cats) our sense of smell is quite weak. Yet despite that, it gives us a resounding warning, to the presence of Botulism. We are repelled and revolted by the smell of rotting meat – the same smell that attracts all other scavengers is a warning to humans. Decomposition produces the sweet odour of survival, if you're a dog or hyena. These animals have a powerful, almost unbelievable ability to detect the faintest of odours; yet a rotting body will set their mouths salivating with pleasure, while our mouths salivate in preparation to vomit!

Dec. 2008

WHITE-WINGED CHOUGHS

On the roadside into Moorunde you can sometimes see a colony of medium sized black birds feeding on the ground amongst the trees. Should you have time to indulge in a closer look at them, they will fly off a short distance and immediately reveal their identity by exposing a large white patch on their spread wings.

The White-winged Chough (pronounced "chuff") is often taken for granted by people who are familiar with it. Yet this shouldn't be so, it is a declining species. Although people who are interested in birds notice it often enough in the areas where it is found, this is mainly due to the birds' clannish and extrovert behaviour.

You may find it odd that a mud nest building bird should choose to live in fairly dry areas where mud can mostly be a difficult commodity to find. However, this problem is overcome by the nest being declared common property of the colony and as it is a remarkably robust construction it may be used for several seasons. This results in giving the birds some considerable advantages at breeding times as nest building involves huge expenditure of effort for other species. Also the dryness of the district is an advantage as this prolongs the useful life of the nest and there are enough 'wet times' to produce the required mud. The birds enter into a flurry of activity and construction when opportunities arise and nests will be constructed whether they need them at the time or not.

White-winged Choughs are a little longer than Magpies, but not quite so robust. Their body to wing span ratio is similar to that of a Currawong, which it can be confused with if one only gains a glimpse through the trees. However, Choughs are almost always in small clans and are inclined to 'hold their ground', remaining in the vicinity when an intruder appears. Their call, a harsh grating alternated with a pleasant piping whistle, is more a rebuke to you than a warning to their fellows. They don't seem to be particularly choosy about their habitat, forest, open woodland or mallee scrubs, yet often they can't be found in types of country where they are numerous somewhere else.

Jan-Feb 1995

‘WINDJAMMERS’ AND RACING YACHTS.

The invention of gliders and subsequently aeroplanes ultimately came about by people observing birds; in particular Sea Gulls, that frequently glide. Sea Gulls because they are easy to watch, as they come quite close.

It was noticed that a cross-section of the wing had a curve running over the top. This curve is more pronounced at the leading edge and tapers away to the trailing edge. Without going into the physics involved here, this configuration generates a partial vacuum over the top of the wing. As the air from the wind blows from the leading edge to the trailing edge it gives the wing its lift and some forward thrust. Contrary to the popular belief, ‘the wind beneath my wings’ doesn’t give the lift, its the partial vacuum on the upper side.

Modern racing yachts have a sail configuration known as sloop rigging and their speed through the water relies on the same concept. They reach speeds well in excess of the actual wind speed (because of this) by sailing across or slightly into the wind. And it’s because of this vacuum that allows them to sail forward, almost directly into the wind.

These days their sails are very narrow in relation to their height and a ratio of up to 7:1 in height to width is now known to be the optimum. This is because a wide sail (or wing) generates some drag along the trailing edge. So sails on a racing yacht almost duplicate the wings of an Albatross, a bird that glides for days on end without flapping its wings; and known as one of the great gliders of the bird world.

But what of the Sea Eagles - also one of the great gliders of the bird world? Their wing length to width ratio is something like 2 or 3:1, with ‘fingers’ on the ends of their wings that would create even more drag. Does this blow holes in the concept?

For an answer let’s look at the old ocean-going ‘tall ships’ of previous centuries. They were ‘square riggers’ and packed on huge areas of broad square sails and were not capable of sailing ‘into the wind’. At best they could get a few degrees more than ‘across the wind’.

With the use of jib sails on the prow and between masts and a sloop sail at the rear they were able to improve this to a few more degrees. But the main emphasis was still on a multiple set of broad square sails. Why? When even then sailors knew that sloop rigging gave much more manoeuvrability; and one would think some considerable advantages.

Well, the answer lies back with the Sea Eagle compared with the Albatross. Even racing yachts are hampered by their narrow sails when the direction they want to go is ‘with the wind’. They have to rig huge sails known as spinnakers to get up any speed, but even then they sail slower than the wind speed. These spinnakers are difficult to handle; and nowhere near as efficient as the multiple ‘fingers’ of square sails that can be ‘reefed’ or hauled in, depending on the weather and wind strength, just as a Sea Eagle opens and closes its wing ‘fingers’ depending on conditions.

Sea Eagles rely on ‘updraughts’ for their gliding - the equivalent to sailing ‘with the wind’, as with ‘square riggers’ - and they soar to incredible heights. An Albatross out at sea does not have the luxury of ‘up-draughts’, but remains aloft by using air currents. Even the air current generated by large waves can be enough. And they can remain gliding in conditions that would see a Sea Eagle grounded, or in this case, ‘swamped’.

Conversely, an Albatross cannot perform where Sea Eagles excel - along the coastline where cliffs create ‘up-draughts’ with extreme sudden variables in wind speed that their long wings cannot handle.

‘Square riggers’ made use of ‘trade winds’ to sail the great oceans of the world, deliberately placing themselves in their path to take advantage of a tail wind to take them where they wanted to go and tolerating those situations that required manoeuvrability.

It's something of an irony that the reverse applies with the two great gliding birds of the sea. The 'square rigger' Sea Eagle is confined to the coast and the Albatross with its long narrow wings, is the great ocean-going sailing ship in nature's world.

Bird wings are shaped and styled according to the conditions in the niche in which they have evolved to exploit.

Jul - Aug 2003

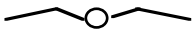
'...THE WIND BENEATH MY WINGS'.

My father, who had been a pilot in W.W. II, told me about wings and the physics involved that enables them to lift birds (and planes) off the ground and to fly. The shape, particularly the cross-sectional shape, is what does the lifting. Provided there is some wind or some forward motion, a wing gives 'lift', because the shape creates a partial vacuum over its top surface.

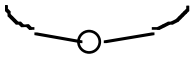
Even modern sailing boats use the same principle when 'sailing into the wind'. And in fact, this vacuum enables them to sail faster into the wind (actually a few degrees off a full head wind) than the wind speed. Much faster than sailing 'with the wind', as the sail, in effect, can be considered as a wing too.

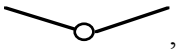
Now I mentioned my father as my primary source of information, because what he told me had set me thinking about wings in relation to birds as they glide. Dad had flown in the twin engined B25 Mitchell bombers, and told me they 'had the wings of a gliding Sea Gull'.

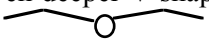
The wings of gliding birds can have some indication on part of their habits. What Dad told me concerns the configuration of the B25 bomber, as seen when it comes towards you.

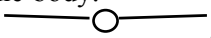
This aircraft and gliding Sea Gulls appear like this  .

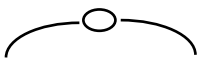
Initially rising as it goes from the body, then downwards about a third or half of the way out.

Wedge-tailed Eagles glide like this  .

A Brown Hawk (or Falcon) is –  , an even deeper V shape.

Yet Peregrine and most other Falcons are this –  , much like seagulls, but the downward curve is a little further from the body.

The configuration for some of the larger Kites is –  , while some others are much like Sea Gulls.

That of a Black Duck is –  , virtually opposite to that of the Wedge-tailed Eagle, except it is an even deeper, but opposite, curve down and curved along the entire wing.

Now, there is a reason for these shapes and their variation in different species. But why? And what are the reasons? Of course, the answer for each is – it gives the bird in each case some sort of advantage. So how does the advantage come; why is it needed? Dad also provided part of that answer too. The deep V shape provides good stability, but at the expense of much reduced speed.

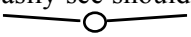
While the inverted V, as in many ducks, provides a considerable increase in speed, but at the expense of much reduced stability. The physics involved can be explained, but let's move straight to answering who needs what advantage and why.

The deep V pattern in Wedge-tailed Eagles is very notable and it's accentuated by

the extra up curve at the wing tips. Eagles that soar to gain height by making use of thermal up draught, don't need much forward speed. But these air currents are particularly notorious for their sudden variations, or turbulence, so stability is important to such birds.

But what of the opposite, an inverted and curved deep V configuration used by many duck species? In flight these types of duck don't glide - except when 'landing', 'pitching in' onto water. Even so, one would expect a need for stability in such a delicate required manoeuvre. Not these ducks! They come in like air to ground missiles, and with the sound of a 747 jet plane going close overhead. So much so that one's instinctive startle response causes you to duck (no pun intended) as they pass over at a few metres above you. But why? I believe it's because a slow and careful descent would place these birds at the mercy of their major, and once more numerous, predators – Falcons! When on the water a Falcon will no longer make an attempt. I have seen Teal and Black Ducks losing altitude from their powered flight by dropping vertically for some considerable time, then level out by adopting a short 'cork screw' flight path. And it's here, while 'cork screwing' that the noise of a jet plane passing overhead, begins.

Apart from some minor differences, we are now left to explain two wing patterns. The first pattern  , that of the Sea Gull, that of the twin engined B25 bomber, initially starting as a V then a down turn at the 'elbow' (or engine). A little of both virtues? First stability and then the shape for speed. In fact, in practice, proportionately more effect per unit area than in all straight wings in any position, which one can easily see should you watch Sea Gulls gliding for long enough.

This leaves us with  , a shallow or sometimes almost flat V shape. Which one may be thinking, 'why not have the advantages of the Sea Gull pattern?'. But the Sea Gull option does have one disadvantage – when the bird needs to start flapping the configuration dictates the first wing stroke must be up. While the very shallow V still allows for the first stroke to be down. From a gliding position there can be problems if the first stroke has to be up, as it will cause a rapid loss in altitude. Something that can only be risked in relatively open areas where there is also a reasonable distance to the ground.

Some Kites and Goshawks are stealth hunters, Goshawks in particular. That means they make use of 'cover' to approach their prey; and although the Sea Gull pattern appears to be a 'win-win' situation, it isn't for them, especially should the bird be flying through trees. Even so, they do like an initial faster glide, rather than having to accelerate from a relatively slow speed; so the shallower V glide is a reasonable compromise. However, when it comes to very close ground or low altitude hunters, such as Swamp and Spotted Harriers, the advantage of speed has to be dispensed with; and it's back to the deep V for such birds as these. They have to be fully prepared to produce a long down stroke for the first flap, and never compromise, as there is no margin for error.

Quite a range of activities and habits can be learnt, simply by observing flight and gliding habits. They can be useful for identification of a species too.

Mar - Apr 2009

THAT ONE DAY IN THE YEAR

'But are they all horrid, are you sure they are all horrid' (Jane Austen)

I grew up on a dairy farm at Finniss. It was a 450 acre property, with the Finniss River cutting through the middle; and as we owned land on both sides, we owned that section of the river. The house was part way up the slope on the south-west side, giving us an appealing view of the stream and across 'the flats' to the steep bare rise which defined the north-east side of the valley. The bottom of the rise marking our boundary. The river here was at 'lake level', and so it was sporadically lined with small swamps and lagoons. And covering about three quarters of 'the flats' were larger lagoons, samphire swamps and a vast area of reedbed swamp. The lagoons and reed beds extending on to neighbouring properties for several miles. Some of the samphire swamps were dotted in places with groves of huge lignum bushes, where one could find Emu Wrens. The water couch grew prolifically around the edges of the lagoons and areas of sedge, along with strawberry clover; until being replaced by a thin but broken border of reeds. Making the area excellent summer grazing for the cows, by supplementing the pasture of the remaining 'flats'.

Amongst the expanse of reed swamps there were tiny pockets of clear water; connected to the major lagoons by secret little channels, the tall reeds overhanging from each side, forming a tunnel. With some difficulty one could negotiate these waterways with a small canoe. Growing up here, you can guess which small boy knew the pathways to them all; and whose mother was both frustrated and furious when he came home covered in black swamp mud and soaked in water.

About fifty metres up from the river, and opposite the bridge my Grandfather had built for the cows to cross, was an old settlers' cottage. It was made from rough cut stones, mortared together with lime, and then plastered inside and out with a lime render. Apart from two small dilapidated timber and corrugated iron 'lean to' structures on each end, it only had one room. There was a fireplace, built outside the back wall (but opening into it), which was nearly a quarter as large as the room itself. The roof was corrugated iron, without a ceiling, but a few beams ran across from the tops of the walls, with iron hooks hanging from them. Stone and lime mortar made up the floor too, and on it were two trestles with an old door laid across as a table. We didn't make any use of this room - just left it as it was. But on two nights at the same time every year, there was a fire blazing in the great hearth, stretchers erected around the walls and a group of men sitting on camp chairs at the table. In the early hours of the morning, following that first night, the duck shooting season would open!

The men all knew my Dad well, some were old friends, and a couple had fought with him in New Guinea – but they never talked about that. Dad refused to be paid for the use of the cottage, but they knew he could not resist fruit, and it was usually my job to ferry the half cases of apples, tomatoes and bananas etc., up to the house. While Dad 'yarned' with them for hours and came in late for 'tea'. Even though I was only a boy, every one of them treated me with respect, and spoke to me as though I was a grown man. Because I was Charlie Endersby's son!

They were 'hard working men' from the city and this was the one day in the year that they all looked forward to. To gather together once more, inside that cottage 'on the farm'. in the country; cook a meal on the open fire and talk late into the night. Waiting with anticipation for the time when they would go out in the dark, and position themselves to be ready for 'first light'.

Dad always refused them access to the largest lagoon, immediately opposite the house and cottage, due to the desire to allow the ducks at least one place as refuge. And he had at some time tactfully let it be known that he disapproved of anyone taking over their 'bag limit'. They always respected both! But frequently looked wishfully at the flocks sitting on the water opposite – out of bounds.

From time to time, one of them would have a spare gun. and invite me to accompany him the following evening (after milking), prompted out of that respect and politeness they held for me. But they were rewarded by virtue of the fact that I knew the locations of those hidden little lagoons. And these were favourite places for ducks to 'pitch in' and feed, during the night. One day one of the men sold an old single barrel gun (for next to nothing) to Dad, and it became mine! As a result, quite a few ducks got a hard time throughout the rest of the season.

But there was more to it than just the shooting and the considerable skill it entails. Standing in the swamp, by a lagoon, in the evening as darkness crept in; looking at other birds, listening to the frogs or the booming call of a Bittern, and watching the stars coming out. With all one's senses keenly sharpened and alert, as you waited for the sound of circling ducks. Then the star light splash and ripple of water that momentarily gave their position away. Being so dark that brief moment was all you had to 'raise and fire' before the birds were lost in the blackness of the pond. Then that great explosion, a stab of flame and a thump in the shoulder that rocked one backwards, bringing on an abrupt but addictive sense of power. Yet, that aside, you take in more when one's senses are vigilant, and notice what normally goes unnoticed. It's not just the shooting that makes hunting so enjoyable, it's the feeling of being so alive every moment – alert to everything around you.

Then when I was out once with 'my gun' during the day, I stalked a small flock of ducks I had never seen before. So I slowly and silently moved in closer than 'gun range', to enable a better look. I got so close I couldn't shoot because any bird hit would have been a mangled pulp; so I just watched them. These were the days before any decent reference books or field guides, but a duck shooter told me (from my description) that they were Blue-billed Ducks. Being fascinated to learn of a bird that I was not familiar with, in a 'wetlands' that I thought I knew so well, prompted me to become a 'birdwatcher'. I was twelve years old! That was forty-two years ago, and I have never ever seen another Blue-billed Duck.

Jan - Feb 2005

BLOT OUT THE SUN

I go back in time, on occasions, and look at the past through the window of my memory; and like most people of my age, wonder at how quickly events have slipped by. And you would know too that many places that were once loved are now gone – changed so much that they are no longer there. Like that favourite spot at the beach, that is now covered with holiday or retirement houses. Or the stream you once caught yabbies in, has become just a series of stagnant pools. That little, out of the way, patch of scrub that grew orchids in the spring. You know the one! Down the back of what's-his-names's farm, the one that's now trampled and grazed out, because the new owner never bothered to maintain the fence. Those odd spots one took for granted then (when we were all much younger) – those places that are no longer there!

You mention them from time to time. Or take 'the kids', perhaps one's grandchildren to see it. But when you get to it, it's no longer like it was. So you try to tell them 'how good it was' and 'I wish you could have seen it back then'. It ends up sounding so morbidly hollow, and leaving one to speculate on what they might be thinking of you, as they can't see your memory of it! No matter how much you want them to; for them it's gone before it ever existed. Yet you were so close, so close to them getting to see it, as you did. Why, it was only twenty, maybe twenty-five years ago, it was all still there. That's not so long ago, is it? Not now at least! It doesn't seem so long ago now! While one forgets they haven't been around that long; haven't lived as long as your memory of something! Haven't lived long enough; as long as it took to disappear, never to return.

I remember, as a boy, reading about the extinction of the Passenger Pigeons in North America. Did you know about them? They flew past in flocks so immense they would blot out the sun for an hour or so. Perhaps longer! Flocks so dense that people just held up long poles, with birds unable to dodge, colliding and falling to the ground, to be turned into pigeon pie. So many birds, people couldn't believe, wouldn't believe their extinction possible, let alone so rapid.

It was one of those 'domino effects', that ultimately wiped them completely 'off the face of the earth'. Once the population in a flock was reduced to some point (a point not known and never will be now), the rest of the flock continued to decline to zero. Once the number of flocks was reduced to some level, all the flocks declined to zero. Hence their exit, once started, was rapid and irreversible.

Give or take a year or so, it was around the time I had read about this, that I witnessed a similar event. Not so dramatic and the birds are not extinct – yet! But I do fear for their future survival, as they continue to decline. I had walked up 'the sandy track' that wandered its way through the scrub on the neighbouring farms. It's a bitumen road now. On the edge of the Tookayerta Creek (which we called 'the Black Swamp') there was a picturesque area of Stringybarks, with an understorey of Saw-leaf Banksia with an occasional sprinkling of treeless low heath.

This was a year when the White-browed and their companion Masked Woodswallows had arrived to breed. And here they were in the tens of thousands, perhaps more. Every fork in every shrub or tree had a nest, from as low as two or three feet off the ground. While vast numbers of birds 'hawked' for insects in the air. But it was the scattered and comparatively bare areas that caught my attention. They were dappled with shade, as though covered by the canopy of the surrounding trees.

Like trees in the wind. This phenomenon was the result of so many Woodswallows flying above – between the sun and the ground. While those sitting on nests barely acknowledged my presence as everybody was too busy breeding or feeding, to concern themselves with intruders.

A few weeks later I wandered down that way again. I had expected the birds to have finished nesting and moved on; and yes, they were gone. But so was the scrub! It had been bulldozed into heaps, ready to be burnt. And the sandy ground it had grown in, where one could so easily find beautiful flowers and native orchids, growing in the spring, was planted with Veldt Grass – to run sheep! For a few moments I stood looking at it; not quite able to grasp any rational thought. The sky was a clear, empty cloudless silent dome of blue, but suddenly the sun had been blotted out!

Jul - Aug 2010

THE CHESTNUT QUAILTHRUSH

Quail-thrushes, as their name implies, have the appearance and behavioural traits that give one the impression that they are a cross between quails and thrushes. With regard to appearance, their shape and size is somewhat thrush like, while the plumage has that intricate blending of blacks, browns, greys and whites, that make up the excellent camouflage of typical quails. However, bear in mind that the popular Grey Thrush (whose melodious song is well known and delights many people) is actually a Shrike-Thrush and that the true Thrushes are not just a plain grey, but do have quite complex plumage arrangements.

Ornithologists are not satisfied with the term Shrike-Thrush, but use it for the want of a better one, while we 'non-scientists' drop the Shrike part of the name altogether, which then leads many to confusion with the true Thrushes.

So the name Thrush is one that is 'thrown about' fairly liberally and is also attached to four birds in a group known ornithologically as Rail Babblers. The 'Quail' part of the name has derived mainly through their habit of rising from the ground (when flushed) with a whirr of wings, flying a short distance and alighting on the ground again. Behaviour similar to that of Quails.

The Chestnut Quail Thrush found here on Moorunde is one of three subspecies, this one confined to the Murray Mallee of South Australia and Victoria, but it is a declining form, owing to extensive clearing. Unfortunately this species seems to require large areas of scrub to maintain an existence. Not that they need large areas to forage over, but because their habitat requirements are somewhat specialised. They have a dependence on what is termed 'climax mallee'. This means a viable habitat for them is one that has not been burnt or cleared or chopped down for at least 50 years. So the population on Moorunde is still in the 'recovery' state from when large areas were cut for charcoal. One should have no difficulty in realising why this species is rare in privately owned scrubs as they are frequently burnt or grazed out. However, those people who have reasonably large areas of dry mallee woodland that is still in its original state, can expect to find the Chestnut Quail-Thrush living there.

They are a species that blends with the country in which they live, in more ways than implied by their impeccable camouflage. Although they can be extremely hard to find due to their sedentary nature, simulating plumage and rarity, it seems to come as no surprise to see one on a hot day in the scrub. lt's as if they are meant to be there (which of course they are} as much as the stunted trees with their peeling bark and dead twigs, and their absence would denote some sinister meaning.

The discovery, although pleasing seems to be one of fulfilling an expectation. After tramping through the scrub for hours, there they are at last. Slinking through the understorey and keeping to the shaded areas. One's perception of the 'mallee' is now whole and fulfilled. Mallee scrubs typify much of what is native Australia and the Chestnut Quail-Thrush is an intricate part of that. Sadly, few people know of or have seen them and very little is known about them. A strange bird in unique and strange country. Neither properly understood.

Sep - Oct 1995

IT ISN'T CAIRNS OR THE GOLD COAST

Just for a change of theme, I would like to talk about a particular environment that has not received any mention in magazine articles on wildlife or in television documentaries. At least none that I have seen. And in talking to people it has become apparent to me that this particular habitat type is virtually unknown by South Australians. Although it is predominantly found in Queensland, many South Australians do visit that state, yet they pass it by unaware of its existence. Or in most cases the remnants, as it is possibly one of the most seriously threatened eco-systems in Australia. And sadly its disappearance is going unnoticed.

Mention to anybody (in S.A.) the Queensland Bottle Tree, and if one doesn't receive a blank look, the query comes, 'do you mean the Baobab Tree?'. No, I don't mean the Baobab Tree (Adansonia spp.). The Bottle Tree (Brachychiton spp.) is found in the south-eastern quarter of Queensland, and grows in ancient volcanic soils. In certain areas, of now cropping and grazing country, they can still be seen dotted about the paddocks around the districts of Mundubbera, Monto, Biloela, Banana and Theodore. And other places too, that escape my memory just now. They were too large for the clearing machinery of the day to be pulled over.

A good specimen of these trees looks just like a beer bottle. The bark is rough and extremely hard, while the 'wood' inside is a pulp filled with water. They are closely related to the more familiar Kurrajong Tree. At one time, on the Burnett Highway between Monto and Biloela, somebody had painted XXXX on a roadside tree. This being the brand name of a popular beer in Queensland.

Occasionally one can see, hanging from their boughs, an indication of the vegetation type they were once surrounded by. Prior to clearing! These are the leftover vines from the 'Dry Rainforest', known locally as 'Vine Scrub', or 'Softwood Scrub'. An ecosystem rich in numbers and variety of wildlife, that once covered many thousands of square kilometres, judging by how widespread the Bottle Trees are, but now only to be found in isolated pockets in the less accessible areas, most of them small and still dwindling in number and size.

My grandfather and later an uncle of mine once owned a property south-west of Monto, of about 400 hectares (1000 acres) at least half of which at the time was still uncleared. It was one of those undiscovered wonderlands, a paradise for anybody interested in nature and birds in particular. Most of the land was inside what appeared to be (and probably was) the crater of a huge extinct, eroded volcano; with the south-eastern side collapsed. And the district is in part of the Great Dividing Range. This gave the area a C-shaped configuration, reminiscent of a giant wagon wheel, the spokes of which were represented by high stony ridges with deep intervening gullies

with the ‘spokes’ running into a hub represented by land cleared for cultivation. The collapsed portion was also cleared.

A road, or more of a track really, wound its way around the broad rim, thick with tall straight forest trees with a bush under-storey. This approximately denoted the southern, western and northern boundary. Then about 400 acres swept away on the eastern side with a delightful view of the twin peaks of the ‘A camp’ mountains to the north-east. This area was largely cleared, but elegantly dotted with Iron Barks, Spotted Gums, Brigalows (Acacia spp.) and a magnificent Bottle Tree together with a handful of smaller ones.

As mentioned, the rim and collapsed section of the crater formed a giant C shape with the centre cleared and fenced into paddocks for cultivation. It was cut out here and there with old lava flows that now substituted for dry creeks. But as one moved away from the cultivated area you ran into steep wooded gullies and high stony ridges. The gullies contained Dry Rainforest (with Bottle Trees) that gradually gave way to tall forest as you ascended to the tops of the ridges. These ridges were covered in Iron Barks and Spotted Gums with a thin under-storey of shrubs. And so an Ecotone was formed at the transition on the slopes – a gradual decline in the thick Vine Scrub of the deep gullies to an increase in shrubbery on the upward slope, then eventually the tall straight forest type trees on the ridges. (Ecotone is the word given to areas where two habitat types meet; and are the richest places for wildlife).

Added to this was the ‘regrowth scrub’ that formed around the edges, between the undulating cleared land and the natural vegetation. On its own this regrowth was a bird-watcher’s paradise.

The homestead was a typical ‘Queenslander’ (house on stilts) situated on a lesser slope on the southern side commanding a view of the spoke-like ridges with their intervening gullies and the centre hub of cleared land. But even this cleared area was fascinating, as it was mostly tall grassland, dotted with groves of Brigalow Trees and with patches of ‘Dry Wetland’ in the lower ground. Early in the mornings the mist would rise from these lowlands, hovering still and silent under an absolute clear blue sky and total calm atmosphere. Disturbed by the persistent woop, woop, woop call of the Swamp Pheasants in the tall grass; the indescribable haunting flute of Pied Currawongs from the forest and a rasping note from a flock of Apostle Birds in a grove of Brigalows.

Inside the ‘Vine Scrub’ were Pittas, Whipbirds, Logrunners, Scrub Wrens, Rufous Fantails, Regent Bower-birds, Brush Turkeys and much much more. In places the vegetation was so dense one had to get down on your stomach and ‘worm’ your way along a Wallaby track, several species of which made their home here and on the ridges. You would hear them hopping effortlessly away as you struggled with the dense grey vines tangling throughout the shrubs and hanging from the taller trees. Cursing as you freed yourself from the clasping thorns of a ‘Wait-a-while bush’. But, being ‘Dry Rainforest’, the prevailing colour was grey, rather than green and the canopy less dense than in true ‘Rainforest’. I could go on for pages to describe all this.

But not any more. A few years before my uncle died, he sold this lost paradise to a wealthy station owner. The gully sides were so steep that a second bulldozer was required to winch back the one pushing down the scrub as it descended to the bottom. Grass was sown by broadcasting from a plane and after it had grown, reseeded and dried off, it was set on fire. This effectively killed any regrowth from the scrub.

And now, a place I frequented in my younger days and often dreamt of revisiting, no longer exists. I missed seeing it one last time, and showing it to my children, by just over a year. They got to see ‘pockets’ of it, left over before the cattle grazing demolished it all. Sadly, much much more sadly, you missed seeing it altogether!

Nov - Dec 2002

GREY THRUSH

Colluricincla harmonica (Colluricincla; Greek, meaning shrike bird – harmonica; Latin, meaning harmonious). The Grey Thrush or as some prefer, the Grey Shrike-thrush. Also called Harmonious Thrush, Native Thrush and Whistling Dick.

Its song makes it one of the most esteemed birds; and as there is a subspecies (the Western Shrike-thrush – Colluricincla harmonica rufiventris) taking up the western parts of Australia, it can be found throughout the country.

The Grey Thrush is not particularly choosy about where it lives; any forest woodland or parks and gardens will usually do. So it is a well-known and distributed bird and loved by everybody interested in natural history. And yet, perhaps due to its persistent springtime song, most bird-watchers tend to give it only a passing glance out in the bush. Knowing it by its call, a close look is not necessary to identify it; also, it is not adorned with any striking features.

The juveniles are quite different and I have even heard of some experienced bird-watchers thinking they have sighted a Bristle-bird! Their plumage is similar to that of the female English Blackbird; a dark brown/grey streaked with darker brown. However, the juvenile Thrush is distinguished by having a brown eye ring and as with adult birds, it is quite tame, whereas Blackbirds are wary to the extreme and when startled, fly off uttering a nasty sounding squawk. Despite Blackbirds having a melodious song they never become tame, and are ardent bullies. They drive many other native birds from their habitats and from people's gardens and will even pick fights with Magpies.

To me, the most endearing factor with the Grey Thrush is the way they seem to like being about people. In one's garden they become extremely tame. Provided you have no cats about, move around slowly and quietly, they will go about their affairs as though you are part of their domain and not alien to them. A bird that allows you 'to reach out and touch' nature itself. They will nest in the gables of your shed or patio and mostly ignore you as one works there. They hunt in your trees and shrubs and stay as one walks past. As you go around or sit down outside they will call and add their music to your life. Few other birds are quite like this; it's something of an irony that such a basically plain grey bird can achieve so much in people's hearts.

There are birds that sing much better and others much more colourful too. There are other birds that become quite tame around your house or in the bush, but as you sip your coffee in your favourite chair outside in the sun and hear this bird sing, you think to yourself – 'Ah, that's my Thrush calling'

Jan - Feb 2000.

APOSTLE BIRDS AND THE WALLS OF JERICHO

'So the people shouted when the priests blew with the trumpets: and it came to pass, when the people heard the sound of the trumpet, and the people shouted with a great shout, that the wall fell down flat, so that the people went up into the city, every man straight before him, and they took the city'. Joshua 6:20

The subsequent description of the carnage that took place after the 'children of Israel' captured Jericho makes the Egyptians and their Pharaoh look like 'saints dipped in Omo' and confirms my idea that there is no right side and wrong side in war, just winners maybe, losers always, and then the living make up their own minds where to allot their morals. But enough of religion and war, because mostly, too often in fact, the two go together.

I want to talk about my Grandfather and give you a sample of the jokes he frequently told. He preferred the more long-winded ones to give himself time to roll a smoke as the joke was told.

I only wish you could, in your imagination, picture what I see in my memory. Somewhere we are working together on his once beautiful farm, in Queensland and nowhere on it are you out of sight of the surrounding forest if not actually in it.

Grandfather's beautiful farm in Queensland, now just a memory and an image on an old photograph.

The forest has now been cleared by the new owner. I'm about ten or twelve years old, but Pop's age is a mystery to me then. Even now there is something timeless about him, partly because my time with him only amounted to fairly long but sporadic visits when Dad took Mum back to see her parents and partly because I never saw him grow old, lung cancer having moved in first!

But today we are putting in a new fence, not far from a grove of Brigalow trees, where the Apostle-birds are squawking and whistling with gravel throats, arguing amongst themselves, while trying to get at our lunch which is securely packed because of them. Pop gives the post hole one last ram with the crowbar and then leans it against the now planted post. At the same time his hand goes around to his hip pocket and I know already, we won't be having lunch until after he lights up and the joke is told.

Back when I went to school, with just one teacher, and, of course, Pop too, one double lesson per week was for Religious Instruction and I still don't know if that's good or bad. But what you need to know to follow the joke, is that we did have the local minister to the schools, once a week. We also had school Inspectors come around from time to time. And for some reason, I was then too naive to realise that despite what the teacher led us to believe, the Inspector wasn't really there to check on us.

Yet to follow the joke one has to be, at least in your imagination, as naive as I was, because, as the tobacco tin opens...***'the Inspector strolls into the classroom'.*** Then while the tobacco is pinched out and rubbed... '***the Inspector starts asking the class various questions'***. To me, back then, even the questions were a little amusing, coming from a mouth with a cigarette paper stuck to the bottom lip; as Pop rolls the

tobacco into a loose ball. Then the tobacco is laid on the paper and is being teased out... ***'the Inspector decides to check on the students' religious training'.***

Both fingers are working the tobacco along the paper and... ***'the Inspector asks, "Who broke down the walls of Jericho?" and all but one student put up their hands'.*** Now, I don't know about you, but teachers, and Inspectors, in my day always picked on some poor student who didn't have their hand up! These days I would know what to say to them, and how to phrase the reply too, but sadly, back then...!! Perhaps it's for the best that I didn't know back then! What do you think?

Inspectors were always ex-teachers, so they behaved the same way. And as the tobacco is tamped down a bit, ***'he demands an answer from poor little Johnny, by means of a stern and unrelenting stare'***.

Pop's fingers are dry from calluses, so to 'roll' he has to lick them and each thumb... ***'Poor little Johnny looks up and stammers out "It wasn't me Sir"'***. Pop never liked to waste tobacco in the butt, so the burn end is rolled thicker than the other. ***'The Inspector looks at the teacher with something like disgust, at this reply'.*** While the paper rolls back and forth over the tobacco... ***'and the teacher insists the boy is honest, and would never lie about something like that'***. There is a premature chuckle from deep in Pop's throat as he decides the rolling is correct... ***'and the Inspector strides from the room'.***

I hand Pop a mug of water, because I already know his tongue will be too dry to lick the glue strip... ***'While the Inspector wants to know, "What's going on here?" from the Headmaster. The Headmaster claims he doesn't know the boy'***... and after the glue strip is licked... ***'he points out that the teacher is one of his best and would know if the boy was lying!'*** And a thumb and finger smoothes out the treacherous white stem... ***'With the Inspector driving away, back to head office'***.

The 'smoke' is slipped into a corner of Pop's mouth and then huge dark tanned hands 'pat around' for the box of matches. ***'While the Inspector is reading a reply to his correspondence, from the Minister of Education'.*** The match is in Pop's right hand... ***'while the Inspector fumes'***. a low chuckle emanates again in anticipation. The 'smoke' is alight and a cloud of it hangs listlessly under the hot sun.

The Apostle-birds temporarily fly off a metre or two as we stroll to the shade,... ***'with the Minister for Education's words prompting disgust from the reader. "Dear Sir etc. etc. I do believe we are making a mountain out of a molehill," the Minister writes'***. At the edge of the shade, the first puff of inhaled smokes comes out, while... ***"the Minister goes on, 'I think the best thing to do is to just compensate the owner of the wall (this Jericho chap) for the damage and leave the matter there'.***

The sunlight shines through the bow in Pop's 'saddle set legs', once again reminding me he is so much like some characters in Henry Lawson's books and stories. To look at, and to listen to. And his chuckle goes all the way down the bowed legs to his boots.

Tell me now, why does this story, with its humorous little joke included, bring tears to me, every time I recall those moments, so long ago. And why is it so disappointing for me, that you were not there too? Sipping hot tea in the shade of the Brigalows and eating sandwiches.

With Apostle-birds squawking, squabbling and flapping greedily over the bits of bread we toss them.

Just like Joshua and his mates after the walls of Jericho fall. Only last week, and then again tomorrow and again and again, since time itself begins and ends! While here in Australia, and some other countries too, we struggle to protect what remains of the natural world; and only remember our history! Not relive it day after day. In doing what we do in places like Moorunde and others, we can see where they have gone wrong. They fight over land there because they want it for themselves, in the name of God and their religion. Better to preserve what's left of it, the way it was as we found it, knowing that therein lies the answer to attaining peace!

Sep - Oct 2010

"WHAT A BURKE"

We still see 'the Burke and Wills' expedition, which set out to cross Australia from south to north, as a tragic disaster. Even though it occurred about 150 years ago. Yet the phrase 'even though' has connotations of being a long time ago; but it isn't really. Not all that long, when one takes into account that quite a number of people reach 90 years or more. In historical terms just a flash in time! It's the legacy of a country only recently settled (by European people) and our history is comparatively short. With the aura of a recent pioneering past still lingering. And back then, as the expedition was just setting out on a great adventure into the interior of the continent; it was seen as a venture into a vast, ghastly, unknown blank. And it was! With a thin arc of civilisation virtually hugging the coastal areas.

Isolation put pressure on the colonies to establish a link to the rest of the civilised world; and this meant exploring an unknown country, with a view to settling and civilising it too, But how!? So the idea of crossing the continent for the first time and establish a route for a telegraph line to the north coast started to emerge. And the influential residents of Melbourne formulated a plan; send out an expedition to the north to put Melbourne at the forefront of development and exploration in Australia.

One must understand that all of the colonies were far from thinking in terms of making Australia one nation, which seems strange now, but it wasn't then. Inter-colonial jealousies and rivalry was rampant and dominated at this time in our history. And by the time Melbourne's community leaders started planning an expedition, competition from South Australia loomed as a threat to Victoria's state pride. A determined and remarkably astute bushman/explorer in the person of Stuart looked like snatching the prize of prestige from them. This could not be allowed to happen! The pressure was on! Melbourne quickly raised funds to equip the finest expedition ever to set out to 'explore the inland of Australia'.

In fitting out this expedition 'no stone was left unturned'; virtually 'no expense was spared', from camels to scientific equipment. Natural History was to be high on the expected activities, with men appointed specially for this too. It was intended to not only be the rival of South Australia but to do it in style. Not only in crossing the continent but to come back with a vast array of knowledge; to put Melbourne 'on the map'! The impoverished and alcoholic Stuart wasn't going to best them. And it's here, right here, that (unknowingly at the time) the die was cast and disaster assured. As there is no room, no forgiving in Australian exploration, even to this day. But back then, all everybody saw was the confident collecting of men, equipment and suitable pack and draft animals. It all looked splendid and expensive and well equipped to the task. All were lulled into thinking great plans and expensive equipment ensured success. Nobody took notice that on the first day of this massive expedition setting out, only a few miles were covered before it was time to stop and camp for the night. One could easily ride back to spend the first few nights in a bed in Melbourne!

In the meantime Stuart had returned from one of several attempts, that started in Adelaide; but only to prepare and refit for another try. Stuart only had horses and the great string of dry salt lakes in northern South Australia kept on as a barrier. While the Victorians had acquired camels which could go longer without water and carry a much heavier load of supplies. But Stuart travelled light and had no illusions on how tough the interior was. He only moved further north from camp site to camp site after scouting for the next water source; and kept risks to manageable proportions. And this was the essential deciding difference, the characters, skills and experience of the two opposing leaders were poles apart.

But I don't think Burke was the wrong choice, made by the Melbourne Exploration Committee. As opposed to general popular belief. Burke had to be very different in temperament if he was to beat Stuart's persistent attempts.

I'm convinced the faults in leadership stemmed from the Committee itself; and of all the mistakes they made, the appointment of Burke as expedition leader was not one of them. They wanted somebody to beat the South Australians and in effect the expectations on the Committee's part was to achieve the impossible. Not because of Stuart. No! It was the unknown terrain Burke was expected to cross, in haste, that was the real contest. Burke, during his interview for the appointment and subsequent orders prior to setting out was left in no doubt, that haste was paramount. This Committee would never have given the job to a Stuart – he would be too cautious, too careful and therefore too slow. They had to have a different sort of man and gambled on that strategy being right.

Burke was just the man they were looking for! Yes I know (and as the saying goes) he 'couldn't find his way out of a wet paper bag' when it came to the skills of a bushman. That didn't matter! As Burke was an inspiring leader and he knew how to delegate tasks. Wills would do the navigating, just as others (and not Burke) would be in charge of the camels and bullock wagons of equipment and supplies. Leaving Burke to do exactly what the Committee wanted him to do – push forward at all speed. And it's in his orders, both verbal and written that the beginnings of disaster can be found; as how can one push on quickly when your leadership was also hampered by the huge train of pack animals and bullock wagons?

The quality of Burke's leadership skills are illustrated on the push north from Coopers Creek, with Wills, King and Grey. There was only one instance of serious disagreement here (for the entire four months) when Grey was caught stealing extra rations on the return journey. He was dying, but the others weren't aware of this, as they were all 'bone weary'; and Burke gave Grey a thrashing. But when Grey died, the small exhausted party still retained enough consideration and compassion to spend eight hours scraping out a shallow grave in the hot hard ground to bury him. And it's in this effort, for the dignity towards a fallen comrade, that their fate was sealed.

Had they not bothered to give Grey 'a decent burial' they would not have lost these critical eight hours. Those eight hours that would have seen them return in time to the depot at Coopers Creek; to rejoin the party waiting for their return. The depot party that had just left that same day, eight hours before Burke and his men arrived back.

The famous 'Dig Tree' near Innamincka on Coopers Creek, which the depot party had left eight hours before Burke returned.

That..is, that was, 'a bitter pill to swallow'! And the morale of the three remaining men took a heavy toll.

When their supply of food ran out and the last remaining camel died they experienced the real meaning of destitute! But Burke steadfastly refused help from the aborigines living along the Cooper. Had his attitude been less defiant they may still have survived, as in fact King did; and it's hard not to think of Burke being stupid here. Yet once again people miss the point and fall short in their estimations on what

motivates others. One needs to take into account Burke's firmly held sense of obligation to his employers – the Committee! Not to mention the whole population of Melbourne and the pride of Victoria. Yes, Burke was (from the point of view of surviving from here on) the wrong man for the task of leader. But for Burke, that wasn't the point! He had to prove, not only for himself, but for the cause of civilisation, despite its dogmatic snobbery, that they had achieved what they set out to do. And it was to show-case to the world, modern technology could triumph; and not have to resort to begging and scraping to a 'bunch of primitive (stone age) tribes' to simply survive. Burke knew that he (and the Committee) could not be seen returning; could never be seen returning, after scraping and begging 'to the natives'; oh no, no, this was the great expedition, the best modern man could send out. The Melbourne expedition that was to prove to the world that 'we can achieve great things ourselves' – which wasn't the case if primitive intervention was needed. What fools they would have looked when this already famous expedition had to, needed to, accept help from 'a bunch of naked blacks'; no, no, that wouldn't do!

Burke put his entrenched expectations (those that the Committee noted at his interview) of being a true English Gentleman*, civilised and technologically superior, before all else. He would never (even at the cost of his, and other's lives) be able to face a triumphant return welcome if it were known he had to stoop to primitive charity, to achieve his task. And many people have died for much less!! Getting back to Melbourne alive wasn't the point. Getting back (as expected) in style and established triumph was. This is what the Committee saw in Burke, the determination to achieve, or die in trying – and they were right!

And so (except for King) they died in their attempt; and it's significant that Wills never once questions or thought to question Burke's orders. He remained faithful to Burke to his death; and this fact passes unnoticed. But it shouldn't be! There had to be a reason why King, Grey and Wills followed Burke almost admiringly into a virtual hell – alone and into the unknown interior of Australia during mid summer! Without even a dream of mutiny or a single thought of dissent in their diaries. Nobody, nobody achieves this loyalty, this almost complete devotion (from three separate men) for somebody 'who is just a Burke'! Recognised qualities have to come with that loyalty these men displayed. Especially as Burke was not a good bushman and did depend on Wills for navigation.

But that's just it you see! Delegating tasks alone won't manage it, but allowing people to see they are needed for their skills will. And so, the Melbourne Committee did choose the right man for the job. But they made one big fatal mistake. Burke had the responsibility for the entire leadership virtually dumped on him. He was (to coin a phrase) a tactician, the right man for, and to lead, that final push forward and eventually to take the prize for Victoria. What the Committee didn't do was to select logistical support leaders. Somebody capable to oversee the lumbering train of wagons and camels. Somebody to cover Burke's backup; capable and reliable enough to push further north to establish another depot beyond Coopers Creek. So that the advance party could be relieved earlier on their return. And there were suitable men to be found in the colony to do this. Such as the leaders of the belated rescue expeditions that found King, still alive.

But no! It all started to 'fall apart at the seams' from that first day of departure and everybody started 'ducking for cover' as the stupidity was laid bare. And it's always easier to put the blame for it on just one man. Especially if he is dead and can't defend his reputation. So we continue to stain the man to this day; and I don't believe he deserves that – but then, 'deserve has nothing to do with it'. And in that I know all too well the cruel truth.

NATURAL HISTORY'S UNKNOWN HERO

To have an enquiring mind and an interest in anything that happens in the natural world is my definition of a Naturalist or Natural Historian. And then by default a conservationist.

Today's heroes are Olympic swimmers, accomplished cricketers, footballers and television personalities. But there was a time when it meant something else; and back in the latter half of the 18th century there was such a person. His observations and notes on nature were overshadowed by his other achievements and those of another man who became a lifelong friend and sparked his interest into becoming an amateur naturalist and anthropologist.

Few people realise that First Lieutenant* James Cook ('Captain' of the ship Endeavour) was a genius and one of the world's greatest (at the time) scientists; and the world's greatest Seaman/Navigator of all time. He was also a keen and accomplished Naturalist. Few people realise that he never attained the rank of Captain and at the time of his death had progressed only to that of Post-Captain.

It would not have mattered how long he lived, he would, in those days, never be a full Captain. You see his father was a farm labourer, by the name of James Cook and his mother's name was Grace. Not Sir James and Lady Grace Cook!! And it is not until one realises the full implications of this bias and prejudice of the time can you begin to appreciate just how much this man achieved.

To start life (in 1728) at the very bottom of society's rung, and then, at the time of your death, have the countries of the entire Western World (friend or foe) mourn your death...! Even President Kennedy had thousands of people cheering when he died. Except for the Hawaiians that killed Cook (who were later ashamed and also grieved) almost the entire known world wept with England and King George III, at the news of his death.

There are about two hundred or more monuments and memorials all around the world; with a submerged plate on the actual spot he was killed, being a place of pilgrimage. His cottage was relocated to Melbourne, as a gift to the people of Victoria. I am unaware of anybody else who has attained that sort of achievement and acclaim. And one doesn't get it by just being very good at what you do.

The current popular misconceptions about James Cook run into quite a list. Due to space restrictions I'm reluctantly forced to be brief rather than descriptive. On Cook's second voyage**, he had been promoted to Commander. On board his ship 'Resolution', he took several chronometers (precision made time keepers). Once again most people think this gave Cook advantages over other previous navigators. But in fact the 'Board of Longitude' wanted Cook to use them to test their suitability on board a ship. And in fact, during a stopover at the Cape of Good Hope, Cook calculated that the best one was 9 1/2 minutes out!

To be a 'Commissioned Officer' in the Royal Navy of the time, one had to be born from a family of 'substance', and seamanship came second. At the moment of Cook's promotion to First Lieutenant, he became the only commissioned officer who was collectively a competent navigator, astronomer, surveyor, cartographer and mathematician in the Navy.*** One of only a few people in the world capable of computing accurately, the time, from sightings through a sextant of the moon or

** Lieutenant - for the correct English and Australian pronunciation, phonetic spelling is Lef-ten-ant. Americans pronounce it as it is spelt.*

*** As a ship's Master (ship's Navigator) Cook had already made quite notable discoveries and achievements; prior to his three famous voyages.*

****Navigation was done by the Ship's Master (or Warrant Officer) a non commissioned officer; and good navigators were therefore not promoted as their skills were then lost.*

stars and using a complex set of equations. Although others knew the process, the mathematics was so complex it was extremely difficult to get an accurate answer and hence a true fix on one's longitude. And therefore Cook was the only commissioned officer qualified to test the new chronometers!

The 'Lords of the Admiralty' knew this and in recognising Cook's genius were prepared to 'swallow their pride' and promote a Warrant Officer of common birth for the sake of England's reputation as the 'greatest seafaring Nation'. This point quashes the idea that having the chronometers gave Cook an advantage over other previous navigators. He gave the future navigators an advantage by calculating which was the best type of chronometer and its accuracy!

Now to the misconception of Captain Cook discovering Australia. And I was shocked to hear from some people that they learnt this at school, of all places! On his first voyage, after observing the transit of Venus on Tahiti, Cook opened his sealed orders. He was to sail south to latitude 40°S and search for Terra Australis Incognita, the supposed great southern land. Modern Australia was referred to in those days as New Holland; and all the European countries had known of its existence for over 150 years. Australia (New Holland) was not and is not the Great Southern Continent Cook or anybody else was looking for!! Everybody knew of Australia (New Holland).

If Cook didn't find land at or below 40°S, he was to proceed to New Zealand (seen by Tasman, who was lost 125 years earlier). Cook's orders were to establish if it was an island or a peninsula of the supposed Southern Continent. In either case the Admiralty wanted the coastline to be charted. The orders then allowed Cook to use his own discretion in returning home.

The sails and rigging were becoming rotten and too risky for the storms around Cape Horn, so it was decided to sail west from New Zealand with the aim of reaching Van Diemen's Land (now Tasmania), at the point where Tasman had left it. Then turn north and chart the coast of New Holland from there on. However, due to a storm, the island was missed and the first sighting of New Holland was at Cape Everard (Victoria). So Cook did discover the east coast of (modern day) Australia. That last sentence alone sets James Cook apart from almost all the other 'Ship's Captains' and therefore their Masters (navigators) of the time. Cook didn't just find places, he accurately marked their position and mapped their coastlines as well!!

Now getting back to his second great voyage as a 'Ship's Captain'. Commander Cook in the 'Resolution', was sent specifically to search for the 'Great Southern Continent', <u>below</u> New Holland. In doing so he was the first man to cross the Antarctic Circle at latitude 66° 35' S, on 17 January 1773.

He did this three times and on his third attempt reached latitude 71° 10' S before solid packice blocked the ship off. On each attempt the sails froze to stiff boards. The rigging went stiff with ice and the pulley blocks were choked and frozen stiff. So he was forced to turn back and the icebergs were so thick below latitude 60° S that the circumnavigation of the South Pole was made generally around or north of this latitude. But he was still the first navigator to achieve it. Antarctica has an area of 5,300,000 square miles, (compared to Australia's area of 2,971,081 square miles} and could therefore qualify as the 'Great Southern Land'. So paradoxically, had Cook been able to at least get close enough to see dry land, it could have been said that he had discovered it too. Could those huge icebergs, seen through the fog, be a mountain range? Or were they just more icebergs?

When Post-Captain James Cook (Captain of the 'Resolution') died, while searching for the North-West Passage; he had explored more of the earth's surface than any other person, before or since. He discovered and mapped more than anyone else; and all this was done in a little wooden tub, barely longer or heavier than some modern 'blue water' racing yachts. But without the back-up rescue teams, and in a vast unknown area of the world! Weaving through dense packs of icebergs or coral

reefs without a back-up auxiliary motor. And without any hope of rescue if it all went wrong. There was no television crew to witness his death, when it did come, just a few desperate shipmates wondering if they were going to be next!!

Given the knowledge, technology, instruments and equipment of the times; any one of the three voyages was an achievement exceeding that of sending a man to the moon! And one also has to take into account the discoveries as a navigator or Ship's Master. So it's no wonder that people barely take notice of his informative notes and observations on Natural History. And in a way that is sad, because he was amazed at the number and varieties of species to be seen at the time. But among his notes are predictions of the destruction and demise of nearly everything he observed. And his predictions proved to be correct. His notes are heavily tinged with regrets, as though he could already foresee the slaughter of the whales and seals, the total collapse of the Polynesian and Aboriginal cultures along with the vegetation and wildlife. It's almost as if he knew what was to follow in the wake of his discoveries and regretted making them.

For over 200 years we took no notice of this accomplished Naturalist; and even mixed up a good part of his life history as well. Now look where that has got us!

I think by default that makes Captain James Cook arguably the world's first Conservationist.

Jul - Aug 2007

‘QUEENSLAND – BEAUTIFUL ONE DAY...’

A few years after I started birdwatching, I took a bus trip to Queensland; and stayed with friends and relatives. My first stopoff was in Bundaberg. One day my Aunt took me out to a little coastal resort called Moore Park, about twenty kilometres north. Just a few kilometres prior to this place we crossed a tidal creek that was full of mangrove trees. Here we turned off the main road and stopped on a ‘two wheel’ bush track that wound its way through a large area of coastal scrub.

It ran roughly parallel to the creek which, at this point, expanded and became a swamp. It was a delightful area and, for birdwatchers, a ‘paradise’. In the tall grass on the roadside I saw Red-backed Fairy Wrens for the first time. So I was off to a good start.

Where two habitats meet you have what is called an ecotone; and in this spot, with the coastal scrub meeting the mangrove swamp it was a classic. At an ecotone the diversity of life increases well out of proportion to separate single habitat types. Hence the ‘birdwatchers’ paradise’. Almost everything I saw was new and I became equally frustrated, frantic and impatient with the chore of writing down a list of sightings. But I had done my ‘homework’ by studying species I was likely to encounter, prior to my trip. So at least I had relieved myself of the added burden of referring to my ‘field guides’. In addition to the Red-backed Wrens, there were birds such as Forest Kingfishers, Little and Plumed Egrets, Spangled Drongos, Satin Flycatchers, Friar Birds, Fig-birds, Dollar-birds, Varied Trillers, Red-crowned Pigeons, Orioles and a Red-backed Sea Eagle, just to name a few.

I returned about five years later; this time alone, and in my own car, so I could stay as long as I pleased; and spend time uninterrupted. The track didn’t reach the beach, as the mangrove swamp fanned out along the coast. But there was a little cleared area where it terminated, with a spot to launch small boats. I parked my car here and ‘pottered about’, taking in the ‘atmosphere’ while listening to the mesmerising flute-like call of a Pied Butcher-bird. And taking in the sights of birds one doesn’t get to see in South Australia. There were a few old familiars of course to help ‘keep your feet on the ground’ and not get too ‘carried away’.

But what an enchanting place to lounge back and relax and have a cup of coffee. While one watched the water birds in the swamp and listen to the calls of bush birds all around. Occasionally catching a splash of bright colours darting through the scrub in the shafts of sunlight that penetrated the canopy of trees.

About fifteen years ago I had another opportunity to go back there; and this time I had my three children with me. Of course I had to take them out to see this beautiful place.

It had been a long time since I was last there, but such a place becomes entrenched in one’s memory, so I was confident of easily finding it. But it was not so easy! I drove past twice before realising where it was; and I emphasise ‘where it was’, because it wasn’t there any more! The scrub had been cleared and the mangrove swamp had a deep drain in the centre, dug along its entire length. Most of the area cleared of scrub had holiday houses and flats, with the remainder highlighted with estate agents’ ‘for sale’ signs,

There was a thin margin of scrub along the edge of the now struggling mangroves, and in a few places one could see the remnants of the little bush track. A new bridge spanned the creek, the road was wider and lined with gravel, replacing the tall grass where I had first seen the Red-backed Wrens.

Yes, Queensland beautiful one day, but developed the next!

Nov - Dec 2004

TEAMWORK

Statistically of course, most of the advantages lie with the Homing Pigeon and Peregrine Falcons have to work hard for a meal. Of all the Falcon pursuits I have witnessed, at least 70% have been unsuccessful not counting those that go out of view prior to a conclusion. Over forty years I have not seen all that many and probably most people see none at all. So I thought I might write a little of an incident I witnessed a long time ago.

The pigeon saw the larger female and took evasive action. But, in doing so, jettisoned most of its advantages; and in any case the falcon could not have caught her prey from the position she was in. By turning off course, the pigeon was now flying away from the shelter of a patch of nearby trees. By increasing speed it would tire and the option for the advantageous last second's burst of speed was lost.

It didn't see the hunter's smaller mate, far above, in the sun! And when it eventually did, its stalker was already launched on a pursuit path with a steep and favourable incline. The revelation startled the pigeon into an evasive dodge for another clump of trees, resulting in a reduction of the distance between the two and 'tipping off' the falcon, prematurely, to its intended flight plan. I guessed that this action set its fate and I rushed for a better vantage point.

First impressions would indicate to most that Peregrine Falcons would have the advantages and the game all 'sewn up' in the pursuit or pursued stakes. But I feel this sentiment stems more from the perceptions of the Falcon's speed, than on facts. Over a long distance Homing Pigeons are in fact by far the fastest of the two, being known to reach speeds of 150 kilometres per hour and more. Even running 'neck to neck' on a short stretch they can probably hold their own. In hunting Homing Pigeons (which are not their favourite prey) the Falcon relies on a 'power dive' to outstrip them. And of the two, the pigeon is the more manoeuvrable, making even the power dive approach somewhat dubious!

However, successful dodging of a pursuer does rely on timing, which in turn relies on keeping the pursued in sight at all times. And this is where the Falcons gained one advantage as just illustrated. With a little subterfuge the real pursuit from above was not noticed until it was already well under way. But a successful last moment dodge was still on the cards until it gave away that intention too early.

Falcons are 'built' for capturing their prey by means of 'in air' pursuit. This does entail speed, amongst other factors. But speed comes in a variety of contexts (over long or short distances, in a dive through trees, for example) and gains in one area are usually at the expense of others. The wings on a falcon are long in proportion to their width and they taper quite rapidly from base to tip. This enables the bird to flap them rapidly for acceleration, to maintain an optimum aerodynamic shape when drawn in close and to withstand high levels of sudden pressure when opened. The largest surface area is close to the muscles (on the breast) and therefore requiring less effort to hold. But this effectively limits the top speed, so you see, falcons are really built for acceleration as a first priority.

Just moments after the pigeon's second dodge for shelter (fortuitously bringing it closer to me) the male falcon stopped flapping. It pulled its wings in close and plunged through the air like a bolt from a crossbow. He dropped behind and below, consequently out of sight for the pigeon – then reopened its wings. The falcon sheared off the enormous pressure thus generated from its downward plunge. This enormous pressure propelled the bird towards its prey with incredible velocity and there was no time to dodge.

Then the wings closed again, the falcon rolled and feathers burst from the pigeon as the two birds became locked together. At the moment of contact the pigeon's wings stopped and they went into free fall together. But only for a fraction of a second. Then the falcon disengaged and flew off and the two disappeared from view

behind some trees. Moments later I saw the female falcon fly over the same trees and disappear as well, to join in on the meal.

Jul - Aug 2002

MY FAVOURITE BIRD MOORUNDE?

In the forty or so years that I have been 'bird watching' nobody has ever asked me 'what is my favourite bird?' Which is just as well, because I don't have one! Although I do have a number of favourites. Some of these are not found on Moorunde so I will exclude them them in this discussion.

The problem is, how does one arrive at a favourite? Plenty of people have favourite colours, numbers, cars, songs, singers and sporting teams etc. And in most cases (not all, but most) there is no rational reason for their choice.

However, for my favourites (in birds on Moorunde) I am going to try and 'break it down' to some form of rational processing.

To do this we must look at a range of facets about these birds.

And this is what I have come up with –

1. Colour,
2. Song,
3. Call, as opposed to song
4. Camouflage, as opposed to colour,
5. Character,
6. History and
7. Nostalgia.

That's seven characteristics, which is the population's most common favourite number.

1. Colour. There are quite a few beautifully coloured birds to be seen on Moorunde. Mallee Ringnecked and Mulga Parrots, Black-backed (Splendid) and Variegated Wrens, Golden Whistlers, Mistletoe Birds, Crimson Chats, Red-capped Robins and so on. Of all these, in this instance, the choice for me is easy. Without a shadow of doubt the most outstanding is the Black-backed (Splendid) Wren. The male in full breeding plumage is (except for a small black saddle) resplendent in feathers of sapphire and blue opal. And just like these jewels, it literally glows in the sunshine. These colours virtually cover its whole body, as opposed to the more common Superb Blue Wren (not found on Moorunde) that has quite a large portion of dull grey on 'the underside', that extends from its chest to its tail. In addition to this, because of its shape and size, it doesn't appear over done or gaudy, like the colours of the Rainbow Lorrikeet, for example.

2. Song. Those who know and listen to birds on Moorunde will appreciate the dilemma and possibly start to think this is not going to be easy, as the songs of some birds here rival the colours of the above mentioned. To 'add insult to injury' some are endowed with both assets. A classic example being the Golden Whistler.

Songsters abound on Moorunde! Do I just boringly list them, or some of them as in 1 above? Should I limit myself to verbally attempting to describe the accomplishments of the top twelve and get you to vote. A sort of Moorunde version of Channel 10's 'Australian Idol' programme? I just don't know, so I'll do nothing and come straight to the clear winner. A bird that 'comes out of the left field' (as they say) – the Singing Honeyeater. Now...I reckon I have you scratching your head and wondering...whatever? On Moorunde this bird is probably seen more times than any other, and heard more times as well. But what you hear so frequently is just its 'call'! In all my life I have only heard this abundant and common bird sing just three times. It's like hearing your mother sing for the very first time, when you're an adult, and you never knew she could. And never realised her voice was purer than any other you have ever heard. She was just 'Mum', until you heard her sing, and then, suddenly, when realising somebody was listening, she stops and refuses to go on, leaving you wondering why she isn't the leading soloist at the Sydney Opera House.

3. Call. You may be wondering why I choose to place bird calls in a different category to that of songs. Well, as illustrated by the Singing Honeyeater, there can be a 'world of difference'. Such as the chattering of thornbills nearby, early in the morning, as you pop your head out from under your swag. Or a Willy Wagtail trying to tell you you're not welcome here; and ironically making you feel more at home in his efforts etc.,...and so on and so on! The Brown Treecreeper! They can make a patch of scrub sound as though it's literally full of exciting species to see. Even if there is 'b...er all' else about. And their calls can fill you with hope for some 'good bird watching'. Even if that hope is an illusion they still managed something a little special, did they not?

4. Camouflage. With the extensive range to choose from I know I have the attention of 'all the would be's if they could be, or could be's if they would be'! But camouflage is an interesting subject in itself; and one that makes fools of many. For example some people are under the false impression that green is the best colour to be if trying to hide in the foliage of trees. Or the roof of a house should be green to match the colour of the surrounding grass. Wrong!!! The secret to good camouflage is in realising that the brain takes in what the eye sees, with a bias towards what it wants and not what is really there. For example the classic photo of that paddock covered in purple flowers of Salvation Jane - it looked to be a carpet of purple, but the photo reveals the truth; only a small fraction of the plant has purple flowers. And, if one looks more carefully, even the 'green' isn't all green.

'..but wear grey and you will just about disappear.'

Wear green clothes in a rain forest and you will 'stick out like a sore thumb'; wear dark grey and you will just about disappear. As for hiding in the tree top foliage, have you ever noticed how hard it can be to spot a Rainbow Lorrikeet in amongst the leaves, stems and blossoms?

Except for the dominant male, all the other members of a family of Wrens are grey. When it comes to camouflage, there is very literally more to it than meets the eye!

Spotted Nightjar nesting on the ground

One may think that the two large white spots on the Spotted Nightjar's wings would be a dead give-away, especially as it spreads its wings while roosting on the ground during the day.
But take a good look at the ground on Moorunde - there are white spots everywhere.
And occasionally, just as you're about to step on a white spot, it flies away!

5. Character. Of course the character of wild animals really comes down to human perception of behaviour. But a friend told me once that sometimes a good way to see things clearly is to take it to extremes. And so, using this advice, you would have to say there is a difference between the character of a slug and a dog. Having established that, we can now look at individual birds.

With some, their behaviour is somewhat bland, while others endear themselves to you. The list of such birds on Moorunde is a bit shorter than those of previous groups. But with less to choose from, does this make it easier? Here are a few examples of birds with behaviour that makes them 'characters'. Babblers, Choughs, Weebills, Fairy Wrens, Currawongs and Willy Wagtails. A while ago one of our volunteer Rangers (Wayne Donald) sighted Apostle Birds (*Struthidea cinerea*) and I would have chosen them had they been permanent residents. In the areas where they (and people) are common, they have a couple of common names. Lousy Jacks and Happy Jacks, depending on one's attitude towards them. They 'hang about' houses and farm yards in flocks of a dozen or so, hence their usual common name. They are loud and boisterous and quite tame if left un-threatened. Even flying into a bush that you could be standing by and then approach to within less than a metre to 'check you out'! But I have noticed the ones that occasionally come into my garden, here at Cambrai, have residual tufts of down amongst their feathers, indicating they are probably the 'ousted' clutch or clutches of young birds looking for somewhere suitable to establish themselves. Eventually they perish of course; and the next time one sees them, it's with the knowledge that it's another group, destined for the same fate. I have been in camping grounds where they are so tame they will pilfer the food off your camp table as you sit there. Lousy Jacks!

Or surprise some unsuspecting overseas visitors with some similar sort of daring. Happy Jacks!

I did say I was going to choose them had they been more permanent; but damn it all, I've changed my mind. And maybe a few might come to visit again one day. I can always hope. Anyhow I think I have already done an article on the bird I had in mind. Well, if not, maybe later.

6. Personal History. People who have shifted a few times in their childhood, have much superior and clearer memories of that time in their lives than those of us who grew up in the one place, as these events act as prompters and markers in their memories. To some degree, as you gradually learn more about birds over the years and particularly as one progresses through a series of 'first sightings', one can experience a similar memory response.

Not so long ago, Gary Taylor reported (on Ranger duty) seeing Yellow-winged Honeyeaters at Moorunde. Next time I was out there I made a point of checking each White-fronted Honeyeater around the campsite until eventually one turned out to be a Yellow-winged; and then I saw several more. Being a bird of the wetter areas, they were obviously 'poaching' on traditional White-fronted territory, the drought being the most obvious probable cause. Years ago, as a boy, the same thing happened in our garden at home. I had only just started seriously 'bird watching' and, would you believe, these Honeyeaters were the first bush birds that I had to use a reference book to identify. That's what I mean by history; but Yellow-winged Honeyeaters are not my Moorunde historical favourite. In the November-December 1993 issue of the Natural History journal there is a particular article. The first one I wrote for this newsletter, and simply titled 'Birds of Moorunde'. The content was about Black-capped Sitellas.

7. Nostalgia. Of course, Black-capped Sitellas could be 'in the running' for the title, as with the Apostle Birds, and several other species, too. I have restricted my discussion to Moorunde and this, therefore excludes the Pied Currawong.

So back to the semi-arid habitats we go. Somewhat ironically, it's my third article to appear with the same title. So...I guess the most appropriate way to tackle this is to quote my own first few sentences. 'I was camped in the station country between Morgan and Broken Hill. It was early morning, dark, but with the first grey light of dawn over the sky. Mist hung ghost-like among the Black Oaks, haunting, silent and calm. Nothing could be seen to move and the few moments before it was light enough to see clearly seemed oddly enchanted. A Crested Bellbird was calling somewhere

deeper in the scrub, its call matching the eeriness of the scene...'. (May-June 1994).

There we have it! Which of the seven above could 'outrank' the rest? Despite a very high capacity for logic and working issues out methodically, I have never believed that always applies, even in science. Imagination, abstract thought and lateral thinking are not in the same dimension as mathematics and numbers.

Despite my efforts to 'break it down to some form of rational processing', I still didn't arrive at the Australian Raven! Not the Little Raven or the Forest Raven or the Australian Crow or Little Crow. The Australian Raven for Moorunde!

Jan - Feb 2008!

CONTROLLED BURNING IN OUR NATIONAL AND CONSERVATION PARKS

The following article was originally written in 1982 and published in the local Bordertown Newspaper. It is still applicable for 2003. However, there are two points I would like to make prior to it being read.

Firstly, the article refers to controlled burning for the purpose of bushfire control and not for wildlife management. They are two entirely separate concepts. Secondly, in most instances, National and Conservation Parks are now 'islands' of native vegetation surrounded by a 'sea' of development - farmland, roads, housing or industry etc. Therefore they have to be managed with this in mind. They cannot be managed in terms of wilderness prior to European settlement. This management has to take into account the size of the park, availability of any adjoining native vegetation, the number and quality of 'natural corridors' to other suitable areas and the purpose of the park, in addition to a range of other factors too numerous to mention.

It is 21 years since I wrote this article, but the recent articles in the journal inspired me to 'dig up' the original and submit it again. Perhaps it could have been rephrased a bit as I was much younger then. It didn't make me very popular in the S.E. district either!

2nd June 1982

The survival of many of our bird species in this district, or any other district, depends to a very large degree on the welfare of our National and Conservation Parks. Consequently any proposals to tamper with the natural occurrences inside these parks such as 'controlled burning' will have very marked repercussions on bird populations. But the question of 'controlled burning' goes much further than its effects on birds, and indeed the survival of the whole park could depend on this issue. As the advocates of 'controlled burning' are beginning to rally, I see the issue becoming increasingly ominous.

The first point to bear in mind about 'controlled burning' is that the concept is being promoted by two groups. On the one hand, there are the people who feel that 'controlled burning' will be a worthwhile step in bushfire control and at the same time be beneficial to the park. Or at least they have a genuine concern for the park, and feel that at least the burning-off, as it is only to be a percentage per year basis, will do no harm. Secondly, there are the people that have no concern for the park whatsoever, but say that 'burning-off' will be a good step for bushfire control. Many in this group I feel are a little less than genuine, as they will often claim that the 'cool burn' will be beneficial to the said scrub, but they don't care if it is so or not. It would be advisable if the former group bears this attitude in mind as they are outnumbered by the latter, and just by means of sheer numbers, are being 'bulldozed' along by a group that doesn't really have much in common with them.

Incidentally the people concerned with conservation are divided into two groups also. There are the definite 'hard liners' who proclaim that burning in parks must not be allowed at all costs. Then there are the not-so-genuine conservationists making the other section. These are the people who feel that a little leeway should be given to appease those who have no time for conservation, and to some extent their attitude is justifiable. Being bigoted on any issue is a fast way to condemn it.

This article is not concerned with debating the effectiveness or otherwise of bushfire control by adopting this principle of out of season burning on a portion of a National Park, the ultimate aim being to completely burn the park in different sections over a period of years. The actual number of years has not yet been established by promoters of the principle. Obviously a hot fire in scrub land during

summer can be difficult to the point of impossible to control. However, I do wish to bring to mind a hypothetical concept for the benefit of those who would like to see the parks just disappear.

Should the Department of the Environment sell the land the parks contain to private enterprise and consequently the scrub cleared and turned in to farming or grazing land, would the fire danger be any less, bearing in mind that 'the three major causes of bushfires are men, women and children?'. It could just be that your neighbour's farm (which was once a national park) sets yours ablaze, because he was using his angle grinder on his header, on a hot day.

This article is being written for those that can see the need for National Parks even if they are unable to put their reasons and concern into convincing words. Those who don't see the need for the parks never will, so there is no point attempting to persuade them to believe in a concept that is beyond their grasp. I don't intend to persuade readers one way or the other, as most people are perfectly capable of making up their own minds about issues, especially if they have at their disposal all the pertinent facts. What I wish to do is give the facts and impressions that I have learnt from studying (in my spare time) Australian terrestrial biology for 20 years, while being a farmer all my working life.

Will the 'controlled burning' be advantageous or detrimental to the park? Those who say the effects will be detrimental are then faced with the rather short-sighted question, should we risk the whole park being consumed by a hot summer fire or just lose some of it by allowing a 'controlled burning'? I say 'short-sighted' because the people pushing for 'controlled burning' have not looked into the long term results of their ideas. And after all, what is there to choose between a park burnt out quickly and one slowly dying over a few generations with the wildlife contents they are supposed to be preserving exterminated by relatively sudden habitat transformation?

For it to be effective in bushfire control, the burn-offs have to be relatively frequent. That is, when the leaf, twig and bark litter along with the undergrowth, has built up enough to allow an out of season fire to run, then it becomes necessary for another burn for the system to work effectively. The time span between these burns is totally irrelevant from a wildlife point of view. Those species that have evolved to make use of the scrub litter and undergrowth have, over the millions of years, trapped themselves into a dependence on this ecological niche. If the undergrowth is kept to a minimum, as it must to prevent a fire moving, then it is too thin to support these forms of life. A list as long as your arm can be compiled, of species that face extinction once the park has been totally burnt, section by section.

Understandably many people are dazzled by the response that a scrub formation can make to being burnt; fresh new growth from old trees and many new plants stimulated to germinate by the passing heat. Spring time for years afterwards reveals a brilliant display of wild flowers and their associated bird life. Fires are an obvious necessity for Australian bushland. But the response the bush makes is a response for survival, and many plants have evolved to make use of fire as a germination stimulant. Should the fires be as frequent as the principle necessitates it to be, then this relatively constant passage of heat will eventually exhaust the seed supply of these fire-dependent plants. Each burn-off will stimulate a fresh germination of plants and the next burn will kill them before they seed. Or those that can seed quickly will 'choke out' all the others and become temporarily dominant, until it becomes necessary to burn more frequently to keep them under control. A fire every 100 years or so is adequate to maintain those plants that flourish from heat-stimulated germination, as they are not totally dependent on fire and after a long period in the soil some seeds can germinate from a hot summer spell.

What about the older, well-established trees? A noted CFS authority has been heard to say 'the Australian gum tree was almost made to burn', with its ribbon-like

bark, dead limbs and volatile oil content. They certainly can burn well! However, many farm houses in the Tatiara are surrounded by deliberately planted pine plantations, and if you think they don't burn well, with their fine needles and volatile oil, then you are only fooling yourself. We don't hear anything about 'controlled burning' in pine plantations, and I would much prefer to live alongside a National Park than a pine forest. But people planted them for monetary profit, so that's OK. Getting back to what happens when a mature gum tree burns – they can be burnt completely bare and will reshoot and appear more healthy than ever before, with all the fresh growth. However, it can be many years before they will flower again and it can take two years for the seeds to mature after flowering, so the comparative frequency of the "controlled burning" programme will prevent effective seeding and in any case, seedling trees will be killed by the frequent fires. So over the lingering period the National Park slowly but surely will die and we will be left with scattered, individual, mature trees and fast seeding, fast burning understorey and ground cover plants. Something will live there, but nothing that doesn't already survive on ordinary farming land.

Then we get the lame reply, 'but the Aborigines used to burn off for hunting purposes'. But they didn't burn forest or scrub country where it would be almost impossible to spear a fleeting kangaroo through the denser growth. It is the natural grasslands where they made use of strategic burning. Aborigines came to Australia between 30,000 and 40,000 years ago. The point is they only represent 'a spot in the eye' in comparison to the years of evolution involved in forming our native bushland. They were also very thinly spread over the whole country and consequently would not have raised the fire frequency to any marked degree on a given spot. Any farmer will tell you the kangaroos are thicker now than when the country was first opened up and the Aborigine population can only be in proportion to their food supply.

Almost any scrub area can withstand being burnt once or perhaps twice in a lifetime, provided there are neighbouring patches with a staggered frequency. But this sort of burning is too infrequent for bushfire control. What happens if the park is completely burnt by a summer fire? Most fires leave patches unburnt here and there and most parks have neighbouring scrub land or roadside scrub from where animals and birds can restock. The limiting factor for most species is lack of area to expand and a burnt patch of scrub building up its supply of ground cover and leaf litter is an expanding situation. An acre or so saved and unburnt in a large park is a nucleus of new life for the park. The population can become healthier by virtue of the fact that they can expand as the habitat regenerates. But it has to be allowed to regenerate which it cannot do under an artificial programme. The destiny of the dead leaves, twigs, logs and bark is all important for a countless number of interdependent life cycles from termites and scorpions, to lizards and several beautiful and unique feathered and furred animals.

So you have the choice between the unlikely chances of destruction by a hot summer fire (the likelihood and effects have been overestimated) against the certain but slow and sinister destruction by well meaning activities, promoted by people with doubtful motives. The real threat to our national parks is not from bushfires but from people's apathy and short-term gain attitudes, their inability to look into the future and reluctance to review the past.

You make up your own mind and decide what is best for your district and your Australia – national parks that are perhaps safer from bushfires, but of no use to anyone, or national parks that preserve unique and rare wildlife and plants that Australia can be proud of. The choice may be hard, the consequences for your descendants who may not be farmers may be harder. Should you require reasons for the necessity of National Parks to be written into words, then ask the editor to let me know.

There are alternative means of fire control, and the effort and expense of ‘controlled burning’ can be redirected to these, which are beyond the scope of this article to explicate.

Sep - Oct 2003

BLUE-FACED HONEYEATER

Some years ago Peter Clements sighted a Blue-faced Honeyeater on Moorunde at Water Point No. 1. Unfortunately, I was remiss in not recording the date.

The notable aspects of this sighting is that the bird was well out of its usual range and habitat. However, as the Blue-faced Honeyeater is quite distinctive in size and plumage, it is unlikely that Peter was mistaken.

It is a large honeyeater about the size, even perhaps a little larger than, the Spiny-cheeked Honeyeater which is common on Moorunde. Its back is distinctly green and the black on the head runs from the bill to the 'shoulders' and is interrupted by a white stripe around the nape of the neck. The underside is whitish with some blacker feathers on the throat. And, of course, as the name suggests, a large spearhead shaped area of blue around the face, which extends to the white nape.

Peter said he had a good close view of the bird over a fairly prolonged time span. So, although the sighting may be clouded with some doubt due to its locality, it is (as I said) unlikely he was mistaken. The question is then, why and/or how could this bird be in such an unlikely place?

In South Australia it is a reasonably common bird along the upper reaches of the River Murray from Morgan to the Victorian border. And it was once known to come as far south as Mannum. There were reports of it from Happy Valley from 1923 - 1930; and it occurs in the South-east, east of Naracoorte.

When I was living at Western Flat (between Naracoorte and Bordertown) a sighting was reported to me from an area about 20 kilometres from Bordertown. But this was in habitat that the bird prefers; that is open forest country. Obviously it would be the Red Gum forests that sustain this species along the Murray; and a decline in this type of habitat would explain its disappearance from Morgan to Mannum.

So what was the bird doing at Moorunde in dry marginal scrubland? It's about 50 kilometres from Moorunde to Morgan 'as the crow flies'; and about 14 kilometres due east to the River Murray from Water Point No. 1. As to how the bird got there, an assumption isn't too hard to come up with to provide a plausible answer. It travelled down the Murray, 'hopping' from Red Gum forest to forest and then at some stage, roughly opposite Moorunde, it turned west, leaving the river behind.

If, just prior to that particular time, there had been a good season for this species to breed, then there would have been a surplus of younger birds. That is, the numbers above that required to balance the mortality rate and more than what the suitable habitat could sustain. This surplus would have been driven out of any territory held by the more dominant birds. They would be forced to look elsewhere for a suitable place to live. Probably a number of them travelled down river and possibly more than one turned up on Moorunde. But ultimately they would all have perished – as is the way with many species in nature.

There is one more event to take into account with this sighting and it involves the flowering of mallee trees and Red Wattle-birds. Most of the time Red Wattle-birds are virtually absent from Moorunde. But on occasions in some seasons, usually Autumn, just about every mallee tree is covered in a profusion of blossom. While at the same time food sources for Honeyeaters are frequently scarce elsewhere. At these times Wattle-birds are so numerous on Moorunde that their raucous calls are loud and so persistent that they become somewhat annoying. I remember the Blue-faced Honeyeater sighting coincided with one of these events of profuse and abundant blossom. Water was available in the small artificial pool (Water Point No. 1) , nectar and therefore insects were in surplus.

But for only a few weeks! The blossom dies off fairly rapidly and the Wattle-birds disappear, their declining numbers marked by the wilting and browning flowers.

Our Blue-faced Honeyeater would have been suddenly stranded in a hostile desert of scrub, its prospects of survival predictably bleak and terminal.

‘FORTUNE FAVOURS THE BRAVE’

There are three unrelated species of birds that have adopted the same approach to survival. And, to say the least, have made a roaring success story from it. All three have the same coloured plumage; but not in the same pattern. And the colours they have play a significant role in the race. That race for survival in which the winners are those that come last.

The three vary in size from small, medium and fairly large; indicating that size is not important. They can be found as individuals, or in pairs, to small loosely linked groups; and on occasions in very large flocks, except for the smaller species. Probably the occasions for large numbers, particularly in the medium sized bird, where up to one hundred or so have been found, is food related and would therefore be coincidental rather than an essential factor in their modus operand

Perhaps you have been wondering about the famous quote, as a title!? Now you know that every good story has to have a little mystery to reveal towards the end. But I will say that fortune does seem to have favoured them, as they are amongst the most common of all our birds and arguably the best known. All three species (or their subspecies) can be found throughout Australia; but only the larger bird is found in Tasmania, the other two avoiding that state. And rightly so too!

They can’t be found in every habitat type; however, once again there are few places where one or the other or all three isn’t seen at least some of the time.

The paradox is that should you be struggling through some rainforest, in Queensland, and saw a Regent Bower-bird, it would be a delightful surprise. One would also be thrilled to see such a breathtakingly beautiful bird in the wild, and never forget the occasion. With its golden plumage set in black, literally glowing in a shaft of sunlight. But if it were one of the three plain black and white birds this article is dedicated to, it would probably only raise a little curiosity for being somewhat out of place. And in a way that is something of a shame. Just because these three birds are so common, we tend to take them for granted.

Take this hypothetical analogy as an example, to illustrate my line of thought. When you step inside your house, your partner of 10, 20 or 40 or so years is in there; and this is no surprise, or unusual as they are almost always there. But how would you react if there was this absolutely gorgeous looking person there instead, with a face and body ‘to die for’ and faultless personality to match. And their first words were - ‘I have taken over from your partner (on a mutual agreement) and anything you want just ask’. ‘This is for as long as you like, and my only desire is to see to your every need and to please you’. This is that Regent Bower-bird or Bird of Paradise, that you struggled and sweated through the jungle; just to catch a glimpse of, here to stay!

Put aside what’s going through your mind at the time. Almost all of us would not take up the option mentioned above (‘This is for as long as you like...’) and have our grumpy, bossy old bag/yobo back A.S.A.P.. Why? This new person has everything one could dream of; except history, familiarity and that indefinable something else!

So, I put it to you that, although seeing something like a Regent Bower-bird may give you a brief thrill, you know and accept it may never happen again. But...! If that Willy Wagtail in your back yard, or those Mudlarks on the street median strip, or the Magpies in the park were never to be seen again...? My point is, with these three birds we have history, familiarity and that indefinable something else!

And they are bold, brave, obnoxious and aggressive. Prepared to attack anything that threatens their nest or territory, and, at times, just out of sheer belligerence. They never make any attempt to hide from danger and come out to meet it instead. The black and white plumage says to all comers, ‘here I am,’ ‘push me around and I will push back’. And that is what I meant by their plumage colour playing a significant role in their survival technique. It’s part of the package, bold, fearless and aggressive,

with plumage to match; and it works! Quite successfully too, more so than the camouflaged birds that are restricted to one or two habitat types; and slyly slink behind a bush, hoping you don't see them.

Fortune favours these noisy, nagging, cranky and plain black and white birds; and we love them for it too.

Sep - Oct 2006

THE BLACK SWANS OF MOORUNDE

Apart from learning that the 'bogyman' can't see in the dark any better than you or I, there are some advantages to suffering from insomnia. And perhaps a good example of this would be my article titled 'Admission Free', in the May-June 2005 Journal.

On the second weekend of each month the Natural History Society holds a 'working bee' at Moorunde (exceptions being May when it's shifted to the third weekend to allow for Mothers' Day. Also, on any weekend when the forecast temperature is 30°C or above, it is cancelled).

Although the term 'working bee' is used, I would like to take this opportunity to point out to members (and any potential members) who don't attend, that this has a very loose interpretation. What I mean by this is that those who do have specific tasks in mind, take this opportunity to camp out on Moorunde and attend to them.

However, nobody is expected to perform any particular work of any kind, and those that do, only put in as much effort as they are physically or mentally able. I'm not saying that considerable amounts of work on various projects aren't achieved; and some people put in quite an effort. As the main objective of these 'working bees' is to maintain Moorunde (and our adjacent reserves) in good condition, any extra hands to achieve this are appreciated. But a second objective is simply to have our members gather together on the reserve – simply to be there to enjoy the 'bush', the company and gain whatever else they can from just being there.

So, if (as a member) you haven't been attending because you are already worn down from your week's work and know that another hard week is coming up, don't let this deter you from coming for a day or two. Nobody is going to think any less of you if you simply turn up to do nothing but relax. In fact, the Management Committee has been trying to think up a more appropriate title for these weekends to include the above-mentioned aspect of the 'working bees' – 'Volunteer and Visitor Days' was recently adopted.

There have been days when I have done little more than the usual chores involved in camping out, because I have slept only briefly or had no sleep at all during the night. Yet nobody minds, they simply accept the fact that I haven't 'got up' until late morning and I'm practically 'good for nothing' for the rest of the day.

So just come out once in a while and see/experience whatever you might get out of being there.

During the night when sleep refuses to come, I have the whole place to myself. I use up the time, on these occasions, in thinking. Many an article for the journal has been 'written' in my head, while lying awake or wandering about in the dark in the nearby scrub. One gets to see and/or hear things that those nightly sleepers miss out on. There are no distractions other than the stars and the living world of the night-time bushland. And after a while it's surprising what and how much one's full range of senses can bring to your attention.

The calls of Owls and Nightjars, the silent shadowy form of a Tawny Frogmouth, as it flies past, settling for a moment or two in a nearby bough. That you sense as much as see. Insects of the night and the squeaking of various bats fluttering by as they 'hawk' their prey. Or a sudden thud, thud of a kangaroo signalling a warning to its companions; as you surprise them passing through the sleeping camp. And then there can be the mysterious booming call of emus, as their ghostly forms stroll leisurely along the nearby track.

From time to time I hear the unmistakable whistle generated by rapid wing beats of a flock of ducks passing overhead. Then occasionally, during the darkest hours of the night, when there is no moon, a flock of a dozen or so Black Swans will pass overhead, about twenty metres above the scrub. Momentarily blocking a few stars as

they go over in a vee shape line; constantly fluting to each other their location in the formation. They always approach from the north-west, flying over, travelling in a south-easterly direction. I guess towards somewhere on the Murray River, but from where I have no idea. Yet it doesn't matter really. The thing is I get to know they have passed over; while everybody else is oblivious to their fleeting presence.

May - June 2006

‘FROM WICKET TO WICKET IN CRICKET...’

Over the last few years, water restrictions have prompted people to install rain water tanks (and prompted Councils to allow them). In many instances it has been for supplementing water for a garden. There has been a corresponding surge of advice from television gardening programmes to the point of almost a ‘feeding frenzy’.

All have left out the most important advice, which is how much needs to be collected and stored. If you don’t already know, then this article explains why this part of the information is left out. I shall round off various figures for convenience sake - so assume all of them to be approximate.

From wicket to wicket in cricket is 66 feet or one chain. A square chain is one tenth of an acre. In one inch (25 mm.) of rain over one acre of ground there is 22,700 gallons (103,000 litres) of water. Irrigated lucerne or irrigated pasture requires 40 inches (1000 mm.) of precipitation. I will here assume your pumpkins, sweetcorn and other subjects - flowers and shrubs as well, will require close to the same.

As a base to work from, our hypothetical house is in a 21 inch (530 mm.) rainfall zone. In the ‘settled areas’ of South Australia, the climate is described as ‘winter wet; summer dry’. But some autumn, spring and summer rain does fall, so a ‘rule of thumb’ applies for a summer watered garden and that is one third of the year’s rain can go towards the 40 inch requirement. Rounding off generously, we will now claim 30 inches of rain has to come from irrigation. So we put in a tank!

The house sits on the old quarter acre block. Taking into account the house, carport, garage, pavers and driveway and so on, we are left with, say one tenth of an acre for a garden. One square chain. So, one inch of precipitation (natural or artificial) is 2,270 gallons of water on the garden. But even after the average rain in an average sequence, we need 30 inches or 70,000 gallons (over 300,000 litres) of water. What size tank were we intending to put in? And could we fill it?

A modest, average, unpretentious three bedroom house roof catches about 1000 gallons per inch of rain. We have 21 inch yearly average. So the roof could catch about 20,000 gallons. We have a deficit of 50,000 gallons. But have you ever seen how big a 20,000 gallon (92,000 litre) tank is? Paradoxically, a tank (or tanks) this size solve our problem, as the tank takes up much of the garden space and will more easily water what ground is remaining

But that’s hardly the point. In the driest state in the world, every little bit helps. Most other developed countries get plenty of rain for their gardens; even their farmers don’t bother to use rain gauges. And, do not feel guilty that Australians use more water than any other country, We have to, as it is so dry. And the days when governments encouraged you to only use the water they supplied are long gone! So put in the largest tank you can manage or afford.

Editor: My own experience on this subject may also be of interest. In 1957 we set up house in Seaview Downs above the level of mains water supply, so for the first ten years we relied entirely on rain water collected from the house roof. Tank capacity was 10,000 gallons (45,600 litres), which supplied all our household needs even as our family grew with three children.

An average year provides about 15,000 gallons (69 kilolitres) some of which overflows in winter. We found that we could not afford to use very much of this water for gardens apart from a little to establish new plants and a collection of pot plants. Watering lawns was out of the question. Consequently our garden on a 3/4 acre block developed using mostly Australian native plants that, once established, survived on natural rainfall only, so it looks more like a patch of scrub than a conventional suburban garden.

When mains water eventually reached us, we used it only for the garden; we planted lawns, providing a grassed area for our children (and many other children in the neighbourhood) to play ball games. In the 1970’s we were using 900-1200 kilolitres of mains water per year, depending on the season, keeping the garden lush and green. Later, by eliminating the large front lawn when no longer needed, mains water consumption fell to 400 kilolitres per year.

Then, in 2006, water conservation efforts reduced it to 280 kl/yr. and with more stringent measures and practically no lawn at all, present consumption is 140 kl/yr. The garden is no longer lush, this is subsistence watering only. So currently, we still use rain water in the house representing 1/3 of our total needs - a significant contribution - and it means that no stormwater leaves our property to pollute the sea.

Rain water storage does take up space and considering capital cost, depreciation and pumping costs, is not cheap. Offsetting these costs are savings in soap, detergents, shampoos etc. and longer life of plumbing fittings. It is noteworthy that the original hot water service is still in operation after 51 years.

Notwithstanding all other factors, washing and showering in rain water is sheer luxury and whether you use it in the house or in the garden, I fully support John's final recommendation to install the largest tank practicable.

Mar - Apr 2008

RAVENS

Common birds are really the most interesting of all birds, because you can see them most of the time. Rare birds are exciting, naturally because of their rarity, but common birds are the ones that remind us of day-to-day life and our affinity with other lives. So you need not wonder why I should choose to write about perhaps the most common group of birds in the Moorunde Sanctuary. Few people have much time for our Crows but really they are the most fascinating of birds and strangely enough one of the most difficult groups to identify.

I dare say most people realise that the 'Crow' we have here is really a Raven but, like me, they usually refer to it as a 'Crow' in day-to-day conversation - perhaps with a few adjectives added at times when the old ewe's eyes are pecked out. Most people would also be aware that there are several species of 'Crows' in Australia and in fact there are five. This is where the identification difficulties arise, as all five different birds appear almost identical in the field and most places in Australia have at least two species present. Moorunde is no exception to this general rule and the two species we have here are the Australian Raven and the Little Raven.

I would defy anybody (despite the slight size difference) to point out to me which was which, if they saw a Raven fly past or perched in a tree. Whilst cataloguing birds in the field, I am forced to write down 'Raven species' unless I find one dead or hear it call. Fortunately they are prone to call quite frequently and I must confess I am (for no known reason) rather enthralled by the call of Australian Ravens. The strong aah aah aah aaaaaah, gradually grading away as though the utterance was definitely to be the last one, and the bird about to drop dead out of the tree, never fails to appeal to me. The Little Raven has a guttural kar kar kar kar, which I'm sure doesn't turn anybody on.

A dead bird in the hand, and I'm sure many farmers have this opportunity, provides the best identification option. The throat feathers of the Little Raven are split at the ends whereas the Australian Raven's are lanceolate.

But why should anyone claim they are fascinating? They are black sinister looking birds and frequently their behaviour fits their appearance. But doesn't this make them different from other birds? And one would be hard pressed to find a more cunning creature. Even relatively simple studies of them show that 'Crows' have an extremely complex social structure that often passes unnoticed or unappreciated by many people. This strong community instinct is what originally brought about the discovery of the Little Raven late in the twentieth century.

One of the most famous and well documented examples of animal social structure is with African lions. What the heck do lions have to do with Crows? As most television watchers know, the male lion does very little hunting and mostly lies about in the shade and many people are inclined to look down their noses at him for being so lazy. There are times though when the male lion has to defend his pride and be prepared, as is sometimes the case, to lose his life in conducting this defence. The factor many people overlook is that this defence is not conducted against other animals but between their own species. The struggle for survival entails a struggle to obtain and maintain territory against other lions and competition from different species is in the main, resolved by evolutionary processes.

This principle applies to many species including people and Crows. But what has this got to do with the discovery of the Little Raven as a separate species? Some years ago CSIRO scientists needed dead specimens of Australian Ravens for research but getting close enough to shoot them isn't all that simple. Unless you play a tape recording of Australian Ravens taken from another district. Then the local 'boys' move in to evict the intruder and you should be able to guess the rest. However, on one particular instance the local Ravens took no notice as they flew past the replayed call. Fortunately the scientists were able to collect one of the birds that had taken no

interest in a call that should have incited violence. Close examination revealed that it was another and distinct separate species, that was coincidentally almost identical in a visual sense.

Many people are of the opinion that Ravens are more common and numerous now than before the days of white settlement. This may be true but I sometimes doubt that they are more common now than say 200 years ago. More numerous perhaps, but numbers are only loosely linked with status in a biological sense. Ravens and Crows are extremely adaptable birds and I feel their habitat of the 1780s would have been sufficiently compatible to them as it is now. The point is probably more relevant to species such as Larks and Quails that have specialised habitats of open grassland. But one would have to 'stretch a point' to claim that Ravens are a specialised bird. Opportunist would be a more appropriate term.

In any event they stand a good chance of surviving into the future where others do not. Probably even a better chance than us. All deep thinking people are fairly aware of just how close we are from a 'day-to-day' existence that was the normal course of events before the days of our marvellous technology. That existence has been insulated by this very thin but reflective technology and we are not so far from it as many supermarket shoppers like to feel. Ravens have not advanced as far as us but on the other hand, they don't have so far to fall back should things go wrong. Remember the race for survival will ultimately be won by those species who come last!

Sep-Oct 1994

THE CRUEL SEA

'Daddy you showed me how to wear rubber boots
You showed me how to save animals
You showed me how to kill them
And you showed me how to love them.'

Able Seaman Lena Pluhar
Natural History Journal Nov - Dec 2008

The Old Lady of the Sea gave birth to her last calf in the warm waters of the bay on the north-west coast of Australia. And she was tired! Almost too tired to lift her baby to the surface for its first few breaths of air. Then she moved against the calf, to allow it to suckle what milk she had. There was precious little! As she had been too old and tired to feed herself adequately before the long journey from the Antarctic waters to this warm sheltered bay. So the calf was still hungry when the milk ran out. She would have more later, when he tried again. But the supply dwindled on the journey, as she and her baby headed south. Both mother and calf carried insufficient insulating blubber, as they reached the cold waters of the Great Southern Ocean.

Just out to sea of Perth and the calf was getting too weak to rise to the surface for air. Its mother squandered too much time and effort in trying to lift her baby the way she had done immediately after giving birth. She was tiring too!

Then the sharks came! Only one at first - two more shortly after. Simply the huge size of the old whale was usually enough to intimidate and ward them off. Usually! But they knew! They sensed that this time it was different and patiently circled as they waited.

Had it not been for them, the old lady would have felt defeat by now, allowed her calf to sink and drown; and let the pull of instinct drag her away. To continue the journey south. But the sharks. Their presence had re-ignited the mother instinct in her. It hardly mattered! Her efforts to defend were futile, and only ended in her watching. As she silently screamed, when the big white beasts tore chunks of flesh from her living baby.

Did she feel the pain too, as it struggled vainly to escape those razor teeth? As human mothers do, or would. At the struggle her child made, when the instinct to survive, gave it temporary added strength. Only to prolong the agonising inevitable. Would slowly drowning have been less distressing? Less cruel? We don't know what she thought or felt. But after about half an hour, she turned and left her dead child to slowly sink into the dark cold sea. The sharks left too. The whale calf would rise again, after putrefaction filled its body tissue with enough gas. Then the sharks would be back.

The old whale couldn't know these things, but simply and mutely understood them; and in any case, her calf would never have got any further south. Yet amazingly she managed to cross the Antarctic circle, before her own weary body started to fail her too. For days, she had been in torment, slowly dying with each desperate effort to rise to the surface for air. With a contest between the instinct we all have to live, and the tired desire now, to just let go. To rest, sink and drown!

It was then the monsters struck! Hit her with a blow to her side like a giant hammer. And she was afraid! Another blow came on rising for more air. Orcas! The Killer Whales had detected her failing strength.

Their preferred method with such large prey, was to ram it. Batter and stun it into submission, and eliminate any potential problems or harm to themselves. Before beginning to feed.

Crippled though she was, the old Whale tried to escape, but it was a hopeless, futile effort. The first bite into her sent searing pain through her whole body. So did the next! But the pain gave up a surge of reserved strength, so she struggled against it,

and tried to flee from the inevitable. Only to slow its arrival. It took over an hour, nearly two hours of agony, from more ramming, before the Orcas won. But win they did! Then the biting and tearing came, with a rapidity that eventually sent her body into a state of shock. The instinct to survive, and live, faded with the advance of shock. As her killers ate her alive.

Now, although that little story was (this time) from my imagination, I do know from written accounts and television documentaries, that Killer Whales do attack other Whales; and Sharks do feed on Whale calves. But what's my point?

It's the issue of Whaling. Humans harvesting Whales from the ocean, for profit. You see..., from a purely conservation stand, provided a species can withstand harvesting, then Whaling is not a conservation issue. But I must stress here that proviso, and too, separate conservation issues from those of 'animal rights'. And I also stress that I am not an advocate for Whaling. But there is a distinct difference between 'animal rights' and conservation issues; and wildlife harvesting from hunting, fishing or Whaling is not always a conservation concern. Conservation issues only become a concern if the species (any species) cannot withstand the harvesting or other species can't withstand its effects.

The Lapps of northern Scandinavia and their counterparts in Siberia harvest Caribou. Inuits (Eskimos) still harvest seals. North American Indians once harvested Bison and Deer. Here in Australia, Kangaroos are shot for human consumption without any adverse effects to populations; while the activity provides beneficial results to other species competing for the same resources. In the Northern Territory, Crocodile eggs are collected from the wild for hatching in farms. With Crocodile numbers still increasing. And just about every country with a coastline harvests fish from the sea.

Not all wildlife harvesting is sustainable. Fishing is an example where too much of it is overdone for many species. That! That makes fishing a conservation issue. But in some instances (with some species) the harvesting is beneficial to the species, in terms of its survival. Hence, wildlife harvesting can be a conservation management aid or tool. But what about whaling? Only some specific species are still hunted - as yet! For those that are hunted, are they (as a species) safe? I don't know! Probably nobody else really does know either. Although I would be happy to learn if I am wrong there. In any case, we should err on the side of caution.

But the man aiming the harpoon is no different from the Laplander cutting a Caribou throat. He doesn't see the Whale as others do. He feels the thrill of the chase, he carries the heavy burden of responsibility towards the rest of the crew, as he takes aim, and what he sees is the opportunity to feed and shelter his family. And in all probability (like me) he would have to take his daughter's old sick dog to the vet to be 'put down', rather than do it himself. He is no more a monster than the Sharks, Killer Whales or the cruel sea itself. In which one drowns when no longer strong enough to rise for air.

The Whaling Company he works for is no worse than one that mines coal after displacing the people who lived on the land above it. No worse than the company that sold him a used car that runs on buckets of petrol. And there is no room for ideologies such as conservation or animal rights in drought ravaged Ethiopia or the slums of India. Which is a shame, I know, but while such places exist one can't 'stand on the high moral ground' with these issues. Because you would be somewhat selective in your condemnation.

I have witnessed a lot of death and dying and cruelty in my life as a farmer, prison officer and amateur biologist/conservationist. No natural death is without pain and misery. Every animal that is 'time expired' suffers horribly as it dies. And you would be hard-pressed to claim with qualification, that a harpoon is more or less cruel to that of nature and the sea.

But why am I saying all this? Knowing that I am making enemies as I write? I'm saying it for the Whales. Because I believe there are too many emotional issues clouding the questions concerning their harvesting; clouding the answers to a satisfactory solution. I have spent most of my life involved in conservation, learning that emotions have interfered with making the right decisions, making those decisions that much harder to arrive at. With the outcomes too often less than desirable.

Perhaps instead of sponsoring a ship for a very expensive sea voyage to harass Whaling ships, the money would be better spent on establishing what effects the Whaling actually does? On those species that are harvested. To force genuine meaning into the phrase - 'Scientific culling or collecting'. Good, sound information has always been a superior and more useful tool to that of emotionally driven distaste.

Now...! As I said, I am not an advocate for Whaling. But it is important to draw a distinction between the two philosophies - conservation and animal rights. Because the two have very different objectives; that sometimes clash, and become counterproductive for one or the other or both. Each has its place; and there is nothing necessarily wrong being an advocate for both. But they <u>are</u> separate roles, that one needs to recognise. Too many people, who don't care for either, too frequently lump both together. And I have lost many an argument for one cause or the other due to this. 'Those damned greenies; what a bunch of bleeding hearts', I hear all too often. Meaning the exchange is lost in trying to make up ground, by the need to establish just <u>who</u> are they referring to.

An input of effort and resources on the effect of Whaling, coupled with the <u>extraction</u> of emotions on its issues, may well place the countries opposed to it, in a better position. You have to know 'how to wear rubber boots', when it comes to working for conservation.

SEQUEL TO THE CRUEL SEA

'I had rather a fool to make me merry, than experience to make me sad'
Shakespeare

I'm sitting on the end of a bunk, made from thick planks of hardwood. There is no mattress and at the other end is a block of wood, bolted to the planks, to be used as a pillow! Two heavy sheets of canvas are folded and lying on the bunk behind me. The room is about two and a half metres wide and approximately three or three and a half metres long. At the back wall, about three metres up, is a small glass-free window, about a half metre square. There are thick steel bars embedded into the rendered stone wall. Two doors are fitted into the doorway at the opposite end to the window. The exterior door is of heavy wooden planks, the interior door is barred like a cage. Apart from the bunk, its wooden pillow and the canvas sheets, there is no other material object in the room. It's the 'suicide' or 'observation' cell of Adelaide Gaol's 'A' wing.

'A' wing is, or was, the repository for prisoners requiring extra security, or discipline and for those who are suicidal. And the cage-like door is to facilitate ease of observation. While the solid plank door is left open for the potentially suicidal, it's closed for those requiring 'discipline'. Which is delivered in the form of isolation! The two heavy canvas sheets serve as blankets, as they cannot be torn into strips to make a hanging rope; and the prisoners are kept naked at night so that they cannot swallow their clothing to choke themselves to death.

Sitting on the floor between me and the back wall, is a seventeen year old boy, transferred in from the Youth Detention Centre due to 'handling difficulties'. At the time (1987) he is about the same age as my eldest son. He is leaning against the opposite wall to that which the bunk is bolted to. And apart from the bandages around both arms and a pair of underpants, he is naked. It's in the middle of a cold, frosty night, about 12.30 am ('the graveyard shift') and there is a decided chill in the air.

The boy's arms are limp at his sides. The bandages around them heavily taped and sewn, in an effort to prevent him from tearing them off and pulling out the stitches that hold the flesh together. As he has slashed deeply into them, from elbows to wrists, in an effort to bleed himself to death. Although I am talking to him, he stares blankly at the floor between his knees. Head bowed and body listless. Occasionally he nods, when I say something that requires a reply; but I keep this to an absolute minimum. After four years as a prison officer, I had learnt from hard experience that a conversation pressing for answers, in these situations, is dangerously counter productive.

I was Acting Assistant Chief Correctional Officer (A/ACCO I) of the 'second watch' (1200 am to 8.00 am) and therefore in charge of the Gaol for that shift, or O.I.C. (Officer in Charge). And although I had been a prison officer for just four years, the next most experienced officer on duty that night was more than twelve months junior to me! So the statement regarding my status is less about myself, and more a reflection of conditions for prison officers in South Australia at the time.

It hardly mattered! I had already experienced enough to learn most of what I needed to know about handling cases of a suicidal nature. And I knew only too well that if this boy tried again tonight, and was successful, I was the person 'the powers that be' would focus their attention on. And the outcome of that would not be a pleasant one! However, I still had the rest of the gaol and the watch officers to care for as well...'things to do, places to go, people to meet'. This boy was a gross inconvenience, an obstruction of the business of 'running my watch'. But that's just it you see!? Attempts at suicide never come when one has, conveniently, nothing else to do. They are always at an inconvenient time and always when one desperately wants to be somewhere else.

And so by their very nature they become a threat to your conscience. You know they have to be dealt with; but are you doing it because you care, or because it's your job? Do you want to ensure his safety and well-being because of compassion, or are you more concerned about your own occupational security, if it all goes wrong? Prison work has a dark, sinister and slithering way of blurring one's mind and eroding your soul. Until one doesn't quite know, was I trying to save the boy, or myself?

But at least by now, from a practical point of view, I knew what to do and how to do it. There are up to eight advantages to killing yourself. And thirteen topics, subjects or points that one must never say, do or mention. All of which I had learnt from personal observation. Such as never mention 'the people who love you', or religion or 'I understand how you must feel'; not if you want the person to continue living!

So...! Here I was, in the suicidal cell of 'A' wing, with the chilling cold making me wish I had brought my coat into the building; and looking at a near naked boy! With the intention of getting him to realise that he wasn't going to gain enough of those advantages (through suicide) to make the effort worthwhile. And hopefully do this without the realisation that I had illustrated this for him. While keeping in mind those thirteen 'traps' to avoid.

After talking in a monotone voice, about nothing of any great consequence, for about two hours, the boy eventually said he was tired, and wanted to sleep. 'I'll leave you to it', I said; and stood up, as he pulled his underpants off and threw them out the doorway. He curled up on the cold hard planks of wood, and I spread the canvas sheets over him. Then, as I was stepping out of the cell, I paused and brushed his forehead with the back of my fingers, and said, 'goodnight'. For the first time he looked up at me (with haunted eyes) and he replied, 'there is no such thing!' And as I stepped away and said, 'yes, I know'. Then I closed and locked the cage door.

I gave the 'watch officer' of that building, instructions to check on the boy every fifteen to twenty minutes; and to record each visit in his watch log book. I also wrote these orders in his book and signed them! then I left, to make the rest of my rounds. In the main, from then on I forgot about the boy, 'sleeping' with a block of wood for a pillow and I never saw or heard of him again.

About ten years later, and I guess, two or three years or so after retiring from prison work, I was given a reminder. I was by this time on a Disability Pension for suffering Post Traumatic Stress Disorder (P.T.S.D.). However, through the Commonwealth Rehabilitation Service, I had a two day per week job. A sort of 'work for the pension system and we will pay your travelling expenses'. The job was with a local farmer, and one day I met his seventeen year old son. He looked remarkably like the boy in 'A' wing. This lad had been in a car accident the previous evening. He had rolled his new car, that his father had bought for him that same day; and the car was 'a write-off'! As we shook hands, I could still see in his eyes that he had not yet fully recovered from the shock of this incident. Then suddenly, without any warning, I was back in that cell! Sitting on the end of that hard wooden bunk, looking at the boy sitting on the cold cement floor, with just his underpants and heavily bandaged arms.

Fortunately the farmer's son 'had things to do and places to go', and didn't want to linger, talking to me. He left me alone, as our hands disengaged. But I wasn't alone. You see, I had this suicidal boy for company. We were back together in that cold, dark, dreary cell; where I was wishing I had brought my coat; despite the over 30°C heat of this day. It was so gloomy and silent, despite the sunshine, and a nearby tractor going past in the next paddock. I heard myself asking if he wanted me 'to get him a hot cup of tea', and saw him give a brief nod of his head, indicating 'no'. And felt the strain required to maintain a two hour conversation, without getting any more than an occasional nod or grunt. Then the hypocritical relief, as I spread the canvas sheets over him and saying, 'goodnight'. Knowing that at last I could go! As he looked up at me and said, 'there is no such thing', somebody 'walked over my grave'!

I stood in the hot sunlight for some time, shivering in the cold chilling night air. With a cold sweat breaking out, I looked back into those haunted eyes, and I heard myself saying, 'Yes, I know'.

So you see, I don't need to go to the Antarctic Ocean to find cruelty; I'm well versed in it. And I have no shortage of ghosts to remind me of the part I have played in its delivery. We humans find it so comforting to believe that the destruction and cruelty caused in this world, by our very presence, is done by somebody else, somewhere else. When in fact we are all collectively responsible; we are all guilty of 'receiving stolen goods' – the natural resources of this earth. Nobody is in a position to 'stand on the high moral ground' and judge others for this.

I was a 'public servant' back then, in that gaol. Which means you paid for me to sit with that boy. You also paid for me to walk away, and forget about him too. But you are no longer paying for it. While I still am! Did you get good value for your money? For something you never even knew was happening. I hope so!

I am opposed to whaling – always have been. It's just I don't believe the huge expense and expenditure of resources, in sending ships to harass the whaling fleet is 'good value for money', compared to scientific research and information gathering. So that we can know what is really happening. As for the activity being cruel – are you sure your own 'hands are clean'? What do you know about the world, that enables you to make distinctions between different forms of cruelty – one form you allow, while another you don't? Perhaps you do know enough, (I can't tell) or is somebody else doing 'the dirty work' on our behalf, so that we can maintain our comfortable lifestyles; without even knowing it?

HELP ME IF YOU CAN

In 'politically correct terms' one would have to say that this issue of 'global warming' and 'climate change' is making me 'cheerfully challenged'. I could be more direct in expressing my feelings towards the big oil, gas and coal mining companies; and the governments that are 'in their pockets'. But the Editor would not allow such language! However, I have been on a 'slow boil' over the pollution of our atmosphere for almost forty years. Long before the above terms were even thought of. As a consequence, writing about it is difficult because of the temptation to use this as a relief valve for my temper.

I don't think anybody who takes the time to read this journal needs to have it explained to them about how important the issue has become. And this is where I need your help!! You see I am going to criticise the very side that I am on. My intention being to get them/us to 'lift our game', in an area that doesn't appear to be currently considered. So what I am asking you to do is remember that I am on the side intent on saving the world. Perhaps I have spent too long working in a prison and have become 'bitter, twisted and sick' (I like that in a person!). But I have started to think that some information, if not withheld, is being deliberately 'blurred at the edges'.

For reasons that are too complicated to go into now, I am and always will be, computer illiterate. Also, although I can convert measurements to the metric system, I can only visualise or conceive of them in the old imperial system (except temperature, as I used °C in science at school). So I am asking you to bear with me on that too. (By the end of this article you will realise just how much the Koala had to bear!). At the time of writing this article (February 2007) Greenland has been mentioned in the media on occasions, with regard to 'global warming' and 'climate change' etc. So I asked a friend to get some information off his computer about this country. Now...!! The 'printout' from his computer indicates that the Greenland ice cap is so thick that if it all melted, the world sea level would rise by about 23 feet. This is the first 'blurred edge'! Because:

1. The current prediction is a maximum of 6°C rise in temperature, and that is not warm enough to do it.
2. The increased temperature would cause an increase in evaporation over the sea, and therefore generate more precipitation in the form of snow.
3. The ice at the Arctic (North pole) and the pack ice around Antarctica would melt. This would not cause a rise in sea levels as floating ice displaces its own weight of sea water; in fact, it may result in lower sea level due to cooling of the surrounding sea water.
4. If it did get warm enough to melt the Greenland ice cap, the sea level rise would be the least of our worries.

So help me here! Can somebody collate all these points and give me an accurate account of sea level rise? But don't forget to allow for the rise in sea level due to the water expanding as it gets warmer. There is, after all 139,440,000 square miles of sea water over the earth. And at least a foot or so deep is going to be warmed up. Then again, with all that ice melting into it, a fair bit will be cooled down too! Also the increase in the world's glacier melt may be due more to the added pressure of increasing precipitation than to warming!? The problem needs to be tackled by somebody skilled in 'computer modelling', with ALL these factors (and more) fed into the computer, which, as I said, I can't do!

My next problem is to make sense out of some more statistics on Greenland. The 'print-out' stated that the glacial melt has doubled over the past five years (to 2006) to 52 cubic miles per year. That is an extra 26 cubic miles of discharged water due to global warming. In another section, it points out that the existing ice cap (of 677,676

square miles) is getting thicker by 6 cm (or 2.36 inches) each year. This would be due to 2. above, that is, the increased precipitation as snow-fall. But that's where the information on these factors stop. Why? Why stop there? Why hasn't that amount been quantified in terms of cubic miles of water, so that one can easily make a comparison to the 26 cubic miles of extra glacial melt? That is what I mean by a created 'blurred edge'.

I would like somebody to use their computer to do some calculating for me. To convert this 2.36 inches of increasing ice cap thickness (that represents a decrease in sea levels) to cubic miles, so that I can compare it to the 26 cubic miles of extra glacial melt, which would then give a more valid picture of what is going into or out of, the sea. But after all that, one also has to take into account: 1. The increased pressure of ice build-up at the 'head' of the glaciers, forcing more ice into the sea, 2. The corresponding drop in sea water levels due to an increased melt in the floating pack ice around Greenland (remember that floating ice melting is cooling the ocean, lowering the volume).

Now, to help you with these calculations, here are some figures that I have 'stored' in my head from my old farming days: 1. For every inch of water over an acre, there is close to 22,700 gallons. 2. There are 640 acres to a square mile. 3. There are 6 1/4 gallons of water to a cubic foot. 4. There are 5,280 feet to one mile.

Now I'm going to go out on a limb here and make a guesstimate; and say that when everything is taken into account and that is 1. the volume of water in cubic miles in that extra 2.36 inches 2. the increase in head pressure on the glaciers – due to the extra 2.36 inches per year and 3. the drop in sea level due to floating pack ice melt. Then over-all, the total volume of extra water going into the sea from Greenland will be close enough to ZERO!! So help me out, tell me if I'm wrong. Don't leave me feeling like a mushroom – 'kept in the dark and fed bull s---t'. And from the very side I'm on too! Because I'm starting to feel that soon I will be picked (along with you and the polar bears), cooked and eaten by the scavengers of this world.

John's article demonstrates the complexity of predicting climate change and draws attention to the risk, when making dire predictions based on doubtful or incomplete information, of destroying one's credibility and losing the power of argument against sometimes formidable opposition. Only when scientifically proven can we use information to reach a confident decision in full knowledge of the outcome, until then it behoves us all to take action that errs on the side of caution. Editor.

Mar - Apr 2007

PERMAFROST

'...individuals often pleasant, persuasive, persistent and perceptive of everything but possible faults in their own ideas...'
(Source: the book entitled "COMPASS" by Alan Gurney, courtesy of Ruth Paisley. Thank you, Ruth)

PERMAFROST is permanently frozen subsoil; earth about twelve centimetres below the surface. Soil that remains frozen, even after the top soil has thawed and any snow or ice above it has melted back to water during the spring and summer thaw. It varies in thickness from four hundred to more than fifteen hundred metres. And it forms wherever the period of freezing air temperature exceeds the time and duration of the summer thaw.

About one quarter of the surface of the earth is permafrost. It occurs in the Northern Hemisphere, taking up half of the old U.S.S.R., three quarters of Alaska, half of Canada and all of Greenland. That's a big chunk of frozen dirt. What makes it important (to me at least) is its potential, or otherwise, to affect sea level rise, due to global warming! And the fact that there is no equivalent to it in the Southern Hemisphere. There the opposite latitudes have no soil to freeze (or almost none), just the sea water. So the Southern Hemisphere cannot counterbalance or compensate for the effects it has on the land in the north. What happens in the permafrost zone has no equal, no compensator, no balancing phenomenon at the other end of the globe.

Every year in the Northern Hemisphere, the snow and ice over this immense area, melts to water. While the permafrost prevents this water from soaking away into the soil. Where there is no chance of runoff, the water sits on the surface, forming swamp and lakes. The remaining 'melt water' runs via hundreds of streams into the sea. The most remarkable example of this is the Lena River in north-east Siberia. It's frozen during the winter. But once the ice melts, it alone discharges more water into the Arctic Ocean than the entire runoff from the Amazon Basin.

And while all these thousands of cubic kilometres of water run into the sea in the Northern Hemisphere, there is no snow and ice building up over land in the Southern Hemisphere to counterbalance it, to act as an offset. The significance of this phenomenon is that we already get a 'greenhouse' or 'global warming' effect demonstrated to us every year!! Every year, the sea level rise due to the 'greenhouse effect' is illustrated for us. The snow and ice all over the Taiga and Tundra*, melts each spring and summer. And most of it goes into the sea. All that ice and snow melts to water over an area equal to one quarter of the world's surface.

But what of the packice that is melting at an increasing rate? What about the increase in all the glacial discharge? And all the icebergs melting faster? Well, what about it!!?? None of that counts! In terms of sea levels rising.

However, I <u>am</u> <u>not</u> saying or claiming that 'global warming' or 'climate change' isn't an issue. I am simply stating there will be <u>no</u> '<u>sea level rise</u>' due to melting packice or glacial discharge.

And pointing out that if the permafrost doesn't alter, then we already get to experience (each Northern Hemisphere summer) the sum total of sea level rise due to melting ice!!

The reason for this is the unique properties of water. Pure water at sea level freezes at 0°C and boils at 100°C. (The freezing point varies a few degrees if impurities, such as salt, are present, but for the sake of convenience I will refer to the properties of pure water and you can shift the figures if you know them.) As water

**The Taiga is the vast forested areas straddling the Arctic Circle in Siberia, Alaska and Canada. The Tundra is an almost level plain of treeless land between the Taiga and the Arctic Ocean.*

gets colder it contracts, as does almost anything. However, when water reaches 4°C and continues to cool, it starts to expand. It freezes into ice at 0°C. This short expansion period (4°C to 0°C) exceeds the expansion of warming from 4°C to 100°C. So ice will still float even in boiling water. This means that even in the warmest sea, the exposed ice of the tallest icebergs plus the submerged portion, is a greater volume than the original volume from which it formed. So as it melts it takes or fills LESS room or volume. You can demonstrate this for yourself. Float some large ice blocks in a tub of water, mark the water level and wait for the ice to melt. You will find a slight drop in the water level after the ice has melted.

In fact ALL the ice over the Arctic (north pole) can melt and not raise the sea level, as all the Arctic ice is floating and therefore taking up more space than the water it would yield on melting!

That means all the packice, and all the icebergs floating everywhere in the sea, can melt and the sea level will not rise!

Now, to increasing glacial discharge. I published an article about Greenland in the March-April 2007 issue of the Natural History Journal. It made the point that the extra water evaporation, due to the warming sea and air, increased precipitation in the form of snow. This snow fall was making the ice thicker, which compensated for the extra glacial flow. But there is more to take into account than extra snow fall. Have you ever stopped to consider how much water is locked up in the form of vapour (or 'humidity') in the atmosphere. I don't know how much, but it is a significant amount; and it increases as the air and sea get warmer. However, that's an issue I don't have writing space for.

So now the risk of sea levels rising comes down to two factors, both of which are almost never mentioned in the media; and whenever they are, it's never in depth. The first is expansion of the water of the sea, due to warming. I think it would be a significant amount, but have never heard any scientist saying how much!? And I leave this point there, as the article is about permafrost! Except to say that I am not diminishing the consequences of sea water expansion.

Permafrost concerns me because I don't know what will happen to it. Plus what will the effects be if/when it is altered. It's a 'double edged' problem:

1. What properties of it will be altered and
2. how will it affect sea levels.

A rise of say 6°C may not change things much, as an average temperature of 30°C below freezing becomes 24°C below freezing, and the ground is still frozen anyway! Or, as that 6°C is a global average, somewhere it may be 12°C hotter, and therefore still –30°C around the Arctic Circle.** I don't know! I'm still waiting for somebody to tell me (tell us) if they have any idea about what will happen about the permafrost. And what will then be the flow-on consequences of that? Or if nobody knows and nobody has much of an idea, to attempt to answer those two questions; then to say so. But I would also like to know - what has melting ice got to do with the issue of 'sea level rise'? Am I missing something? Why is 'sea level rise' virtually 'spoken in the same breath' as melting packice, or any melting ice? Increased melting ice is a serious threat to a number of issues; but sea level is not one of them.

So, in the meantime you can go down and stand on one of the beaches alongside Adelaide. Do it twice. In the summer which is the Northern Hemisphere winter; and all the snow and ice of the Taiga and Tundra is snow and ice. Then again in winter, when all that ice and snow has melted and run (what can) as water into the sea. While you are there (in the winter) count the number of houses and other buildings flooded by the sea level rise!! After all, one quarter of the surface of the earth has all its snow and ice melted at that time. And the extra water is now in the sea. At least until there is a very significant change in the properties of the permafrost!!

***These temperatures I have simply 'plucked' from the sky and do not necessarily mean anything.*

CLIMATE CHANGE SCEPTICS – AND WHAT THEY FEED ON.

The great frozen mass of Antarctica is the engine that drives the climate of southern Australia. The dense cold air, above that mass of ice, comes roaring down the slopes of the mountains and rushes north, towards our southern coastline, with a near freezing surface current of water in the Southern Ocean keeping it cold. And it's in the spring that the pack ice breaks up into icebergs, and they travel north too. September is the month when this ice comes closest to our coast; and so it's in that month that the south winds are at their coldest here in South Australia. It's also why September weather is so volatile; hot with a north wind, bone-chilling cold with a southerly.

But the breaking up and the subsequent melting of the pack ice icebergs is not the cause of sea levels rising. Even if, or when, this break-up and melting accelerates with global warming it will still not be the cause of sea levels rising. But the reason for these icebergs floating and drifting north, the reason why there is a cold northerly surface ocean current is very much connected to 'climate change' for Australia.

Because – one of the major hinges in the occurrence of a potential change in climate here, is due to an interesting and contradictory quirk in elementary science. Every substance expands on heating and contracts on cooling; becomes less dense with that expansion and denser on contracting. Except – water!

Initially it too contracts on cooling, but when its temperature drops to 4°C it stops contracting and rapidly expands, quickly becoming less dense with this expansion as it continues to cool and freeze to ice at 0°C. This is for pure water. Salt (sea) water temperatures are a few degrees lower, but the temperature range forming ice is still 4°. This expansion within a very short temperature range of only 4°, is far in excess of its expansion when heated to boiling point, at 100°C, and is the reason why ice floats! A temperature range of only 4° to 0° reverses one of the important physical properties of water. That small and low temperature range is a crucial aspect in controlling the world's climate.

It's the reason why icebergs float and too, why their melting does not cause sea levels to rise. And also, as pack ice is floating too, its melting does not cause sea levels to rise either. Because (for example) a thousand tonnes of iceberg is exactly a thousand tonnes of water. That section of an iceberg above the waterline simply represents the above-mentioned expansion. The iceberg (or the water it's made of) contracts as it melts from solid to liquid, leaving the sea level the same. In fact, as the water immediately around an iceberg warms, but while it's still below 4°C, the iceberg rises a little further, then starts to sink again as the water goes above 4°C.

So the rise in sea levels from global warming has to come from extra ice or extra water entering the sea from some source that it didn't come from before. And it's important to understand that! Because it's quite a common and widespread mistake. A mistake that fuels credibility for the climate change sceptics. Now back to the icebergs from Antarctica, formed from broken pack ice, and drifting north towards Australia carried in a cold surface current of water. This water is on the surface of the sea, because it's close to freezing and therefore less dense than the warmer water below it. It's being pushed north by this deeper water rising due to it flowing up and against the Antarctic continental shelf. And the distance towards Australia that this cold water remains on the surface largely decides the temperature of the air current above it. When that air does eventually reach Australia.

But somewhere between Antarctica and Australia, this cold surface water (with its icebergs) warms above that 4° temperature range, becoming denser than the water below it – water that is a current flowing south to Antarctica. And so, suddenly the northbound water plunges deep below, into or down to the ocean floor. Meaning the icebergs stop (at this point) drifting any further north. This changeover from

travelling north on the surface of the sea to travelling south deep below it, is so rapid that it poses a hazard to ships. Dense buoyant water on one side of the ship, less dense and therefore less buoyant water on the other side and the ship can list dangerously.

Antarctica, with its vast ice-cap of a thousand and more feet thick and getting thicker and with an average temperature of -30°C, is not going to melt away! Or at least not while any humans are alive to see it. Even if it (or Greenland) did all melt, it would have to be so hot on earth that sea levels rising would be the least of our problems. A rise of say 5°C in average temperature is still -25°C and adequately cold enough to stay frozen. Also, with a rise in the temperature of the sea and air comes an increase in evaporation and air humidity. This leads to an increase in precipitation in the form of snow causing the ice-caps of both Greenland and Antarctica to get thicker – and they are! So that isn't our problem as far as global warming is concerned. But! With so many people mistakenly thinking it is, the climate change sceptics are given more fuel to remain sceptical.

You see, I have not claimed there isn't a problem with 'greenhouse gases' causing 'global warming' causing 'climate change' and 'sea levels rising'. There is a problem! And I know there is! What I have done here (and in two earlier articles) is to try and draw attention to mistaken ideas about all of these very serious issues. Mistaken beliefs on occurrences that provide the very sustenance for sceptics to exist on. They only need to find some contradictory claims to believe they are all wrong. Sea levels will rise, but they will not rise due to icebergs melting more rapidly. They will not rise with pack-ice breaking up and melting faster. The sea levels will only rise when extra ice enters the sea, and/or when extra ice melts and enters the sea as water.

But let's get back to the Antarctic ocean currents again and the air currents above them. A four degree (or less) rise in water temperature dictates where that ocean flows. Either on the surface or deep under the surface of the sea. Four degrees (or less) dictates how close the cold water current comes to Australia before submerging. Which in turn decides the temperature and humidity of the air above the water when that air reaches Australia. In fact, four degrees (or less) could dictate whether or not there even is a current! Because this particular current is driven by the density anomaly in the physical properties of water; and the way the current flows is decided by a 4° temperature range where the density of water goes into reverse.

And isn't it around about 4°C rise in average temperature that most climate scientists are predicting? That's something for sceptics to think about, if they think a few degrees 'here or there' doesn't or will not matter all that much.

But this is the third article I have written on pointing out some widely held mistaken views on 'global warming' and none of the information I have given is ever mentioned in our media reporting. So some people go on believing in mistaken or non-existent phenomena. Climate change sceptics believe it's all a conspiracy; but in fact the conspiracy seems to come from a failure (by somebody) to present the real information.

So, it would be good if climate scientists highlighted to people the commonly held, but flawed, beliefs concerning the changing climate and sea levels rising as I have attempted to do here and in those two previous articles. And for them to say, for example, exactly where the extra water is coming from to cause the sea to rise. Or, if they already have, for the media to take a more responsible attitude and only present to the public, the accurate facts on the subject. Because, the sceptics are gaining more momentum; and as we have witnessed by recent events in our government (December 2009), some of them are in positions of enough power to challenge, delay or with just a few votes block government legislation that was meant to do at least something about the problem.

Jan - Feb 2010

BIRDS! SOME WALK AND SOME HOP?

Strangely enough it's a question rarely asked, 'why do some birds walk and others hop?' Paradoxically, I have never had anybody ask the same question about mammals. In both cases it comes down to evolution; then more specifically, genetics. And given that we share 98% of our own genetic make-up with Chimpanzees, one can easily see there is not much margin entailed in producing a significant difference (I was going to write 'not much margin for error:' prompted by the aspects of some people I have met! But cynics are easy to crucify; and so we will just leave that as something I thought and didn't write).

However, on many scales or yardsticks used to measure, we are very different to Chimps, and it is amazing what difference just 2% can make. I would think that makes us more closely related than horses are to donkeys, which can partially breed together to produce an infertile mule! Giving one ample fuel for speculation! However, there are genes and genes, and outcomes are dictated by what genes are left in combination and which are left out. Which I don't know; so perhaps some reader could fill in the blanks, for those 'Philistines' such as myself, concerning that particular issue.

There is a theory going around (that seems to be gaining more and more acceptance) claiming birds evolved from dinosaurs. Or dinosaurs evolved into birds. Meaning dinosaurs never went extinct, but made significant evolutionary steps into what we see as birds today. There is some merit to this concept and a little evidence too; but there is (as always in these things) plenty of contradictions and contradictors. But some dinosaurs were only the size of birds such as farmyard hens (or chickens if you're American). So size wasn't necessarily the cause or contributing cause of their relatively sudden extinction. In any case, scores of dinosaurs became extinct over millions of years; before they disappeared 'off the map', meaning one can poke holes in the tired old theory of a meteor creating what was considered to be the equivalent of a 'nuclear winter'. Given how much scrutiny scientists are expected to accept, how much evidence they are required to provide (for any other theory or discovery) before 'running off at the mouth', nothing conclusive can be staked down to either question. That is, why they rapidly (comparatively speaking) went extinct, and did some evolve into birds?

Yet I must say, scientists do realise and accept (to the contrary) one issue concerning evolution; that many people, in the wider community believe. Which is, humans are the species that have reached and gained the pinnacle of evolution. Nothing could be more wrong! We have however eliminated all the limiting factors on our population size. So far! And this could ultimately bring about our demise. Yet this is one factor that generates the illusion that we are winning the evolution stakes. But it is an illusion.

When you consider just how 'super fine' some species have slotted themselves into extraordinary ecological niches that exclude everything else, one must concede the issue to them. But I must also point out that evolving to fill an exclusive niche (while reaching a pinnacle) means also reaching a 'dead end', leaving no possible options to evolve further or adaptations to make if their niche suddenly changes. Yet adaptability isn't necessarily an advantage when you consider the possibility that a particular niche (now small) could, in the future, become a predominant one.

So now, coming back to the title subject but still keeping in mind evolution pinnacles in isolated niches; here is an example. The vicinity of Lake Eyre is the driest place in Australia and despite the area of water catchment, it is a rare event for water to be in it. In fact, the catchment area is around 495,181 square miles, or one sixth of Australia – a massive portion of land. Some water drains in about on average every nine years. It fills (on average) every thirty years – twice in my lifetime so far. On its northern shoreline is the Simpson Desert, the world's largest parallel sand dune desert.

On the sides of these dunes one can find while crossing them along the track over, or by walking through what vegetation there is, a tiny rare bird with a disproportionately long tail. The Eyrean Grass-Wren. And it can be found nowhere else in the whole world, but on the slopes of the sand dunes in part of just this particular desert. When in motion, but not flying, it hops!

'On the sides of these dunes one can find... a tiny rare bird...'
The Simpson Desert

Now..., while you watch those beautiful White Egrets on any comparatively nearby water reach, or maybe a Pelican on Coopers Creek, as it effortlessly and majestically glides down to settle on the water; remember birds like that still get around (on land) as their possible ancestors did. Walking! Then spare a thought for somebody who has evolved to live in arguably one of the world's harshest habitats – the slopes of the Simpson Desert sand dunes.

Yes I know Penguins in Antarctica still walk; and it's pretty rugged there too! But essentially their home is the sea, the sea in which they have evolved to fly in. And that's just it you see! Even if I don't know what it is (and I don't) every bird has evolved to make its survival or to help guarantee its chances of survival, to fit its life style and location. Some take up residences where others cannot go – and there are advantages to that. While hopping just happens to be (pardon the pun) one step further along the path of evolution. And for each species that does it, there is an advantage for it.

Sep - Oct 2008

A VISIT TO MOORUNDE

'They shall not grow old, as we who are left grow old.
Age shall not weary them, nor the years condemn...'

(Source - not known)

My father was a pilot during the war (W.W.II) and did a tour of duty in New Guinea. Strange as it may seem, Australia (at that time) had more pilots than planes to put them in! Consequently, Dad was seconded to the American Army Air Corps - the forerunner of what is now America's Air Force. They did not allow 'foreigners' to 'Captain' their planes and so for this period he was nominally reduced in rank to that of co-pilot of a B25 Mitchell Bomber. The same planes that took off from an Aircraft Carrier (in the Pacific Ocean) and bombed Japan for the first time. For the Americans to teach Japan a 'lesson' for the destruction of Pearl Harbour. And as at Pearl Harbour, hundreds of people died, without even knowing there was a war on!

On the last day of Dad's tour of duty (in New Guinea) his crew mates (with a replacement co-pilot) took off for another raid on Japan's shipping. Then never returned! The men from the other bombers that did get back, told Dad that his crew had radioed to say, 'their controls had been shot out'. It was the first time Dad had told me about the war and the first and only time, I saw tears in his eyes. You see..., he was all too aware that men he had lived with, who had risked their lives with him, time and time again, had been alive, 'pressing the triggers to fire their guns', as they took the longest journey one can make – 'all the way down to the sea'. Without him!!

Years later, and unfortunately after Dad died, my son and his beautiful wife from Japan, made Barbara and myself into grandparents, for the first time!

Now, you may well be wondering, 'what has this to do with Natural History?' Perhaps thinking even 'getting a bit too personal?' By including sections of my (and my family's) life in an article to be read by so many strangers. Or, 'how dare I dredge up reminders of a horrifying and cruel period in Australia's past?' Particularly when many readers may well still be suffering due to this all too recent history.

But my own father spent the rest of his life suffering from 'Shell Shock' – now re-named 'Post Traumatic Stress Disorder'; and so I spent the first (in fact the rest) of my life, living with the effects of that. And it wasn't (it isn't) easy!

Yet when it comes to Natural History, I don't divorce or disconnect it from the rest of my life and living. Natural History is also (and appropriately) part of my own life; and therefore is connected to everything else in it. Everything that happens to me is viewed through a lens containing Natural History. It's not a part time interest, it's an all time interest, in which I work at part time. I can't let it go now, even if I wanted to; and in fact there have been times when I have wanted to. But it is now too late!

And so..., when little Miyu's grandparents, from Japan, came to see her, it was an important and cherished highlight of my life. As all four of us looked into the eyes of this captivating little girl, we were looking into the future. Which made it (almost) essential that I should take her other grandfather to visit, and explore, Moorunde Wildlife Reserve. An area of land of 17,200 acres that happens to be a representative and iconic example of a very large portion of Australia. It can be equalled in other places (in this country) but not surpassed - not when (or if) one does view it through the lens of an experienced 'Natural Historian'!

We saw wombats and kangaroos in abundance; and even watched as six or seven 'roos went through the fence via one of the gates I had made. Gates designed to prevent sheep, but allow kangaroos through.

We inspected the exclosures, erected for grazing trials, the old (restored) Woodcutter's Hut; and even the charcoal pits held an interest for Tatsuo. Despite the reason for them being there - to supply a supplement for petrol during the war. And yes, I did tell him about my father, almost exactly as I have told you. With his reply being - 'I understand'.

We sat in the middle of the road to eat our lunch, from the back of my ute. Then after coffee, I suggested to Tatsuo that he should tell his friends that he ate a meal in Australia, sitting on a road. And, 'I bet you can't do that in Japan!' 'So they might be impressed'. He laughed and replied, 'I understand'.

We returned home via a dirt road detour, to visit the original old cemetery for Cambrai. On entering, I picked up a stick to point out the recently refurbished markers on a number of rows containing graves only about a metre long. In addition to the names, dates of birth and death, were added the life (time) spans, of all these little children. Born (date) died (date) and then lived – 2 days, 6 days, one year, 4 months, two years, 6 months, 4 weeks, 10 days, 3 weeks; and so on, and on. I read them out aloud, as I pointed to each, as we moved down each row. About half way along (while my back was turned) I heard Tatsuo swear, 'under his breath', and then add something in Japanese; which of course I didn't understand, until I turned to look at him! I could see he had said something like – 'what, how, why?' So I squatted down, took out my pen and notebook, and wrote the answer to these questions. (Which had been the way we communicated for most of the day - in written English!).

Australia, we sometimes call the lucky country, because of so many 'things' we have that other countries don't. But we worked (and still do work) hard for our luck; and some of us suffered for this 'luck' for us to have it now! Conditions were very hard when people first settled here and 'opened up' this country; and it is always the children who die first, when things get harder. When the crops failed, or summers were too hot, or when they didn't have enough warm clothes for winter, or when it's difficult to get clean water; the meat has to be heavily salted to preserve it, and a doctor is always too far away.

This 'luck' was made by the kinds of people who have left their children here. And so, that means 'the luck' is in fact a responsibility on us, to see and work hard to make sure we keep it for the children (such as our little granddaughter) into the future.

It's a responsibility on us, to set an example (despite the personal cost) in leading the world for keeping cleaner air, more good water, for saving the soil and our wildlife plus where they live. Otherwise we will betray all the tiny bodies we are standing amongst – right now! Tatsuo had to use his English-Japanese dictionary to find the meaning of 'responsibility' After putting it back in his pocket, he looked up and replied - 'I understand'.

So now I hope you do too! Perhaps you already did; and can also see my point that one can not separate an interest, such as Natural History, from everything else that you do.

While one of my regrets in life, something now outside my control, is that my father didn't get the chance to look into the future in the way Tatsuo and I have done. I think living to an old age isn't necessarily a good thing, but I do know some people (such as my father) die too early. Age had wearied him! Worn him down with the guilt-imbedded belief that, had he just 'been there', he would have had the chance to do something, to keep them safe and bring them back alive!

Jan - Feb 2009

'WHAT DO YOU DO THERE?'

Now from time to time, I mention to somebody that the Moorunde Wildlife Reserve is one of the best managed wildlife reserves dedicated to the preservation of the Southern Hairy-nosed Wombat in the world! 'Oh...How come?' is the most common reply. Well, Moorunde was the first reserve established specifically for wombats and it is cared for by an enthusiastic group of dedicated volunteers.

There are government Conservation Parks, including Brookfield Conservation Park which is immediately across the Sturt Highway from Moorunde, that have the wombats in them. Which is good, because the Wombats are South Australia's State faunal emblem.

On Moorunde, a volunteer Ranger (and therefore a member of the Natural History Society) visits and patrols the reserve every week. Sometimes more frequently, and sometimes over a period of several days. The Rangers perform some set tasks, such as checking the rain gauges and recording the rainfall, then go on to other work projects, depending on their available time. Then he/she or they, send in a written report on the status of the reserve and other observations such as what wildlife they saw and so on.

Just as, if not more importantly, people in the Society attend a monthly 'volunteer day' or 'working bee weekend'. The majority of attendees over these monthly weekends are members of the Management Committee (Fellows of the Society), some Rangers and a few other members. The Management Committee members, once elected, hold the position permanently; thereby relieving other members of having to attend otherwise tedious meetings. These Management meetings are also held once a month and obviously that is where most of the plans and strategies for the Society and its reserves are decided.

It is an excellent system, because it allows members of the Society to choose how much they wish to be involved through a wide spectrum, ranging from simply seeing one's membership as a donation towards conservation (with the bonus of receiving their bi-monthly journal) through to membership as a Fellow plus Ranger plus regular attendance at working bees and even more. All stages or degrees of involvement are appreciated and seen as important for the Society; but I would like to highlight here that attendance at 'volunteer weekends' is not restricted to Fellows and/or Rangers. Everybody is welcome.

Then too, an important aspect of our work ethic on the reserves (and within the Society) is that the amount of time and effort involved at working bees or 'volunteer weekends' is decided by each individual's capabilities or desires, without any critique or scrutiny from others. The only expectation on the part of others is the hope that you enjoyed yourself, that you came and stayed for as long as you wanted to and left after working as much as you liked. Also, to a very flexible degree, people can choose their own project of work or study, limited only by the parameters of good conservation practice.

Those people with experience in working for the Public Service or some other large corporate employer, would be familiar with what are referred to as 'job and person specifications', when applying for a job, a job transfer or promotion. The employer lists the tasks involved in that particular position and then remarks on what sort of person, and what skills and experience that person needs to fulfil the tasks. The applicant is required to 'sell themselves' in their application resume, against the listed tasks and requirements.

So with the question of what we do in terms of Moorunde Wildlife Reserve, below is a list for prospective applicants to our 'volunteer weekends'.

Which can be seen as our –

'**Job specifications**'

1 Weed eradication.
2. Vermin control.
3. Fence construction and maintenance.
4. Access track construction and maintenance.
5. Machinery fabrication and maintenance.
6. Specialised tool making and maintenance.
7. Carting weed and vermin control supplies to reserves.
8. Liaison with local Vertebrate and Pest Plant Officers; and purchasing control supplies.
9. Study and documentation of wildlife and population monitoring.
10. Escorting, supervising and instructing visitors to reserves.
11. Researching, writing and contributing articles for the journal.
12. Assisting in Public Relations re reserves and conservation.
13. Attending 'in field' management meetings.
14. Fund raising and encouraging new membership.
15. Reporting on condition of reserves.
16. Community liaison and letter writing re conservation issues.
17. Threatened plant species protection on reserves.
18. Constructing wildlife and experimental enclosures and equipment.
19. Preparation and packing of camping equipment and tools.
20. Campsite maintenance and cleaning.

There are a few more jobs and a few variations on those mentioned; and some of the tasks are quite simple, some require a large amount of hard work, while others can be complicated but requiring less effort. Few attendees perform all twenty, but make up for that in commendable effort in those they do perform. Duty number nine also entails (for some) photographic records, much of which is of a professional standard. My point is, there is a wide range of task choices; you can invent your own, for example starting a study on say – spiders; but nobody is expected to work outside their own personal comfort zone.

Now we come to the –

'Person specifications'

1 Experience required – none.
2. Abilities – it's preferable that the applicant can manage to cater for their own food requirements (in an out-of-doors setting) for the duration of their attendance.
3, It is also desirable that they manage their own sleeping arrangements. However, accommodation may be available at times for those who are unable to camp. Enquire from the Ranger Co-ordinator. The alternative is to stay for just one day.
4. Each person needs to wear appropriate clothing for an out-of doors bushland setting.
5. On site training is available for almost anything you may need to know.
6. An ability to work with (or at least tolerate) others is commendable but not essential. There are opportunities to work alone!

7. It is also commendable if an applicant has a desire to learn but not essential. In any case some of our employees may wish to learn from you!
8. A willingness to attend is desirable. However, just attending will be acceptable.
9. There is an expectation for new applicants to enjoy themselves. However, a reasonable score on any of the above eight points will do as a substitute.
10. Anything else in terms of skills, knowledge and experience will be appreciated.

'Conditions, remuneration and promotion'

1. All applicants need to be aware that their employment conditions are not covered by any trade union or award conditions.
2. All 'stop work' meetings concerning any work conditions will be on your own time.
3. Most of the work is out-of-doors.
4. The working day commences - when you feel like it. And ceases - when you want to.
5. Payment is erratic and the amount is simply pride in being one of Australia's volunteer workers who perform up to ten billion dollars worth of work per year. This usually comes after you have knocked off for the day, while sitting around the community camp fire, which somebody else will light if you are too tired.
6. Staff turnover is very slow and therefore promotion opportunities are very limited.

No interview is required for applicants and your resume needs only to be verbal and then only if you wish to give it! Your prospective employer in Conservation work eagerly awaits your application!

May - June 2010

AIR TO AIR MISSILES

'*There is one gift above all others, that makes man unique among the animals....., his immense pleasure in exercising and pushing forward his own skill'.* (J. Bronouski – "The Ascent of Man")

Some time ago, an article I wrote titled 'Team Work', was published in the Natural History journal. It discussed what many falcons do; that is, a pair working together to hunt. One feints an attack on a flock of homing pigeons, to scatter them, so that the partner can dive on an individual it picks out. And, although this technique is probably the most commonly seen, it isn't necessarily the most commonly used. Falcons have a wide range of methods for hunting; but usually a single bird stays with its one preferred method. Some simply chase their prey down and rely solely on superior powered flight speed. Yet it's probably the method that's seen the least, as the observer may not have noticed the quarry. Then contact occurs too far away to see it anyway.

This article is something of a continuation of another, '...the wind beneath my wings', published in the March-April journal, where I describe wing configurations in gliding. Many daylight birds of prey adopt two - one for surveillance and a second for striking. And those who have witnessed a Wedge-tailed Eagle coming down from hundreds, maybe a thousand or so feet to 'take out' a rabbit, will know how breathtaking this action is to watch. The eagle rides a thermal updraught, using a deep V configuration; and I have seen them circling within a thermal until out of sight. For their descent, when hunting, they pull in their wings closer to their body. But not all immediately, as the bird doesn't want to lose too much altitude should the hunt have to be aborted early.

So the dive starts and continues in gradual wing configuration changes; the final stage being one of levelling out, with a slight increase in wing spread, at some distance from the strike point. This levelling process (with the bird now close to the ground) serves three purposes and separate functions. Firstly, the eagle obviously doesn't want to hit the ground (or target) at this speed from a direct drop, as it would cause considerable and fatal injury to itself.

Second, a final, horizontal approach, close to the ground, reduces the chances of being seen by the prey. But thirdly and most importantly, in terms of desired outcome, the physics involved in this type of direction change (that is a swoop), produces considerable acceleration. So that the prey cannot outrun the attack unless it dodges at the last moment. Even then, the eagle has accumulated enough momentum in speed to curve back for a second attempt.

But now, back to our Falcons. It was through the making of a television documentary that the potential speed of a diving Peregrine Falcon was determined. The handlers used 'free fall parachuting' and computer technology to put their bird through its paces. Eventually it realised that chasing the lure was simply to get it to dive and it joined in on the fun, making the lure redundant. It did look amusing – the Falcon calmly perched on its handler's arm – while he was plummeting towards the ground in a 'free fall' parachute manoeuvre. A computer chip had been slipped in under, and attached to, the upper tail feather coverts to accurately signal its speed to a ground receiver. In the final stages and sets of dives, the Falcon was released by the diving handler (accompanied by a camera operator) at an altitude of 16,000 feet, this being the approximate limit of unassisted breathing. Terminal velocity for a human falling is, I think, about 190 kilometres per hour; and on the first 'jumps' the Falcon more or less stayed with the handler, at his speed.

But when the bird 'caught on' and realised it was free to fall at its own choosing, there were remarkable changes! It pulled in its wings further, but still kept a notable portion out; and I could see the bird knew how much wing area and what shape was required.

I also noticed a second manoeuvre that the commentator or handlers didn't mention. The Falcon did not make a vertical dive! As with a racing yacht 'sailing into the wind', the boat doesn't actually go directly into it. The dive was a significant number of degrees off vertical free fall. Obviously something the Falcon also knew. At this initial stage the camera was still pointed at it, the cameraman having jumped from the plane earlier. Then the Falcon adjusted wing configuration again, bringing in the first section still closer to the body; while, at the same time, the section from last joint to wing tip, shifted a little more forward and wing tips pointing slightly down in relation to its body. With that it made a further body realignment, reducing slightly further the angle off a vertical fall. And, had one not been closely paying attention to the screen, these slight adjustments would have gone unnoticed.

Yet all these seemingly minor shifts were critical for what the bird wanted, because, once again with sailing, maximum propulsion while sailing into the wind comes when the boat is on the very edge of being blown backwards. For the Falcon, attaining maximum speed in a dive is doubly difficult to determine. A vertical drop still brings out considerable speed - to 'terminal velocity'. But its the aerial equivalent to a boat being blown backwards. Knowing just to the last degree off vertical where maximum velocity is found....?! You see (with sailing too) propulsion is gained not by the push of the wind against the sail (or wing), but by the partial vacuum on the upper and leading surface. This Falcon was looking for that increase when the angle of fall is just right. Too much angle and the wing gains some 'lift'. thereby slowing the dive. Too close to direct or vertical and the speed falls off to what only gravity provides.

While the cameraman still had the Falcon in frame, I watched the bird 'trimming her sails'. Then...!! After final adjustment, the Falcon accelerated out of frame and continued to accelerate. This bird knew what it wanted and how to get it. A staggering 'free fall' speed of 480 kilometres per hour! Going 'off the radar' as it went into its accelerated swoop to level out, just seconds before it was too late, and skimming the tree tops.

All of the observers thought a crash landing was inevitable; that it could not pull out from such a speed. The physical strain would be far too much. They could hardly believe their eyes as she swung upwards into view, with an aerial performance that showed sheer delight in herself. But while I was calculating the speed they recorded in miles per hour to kilometres per hour, I missed the comments on where and at what stages the Falcon reached various speeds – the 'breakdown' of computer recorded results. But it hardly matters, as in natural circumstances, Falcons don't climb to 16,000 feet to effect a hunt. The energy requirements to do so far outweigh any advantage outcomes.

Even so, for the more modest, but practical dives, at whatever altitude they start at, one can still claim these birds earn my title of 'Air to Air Missiles'. With rear talons 'raking over' and through the back or breast muscles of their prey, even Swans on occasion, as the Falcon rockets past, it isn't hard to see how they manage to 'take out' birds much larger than themselves.

But in the documentary diving, the Falcon knew it wasn't hunting. And it's here that I see the error in people thinking along the lines of that quote heading this discussion. The Falcon had never before been up to 16,000 feet and there, by default, had never before had an opportunity to dive so far and fast. Yet it wanted that '...immense pleasure in exercising and pushing forward its own skill'. Why else would it ignore the lure it was trained to catch and make a try 'for the gold'. Why else would it come so close to a 'crash landing' before pulling out? It knew the timing limit, while intelligent observers watching, holding their breath, didn't know. All of this despite never before reaching anything like that speed. Oh no...! That Falcon enjoyed 'pushing its skills forward'. It's one of the essences of evolution. We humans don't get away that easily on us being so different to other animals.

I feel that the author of 'The Ascent of Man', like many others, is misguided and misguiding in trying to place humans on this particular pedestal. Yes we do enjoy exercising and pushing forward our skills; but we are not alone there. And we would serve our species better to look for what remarkable gifts we have in common amongst the animals. To shift away from the imbedded belief that we, as a species, are superior. Because we are not!

We make our air to air missiles! And they are not used for pleasure!

Jul - Aug 2009

THE EARTH IS FLAT

'Do I believe in God? Of course I believe in God, Philos. That is - on days like today - sometimes it's hard Philos, sometimes it's hard. But do I believe in God? Yes. Yes I do. Leastways, I'm sure I do!'*

Seaman Bennet - Coxswain of HMS Beagle
Tierra del Fuego 1832

*Philos was the 'nick name' of Darwin used by the crew on the 'Beagle'.

The year 2009 marks 200 years since the birth of Charles Darwin, one of the world's revered and most brilliant scientists. Although Darwin never did have any formal science education or qualifications, he deduced, then explained one of the essential frameworks of life on earth - evolution! And he was also a competent geologist, connecting that to his theories too. The modern sciences of biology and medicine hinge on his discoveries being fundamentally correct and the more these sciences advance, the more important his work is shown to be, at the same time revealing, then re-confirming these theories, time and time again. The observation skills, diligence to detail, perseverance and sheer hard work of this man is still being underestimated to this day.

However, for all that, his discoveries were something of a coincidental contradiction of events, only made possible by the intervention of another man who has sunk almost into historic oblivion. A man, and also a qualified scientist, that was every bit as brilliant, diligent, precise and hard working as Darwin, but had the misfortune to champion lost causes; and worked for an unforgiving public service - the British Royal Navy.

Commander Robert Fitzroy was captain of HMS Beagle, the ship that took Darwin on his epic voyage of discovery. That eventual discovery of how life evolved on earth and continues to do so. But Fitzroy was an uncompromising Christian, who believed in the literal translation of the Bible accounts. He was unable to accept that the Bible's account of the creation of the earth and the life on it could be a simplification. It wasn't until the 20th century that the gaps between the phrasing of the Bible account were filled in by science; to make it more comprehensive than the original version.

So to be fair to Fitzroy (and nobody seems prepared to be) it must be remembered that the 19th century pre-dated this science and his beliefs were no more or less than that of most Christians of his day! And, for that matter, even of many today! Some people even go further. There are still people who believe the earth is flat.

It wasn't until the end of that five year voyage on the Beagle that Darwin became fully aware of Fitzroy's steadfast refusal to shift his opinion on the Bible's account. Yet Fitzroy's attitude here is quite reasonable, when one bears in mind that he was the very first man to be acquainted to a theory that literally rocked the intellectual world. For the rest of the voyage Fitzroy served as a 'sounding board' when Darwin discussed his discoveries; helping Darwin to 'clear his thoughts' and focus on the real issues.

Fitzroy was remarkably open-minded about geology and biology; because it was his idea to have a 'Naturalist' on board for the expedition. And...! It was Fitzroy who personally chose Darwin to be that naturalist (although Darwin was recommended to him). Primarily because Fitzroy saw a need for such a person during his previous survey work at the southern tip of South America.

Specifically to answer questions on geology and biology of the area, that he knew needed to be answered. So that's the coincidence and contradiction; a man chosen to answer questions on science, who found answers that the other would not believe. But then...! Neither did many others!

But it's not quite that simple; and I have chosen the title quote from Darwin's question to Mr Bennet for this discussion because his reply to that question, asked soon after some personal adversity, reflects something of a tragedy through time, history, society and life. Neither Darwin nor Fitzroy were flexible men and that's the tragedy, because they started the voyage as the best of friends and ended as bitter enemies.

Darwin himself was a devout Christian (but starting to have doubts) when he asked Bennet that question early in the voyage. He was seeking reassurance, for himself, at a time when every man on board the ship owed their lives to the skill, decisive action and devotion to duty of their captain - Robert Fitzroy. And at a time in history when very few other men in the world were capable of what he had been sent out to do - survey and map the coast and hundreds of islands, channels, inlets and bays of Tierra del Fuego - in this little square rigged sailing brig, in the fierce and fearsome storms and currents; where the Pacific/Atlantic Oceans meet the Great Southern Ocean, near Cape Horn! Known to be the most treacherous sailing location on earth. Forget about the tropical Galapagos Islands in the Pacific! Where they stayed for a few short weeks. The vast bulk of Fitzroy's work over that five year expedition was performed around the closest land mass to Antarctica. A place where the term 'the Roaring Forties' wind was born. A place where it wasn't uncommon for waves to be three or four times the height of the ship's masts. With winds to tear the sails to shreds - after the sailors climbed into the rigging to set or reef them. Yet this captain brought most of his men (approximately a hundred) home alive; during an era when the Navy expected a third to a half of the sailors to die at sea; for any voyage of a year or more. And then people now wonder how or why did this man have a strong faith in God!? That's the contradiction too!

Yet don't for one moment think I am pushing or trying to sell religion here, as I am only trying to open boundaries. But it is sad that Fitzroy's faith (which should be a personal issue only) is one of the reasons for his almost oblivion in history. Even though he was a genius. And his own contribution to the expedition was remarkable to the point of being amazing. But historians frequently gain some sort of sordid pleasure in their dismissal of Fitzroy as though he broke some sort of historical rule and Darwin didn't.

Despite being born into a very wealthy and influential nobility, Fitzroy was not a self serving egotistical man - he really was a sort of stereotype image of what many believe a 'true Christian' should be. His bravery, compassion and humility contributed to his decline from favour in the snobbish regime of the Royal Navy. Which led to his demise. Because, when you work for the benefit of others who are not in a position to advance themselves (such as the ordinary sailors on his ship - but other people too) one makes enemies amongst your peers. After his return to England, Fitzroy was denied the command of another ship, effectively ending his naval career.

Primarily because his achievements (where many others of higher rank or influence were incompetent) generated jealousies within a system that encouraged ambitious, ruthless competitors, Fitzroy had to go. He made too many 'important' people look inept.

Even though he was after all the leading scientist and the overall commander of the expedition during that voyage and therefore deserving of some notice, he had too many self serving ruthless opponents, who saw to him being shunted off into menial posts or ones foredoomed to fail.

He had entered the Royal Navy at the age of twelve; and completed the adult three year Royal Navy Officers Qualifying Course in only eighteen months. This course included subjects such as surveying, navigation, astronomy, cartography, logistics, tactics and naval history; and at fourteen Fitzroy was the first person to obtain a full score. In addition to this, he was the ship's linguist, fluent in Spanish and Latin; and he taught himself the language of one Indian tribe on Tierra del Fuego.

He was the Royal Navy's best ships 'weather forecaster'; and went on to become 'the father of modern meteorology'. With the isobar lines on modern weather maps being one of his many contributions to science, along with his discovery of the relationship between 'sunspots' and the weather on earth. These things being responsible for saving hundreds, perhaps thousands of lives of sailors and fishermen - even in his life span. While his maps and charts of Patagonia, Chile, the Falklands and Tierra del Fuego were so precise that they were only made redundant by aerial and satellite photographs in the late 20th century.

He could have ranked with James Cook in being one of the world's finest seamen/navigators ever! Had the Navy only given him continuity of command in another ship. But most people have never heard of him. And those that have, see him (at best) as the man who ferried Darwin around the world. Now tell me that doesn't make the earth look flat!? The cost of fighting for too many just, but lost, causes eventually caught up with him. During a losing battle with severe depression, he took his own life. And the world lost another person it could hardly afford to lose. Somebody who could have, and probably would have made further meaningful differences, had others not set out to discredit or destroy him.

Fitzroy's work and achievements were perpetually eclipsed throughout his life, by either Darwin's own discoveries or the persistent ridicule from other more influential but ignorant people. But at least his entire crew (officers and seamen on the Beagle) were ardent and loyal supporters to his end. In what history now presents as something of a competition between the two, with Fitzroy appearing as somebody who 'backed the wrong horse', in his steadfast belief in the Bible being right. Then to add 'insult to injury' his death by suicide was eclipsed by him choosing the same day as President Abraham Lincoln's assassination. He died utterly bankrupt, having completely expended his entire fortune in funding and supporting projects for the benefit of others.

Ah well..., it's done now and there's no turning back. But he was at least - 'Evolution's Captain'! And a hero to the ordinary sailors and fishermen of England. And it's sad that he died without even knowing at least that much.

Sep - Oct 2009

CINNAMON QUAIL-THRUSH

'... but the incidents, though so romantic, are mainly authentic; for these lives have been lived and these deaths have been died.'

Simpson Newland - Paving the way, 1893

I grew up in the country of Simpson Newland's historic novel about our pioneering past. The young woman whose story he describes and who got lost in the bush – her body was found on our neighbour's farm! She was buried there, under an old River Red Gum by the Finniss River not two kilometres from our house. Later, her remains were removed to the old cemetery at Currency Creek. Her real name was Sara McHarg. When I was a boy, we passed through Currency Creek whenever we went to the beach at Goolwa. Goolwa was a small town still stuck then in its declining history*, as a once prosperous river port for the paddle steamers. They moved produce up and down the Murray–Darling Rivers and across Lake Alexandrina. These river boats had to dock at Goolwa's wharf and unload their cargoes onto the steam train from Victor Harbour, as the River Murray mouth is essentially un-navigable.

Goolwa back then was hardly recognisable from what it is today – an old fishing village and one-time river port. Now, it's a tourist and holiday town with service stations, holiday houses, yards full of pleasure boats for sale, delicatessens and restaurants, with a new bridge over to Hindmarsh Island and palatial holiday shacks built over the sand dunes, behind which is the sea.

Back when I was growing up, the old wharf was run down and dilapidated. Tied up to it was a rotting hulk of the 'Captain Sturt' paddle steamer, a shabby run down relic of its former self, as one of the great river boats. In front of it were the sunken skeletons of the barges she would have towed, once loaded with cargoes of wool, being shipped downstream from 'up north' or taking supplies back to the farms and stations of the inland. By the time I first took notice of her, it just wallowed shamefully and broken down like an old dying dog in a dirty puddle, tied up to the wharf.

With old decrepit things such as that decomposing boat and broken down early settlers' houses and machinery, it's a shame to see them rusting and rotting away, uncared for and unattended. Yet history seems more like history when one views it like that, in a state of decay and disrepair. It's a paradox! Because when you renovate and restore, or even rebuild, it seems as though the old ghosts dwelling within or about the structure are driven away!

Then with all those old ghosts gone, in the splendour of the newly restored, there seems to be no life left in the thing – to me at least! For it to be history there has to be ghosts of the past.

The new generations don't seem to care though. They are more interested in computers and the fun of the future. Perhaps they have got it right? I certainly wouldn't want to say they are wrong! Yet as I get older, I seem to become more divided into two worlds. The past, with its fond but receding memories and the trepidation of the advancing invincible future.

The future is inevitable and also your life still to live; so one should greet, or prepare to greet it with pleasure. But it's hard and I can't shake off the sadness that clings like paste, that is all that's left of the past. I like ghosts and why shouldn't I? You can talk to them and they never answer back, or rarely do! They never sneer or contradict or appear to be telling you 'you're an old has-been' and 'not with it any more'. So with them at least (the ghosts that is) you can feel superior. Until of course, when your time comes to join them!

*The correct definition of the term history is when a society accounts for its past in writing. It's not to be confused with handed down legend passed on verbally or culture or dream time.

Back when I was young, to get to the beach and ocean at Goolwa, you drove up and over the sand dunes on a very rough rubble road. About three quarters of the way over, the road terminated with a few extra truck loads of rubble graded and rolled to park your car or enable one to turn around, out of the sand, to go back. That's all there was!

Very few people ever went there. The surf comes pounding in from deep down in the Great Southern Ocean, washing over and expending its energy on a wide sandy beach that stretches away endlessly to the south-east, disappearing in the sea mist that blotted out the horizon. Even here there are the ghosts of shipwreck victims, all along the coast. People pounded to death by the great storm waves that broke over them.

Almost nobody went swimming here then as it was considered unsafe due to the undertow of each retreating wave. But we did, as Dad and Mum stood in the water watching and forbidding us to go any further than knee deep.

Most of those who did come here were usually seeking the sand cockles, to eat or use for fishing bait; you could take as many as you liked. Nobody drove a vehicle on the beach back then, as the only Four wheel drives were Landrovers and the only people who owned one of these were farmers and a few others whose occupation required a four wheel drive vehicle.

Today..! Well, every second person seems to have one, except that now they all seem to be expensive imitations of the real thing, which brings me to my story!

Like so many other Australians today, I like to travel into, see and experience the 'outback' and wilderness areas of our country; to go on 'four wheel drive' trips. I don't go very often, unfortunately, but this trip was to see Lake Eyre. The easiest way for most people is to drive north from Marree, past Muloorina Station and you reach the great salt lake at the bottom of Madigan Gulf.

From leaving Marree, one travels over a bare, red and barren plain, occasionally obstructed by scrub-covered sand ridges running approximately east-west, with the next ridge on the horizon. You don't really need a four wheel drive as the track has rubble over the sand. I don't remember how many ridges there are, but the last one doesn't have scrub on it, just intermittent clumps of cane grass and perhaps a few spinifex plants.

One drives up and over the last dunes just as it was at Goolwa, on the rough rubble track and there it is – the sea, minus, of course, the exquisite shades of blue water, the waves and the roaring white surf. There is a beach though; and salt too! Looking north (instead of south) a vast blanket of silver white salt, flat and smooth stretches to the horizon and beyond.

Although the horizon is blotted out, not with a sea mist but the reflected glare from the sun. But in the right light, with the sun at a certain angle, the salt plain appears to be water, a whole sea of it, breathtakingly calm, the bleached skeleton of a one time inland sea, the calmest sea in the world! The vegetation on the sand dunes here isn't the same as on the south coast, but it looks remarkably similar at a casual glance, clinging to the tops and ridges, with rippling wind-blown sand between each clump.

There is a roar like the surf here too! Only much softer. Not as loud as the breakers of the Southern Ocean. A roar nonetheless. But it's the blood in your own head, rushing past one's inner ear. You hear it because it's otherwise so quiet, so gaspingly silent as one stands on the beach between the dunes and the salt sea. A silence more dominating and intimidating than any surf.

There are no ghosts here to comfort you and no reassurance of anything familiar, no romantic history, only a past of long, long ago, with transient visitors like myself. Even the first explorers came and left - disappointed to find no water in the sea of their dreams. Like me, they came and looked then just went away. The salt,

the sand, the silence and the glare in place of the surf mist, saying they don't need you here. Then after the sun goes down (in the dark) there is only the silence. One can't believe or conceive of how powerful absolute silence is, until you experience it. It intimidates and digests everybody and frightens many away – they quickly retreat back to where something makes some sort of noise. But here...! No! Here one has to learn to cope and accept the deprivation of noise.

I did! And so camped for the night**. Next morning, as light preceded the rising sun, I heard the soft but high pitched whistling call of a pair of Cinnamon Quail-thrush. So they were the little devils who made those tracks in the sand dunes, that I noticed yesterday! They were running from one clump of dry vegetation to another, occasionally stopping in the bare sand between, or wandering about looking for this or that. They were down near the beach. As the day got warmer they retreated to what vegetation was thick enough to conceal them and stopped calling to each other. So then the silence wrapped around everything again and even the blue sky didn't dare come all the way down here. With the white glare keeping between it and the horizons.

That's the thing about Australia, our history is so short that, like me, many people can still reach back and touch it; and its ghosts are still real to us. Then there are so many places such as here, vast isolated areas where there is no history of substance between us and the land around us, not even any historic caravan routes crossing the deserts and wilderness as in other desert countries since time began. Just deserts and wilderness from before time was ever thought of! Places with a pressing depressant silent past of long, long ago, where everybody is so small and insignificant and there are precious few, if any, romantic stories, no lives lived or deaths died and so no ghosts to help brace oneself against a silence and the empty glare.

It was, or would have been a lonely place to camp, there on my own, if it hadn't been for hearing those Quail-thrush. Anyway..., my point was, it was a most unlikely place to be reminded of trips and holidays to the beach as a child!

**You need a Desert Pass to camp here legally. Available from the RAA and some four wheel drive retail stores.

Nov - Dec 2010

COMMUNICATION
BIRD SONGS, CALLS AND EVOLUTIONARY ADAPTATION

The wealthy man owned several large cattle properties, or as we say in Australia, cattle stations. He employed managers and stockmen to run each of them and, from time to time inspected each one. Just as he stepped into the food store room of this particular station, he startled a Cockatoo having a 'dust bath' in the big flour bin – someone had forgotten to close the window. The Cockatoo was a pet, belonging to the station cook and the stockmen. Its owners had taught it to talk (which can be done with many parrots and cockatoos) and on seeing the station owner it said, 'Hello Cocky'! Then it flew out of the window and perched in its favourite tree close to the house.

The boss was furious at this waste of station food supplies and warned the stockmen that – 'the next time I see that bird spoiling the flour I will shoot it'. He then left to inspect another property, no doubt leaving his men worried about the safety of their pet bird which was seen by them as the station mascot and because of that, 'Cocky' was left free to go anywhere and do anything it pleased!

Some time later, and as luck would have it, on the station owner's next visit and inspection tour, he found the Cockatoo in the big flour bin again! As the bird flew off to perch in its tree, the boss went back into the house and came out with a gun. He was about to raise it to shoot, when the Cockatoo called out – 'Don't shoot poor Cocky, Mr Man, don't shoot poor Cocky'. The Cockatoo survived. And this is a true story!

Many birds, in this case a Cockatoo have the ability to mimic sounds they hear. Cockatoos and parrots can imitate human speech. Mimicking other sounds and other bird calls is part of an evolutionary adaptation to enhance chances of survival and some species are amazingly well accomplished at doing this. Yet I have never heard of a single case where a cockatoo or parrot has mimicked something in the wild state! However, in this case mentioned above it saved the life of an individual but that's hardly an example of 'in the wild state'!

So what is it about 'talking' birds and the connection to survival and evolution? Here is one possibility. A relatively new attachment or addition to the theory of evolution is what is called 'pre-adaptation', where a species of animal may already have a range of behaviours or physical attributes, that it didn't acquire by past environmental selection pressures. Features that have prepared the animal by chance for future random eventualities. There is no such thing as 'an animal perfectly adapted to its environment'! Every species has to manage to survive with and despite several handicaps along with other features or traits that don't either enhance or impede its chances to survive. However, should the environment change, even what was once an impediment can become an asset. In other words, the changing environment doesn't, in every case, demand the adaptation, the adaptation pre-fits by chance, the changing demands. But most of these potential pre-adaptive traits are just that - 'potential' and never get used, and usually fall by the wayside over time.

However, those traits that are otherwise superfluous to survival requirements don't necessarily have to be lost just because they are currently useless. Their loss is also by random chance. It all works like the old proverb - 'throw enough mud at a wall and some at least some will stick'. Similar to the principle of using a shot (or scatter) gun, where many pellets are fired in one shot to increase the possibility of at least one hitting and all the other pellets are wasted.

This partially explains the dilemma of understanding the 'quantum leap', where, for example, a former land mammal returns to the water and becomes a whale. The initial and continuing responses on a 'return to the sea journey'. doesn't have to be caused by environmental pressures; but rather by taking up opportunities presented by

environmental changes ensuring the transition species can still survive reasonably well in either, or both, areas, land and water. Until such times as (in the case of whales) the sea offers up the best chances for long enough that the land-bound traits become an impediment and are subsequently lost. Then, the animal (or our whale) is locked into a specific adaptive pathway - living in the sea permanently! And it's then that the environmental pressures force further adaptations to enhance or improve the animal's chances of survival. It gradually loses remnant land-bound features and gains further equipment for a life permanently in water.

Yet they cannot completely deny their land heritage! Through the more modern science studies and discoveries in molecular, cell, genetic and DNA biology, it is now known that the closest relative to whales is the hippopotamus, which is an animal trapped by the need to utilise both environments - land and water.

But this has taken us a long way from bird calls, Yet it illustrates the problem of how to write brief accounts on a single topic that has such an overwhelming amount of information available, that is all interconnected. The processes all work in conjunction and pre-adaptation itself is only one of many options to ensure the continuity of life on earth. Ultimately it means evolution itself is evolving.

Getting back to bird songs and calls and their place in evolution! The ability to communicate to others of one's own species and even to other species provides tremendous advantages for survival over those species that can't; and the more sophisticated the ability, the greater the benefits. Birds rank quite highly in this area; but I can't honestly claim that the ability in parrots and cockatoos to mimic our speech will ever prove to be an advantage to their species. I included the story of the station cockatoo for other reasons; some of which I will explain, but much of it may be rather cryptic because our ability to communicate (that is us humans) has gone past the ability to speak and/or write.

Speech is so important for human communication that it necessitates disadvantageous 'trade offs' in other areas of adaptation. This principle can apply to other areas in other animals too and the frequency and severity of the 'trade off' increases with an increase in the complexity of the most important adaptive component. A price has to be paid for the acquisition of some advantages. With humans (in communication) it comes at the risk of choking to death every time we eat because of the structure of the 'voice box' and vocal chords and their positioning close to our mouth. Whereas the vocal chords in birds are further down the throat, close to the chest so that swallowing food is not a risk or a hindrance. But the ability for speech (true speech) and the advantages we gain from it, demands this dangerous structure and position in our throat.

I mentioned 'true speech' because we, as a species, cannot say the equivalent to 'hello Cocky'! Because when a cocky 'speaks' it is doing something different to what we do. An analogy to that could be to compare it to the cockatoo waving its wing, while we can only wave an arm. Actually (straying of course again) birds can't wave, they have to flap, but it has to be both wings. They can't flap just one*! However, bats are capable of flapping just one wing.

Yet there is a remarkable similarity in our vocal chords to that of birds, which is why I keep coming back to humans in this discussion. We share exactly the same gene that produces vocal chords for speech in us and songs for birds. There is no difference in the gene, no mutation of it, that led to our ability to talk. The gene FOXP-2. A name or tag that no doubt means something to the appropriate biologist but very little to me, except it's a reference point. What changes to produce either speech in us or song in birds, is in the different timing and duration of application of the gene in the developmental embryonic stage of growth. The all so crucial stage of life when

* This analogy is a very loose one. Cockatoos can be taught to raise one wing or a foot but vigourous "waving" of just one limb isn't possible for birds.

(after fertilisation) the cells are dividing, but the new life form is barely, if at all, recognisable as a bird or human baby.

This fairly new genetic discovery reveals dramatic consequences, because it means that significant anatomical changes can occur (in evolution) without having to resort to the more drastic step of having a gene mutate. Gene mutation remains the foundation of evolution, but now it is known there is more to evolution than one explanation to how it works, which opens up a huge array of possible answers to questions that we didn't even have questions for. The science of evolutionary biology has now entered the realm of us actually being able to witness evolution in progress - and know it does happen, instead of it being a theory. Darwin was effectively right 150 years ago!

Yet despite our amazing skills in communication we have, at times, serious breakdowns with it, while birds don't! And the reason for this is in the complexity of ours compared to theirs. Our communication has a heavy burden of accumulated knowledge to carry with it; and the more complex an entity is, the more prone it becomes to mistakes. I guess in this case the best example to cite of a breakdown in communication would be in the controversy between science and religion, over the very issue of evolution itself, with the sad result that the two tend to polarise people into opposing hostile camps, when in fact, both can be so easily reconciled, and seen not as foes but complementing each other, should enough original thought be put into the issues.

So to me, the station cook and stockmen mentioned at the start, had the right idea. Instead of conflict with the Boss over their pet bird or the constant burden of ensuring the food storeroom door and windows were always closed - which wasn't practical; they thought of something else, something original! They took a risk, as is often the case with original thinking, but it proved to be successful. So for them, the risk was worth taking. Happily for the Cockatoo, the Boss (an entity who had considerable powers over the course of his men's lives) realised and understood the cryptic message his men wanted him to understand which was ' we are your men, who respect and work hard for you and don't punish us just because our pet breaks your rules.' This wasn't said, only inferred and therein lies one of our best chances to survive into the future, the capacity to send and understand the unspoken and sometimes symbolic message. Along with something else that evolution (or God) gave us - a sense of humour!

May - June 2011

A TOUR TO SEE THE SIGHTS ON MOORUNDE

'People have a need to believe in something greater than themselves...they have to be allowed to reach out and touch the divine, here on earth'

Source not known

Moorunde Wildlife Reserve is owned and managed by the Natural History Society of South Australia Inc. Originally the reserve was 2020 hectares (approx. 5000 acres). In 2007 additional adjoining land was purchased and this brought the area to approx. 7000 hectares (17,200 acres). Moorunde is situated on the north side of 'Goyder's Line' and is therefore officially recognised as being in 'pastoral country', meaning it is part of Australia's outback region. In the mid 1860s, South Australia's Surveyor-General (George Goyder) was instructed to report on the state of northern pastoral properties after a drought. Part of this government report was a line, drawn on a map, to indicate the recommended southern limit of pastoral leasehold land. As the State Government wished to maximise the area of more productive farming properties; contrary to what many people believe today, it was not drawn to indicate the northern limit of viable farming country. Moorunde Wildlife Reserve was once part of one of these pastoral properties - Portee Station.

Many of my articles in the Natural History journal have been more about 'the journey', than 'the destination', and so, in reading them, if you have ever wondered 'when will I finally get to the point', you have in fact, missed it! This ethic must be applied when on a tour through the Wildlife Reserve we call Moorunde.

There are no breathtaking views here, no sights almost beyond belief, there is no accommodation fit for a prince and the best 'night life' is when it's quiet and calm. And then you need to be sober! Moorunde has nothing like Kings Canyon or Kakadu, there are no walking trails through lush green rainforests of the Daintree or sun bleached sand and emerald seas on the Gold Coast. There are no challenges in crossing the sand dunes of the vast Simpson Desert or tall trees to be awed by, like the forests of the Great Dividing Range – nothing at all like any of that.

These places and others are indeed beautiful, inspiring, breathtaking and some unforgettable. Yet if you dismiss Moorunde for its lack of scenery or rich comfort or turned a jaundiced eye because it's neither lush and green, nor a desert with high sand dunes, then you have 'looked for the point'; and in doing so have missed 'the journey'.

In any case there is no single place that can be called iconic or defining of Australia. But Moorunde is much closer to it than those major tourist attractions and destinations because the more spectacular a sight is, the more singular it becomes. Moorunde is very typical of much of Australia's landscape and that..., that is what makes it so attractive! Although you have to work for your rewards here; one isn't 'spoon fed', as in these other destinations. One has to learn to look! You have to come to it with the right attitude and expectations, you may need to reshape and remould your perceptions, or re-evaluate what one appreciates.

However, these are all things that you have to do for yourself, or want to do for yourself if you wish to gain the most from your experience. Others can only encourage you. Now... today... we go on a 'word tour' to visit some of this Wildlife Reserve's features and places of interest.

We enter by vehicle through a locked gate about two kilometres north of the visitors information sign, which is sited in the south-west corner. There is a stile for visitors to enable them to step over the fence and access the reserve on foot, but all the gates on Moorunde are locked so that vehicle entry is controlled by the Society. All visitors are welcome, but it is policy to have vehicle entry supervised by a Ranger; and arrangements can be made for this. Many Rangers, including myself, are very

keen to accommodate any potential visitors, from single people to large parties - free of any entry fee.

The bush track, after going through the gate, heads off in an easterly direction through mallee scrub for a few kilometres before suddenly entering a huge clear area, which is on our left, or the north side of the track. An area of quite a few hectares that is naturally clear except for one large sheoak (Allocasuarina pauper) over on the clearing's north side. I don't know how large the clearing is and of necessity all the dimensions given for the excursion will be only approximates, or even vague.

However, this single tree, widely surrounded by a ring of mallee and bushland is one of the largest of its type I have seen. The clearing that it is growing in is casually named Casuarina Flat. Although it's not quite flat as the ground is slightly concave to its centre. Just as we broke into this large clearing, we had passed another smaller one on the south side of the track. It's shielded by a belt of scrub, so our party didn't notice or see it as we drove by. Unlike Casuarina Flat it has a ground cover of very low prickly shrubs and the ground has no concave to its centre. There are a number of this type of otherwise clear areas in the mallee scrubs, but this one is distinct because it's about the size and shape of a small football oval and has casually been named - The Oval.

Where we pulled up and got out of the cars, we noticed a number of large holes in the ground - a wombat warren alongside the track. While waiting for our tour party to gather together, it's given a brief inspection and once everybody is all together we set out for a walk of a few kilometres. Except for balloon tyred quad-cycles, used to pull rabbit baiting equipment, no vehicles are permitted off the established tracks. Our party strikes out, roughly skirting the west side of Casuarina Flat and following the edge of the mallee scrub, in a north-west direction. Where, eventually we arrive at the western boundary fence, after walking for several hundred metres up a long gentle curve.

Before reaching the boundary fence one begins to notice something unexpected - a view! The ground in front of us sweeps away to the south-west, revealing what looks like a vast valley, with the other side being the Mount Lofty Ranges in the distance on the horizon. The colours of the valley and distant hills are of the most exquisite soft pastel shades of green, blue-green and indigo. So soft and unassuming that they belie the harsh dry reality of this rain shadow country. It's all an illusion! Even though one feels at least level with the tops of the opposite range of hills. you are not; there is no valley! A photograph reveals this deception of colour and topography, as the camera isn't lured so easily into seeing what isn't there. But it hardly matters! The view is still gracefully beautiful and even more so because of its capacity to deceive. In common with much of Australia's landscapes, there is a strong pull here, to keep on going, to enter the valley and ascend the hills and discover what promises lay beyond. I have taken it upon myself to unofficially name the place on which we stand - Taylor's View, in the hope of perpetuating the memory of how much dedicated work our Ranger Co-ordinator has done over many years. A shy unassuming man who seems so effortlessly able to command respect from every Society member that knows him.

Resisting the deceptive valley and its seduction, we turn our backs on this view and walk away. Not directly back to our vehicles just yet. We roughly follow the gently rounded crest of the rise, through the Geijera and Melaleuca scrub, in about an east-south-east direction. Then approximately opposite or north of where the cars are parked and after descending a gentle and relatively bare slope, one discovers something quite remarkable - a lake! Only a small lake, but a lake nonetheless. It's about 100 metres long and 50 or so wide, maybe more, maybe less? I haven't cared to step it out, although I could! Because at present there is no water in it. Once again, like many lakes in Australia, it's ephemeral and so, dry most of the time. But who

cares!? It's a lovely peaceful spot of pervading elusive promise and charm, decorated throughout with scattered stately River Box Gums *(Eucalyptus largiflorens*) from which it gets its name River Box Lake. The stain on the tree trunks indicates a depth of water to one and a half metres. Whenever it's full, which it was in December 2010 after exceptional rains! These trees make the total number of Eucalyptus species on Moorunde five, the other four being mallees.

The stream that feeds into this lovely little lake I have unofficially named the Jordan. For reasons that, although 'tickle my fancy', are too complex to explain here.

With a degree of reluctance, it's now time to return to the vehicles, which are about a four hundred metre walk that passes several more wombat warrens. We have now already seen dozens and there are around two thousand of them on Moorunde, varying in size from two or three burrows to twenty or thirty. All of which should be approached with some caution, in case of collapse that can result in serious injury. Glen Taylor has calculated that the wombat population would place one animal (on average) in each warren, but that is a ratio average, as many warrens are unoccupied.

If our return walk is directionally consistent, we should traverse (or near to it) Casuarina Flat before reaching our vehicles. I always advise people to make a habit of taking a compass every time they step away from a track. It's the most reliable way to ensure you have one with you when that time comes when the sun is blotted out by clouds and you are deep in the scrub with few, if any, landmarks. A good technique in bush walking like this, when leaving then returning to a car on a bush track, is to use a system my father learnt during his pilots navigation course in the Air Force. Called 'steering by deliberate error'. This entails (for bush walking) always approaching and passing the shrub or tree (directly in front of you) on the same side each time. In addition to deliberately veering in a direction that will ensure your return to a track will place you well in front or alternatively behind your parked vehicle. That way, when you do reach the track you know in which direction to follow it back to your car.

Our next feature is a few more kilometres deeper into the reserve. Continuing our eastward bound drive we come to the volunteer weekend and Rangers campsite. Only for extenuating circumstances do we allow anybody, members or visitors, to camp in an alternate location. This policy (as with vehicles being restricted to existing tracks) is to help minimise the human impact and disturbance of wild plants and animals. We park the cars here – there is more walking required to visit several features.

Immediately south of the campsite, on a slight rise, can be seen a small obelisk about a metre high. It was erected and dedicated to the founders of the Natural History Society. Sealed inside is a 'time capsule', with various articles such as photos, copies of some of our journals and so on.

From here we strike out in a south-westerly direction and in about five minutes we come across a structure (this time officially) named after me, because I erected it – in 1996. A series of four large wire yards, each adjoined to the next. They are enclosures (or exclosures) to monitor the grazing pressures of the four main herbivores on the reserve. Exclosure A keeps all grazing animals out, with the appropriate wire mesh to do this. The next exclosure B is constructed with a low fence of 'chicken mesh'. It's high enough to keep out wombats and rabbits, while kangaroos can easily hop over it – and they do! Exclosure C has a high mesh fence of 'Cyclone' netting that prevents both kangaroos and wombats entry, but the netting is large enough for rabbits to have unrestricted access. The fourth exclosure D has only recently been erected (early 2010) because it has taken me till that time to think of a way to allow wombat entry and prevent kangaroos and rabbits. You will have to come and visit to see how this is done.

What makes this trial in progress interesting? Two results so far! Firstly the yard that excludes all grazers has a dense stand of native grasses which, at seeding time, grows to knee high. While yards B and C, plus the rest of the reserve (generally) are bare in comparison to A, in terms of foraging plants. More importantly is the grazing pressure indicated when comparing B and C to each other. Both B (kangaroo access) and C (rabbit access) indicate roughly similar grazing pressure! It does alternate slightly from time to time, depending on the type of year or the seasons; and for some months after the yearly rabbit baiting program. Both animals apply excessive and undesirable grazing pressure. In fact, on subjective observation, the kangaroos pose a greater threat for the wombats than the rabbits due to the rabbit grazing pressure being repeatedly (annually) reduced by our baiting program. We need to remember, or bear in mind, that prior to European settlement, kangaroo populations in this, and other districts, were nowhere near as dense as now. There are various reasons for this, that are outside the parameters of this particular essay. Suffice it to say that now in their current numbers, kangaroos represent a pest species to these types of environment; due to artificial alterations in other areas that have caused a population increase. However, I must stress that I am not suggesting (here) what action, if any, should be taken about that. I am simply commenting on what these grazing trials illustrate.

Leaving the grazing exclosures, we head off in a south-easterly direction for several hundred metres and we come across one of two structures built because of outdated concepts in conservation and wildlife management. A 'roof' just above the ground, of corrugated iron sheets for catching water, which is piped into several tanks that stand on lower ground level and from there via a float valve supplies an artificial water-hole for wildlife. Here, there is also one of five rain gauges that are on the reserve and they indicate some diversity of rainfall across the whole area. This particular site is referred to by the Rangers as Water Point No. 1, and on each weekly visit the duty Ranger either turns the water off or on to the water-hole so that the water supply alternates weekly between Water Point No. 1 and Water Point No. 2, which is sited elsewhere on the reserve.

These artificial watering points have been the subject of some controversy within the Society, simply because they are artificial and the original reason for installing them is now understood to be not valid. Some members therefore feel that their use should be discontinued. However, there are other reasons for maintaining them on an alternating basis. Too many and too complicated to explain here. With perhaps a brief mention of one. They serve as a very handy aid for photographers of wildlife; and given there are now so many other water sources on other properties surrounding Moorunde, one or two more hardly matter.

Water Point No. 1 is a handy landmark for finding our next feature, which is also man made. Deeper into the scrub Glen Taylor, our Ranger Co-ordinator and Journal Editor, has set up a system to monitor wombats movements into and out of their burrows/warren. Each burrow of a fairly large warren complex has a metal arch installed at its entrance that holds an electronic triggering device to record entry and/or exit of that burrow. The mechanism is solar powered with a back-up battery; and over a number of years, Glen gathered an astounding array of information about wombats. So much in fact that he was in a position to read a paper on wombats at an international wildlife conference. His information (gained here at this warren) was the foundation of his method of estimating the total wombat population (2000) over the whole reserve area.

We now head back to the campsite and move on once again in our vehicles; but not far before stopping. But just a few hundred metres further along the track from the campsite, we passed on our right a few groves of Callitris, or Native Pines. Our tour guide neglected to walk you out to them and they were not seen due to the scrub between them and the track. They are interesting trees though; and unfortunately a

species in decline. Originally because their timber was sought after for building, because it is fairly weather and termite resistant, while still being light; but also because the seedlings are very palatable to sheep and rabbits. It is an extremely long-living tree and specimens on Moorunde are quite old – so the members of our working bees have erected chicken wire netting around several groves that do have some seedling trees, which (by the way) started to be seen after the first two or three years of the commencement of our rabbit baiting program in 1994. These seedlings are now protected from the very much reduced rabbit population; and in fact (on subjective observation) the shrubland areas of Moorunde are now three to four times as dense as they were prior to 1994. Some areas are so thick (now) the traditional bait trails have become impossible to traverse and force the operator to go around them.

The reason for stopping where we have is to see an example of how deep the wombats dig their burrows. After walking through some fairly dense shrubland, we suddenly come to another natural clearing, about 75 - 100 metres by 40 - 50 metres. Off to one side there is a miniature canyon-like cavity, maybe 20 - 30 metres long and 5 - 10 metres wide. This sudden depression in the ground has been (partly at least) created by the total collapse of a wombat warren, many years ago. The wombats have redug the warren, clearing out the fallen rubble several times over several generations of occupants. Until, eventually there is this huge hole in the ground – casually referred to as – The Depression.

However, although the wombats have played a part towards producing this cavity, I do believe (from a number of observations of similar features in similar areas) that other factors have contributed. Certainly wombats are involved, but I suspect there was originally at least something of a subterranean cavity to begin with, covered by the sheet limestone that the wombats further undermined, until eventually it all collapsed into the hole they had enlarged. This may also explain the clearing, or the immediate absence of larger shrubs and trees, there being insufficient soil under the limestone to support them. Their roots do go under the sheet limestone by forcing their way through a maze of cracks and faults, but in these cases they are unable to reach sufficient soil for nutrients and water, due to a 'honeycomb' of natural cavities.

Cavities in other limestone areas are quite common features and well known. Perhaps the other extensive warren complexes here on Moorunde, that also have no large vegetation species immediately above them, are also over immense subterranean cavities that the wombats 'tap into'?

'Cavities in other limestone areas are quite common features...'

Southern Hairy-nosed Wombats do favour dry areas covered by sheet limestone – almost exclusively; and maybe this is why they do? Some of the construction work for their lodgings having already been done for them by water leaching, over thousands of years or more!?

Paradoxically the most important aspect concerning the above few paragraphs and their questions, is that it's all speculation - on my part. Yet why are all of the major warrens devoid of any trees and shrubs? The depth of soil above the limestone

layer is as adequate as in other areas. But these large areas only support herbage type plants!? the unanswered questions here are the most interesting features, simply by virtue of them being unanswered!

There are some lovely large and pristine mallee trees alongside this spot, surrounding one side of the clearing. Always such trees are noticed on Moorunde. The dictionary definition of pristine is – ancient, unspoilt and large areas of mallee trees in this district (vast numbers of trees) are not pristine. They were cut down either for making charcoal or used directly as firewood and this activity wasn't discontinued until the late 1940s. The trees have since regrown, but their felling provides another theory of mine that is related to the above, concerning why or how the Depression was formed. Over Moorunde there is a number of wombat warrens dug in the middle of large stands of mallee scrub. There are no suitable grazing areas close to these warrens and most of them are not occupied by a viable family or community of wombats. Occasionally one or two of the burrows show signs of a wombat cleaning out an entrance, but in all probability this would be due to a single wombat driven out of its clan. Such as an old male that has lost his dominant status and he is looking for shelter. Yet why are these very large warrens dug in the first place? I suspect that the areas around these warrens were made temporarily suitable for growing forage plants when the mallee was cut down for charcoal and firewood. So the warrens were dug then! And although very suitable for this (perhaps due to subterranean cavities) the grazing was lost as the mallee trees grew back!

There is something else that the wood harvesting has caused – the local extinction of the Mallee Fowl, which is a ground dwelling bird about the size of a very large domestic hen. These birds scratch up a large mound of sand, twigs and fallen leaves using their wings, rather like a broom or leaf rake. The mounds are as much as three or more metres in diameter and one to one and a half metres high and are used to incubate their eggs. With a combination of radiant (or solar) heat and the heat from decomposition of plant material, the correct temperature is provided for hatching eggs. There is quite a number of these now unused incubation mounds still to be found over Moorunde.

Mallee Fowl, particularly the male, actually work much harder to incubate their eggs this way (compared to using a nest) as the mound has to be constantly reworked to maintain a stable temperature, which the male monitors as he scratches out or scratches on more sand, by regularly pushing his beak into the mound near the eggs. I guess birds such as these, and other species of mound builders, add one more piece of evidence to the theory of birds having evolved from either reptiles or dinosaurs.

But in all this speculating around the Depression I haven't answered the question you have been wanting answered. How deep do the wombats dig their burrows or warrens - as illustrated here? There is, of course, no evidence to say they actually go as deep as this cavity except there are now burrows begun at the bottom of it. Conversely there is nothing to say that they don't go even deeper. It's simply my speculation based on probabilities in observing this and other examples elsewhere.

But you at least want to know how deep is this big hole!? Ah well! That's for you to come and see, and I will be happy to take you there. At the right time of year we may even be fortunate enough to see Rainbow Birds or even a Red-backed Kingfisher. They have dug little burrows themselves, into the sides of the cliff faces to make their nests.

Perhaps, instead of directly returning to our vehicles, we have persuaded our guide to show us the groves of Callitris pines, which are not too far from the depression. In any event we eventually return to the track and drive on a few more kilometres before pulling off into a small parking space near an old disused track that leads off in a south-east direction. It's a leisurely stroll along this old pathway. Frequently in almost total silence, as it's surrounded by almost a shrub-free understorey, with just a canopy of mallee trees. Essentially a mono-culture habitat,

resulting in a restriction on numbers and variety of birds. Sometimes on hot days though, one can be surrounded and serenaded by a choir of cicadas. It's also a spot to 'call up' White-eared Honeyeaters. I have one of these wooden finger-operated bird callers on the lanyard of my compass, that hangs around my neck. These otherwise elusive birds readily come to the squeaking and tweeking sounds the callers produce as you twist it back and forth.

Shortly we reach our destination that this track avails us. The restored Woodcutter's Hut. A tiny abode, in an extremely lonely location. Just one room. Half the walls of which are formed by digging a square hole in the limestone ground. I have in a previous article described this desperately humble family residence, when I draw some comparisons to the house of 'The Drover's Wife' in Henry Lawson's short stories of the late 19th century.

Back into our vehicles again and we are only 'a stone's throw' from an intersection in the tracks. One track here leads north along the old boundary from the days when Moorunde was much smaller and in the shape of a giant reversed capital L. However, we continue east for a little less than two kilometres and the next intersection is a track running north-south along the eastern boundary of the reserve. We turn north here; but up until now, we have been travelling from the western boundary parallel to the southern boundary and about two kilometres north of it. We have traversed the full width of Moorunde! Here we can note the contrast between the opposing sides of the boundary fence. This may change (in time), but at present the understorey growth is largely absent. There is some leaf and twig litter, which is a vitally important component of habitat in Australia, but very few shrubs on the neighbouring property, due to stock grazing.

The ground here slopes away to the east, with a canopy of mallee trees, and eventually terminates to a flat close to the River Murray. As we head north, and at fairly regular intervals, the track is cut by gullies coming down to cross it. So our path can be rather rough here at times, due to the event of water running down these gullies during heavy rain falls. However, by going slowly, and with some care, a standard car can negotiate them, aided by the efforts of our volunteer workers, in grading and carting rubble to the worst places.

At the top, or ridges of the last few gullies, one can gain glimpses (in the distance) of the cliffs on the other side of the River Murray. Then after rising the last gully, we reach the old northern boundary fence and we turn west to follow it for a few hundred metres. We come into a small clearing in the scrub and find one of the places where charcoal was once produced many years ago. A series of square pits that held the cut wood as it was 'control burnt' to a coal or coke-like constituency. Alongside these lines of pits is the old refuse dump of the people who once camped here and worked to make the charcoal. A scattered pile of rusty food cans and broken bottles.

Then we are back onto flat running as the track winds its way westward through the scrub which has much more undergrowth here than further south. But after about a kilometre it suddenly opens out again to a large natural clearing that the track dissects. Like the clearing at Casuarina Flat, it's a large claypan and distinctly different to the ones that are above the big wombat warrens. It's quite intriguing, these clearings! The boundary to most of their perimeters is sudden; there is no dwindling or gradual thinning of the scrub, but an abrupt stop. Also there seems to be no shortage of soil, at least above the limestone layer, to sustain larger plants as the clay is several feet thick. Yet only herbage type plants grow in them. And I guess in this case the limestone layers are concave and the clay becomes waterlogged from time to time, frequently enough to prevent trees and shrubs from growing. But not enough times or duration of waterlogging to foster those larger plants that can survive in wet conditions. It's either too wet for the arid and/or too dry for most of the time to encourage water tolerant species.

A little further on and we reach (again) the old north-south running boundary fence line, at the former top north-west corner of Moorunde. Here the fence has been partly dismantled, enabling us to drive on into, what is called on topographical maps, the Twelve Mile Plain. Which is the more recently purchased and now included area of the reserve. For a short distance there was originally no track here, but one is being formed by vehicle traffic (an exception) to connect to an old established track of the Twelve Mile Plain that runs south-west to north-east. It's only a hundred or so metres to join up the two older tracks, and being done to enable vehicle access for eradicating areas of Onion Weed. The south-west, north-east oriented track has been named the Red Tank Track, as it takes us (by heading north-east) past an old rusted and dilapidated 'squatters tank'. The tank is no longer in use, but once when full, it held 25,000 gallons (115,000 litres) of water.

After passing this old tank, and even before it really, we have entered a landscape of the true Australian 'outback'. Large clear areas with horizons that go on forever, with intermittent patches of scrub - large and small, some thickly wooded some like scattered parkland. A place like many others where one expects to travel for hour after hour, ever watching to come across something different just over the horizon, or around the other side of those trees. Yet never quite doing so! Forever feeling that tug to just go on and on to see what lies beyond, never being able to accept it's an illusion, a fantasy that draws you there. Only to find it's the same.

You really are in the arid 'outback' too! Yet less than two hours from the edge of Adelaide. No other state capital city in Australia is so close to the 'the inland', 'the outside country', 'the outback'; the country so many people make four-wheel drive expeditions or pilgrimages to see and be in. This is the land of that symbolic third day when 'God said; Let the waters under the heaven be gathered together unto one place and let the dry land appear; and it was so...'. That 'third day' took millions of years in duration, in real time; but for this trip we have been travelling over what was once the bed of a sea.

We live in Australia in the most worn down, the most eroded land on earth. So old, so very old that what we really go into the 'outback' to see is something that challenges time itself. Land that has had the flesh flayed away to its bones and leaving only the ghosts of the long past, the spirits of creation. And it's no wonder that its original human settlers, the first to come here over 40,000 years ago, refer to it as the 'dreamtime'. They have been right all along! And this is what really draws so many people to Australia's great deserts and arid inland areas. Not the scenery or the views, not the landmarks (human or nature made) or the vistas, but just the land itself. Something that is mysterious and greater than ourselves. Some place, not some object, but vast areas of silent antiquity; the oldest land on earth, where the very air or atmosphere has a sense of fierce expanse and infinity.

But that can be a little frightening! So it's with quiet and privately admitted relief that after the track curves towards the south-east we once again come to a fence-line, the north-eastern limit of the Moorunde Reserve. Bringing us back to the real, and now; and the comfort of modern human enclosure. Where somebody has previously decided for us to cease pursuing the illusions; to tell you there is no need to go on, that you are after all at least within reach of civilisation. And there is some comfort to be had in that; it's the reason why civilisation exists.

At this fence we turn left and follow the track in a northerly direction for a kilometre or so, then curving to a north-westerly direction. Where the reason for these alternating clear areas and scattered patches of scrub, with the odd individual trees, why there are such large areas of ground devoid of significant plants, becomes more obvious. Much of the ground has no soil at all, much of it has only a centimetre or so. We have in fact been travelling over the floor of a once shallow sea, that receded some five million years ago, leaving on its bed a sheet of hard limestone. At one time (only yesterday in Australia's geological time) this calcium carbonate was

dissolved in the warm shallow water of the sea, as a 'supersaturated solution'. Until eventually the sea water could no longer hold it in a dissolved state, and so it settled out as sedimentation on the sea floor and over time hardened into what is termed calcrete, a layer of limestone harder than concrete! However, it's not of uniform thickness and it also undulates; in addition to being pock-marked with little plate sized craters caused by leaching and erosion of softer patches.

This calcrete covers all of Moorunde at varying depths below the soil above it. The soil originally came, and in fact still does come, as dust; and it's the depth of soil above this sheet that dictates what plants grow where and how densely they grow together. Here in this north-east section the soil layer is particularly thin and supports scrub land only intermittently or with the occasional single shrub or tree. Then there are also 'moonscapes' of pock-marked areas, little leached out craters where soil has gathered to support herbage type plants surrounded by sheets of almost bare limestone. Most of the exposed limestone, plus the thinner soil areas are covered by a variety of lichens, moss and even some liverworts. All of which are gradually breaking the limestone down to soil too. After a period of rather rare wet weather, the array of these primitive plant forms flourish into a display of modest serene beauty, with shades of various greens, creams, pink, rusty red and even black and white, indicating that there are a dozen or so different species, even within as little as a square metre.

Further along and we are confronted with another structure that represents civilisation; and this time not as subtle as a fence. The track and boundary comes into contact with a long black scar of bitumen - the Sturt Highway. With cars, buses and huge double bed semi-trailers thundering their way back and forth across the country. Every single driver wishing they were somewhere else and doing something about fulfilling that wish. This time civilisation doesn't look (or sound) all that comforting, and we turn south, as much to to escape the highway as to continue our tour - and it's getting late in the day!

Although we first entered Moorunde with a late spring, early summer sunrise, there is not much time left before that sun sets. This track heads south through the middle of the reserve and is therefore simply called - the Centre Track. Thick mallee scrub is on our right and the exposed, or almost exposed, section of the ancient sea bed is on our left, until we reach the approximate centre of Moorunde; where the mallee takes over both sides and the track descends into a large depression, somewhat saucer-like in formation. There is a clearing in the centre and another ruined squatters tank and a few stock water troughs that are no longer in use.

It's a delightful spot here that seems, for some reason, to be inviting and cheerful, and a temptation to camp in. Sheltered from any wind by being set lower than the immediate surrounds, ringed with the mallee scrub giving further protection, but far enough back to not be claustrophobic. Several tracks lead out from here and two others that could take you out to the western boundary, each through a different habitat type and landscape; one that arches northerly, the other with an arch to the south.

There is no time left to follow either track or even stop; we are travelling in the twilight as the sun dipped behind the distant Mount Lofty Ranges a few minutes ago. Yet as we rise the southern edge of this land-saucer and enter a sparse shrubland that thickens towards the west, we must stop! There is a bank of clouds slowly traversing the western skyline and being broken up into a myriad of smaller clusters and pieces by the barrier of the hills. As so often happens in this arid rain shadow side of the ranges. The golden light of the setting sun blazes into the shattered clouds with an array and range of colours; shades of pink, orange and tarnished silver. With the distant hills clothed with the most exquisite shadows of indigo and violet, in contrast with the surrounding evening bushland silence of darkening greens and grey. So you see, we had to stop and take it all in, to feel it, see it and be part of it outside of our

vehicles and standing on the edge of the track. It's beautiful! So much greater than ourselves and here in this place, in this time, we can reach out and touch the divine because it covers us. Nothing else compares to the fading of light and the silence of the bush at the end of the day.

Perhaps I'm getting too old and too tired and maybe I delude myself, or I'm getting too melodramatic with my notions of grandeur and how I see the world in this way? But at least in this instance, in watching the others in this party, I see they are enchanted too! So it's with some reluctance that they return to the vehicles, to move on.

After driving south for several more kilometres, through a shrubland that is recovering from being at one time a sheep station, we reach the track on which we originally entered. Turning west, it's only a few minutes and we are back at the Rangers' campsite. It's getting dark and that spectacular western glow has faded to a fringe of gold. An Owlet Nightjar that resides somewhere close gives its evening scream and then all around it's silent.

We shall spend the night here under a sky sprinkled with bright stars.

HOPE – TO BE FOUND IN ANTARCTICA?

'I'm just going outside for a while.'
Seaman Oates – Scott's Antarctic expedition, 1912.

When Seaman Oates stepped out of the tent and into the Antarctic blizzard, he knew hypothermia would quickly overcome any will left in him to live. Yet he managed to walk far enough away that (to the best of my memory) his body was never found. His last words (those quoted above) were recorded in Scott's diary. And they have made all five men on that trek to the South Pole immortal.

Oates knew the others could not get back while he was alive, as he virtually had to be carried due to severe frostbite. Frostbite so severe that, had they returned, his feet and hands would have to be amputated. So even the small task of stepping out, with the associated pain, was a remarkable effort in its own right. But he was fully aware that the other men, Scott in particular, were determined that while all of them were alive, all of them continued on together. There was no flexibility in this decision. And years later, when the three remaining men were found frozen in their tent, their diaries confirmed this. The fifth man had died earlier from falling into a crevasse.

These diaries also indicate the motive in Oates' actions – along with his last words, uttered as though he was just going out to take the dog for a walk in the park! It wasn't the pain of frostbite, but a desperate bid for hope; to help save the lives of the other men. An action which paradoxically, conceals in history, the true nature of the whole expedition to Antarctica. It was, from beginning to end, intended to be an expedition of discovery. An expedition to unlock more of natures secrets. 'To take these discoveries back to the world' so that people could know and understand more about the planet we live on. Everybody who set out on that ship was meant to play a role in the study of 'Natural History', with the effort to reach the South Pole being only a small part of a much larger expedition of observation and discovery. But the discovery mission was overshadowed somewhat and dwarfed by the tragic events in reaching the South Pole. And, in a way, that's how it should be, because there are times when (to our advantage), exposing the inner workings in people's minds is also a part of Natural History. The environment is measured by our reactions to it!

In this case the focus was unintentionally shifted from the Antarctic to the qualities displayed during human endeavour. The actions and thoughts of these five particular men (so faithfully recorded) can give hope for those of us who strive to save the precious 'leftover corners' of the natural world. To me, Oates' last words can be seen as 'a signature statement' in this endeavour.

You see..., I don't even remember the name of the expedition leader who beat Scott's to reach the Pole! And neither do most people. Ironically, the death of all five men in that effort has made them far more prominent. The story of Oates is important to me because his is famous and immortal; and a rare instance where a physical impairment highlighted qualities that most of us will never have an opportunity to display. Qualities that many of us would aspire to; such as bravery, self sacrifice, endurance, camaraderie and humility. And we grasp at illustrations such as this one, where there was no violence involved to expose them, like thieves to diamonds.

Originally Scott had intended to have only four men in his team; to make a dash to the South Pole and back. Oates was included because, as a seaman, he was a practical man. Scott was, and rightly so, confident of his bravery and loyalty. But his reason for inclusion was that Oates was a big and very strong man. And it is important to remember that Oates was well aware his strength was the reason for Scott's choice to include him.

I have been at 'the butt end' of smugness and innuendoes about Oates (the biggest and the strongest) being the first to succumb to the rigours of the trek. Yet to me, these people simply display their ignorance of the events during this expedition to Antarctica. Unlike the team that did reach the Pole first, Scott's entire expedition revolved around discovery, trials, experiments and observation, not just a 'glory hunt'. His was the first expedition to try alternatives in clothing, rather than animal skin furs. He was the first to experiment with 'caterpillar' tractors and ponies for hauling sledges instead of dogs, which were eaten as hauling requirements were reduced en-route. And despite not returning alive, Scott and his team were the first to prove that it was possible to reach the Pole on man power alone.

Over time, Scott and the other four men achieved far more for humanity in dying than the team which did beat them to the Pole. You see, Oates stepped out into the dark Antarctic blizzard to simply give the other men the remote possibility to survive and return alive. (While I know of plenty of people too afraid to step out of their own door into the dark). And it was only a remote chance offered, not a certainty – he knew this! But still he chose this course of action and with decided-upon reasons too – loyalty and camaraderie! Oates knew his only contribution to the team was the ability to pull harder, and he did. Just as Scott expected him to. But..! His food ration was the same as the others (despite the extra work) and so was his clothing! By pulling harder, his body fat was stripped away faster, reducing blood insulation along his legs and arms to his feet and hands. By pulling harder, he perspired more, reducing the insulation of the woollen gabardine clothing. This resulted in an earlier and more severe onset of frostbite. With that, Oates knew he no longer had anything to offer his team. When it was most needed. Then he became a liability, needing help to walk. But the other men refused to 'dump him', despite what I know would have been (potentially) extreme temptation to do so, and with this foregone decision, they sealed their own fate!

There is something of a misconception here regarding this effort to reach the Pole (hopefully first). Some consider Scott to have been foolhardy in the methods used for this trek. No animal skin furs for clothing, no dogs for hauling and so on. But it's here that many miss the point. Scott knew furs and dogs were a proven way to go, but his was an expedition of and for discovery; he wanted to try out new ideas and methods for a new and dawning 20th century. And maybe they didn't work and maybe they did contribute to their death. But in their dying they gave us hope for this new and uncertain 21st century. They were at least brave enough to try out alternatives and illustrated what just five men can be prepared to do.

Although the expedition took one of the world's finest weather forecasters of the day, there were inherent problems in making these forecasts without a long-term set of records. On the trek back the temperature unexpectedly (and unusually) dropped 30° below what was assumed, followed by a complete drop off in a normally continuous and predictable wind and so the sail for the sledge became redundant. The extreme cold prevented the sledge from compacting the snow down into hard slippery ice. It then had to be dragged through the snow instead of being able to slide, while the men were constantly cold in clothing not designed for this unexpected and extreme cold weather. Along with a 'breakdown' of their best hauling man, they were struck by a blizzard when low on rations. All this ensured failure to return. So they died!

But not before Oates made one last brave effort to increase the 'per capita' rations and reduce hauling weight to hopefully save the other men.

And where is the hope to be found in all that? For this new, uncertain and beginning 21st century? As these men died because of, and not in spite of, all these qualities in people we most strive for and covet.

Yes, they died through not being prepared for, or adequately equipped to, confront an unexpected weather change. While in this new century of unexpected

weather change - that is frequently the main topic of the day - we are still inadequately equipped for it!

How can I say I see any hope? It is Oates' last pathetic effort to save the others! Which accounted for nothing in the end, as he probably knew it most likely wouldn't, but tried anyway. It's here that one can see something that cannot be defeated, no matter what! And he was considered to be just an 'ordinary man' when first setting out with the others. It is this fact of being an 'ordinary' person with such qualities that show there were and must still be people around to see us through. People who will, or can, say 'I'm just going outside for a while'. And maybe this time succeed and make it alright for us all!

It's only a hope I said, and like Oates must have known, not a guarantee. And the 'stakes' this time are much higher. With a world staggering under the stress of pointless wars and massacres, shrinking resources, polluted atmosphere and with so many corrupted leaders – that's all one is entitled to. But this is a country full of 'ordinary' people, who see the importance of the ethic in Scott's team – that while all of (them) us are alive, all of us continue on together. This is what makes a 'lucky country' (not wealth) and the reality of this luck is, in fact, a responsibility 'to take these discoveries back to the rest of the world'.

It's a responsibility that Australia is in a unique position to take up and fulfil; because there are two hundred places in the world that make up our population. And we might well be only 21 million; but just remember, that's at least 20 million 'ordinary' people prepared to pull harder!

May - June 2008

EPILOGUE

MILO

'Success is to be comfortable with who you are...to know yourself and feel good about that.'

Source not known

The prison officers called him 'Milotin' when talking about him amongst themselves; but when addressing him personally, he was just 'Milo'. I don't remember his real name, and probably most officers never knew it anyway. His surname was very difficult to spell and pronounce, but it sounded a bit like Milotin and so that's what we called him.

It seemed to suit him in a strange endearing sort of way too; while you might think it prejudicial and derogatory to refer to a man that way. But there was never a malice or self-righteous thought in it from those who spoke to or about him that way. And he never thought so either. He was happy enough to talk with and to anybody who spared the time to do so. And unlike the intelligent, but poorly educated prisoners who had a limited range of vocabulary, Milo was never angry or insulted or embarrassed when spoken to, using words he couldn't understand. His brow would furrow, whenever he struggled for a reply, indicating to the speaker his mistake in using this word or that; and so the comment could be rephrased to accommodate him.

Not that conversations were all that long, or 'in depth', because Milo's powers of cognition were somewhere around that of a pre-school or early school child of average intelligence. And for some reason, this endeared him to almost everybody, officers and prisoners alike. In fact those few prisoners who took advantage of his low intelligence and made fun of him, were dealt with severely by their peers, if it became known; and officers 'turned a blind eye' to the process.

In the main though they were all generous to him, and kind as well. And one could use observations of prisoners' approach and attitude towards Milo, as a guide to their inner personality and character. Quite a number of officers, as well as myself, covertly observed the interactions between Milo and other prisoners to glean insights into otherwise tough, angry and uncompromising men.

But interactions with prisoners did occasionally have its down side too. There were a few who enjoyed making fun of him with sly questions that they knew were beyond his capacity to comprehend. The odd prison officer degraded us in this way too; but we snubbed them if they ever commented on it. Yet even then, Milo took it for granted that, 'everybody else was smart,' and accepted it with whatever capacity he had to comprehend. It was still cruel to witness though, but we had no powers to prevent prisoners having, 'an innocent conversation with one of our own'. However, when an officer saw the odd prisoner trick him into giving away some of his tobacco, to them it was a different matter, as they could be 'reported' to other prisoners. And we 'never saw' how justice was dispensed for Milo, as for some reason we just happened to be always looking the other way at that moment!

He was a little man, about the size of a fourteen or fifteen-year old boy, and never a problem to handle. All he seemed to need was a warm place, with the sun on the wall, to sit and lean against. A good supply of tobacco and papers, and a friend or two to join him. Or, when alone, a passing prisoner or officer to stop and chat a moment or two. After unlock he would be seen striding off, inside a woollen prison coat, several sizes too big for him, to a known and favourite spot. He seemed to know the most likely places where the chances of another person passing by were good; which were also good spots in terms of sunlight and the cold wind. And as low as his intelligence was, he knew who was kind and generous to him; and who were not.

One could tell this by observing the expression on his face, because for those men he never smiled. Although there are only rare instances in prisons when something is innocent to smile about. And in this aspect of reality he was equal to all of us. Yet most days were good for him, especially if a few 'extra smokes' came his way and enough people stopped for a word or two.

So he was looked after and watched over. He was well fed and clothed and had a place of shelter, with a bed, to sleep at night; and he was only lonely while locked in his cell at night. Which he told me, 'wasn't so bad Boss 'cause everybody else gets locked away too'. More than that though, he was (apart from a very small minority) universally liked by everybody, officers and prisoners. Which is something that more intelligent people can rarely achieve.

One day I asked him why he was in prison, and I saw on his face, as I squatted down, the difficulty and effort to try and explain this to me. He frowned for some time, and then his face lit up, just prior to the answer; as though he had received some great revelation. 'I got hungry Boss', he replied. Then I increased the strain on him, by asking how being hungry got him in prison. He frowned again, as he struggled with this added complication, then once again his face lit up with an answer. 'I think because I broke the glass in the door, to get to the pies in the shop'. 'I see', I replied. But then there was more to come, which was unprecedented because he usually never added more to a question already answered. 'I don't think I should have taken the smokes as well Boss'. Then he smiled, an oddly innocent but at the same time conspiratorial smile. I laughed as I stood up again, saying, 'I think you might be right there Milo!' And we both laughed - both laughed at the innocence of the moment. Who says there are no such things as miracles!?

In the duration of that laugh, and as he took another 'drag' on his 'smoke' and smiled, and as I looked down on him, in the corner of my eye I saw three prisoners watching to see that Milo was not being laughed <u>at</u> by 'that big screw'. Prisoners prepared to confront me if I was! You may think that was the miracle I am referring to – innocent laughter in a prison. But no, oh no, not at all! That was a rare bonus I will grant you that and the smile and laughter an indicator to it. Not a miracle though! One needs more than that to claim one. The miracle was that a place such as a prison could provide an environment in which a person can see (and others can see) themselves as having attained success. Which I realised and then saw in Milo's face, that he too knew he had at last attained it; because by stealing the 'smokes' he became somebody in a community and 'belonged' to it'

Milo was a man who had become successful! Under the terms of the above definition. Which is something denied to people such as me, with Post Traumatic Stress Disorder – the notion or feeling of attaining success. Despite being (in fact partly because of being) at the extreme opposite end of the 'I.Q.' graph, I was a failure. And not just that either! Milo saw in me a person superior to him, somebody to be respected as well, and superior in rank as their work site supervisor. So there I was and here I am, in terms of that definition, a superior and respected failure!

But I'm still alive, still a survivor! Despite an affliction that frequently proves fatal to many others with it. So that in itself is an achievement. And I can write; and because of my prison experience, write without fear of exposing my inner self or deeper feelings, something many people (particularly men) have difficulty in doing. Although some people claim that I, 'must think differently to everybody else', that's not necessarily a bad thing. It's difficult, to be that way, but not necessarily bad! My social and inter personal skills (due to my affliction) frequently make me appear abrasive and abrupt to others. Which alienates me from 'mainstream' society. However, some people can see past that. I see myself (and perhaps they do too) as 'the person who does the writing', about Natural History and its connections and relationships with life. And therein I think perhaps I have attained some success, and some peace. Which is more than many can hope for or lay claim to.

I have a wife and family to take care of me, and some friends who have 'looked out' for my welfare. Milo's 'success' stopped on the day of his discharge from prison, which is a sad paradox. With the outside world being more hostile and cruel for people like him. Trying to survive on their own, with abilities that barely enable them to know the difference between getting hungry and committing a crime. With people claiming we should get tougher sentences for 'law breakers' – really what do they know outside their own comfortable world? While the rest of us are concerned about 'global warming', as we slip under the blankets of our own warm bed, or how to pay the electricity bill if, or when, a price is put on 'carbon emissions'. It's just never, ever that simple!

My point is, that to be in a position to have an interest in Natural History, and to be concerned about Conservation, one has to be (in comparative terms) 'well off' and rather 'lucky'. And we would do well to remember that. To switch on a light, turn on a tap, buy a pair of shoes or have a cup of coffee while there in the Mall; all of these seemingly simple things take resources from the earth. Something, somewhere that has to be somehow paid for, and not just with money! That's alright if the cost is 'sustainable' or 'renewable', which are new meanings for words to accommodate this new and dawning twenty-first century. But are we fully conversant with what goes on in the world, to be in a position to use these words, and not be hypocritical towards others, who provide the wealth that enables you or us to be 'well off' and 'lucky'. Do you or we, really know enough to be able to tell or say, what should or should not be done, and if so how has it been paid for? Even today Conservation (and Animal rights) for many people and much of the world are a luxury. Necessary, but still a luxury!

I included the three stories from my prison experience, about James and Milo, and the boy in the suicide cell at Adelaide Gaol, not because they have (directly) anything to do with Natural History (as they don't) but to illustrate or remind you how wealthy and comfortable most of us are (here in Australia) and too, for most of us how fortunate. Something we need to understand if the world is to be saved from us, and maintain the good fortune we enjoy in it. Because Conservation isn't just about wildlife and habitats, or about farming, mining or industry practices. Conservation is about managing and communicating with people.

And just how well versed are most 'Conservationists', or how qualified are 'Greenies', when it comes to understanding and managing humans and communities of humans? It's a valid question, because 'we' are what the earth needs to be saved from, while the main focus seems to be on what needs to be saved, when that's easy to answer – everything or at least almost everything! To achieve that, some sacrifices from all of us are necessary; and more of us need to learn, 'how to wear rubber boots' and be at least prepared to say, 'I'm just going outside for a while', and hopefully this time able to return.