
Five Million Hectares
- A Conservation Memoir -
1972 - 2008



Paul S. Sattler

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Paul has a lifetime of professional experience in nature conservation. He was the principal architect in doubling Queensland's National Park estate in the 1990s whilst working with the Queensland National Parks and Wildlife Service (QNPWS).

Paul initiated and guided the comprehensive description of Queensland's bioregional ecosystems and the assessment of their status, a vital planning tool for conservation and natural resource management. He was directly involved in the development of a range of State and national conservation policies and has a particular interest in rangeland conservation and sustainable management. After leaving the QNPWS, Paul formed his own specialised eco-consultancy business and was principal author of the National Land and Water Resources Audit's terrestrial biodiversity assessment of Australia, the first detailed assessment of biodiversity at a range of scales nationally.

He grew up in a beekeeping family and learnt a practical appreciation of nature and is now once again, an apiarist. Having completed a degree in Applied Science (Rural Technology) in 1971 at the University of Queensland, Gatton College, he went on to gain a Masters degree in Natural Resources at the University of New England, Armidale.

Paul has been awarded a Medal of the Order of Australia for his services to biodiversity conservation.



Dedication

To my daughters, Seola Anne and Melita Louise.

Cover photos

Front: Boodjamulla (Lawn Hill) National Park in North-West Queensland – an old landscape of timeless residual rocks, sites of incredible beauty, fossil record and Aboriginal history (*DEHP photo.*).

Back: Albinia National Park in central Queensland with its rolling Blue grass downs. This ecosystem has all but disappeared in extensive cropping areas such as the Darling Downs. This was my last park acquisition.

Five Million Hectares

— A Conservation Memoir —

1972-2008

PAUL S. SATTLER

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Contents

<i>Introduction</i>	1
<i>PART I – A Conservation Memoir</i>	3
CHAPTER 1. EARLY YEARS.....	3
Beekeeping	
Mum’s Christmas Bell Legacy	
Family’s First Connection with Caloundra	
CHAPTER 2. GETTING AN EDUCATION.....	11
Early Schooling	
Queensland Agricultural College	
University of New England	
CHAPTER 3. VALUABLE EXPERIENCE	15
Co-ordinator General’s Department	
Department of Mines	
Research into Mining Rehabilitation	
Queensland Herbarium	
CHAPTER 4. QUEENSLAND’S NATIONAL PARKS	21
Queensland National Parks and Wildlife Service	
Queensland National Parks: beginnings	
CHAPTER 5. EARLY PROJECTS.....	26
Commonwealth Grants Commission	
The Sir Thomas Hiley Centre	
St Helena Island	
CHAPTER 6. CENTRAL QUEENSLAND COAST - NATIONAL PARKS AND SAND MINING	30
CHAPTER 7. PUMICESTONE PASSAGE AND BRIBIE ISLAND	36
CHAPTER 8. DEVASTATION OF THE BRIGALOW	40

CHAPTER 9. CREATIVE SOLUTIONS – THE GOLD COAST TO THE MULGA....	44
Southern Moreton Bay	
The Mulga Lands – Stalemate	
Thrushton	
Idalia	
Southern Moreton Bay continued	
Other Conservation Achievements by the Hon. Ivan Gibbs	
The Fitzgerald Enquiry	
CHAPTER 10. ROYAL SOCIETY OF QUEENSLAND	58
CHAPTER 11. CHANGE OF GOVERNMENT IN QUEENSLAND, 1989	60
CHAPTER 12. THE MULGA LANDS CONTINUED - IMPLEMENTATION	63
A World First	
Welford	
Tregole	
Culgoa Floodplains	
Boondall Wetlands and Bore Drains	
...poor bloody dog	
CHAPTER 13. CHANNEL COUNTRY.....	70
Diamantina	
Astrebla Downs	
Lochern	
Other Channel Country Parks	
CHAPTER 14. ADVANCES IN OTHER BIOREGIONS.....	75
North-West Highlands	
Einasleigh Uplands	
Desert Uplands	
Mitchell Grass Downs	
Cape York Peninsula	
The Gulf Country	
South-East Queensland	
Northern New England Tablelands	
Sugar Coast Environmental Rescue Package	
CHAPTER 15. THE BRIGALOW BELT – CONSERVING WHAT WAS LEFT.....	88
Homevale	
Other Brigalow Parks	
Albinia	

CHAPTER 16. BUILDING SUPPORT FOR EXPANDING THE PARK SYSTEM	94
A Bioregional Framework for Australia	
HORSCERA Inquiry and Commonwealth Financial Support	
The Romeo Lahey Memorial Lecture	
CHAPTER 17. CONSERVATION POLICY DEVELOPMENT	103
Rangelands	
Kangaroo for the Table	
BOX 1. SOJOURN TO SOUTH AMERICA.....	109
BOX 2. SOJOURN TO ANTARCTICA.....	113
Forest Policy	
Vegetation Management	
Council for Sustainable Vegetation Management	
The National Heritage Trust and the National Reserve System Co-operative Program	
Ecologically Sustainable Resource Management	
BOX 3. SOJOURN TO EAST AFRICA.....	129
BOX 4. SOJOURNS TO SOUTH-EAST ASIA	131
Transport Corridors	
CHAPTER 18. PUBLICATION OF <i>THE CONSERVATION STATUS OF QUEENSLAND'S BIOREGIONAL ECOSYSTEMS</i>	133
BOX 5. SOJOURN TO THE MIDDLE EAST	138
CHAPTER 19. ECO-CONSULTING	141
The National Land and Water Resources Audit	
Murray-Darling Basin Commission	
State of Environment Reporting	
Regional Consulting	
CHAPTER 20. HONOURS.....	146
CHAPTER 21. JANE	148
CHAPTER 22. WOLRD WILDLIFE FUND AND HUMANE SOCIETY INTERNATIONAL	149
Building Nature's Safety Net	
CHAPTER 23. GROWTH OF THE NATIONAL PARK ESTATE	153
A FINAL NOTE.....	155

*PART II – Expansion of Queensland’s National Park and
Environmental / Conservation Park Estate 1975 – 2000* 158

Annual Growth and Acquisition Funding, 1975-2000
Increase in Representativeness
Gazettals for Each Year, 1975-2000

PART III – Family History 189

Paternal
Maternal
Work down through the years
Sattler Family History – Supplement

References 204

Paul Sattler’s Publications and Contributions
Other References

Appendices..... 213

List of Tables
List of Maps
List of Figures
List of Photos

1 Gulf Plains
The extensive marine plains and wetlands of the Gulf support some of the largest natural superparks of southern Australia such as planned saltwater lakes.

2 Cape York Peninsula
The golden-shouldered parrot is an endangered species of the north-east of Cape York Peninsula. Discovery is possible through special protected environments.

3 Wet Tropics
The sharp-toothed sunshiner is one of many endangered fish species from upland habitats and riparian systems, and obtaining the population declines.

4 Northwest Highlands
The paragonised kangaroo is a national emblem of Australia in a large part of the park.

5 Einasleigh Uplands
Many of the hills in the Einasleigh Uplands are in the Einasleigh National Park. All other habitats are essential for conservation due to their species richness.

6 Central Queensland Coast
The endangered Perentie rockwallaby is found among the rocky outcrops of semi-desert coastal mountains. It is threatened by urban and agricultural expansion.

7 Desert Uplands
Springs are critical areas for the protection of biodiversity including highly restricted species such as the red-tailed black and Speckled pardalote.

8 Mitchell Grass Downs
The endangered Julia Creek district is one of the most of southern coastal districts. The 100-150 km long district is the only one of its kind in the world.

9 Southeast Queensland
The ground parrot and Christmas Island are species threatened by development and changed fire regimes in the coastal wilderness. It is threatened by urban and agricultural expansion.

10 Channel Country
The mudgums of the Channel Country are restricted to areas such as the Channel Country. The Channel Country is a large natural area with a large number of species.

11 Brigalow Belt
Many of the common kangaroos such as the eastern grey kangaroo are endangered. The rare golden bell is one of the most endangered species in this region.

12 New England Tableland
The spotted bell quail (figure) is a nationally species from among the rugged granite domes and bays of the New England National Park.

Mulga Lands
Many of the kangaroos are threatened by land development and the loss of grasslands and wetlands. The kangaroos are threatened by land development and the loss of grasslands and wetlands.

Introduction

I have been privileged to have played a role in protecting many wonderful places as Queensland's National Parks expanded by over 5.5million hectares. This expansion coincided with the period of significant growth in environmental awareness across Australia, and to have been closely involved in nature conservation during this time has been immensely satisfying.

This memoir includes the time when I entered the Queensland Public Service in 1972, to 2008 when as a Governor of the World Wildlife Fund and a private consultant, I worked with others to secure a significant commitment by the Australian Government to expand the National Reserve System across Australia. This period also saw the development of a range of new environmental policies and many that I contributed to at State and national levels are discussed. My formative years, especially the development of my appreciation of the bush, together with my ancestral roots, are briefly described.

I have witnessed the changing attitudes to nature conservation, particularly in those regions where more conservative attitudes prevailed. Slowly in these more remote parts, National Parks were increasingly accepted as a legitimate land use though this battle is still far from won in parts of western Queensland today. The acquisition of land for National Parks, often in regions where no parks had previously existed, was fraught with difficulties from entrenched attitudes that saw change from long established pastoral use as a threat.

The first 17 years of my career, including 13 years with the Queensland National Parks and Wildlife Service (QNPWS), was when Queensland had very conservative governments and Sir Joh Bjelke-Peterson was Premier for much of this time. National Parks generally were an anathema to his governments, though Sir Joh did quietly support the establishment of a number of National Parks and the QNPWS.

The period from the late 1960s to the mid-2000s saw extensive rural development with the most rapacious land clearing ever to occur in Queensland. Millions of hectares were cleared, reaching a rate of over half a million hectares per year. This created an urgency hitherto unknown, to secure nature's jewels as National Parks before they were destroyed. As well, extensive rangeland degradation occurred with sheep numbers approaching those of Queensland's dust bowl years of the 1890s. Tellingly, no National Parks existed in sheep country across Queensland. Those few parks west of the Divide were the 'scenic' (Carnarvon Gorge) or the 'worthless' (Simpson Desert) lands.

The establishment of National Parks in these forgotten (from a nature conservation viewpoint) pastoral regions called for creative solutions that could only be described as professionally risky and often we had to go to bizarre lengths to secure new parks.

However, the QNPWS was not without friends, even in the Joh years; particularly the third Minister for National Parks, the Hon. Ivan J. Gibbs.

Often, funny and curious events occurred along the way and this memoir includes many anecdotes. Sometimes these events allow a deeper interpretation of the social environment within which we worked, as well as the changing nature of administration within the Public Service. My visits overseas provided much context for comparing our efforts in nature conservation as well as giving the opportunity for seeing nature's grandeur across continents and enjoying the lighter moments.

Queensland lagged behind most of Australia in terms of vegetation mapping and natural resource data more generally. This was a major difficulty to be addressed if Queensland was to implement a fully representative National Parks system, one that incorporated the incredible biodiversity that existed across the State and to develop complementary policies to protect rare and threatened species and ecosystems. The approaches taken to address these data deficiencies, and to develop comprehensive and robust methods for evaluating and selecting new parks, are discussed.

In December 1989, after 32 years of conservative governments, political change occurred when the Goss Labor government came to power. The Hon. Pat Comben was appointed Minister for the Environment with a mandate to double the National Park estate. These were the halcyon days in the history of National Parks in Queensland when National Park proposals that had languished for up to 30 years were dusted off and gazetted within weeks – oh were we ready!

Over much of the past 15 years the establishment of new parks, particularly to build a National Park system fully representative of the State's biodiversity, has declined in favour of more ephemeral conservation activities. The National Park component of this memoir however, principally focuses on the first 25 years from the establishment of the National Parks and Wildlife Service in 1975 to 2000.

This story is in three parts:

PART I introduces my personal life growing up and learning about nature through a beekeeper's lens. Over my career, the many projects in nature conservation, including park acquisitions across Queensland are discussed, together with many anecdotes and adventures that occurred along the way.

PART II identifies all of the major parks gazetted each year from 1975 to 2000. Details include: the expenditure on land purchases and/or the funding allocations for each year, including the Commonwealth Government's financial contributions; and, the overall growth in area and ecological representativeness of the park estate.

PART III is a brief snapshot of my family history, particularly from when my great grandparents, both paternal and maternal, immigrated to Australia in 1855.

Part I - A Conservation Memoir

Chapter 1: Early Years

Beekeeping

Dad, Guss Henry Sattler (1906 - 1992), was a beekeeper. Like most successful beekeepers he was a great naturalist: after all, our livelihoods depended upon his knowledge of trees, their flowering cycles, nectar characteristics and the habits of his beloved bees.

Mum and Dad with my sister Val and brother, Ross, moved from Toowoomba in 1946 and settled virgin land about seven kilometres west of Caloundra on Meridan Plains and along Pierce Avenue. The stumps for the house went in on Armistice Day 1946, an anniversary regularly recounted by the family. Initially, they carved out of the dense forest, a mixed farming enterprise with dairy, poultry and pigs, bananas and pawpaws as well as cutting saw logs from the farm. This included stud Tamworth pigs and Rhode Island Red poultry. The house was constructed from timber cut on the property and Dad was also able to buy a couple of air force huts at Toorbul Point which he dismantled for scarce materials.

In 1950, I was born during a big flood and there was a scare that Mum would not get to the Nambour Hospital, especially in old Lizzy, an A Model Ford ute. With no phone at home, they stopped at the Palmview Telephone Exchange to ring ahead for an ambulance to meet them, but none was available due to an accident at Landsborough. Fortunately for me, they successfully soldiered on. The phone was connected later that year, Palmview 23.



Photo 1. Dad and Ross on sled behind 'Diamond' on the farm at Meridan Plains, Caloundra, 1940s; banana plantation and partly finished house in background.



Photo 2. One of the big Blackbutt logs cut from the farm in the 1940s.

By the mid 1950s the bees took over as the main business. Times were tough and there was little sale for honey. Four pence halfpenny (4 ½d) per pound (about 4 ½ cents for half a kilogram) was the going wholesale rate for beautiful Yellow Box honey and I remember Dad saying that if we got sixpence per pound we would be in clover.

Many a bee trip was had, ‘spotting’ for flowers, moving bees and extracting honey, and sometimes not without protest at being pulled out of bed at two in the morning to manually load beehives, leaking bees, to move them to the next honey flow. But it was character building and being at his side taught me about the various species of ironbarks, box and apple species, heaths, tea-trees and many others. His knowledge was not through formal education, but from the powers of observation.

In the 1950s, Dad would set up camp with a mobile extracting plant in an old caravan at an apiary site with a tent stretched beneath a Yellow Box sapling. At the end of the week he would drive back home to the farm near Caloundra with a truck load of 60lb (27kgs) tins of honey. The annual hive migration usually followed the pattern of:

- over-wintering hives at Caloundra collecting rich Tea-tree (*Melaleuca quinquenervia*) honey. In those days before extensive clearing along the coast, at least two ‘fills’ (27kg per ‘fill’) of Tea-tree honey could be counted on. Many an evening you felt you could cut the air, so heavy did the scent of fresh nectar hang;

- after the late winter and early spring ‘build’ (hive population) on the coastal wallum heath, the hives were moved west of Warwick, near Gore, Cobb-da-mana and Texas to work a wide variety of ironbarks and box species. This migration was always completed by the Brisbane Exhibition (early August) before the Grass-trees (*Xanthorrhoea* sp) flowered to avoid its unpalatable honey. The western honey flow that Dad worked typically started with Blue top Ironbark (*Eucalyptus nublia*), Caley’s Ironbark (*E. caleyi*) in late July, then Mugga Ironbark (*E. sideroxylon*), then Yellow Box (*E. melliodora*), with at least three ‘fills’ to be expected. Some years we went early to catch White Box (*E. albens*) (a personal favourite), or stayed late past Christmas for a ‘fill’ of Brown Box (*E. microcarpa*) but often at the expense of losing colony strength. The quality and quantity of the honeys from this prime honey producing area was such that the hard traprock country should never have been cleared. One year, I pulled nine ‘fills’ a fortnight apart;
- around Christmas, the hives would be moved to the coastal hinterland ranges around Blackbutt, Benarkin and Jimna on State Forest lands to work Brush Box (*Lophostemon confertus*), and Blackbutt (*E. pilularis*) and rainforest, for another ‘fill’ or two. If the west was not flowering well we went to these State Forest lands earlier to catch the Narrow-leaved Ironbark (*E. crebra*);
- then it was back to the coast by the end of March for the first good ‘break’ (flowering) of Tea-tree in April.

Little wonder most old beekeepers had bad backs from lifting hives. In 1962, Dad and Mum set up a central extracting plant at the farm at Caloundra which I use to this day.

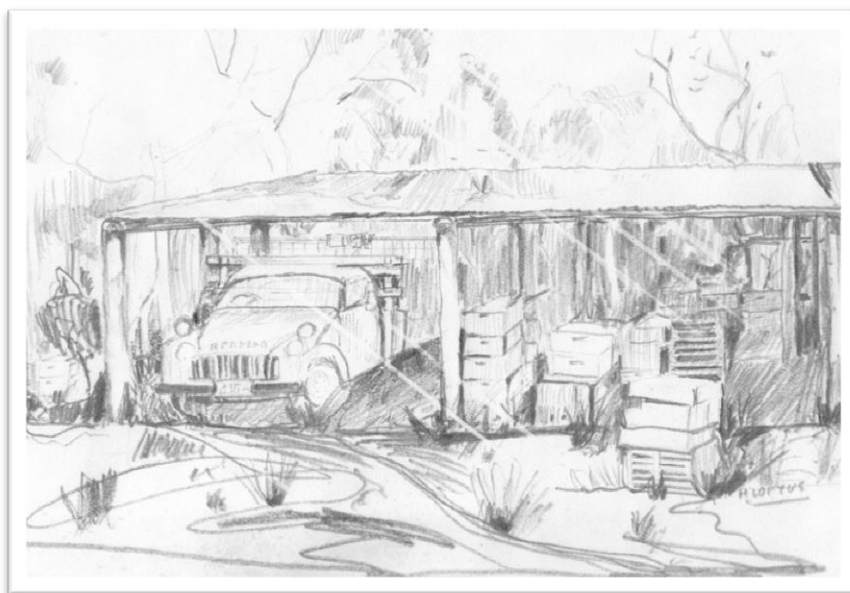


Photo 3. Bedford truck and bee boxes in the old shed on the farm, early 1960s
(Hal Loftus sketch).

Dad cut his first hive of bees out of Prickly Pear which in the 1920s had overtaken much of the country across the western Downs and southern Brigalow Belt of Queensland. I once asked him what the country was like in those early days and he vividly remembered the impenetrable pear in parts that you could not ride a horse through, but further west he described the giant flocks of budgerigars lifting off the plains; a sight rarely seen these days, from the lack of seed set from the overgrazing of native grasses.

Nearly every year in the late 1940s early 50s, cyclones would spear down the coast of Queensland and flatten the bananas and pawpaw plantations at home. In 1954, it happened twice and I recall big Scribbly Gums crashing into the front yard one morning and collecting wheelbarrows full of green pawpaws that never ripened. A big blow in 1956 blew the 'outhouses' off Battery Hill in Caloundra. Disaster struck in the 1956 floods with many of Dad's hives washed down the McIntyre River at Cobb-da-mana near Inglewood.

After the cyclone in 1956, the trees appeared burnt right up the range to Maleny and the honey tins showed signs of rust: "*it was the French nuclear testing in the Pacific*", was one theory put about, but it was probably the enormous amount of salt water that had been picked up and dumped during the storm.

After that Dad took up migratory beekeeping, but keeping the old Commer and Bedford trucks on the road with regular breakdowns was a constant problem. Getting bogged in the paddocks with the truck loaded with hives was another challenge. One night when shifting a load of bees we were pushed into the side of a bridge near Kilcoy by a semitrailer. Hives were strewn all over the bridge closing the road. Many stings were had that night clearing the bridge of smashed gear and very angry bees.



Photo 4. Dad showing extracted frame to queen breeder, Norm Rice, at a field day in the honey house in 1969. Davidson uncapper feeding two 21 frame Pender semi-radial extractors – state of the art then.

When trucking out west to the hives, we would generally stop on top of the Range at Hampton near his old home at Cabarlah for a 'boil up'. Dad would boil the billy on an old Primus

gas burner and make a cup of tea. It was often foggy as we huddled around the old billy that always took its own time to boil.

In 1962, the folks built a central extracting plant on the farm and in 1969 hosted the Queensland Beekeepers Association annual conference. The honey business, Sunshine Apiaries, grew and their honeys were proudly displayed at the Brisbane Exhibition and local shows. Today, the farm is remembered by the address: Honey Farm Road, Meridan Plains, Caloundra.



Photo 5. Dad, Seola and nephew Jason, at the Sunshine Apiaries exhibit at the Nambour Show, 1984 .

In 1977, the international beekeeping conference, Apimondia, was held in Australia for the first time in Adelaide. I suggested to the folks that they should get away from the farm for a break and go to the conference. Dad thought about it for awhile and said: *“well we would need a car to drive down”*. Up until this time, the vehicles on the farm were trucks and utes. He remembered that every year an old mate who he rode speedway with in Toowoomba in the 1920s would drop in for a 60lb (27kg) tin of honey and show off his

new car. His mate had started Chandlers, a successful chain of electrical stores, and in retirement, management gave him a new car each year. The next time he dropped in for a tin of honey, the deal was done over the side fence, and Dad bought his Statesman Caprice, (an HJ model) and we set off to Adelaide in style.



Photo 6. Early introduction to beekeeping for Melita with Dad and Ross, 1988.

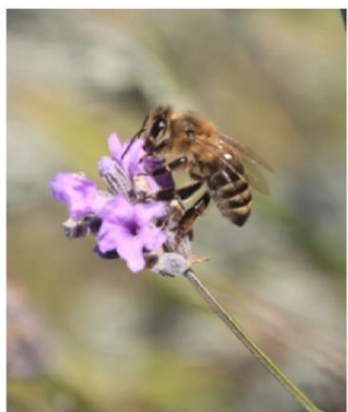


The Statio became a family heirloom, it passed down to me and then down to my daughter, Melita. She wanted to be married in Pop's car one day, but after 40 years, of faithful service, the Statio could wait no longer.



Photo 7. Growing up with the Statio - 1988 and 2014.

Mum worked tirelessly on the farm and over her life she labelled, with an old bottle of glue, and filled thousands of honey bottles. In the beginning, washing was done in an old copper boiler on an open fire and honey extraction, milk separating and butter making was done by manually turning the machines. I recall as a kid that you felt your arm would fall off after turning the milk separator and butter churn.



She took great pride in her honey shop, with flowering gardens along the path. When customers had their bottles filled, Mum would work out the price in pounds, shillings and pence (£sd) and subsequently in dollars and cents with an old slate and slate pencil.

In 1979 the folks went to Apimondia in Greece and enjoyed many overseas trips; it was a long way from the early days on the farm.

Mum's Christmas Bell Legacy

Mum, Stella 'Bobbie' Sattler (nee Volp) (1911 – 2006) also had a love for nature. In the austere post-war years she picked and sold bunches of Christmas Bells, *Blandfordia grandiflora*, at a penny each to help tide things over.

On her 92nd birthday, Mum ceded her Christmas Bell lands as a park to the Caloundra City Council - **The Bobbie Sattler Bushland Reserve** (now the Bobbie Sattler Nature Refuge). This 40 hectare (100 acres) park of virgin wallum heath and coastal forest, is near the Corbould Park Racecourse, off Pierce Avenue, west of Caloundra.



Photo 8. Christmas Bells, Mum's favourite flower.



Photo 9. Opening of the Bobbie Sattler Bushland Reserve, 2003. Mum with friends and early Caloundra identities, from left: Ray Liekefett, 'Manny' Comino, Des Dwyer and Stan Tutt from Landsborough



Family's First Connection with Caloundra

My Grandfather, Henry 'Harry' Sattler (1869 – 1947) was a sawyer and farmer. Grandie retired to Caloundra in 1937 from Cabarlah and built the second house on Golden Beach. Access along Golden Beach was via a sandy track in those days. For dinner, he only had to walk down to the beach and catch a flathead.

Photo 10. Grandie's house, 14 Landsborough Parade, Golden Beach, Caloundra, 1937.

With no power at Golden Beach in 1937 or out at the farm in 1946, lighting was provided by carbide lights or kerosene lanterns. At one stage Grandie was worried that the folks would starve on the farm, but they pulled through due to hard work and determination.

My family history is discussed further in PART III and in the Sattler Family History – Supplement (Sattler 2015).



Photo 11. Bulcock Street, Caloundra, mid 1930s. The facade of the Strand Theatre, right, was subsequently upgraded in 1936. Bulcock Street is not curbed and channelled.

Chapter 2: Getting an Education

Early Schooling

Schooling started at Glenview Primary School, a two teacher school. Many school mates were descendants of local Italian immigrants who farmed pineapples, ginger and tobacco. From Grades 4 to 8, I attended Woombye Primary School as then, there was no school transport into Caloundra though it was much closer. Sub-junior and Junior were taken at Nambour High School and I was in the cohort of the first Sub-senior and Senior students at Caloundra High School. With not enough teachers to go round, matriculation French had to be learnt from a vinyl record posted up from Brisbane each week. Mind you, the principal preoccupation was Rugby League footie. This interest would carry through to being part of the Aussie supporter's tour to the opening of the Rugby League World Cup in Cardiff in October 2013.

No pocket money was available growing up so I established a large vegie patch and sold lettuce and beans in Caloundra and to honey customers. Often I would go down from the Nambour School to the produce store at the railway station to buy bulk bean seed, 'Brown Beauty' variety.

My sister Val, worked in Brisbane before she was married. Dad stipulated that she had to come home to the farm every weekend and help out and every Friday night she would catch the train to Landsborough. Out of her meagre wage of £2.7.8 after board, tram and rail fares of £4.0.0 were deducted, she always had a gift of a small book for me. Undoubtedly this had a major impact on my early learning.

Queensland Agricultural College

In 1968, I gained entrance to the Queensland Agricultural College (University of Queensland, Gatton). This was the second year that tertiary courses were offered there and I specialised in agrostology (study of grasses) and animal physiology.

My Diploma thesis was titled *Observations on the Oxalate Content of Setaria species and their Biological Importance to the Animal*, and my Bachelor of Applied Science (Rural Technology) thesis was on *Oxalate Toxicity in Ruminants (Sattler 1970 & Sattler 1971)*. This work was carried out under the guidance of Dr R.F. 'Tim' Thornton, Officer in Charge of the CSIRO Cooper Research Laboratory on College.

The four years I spent living on campus at Gatton were the best years of my life, a sentiment readily echoed by my College mates. We certainly worked hard and played hard and at times, tempted fate.



Photo 12. Handling a sheep with catheter and rumen fistula as part of research into oxalate toxicity, Gatton College, 1971.

Photo 13. Intercollegiate large bore rifle competition 1969, Prospect Rifle Range, NSW. Stan Petherick, a College lecturer, in foreground beside author.



Competitive large bore (.303) rifle shooting was a keen interest from days of shooting as a lad on the farm and shooting and skinning 'roos in South-West Queensland for pocket money. At College, I captained the rifle shooting team and success followed with top scores at the Australian intercollegiate (Agricultural Colleges) championships at Hawkesbury (NSW) and Dookie (Victoria) in 1969 and 1970.

In 1968, we shot at Roseworthy in South Australia and the Queensland team did poorly on a range located beside a windswept salt pan. An elderly retired parson and gunsmith, Rev. V.W. Lines, was watching us and he said to me after the shoot: "*lad you can shoot but you need a decent rifle*". I had cracked the stock in my old WWI Mk 3 army rifle. In due course, a well bedded-in WWII Mk 4 rifle arrived in the post at Gatton College; it made all the difference. In those days we kept our rifles under our beds in our rooms on the dormitory.

Winter balls were popular and one of the important duties was to secure the corsage for your partner, not easy when initially very few of us owned a car.

I would generally hitchhike home once a month to visit the folks. On the Sunshine Coast dances were held on alternating Saturday nights at Beerwah and Palmwoods. I used to go to them with my mate, Robert. Transport was always a problem and we either begged Dad for the ute or Robert's father, Adrian, for his old station wagon. We could never understand why they were so reluctant to lend their cars to us!

One night at the Palmwoods dance, Robert said he was taking a girl home and to cool my heels for awhile. He was very late getting back and I was wondering what he was up to. He arrived ashen faced. He had failed to take the Palmwoods Road corner at the Woombye School and rolled the wagon onto the oval. With visions of Adrian's car upside down on the cricket pitch, we hitchhiked home to get Dad out of bed so I could borrow his ute to take Robert home; needless to say, Dad was not impressed. Allowing Robert to face the music alone was not an option.

We used to hitchhike from College to the dances at the Trades Hall in Toowoomba. Late one night one of my college mates, 'Hose', and I were standing on the edge of the Toowoomba Range in dense fog waiting for a lift, as we often did. We were picked up by three guys in an old car. They pulled into a servo near Grantham and whilst one of them distracted the attendant the other two cleaned out the tools in the workshop and the oil bottles beside the petrol pumps. As soon as we cottoned-on to what was happening, Hose and I shrank in the back seat; all we wanted was a lift home.

By third year I had won a scholarship and bought my first car, a 1965 Cortina. One dollar of petrol was good for a week with a trip or two to Toowoomba. One night coming back from Toowoomba late, I had an accident crossing Blackfeller Creek (as it was then known) and flew off the end of the bridge. I stopped cradled in a barbwire fence, but the Cortina was the worst for wear. I walked into Gatton and got my cousins Bev and Ken Hoff out of bed. Always supportive, they organised the retrieval.

Exams lasted for more than two weeks and with two papers a day, swatting the night before was essential. Unfortunately, one night we had a violent electrical storm and lost all power. I hightailed it into the Anglican Church in Gatton and set up my books on the Altar with the candles burning bright. Next day I scrapped through, not sure if it was from just enough candle power or divine intervention.

My 21st Birthday came around and it turned out to be a big night. We went to the Royal Hotel in Gatton for a few quiet ones. The Beatles were Top of the Pops and 'Hey Jude' was belting out on the jukebox. As we had often done to avoid being caught for underage drinking we got a small five gallon keg to take out into the bush. At that time we could be sent to Vietnam, but were not allowed to drink in the pub or vote before the age of 21.

This time the boys set the keg up on the platform of the old Lawes railway siding. This was the original entrance to College when students arrived by train. The road leading from the siding to College was spanned by an imposing large steel sign grandly announcing the College. Someone had an idea for a much better use for the sign. Being country lads there were always pretty fair tool kits in the cars. The sign was dismantled from its uprights, loaded into the back of my mate's ute (Gil's) and driven up to College with the other end dragging along the bitumen and sparks flying. The sign was set up across the dining room entry doors; no one got in for breakfast next morning through the front doors. We all stayed low for awhile after that little stunt.

In the 1960s and early 1970s graduate positions in agriculture were readily available in the Department of Primary Industries and elsewhere. In those days DPI conducted widespread research and extension services for agriculture across Queensland; an endeavour now chiefly discarded. On graduating in 1971, I thought I would be moving to North Queensland to the South Johnstone Research Station at Innisfail to work on introduced tropical pasture species (many of which later became environment weeds!). This position did not eventuate and fate intervened.

University of New England

In 1973, the year after I had commenced employment in the Queensland Public Service, I enrolled to do an external Masters degree in Natural Resources at the University of New England, Armidale. The School of Natural Resources offered the first environmental degrees at both undergraduate and post-graduate level in Australia. The post-graduate degrees were specifically designed to enrol graduates: *'from agriculture, forestry, engineering and earth sciences to develop a broader environmental perspective and a sense of interdisciplinary respect and understanding'* (Burton 1980). In 1977, I successfully submitted my Masters Degree thesis on the *Rehabilitation of Metalliferous Mined Areas in Queensland* (Sattler 1977). This research is discussed further below.

Chapter 3: Valuable Experience

Co-ordinator General's Department

Early in 1972, a newly established position of Ecologist was established within the Co-ordinator General's Department and advertised within weeks of my finishing College. I was appointed and on the second day found myself confronted by the press.

In the early 1970s, the Queensland Government established the first environmental unit within the public service, the Environmental Control Section within the Co-ordinator General's Department. The decision to expand the role of the Co-ordinator General's Department from a major public works role (Storey Bridge, Wivenhoe Dam constructions), to one including regional co-ordination, planning and environmental management was significant considering the seniority of this Department.

This was the time of considerable environmental controversy over proposed oil drilling on the Great Barrier Reef cumulating in the State and Commonwealth Royal Commission reports being released in 1974 recommending the establishment of a Marine Park. Further, the first prosecution had just been brought under the Clean Air Act against Mount Isa Mines which received a \$50 fine; not for pollution, but for a technical breach in not submitting a form for new engineering works. Nevertheless, this breach was newsworthy in terms of new environment regulations. Soon after this action, successful negotiations by the government persuaded the company to install the large stack on the lead smelter and to establish a meteorological section within Mount Isa Mines to keep emissions out of the town; though, sulphur dioxide was not a regulated pollutant.

Unknowingly, and very wet behind the ears, I had stepped into a position surrounded by political controversy. The department publicly released that the first Ecologist had been appointed by the Queensland Government. I was surrounded by press outside of the Executive building and the next day my appointment was reported in *The Courier Mail*. On the third day of my career, I was marched up to Sir Joh's office for Joh "*to have a look at me*" in the company of Sir Charles Barton, the Co-ordinator General. Joh asked me what I intended to do? I carefully chose my words, informing him that being new to the position I would be seeking the advice of eminent scientists, like Professor Len Webb of CSIRO.

Joh erupted: "*Charlie, isn't he the commie that wants to turn all of Cape York into a National Park?*"

For the rest of the meeting Joh refused to look at me and I crept out in the shadow of Sir Charles, a man of stoic presence who had survived POW days. The irony of this outburst was breathtaking as within three years, Joh pushed for large areas to become National Parks on Cape York Peninsula and promoted the establishment of the Queensland National Parks and Wildlife Service.

One of my first projects was to assess the environmental impact of a proposed pump storage hydro-electricity scheme for the recently approved Wivenhoe Dam. Unfortunately, the site chosen east of the dam wall was within a patch of dry rainforest scrub, *Araucarian* notophyll vine forest and semi-evergreen microphyll vine thicket. With preliminary work having already started and there apparently being no feasible alternative site, I could only recommend minimising disturbance and that a commitment be made to rehabilitation (Sattler 1972). To help describe the vegetation of this site, I sought the assistance of Jeff Tracey (who was Len Webb's assistant). Jeff had helped Len develop the first detailed classification system for Queensland's rainforests.

It is interesting to note the response to my report from the senior engineers (Shepherd & Meredith 1973) which reflected the changing attitudes of the day.

- *'The recommendations made in the environmental report with respect to the preservation and rehabilitation of the rainforest after construction of the project will be relatively costly, but although the report builds some arguments on contentious premises and reflects some misunderstanding of conditions, most of the recommendations cover measures for preservation which are reasonable as a conservationist approach.'*
- *'The present is an age of awareness of the need for conservation, and although this may involve an emotional and sometimes unreasoning devotion to preservation, conservation now has strong statutory backing, and an amount of \$200,000 has been included in the estimate for rehabilitation of the area, treatment of excavated slopes, etc.'*
- *'The Power Station would undoubtedly be a potential tourist attraction, and its environment could be enhanced by a cared-for patch of vine forest surrounding it.'*

This was a substantial sum of money in 1973.

Twenty-seven years later we were still recommending that dry rainforest (vine forest scrubs) should be protected due to their threatened conservation status (Sattler & Williams 1999).

It was not only oil drilling but mining in general that was the main environmental issue of the day. Sand mining was very controversial and for the first time, mining as a land use was being questioned as the highest and best use for coastal areas from Myall Lakes in New South Wales to central Queensland. Mining the beaches at Cooloola below the spectacular coloured sand cliffs was particularly controversial. The Department of Mines was a very influential department and stalled most attempts at negotiating environmental outcomes even against the clout of the Co-ordinator General's Department.

Department of Mines

In 1974, I sought a secondment to the Department of Mines believing that environmental results might be gained from working from within that department. I was placed under Angus Norrie, the State Mining Engineer.

I divided my time across three activities:

- writing environmental conditions for mining tenements;
- inspecting sand mining rehabilitation at North Stradbroke Island, Cooloola beaches and Fraser Island;
- establishing rehabilitation trials at Mount Morgan.

The latter activity was consistent with the prevailing strong research and extension paradigm that existed in Queensland by the Department of Primary Industries.

One of the tasks I was involved in was to supervise the clearing of a small part of Fraser Island for the construction of Dillingham's mining camp. This was the second mining company to set up on Fraser Island as Mineral Deposits Ltd were already operating behind the beach dunes on the south-eastern part of the Island. Supervising the clearing with me was Gil Fletcher who was the environmental officer for Dillingham's: we knew each other well as we had spent four years together at Ag. College. We now had the dubious honour of being on the back of the first dozer that went into the hind dunes on Fraser Island. After mining ceased on the Island the area we had cleared became known as Dilli Village.

After 15 months, and some very interesting experiences, I returned to the Co-ordinator General's Department and also completed my Masters degree.

I was not destined to stay with the Department of Mines. In reviewing lease conditions for the renewal of mining leases, I stumbled upon the practice of leases being prematurely renewed outside of the statutory timeframe of the remaining lease term. Work practices were also beyond the pale in the Mines Inspectors area (as distinct from the professional Geological Survey Branch). My work dealings after 11am with some of the Mines Inspectors having to be conducted from the side bar of the old Port Office Hotel.

On returning to the Co-ordinator General's Department, I met Sir Syd Schubert who had replaced Sir Charles Barton as Co-ordinator General. Syd asked how I went in Mines. I indicated that I got some 'cauliflowered ears' and his retort was: "*we wanted you to stir things up a bit*". The experience of working closely with the mining industry was subsequently to be of considerable value for my later work in nature conservation.

The public service attire in those days was shorts and long white socks with a short sleeved shirt and very narrow tie. Safari suits were the fashion and yes, I must confess to having one, a green one. A nice perk was that a lady would bring around a fresh Queensland Government hand towel each week; morning tea was also brought by a tea lady with her trolley. We were also issued small leather ports that were made in Brisbane: not a

briefcase, a portmanteau, though the nuance was lost on our southern colleagues who thought our reference to ports quaint. I wore out three ports over my career.

Research into Mining Rehabilitation

After I had commenced employment with the Co-ordinator General's Department and before my secondment to the Department of Mines, I enrolled in 1973 to undertake a Masters Degree in Natural Resources at Armidale. Whilst studying at Armidale, I was introduced to the bitter sand mining controversy over proposed sand mining at Myall Lakes in New South Wales. This was valuable background for my secondment to the Department of Mines.

At this time under the Whitlam governments, 1972-1975, some far-reaching environmental policies were being proposed, including regional conservation planning. One project funded was the delineation of the natural (biogeographic) regions in Queensland by Peter Stanton and Gethin Morgan.

This project was to initially assess the relative significance of areas proposed by public submissions to the Enquiry into the National Estate for purchase by the Commonwealth Government as National Park. The Whitlam government had set aside \$60 million for buying priority areas. When it became clear that many areas proposed by State governments were small in-holdings in parks or areas around cities or along highways, the *RAKES (Rapid Assessment of Key Environmental Sites)* study was funded to develop a methodology for use nationally, using Queensland as a case study (*Morgan, pers. com.*). The *RAKES report (Stanton & Morgan 1977)* was the first delineation of biogeographic regions and was to become pivotal for conservation planning in Queensland and Australia in the years to come.

The Hon. Moss Cass was the Australian Government's Minister for the Environment under the Whitlam government and I sought an interview as part of my university research, particularly into the introduction of Environmental Impact Statements for new developments. The development of Environmental Impact Statements was relevant as we were proposing, within the Co-ordinator General's Department, that they be regulated for in Queensland. Unfortunately, *en route* to Canberra I developed a severe throat infection and upon arrival at our meeting I was running a very high temperature. Moss, a medico in his former life, immediately sent me to the Canberra Hospital.

My Master's thesis on the Rehabilitation of Metalliferous Mined Areas in Queensland recommended that:

'A. That a Rehabilitation (Environmental) Unit be established within the Department of Mines.'

It was suggested that additional ecologists be appointed to co-ordinate advice from across government in developing lease conditions; provide inspectorial assistance to the Inspector(s) of Mines; conduct field monitoring of rehabilitation projects; and, interpret

Environmental Impact Statement requirements for mining proposals. I noted that a precedent had been established with a Vegetation Unit attached to the Chamber of Mines in South Africa to provide a technical service to industry.

‘B. That a separate technical section for the Rehabilitation of Disturbed Lands be established within the government service.’

This latter strategy recommended a broader focus to encompass a wide cross section of rehabilitation issues associated with a range of land uses and the need for a strong research basis to be established.

In 2004, I was invited to give the keynote address to the mining and environment conference in Mackay and as well as discussing biodiversity conservation and the mining sector, I was asked to reminisce on the position of being the first Ecologist within the Department of Mines (*Sattler 2004*). In relation to the first recommendation above, it was satisfying that an environmental unit of approximately 40 staff by 2004 had been established from those humble beginnings in the Department of Mines.

The second recommendation is as relevant today as it was in the early 1970s, particularly to address broad acre degradation issues such as salinity and habitat loss. Considerable research and extension is needed to design and promote broad acre rehabilitation techniques that are cost effective, and for rehabilitation to meet multiple objectives, including the protection of hydrological regimes, salinity management, biodiversity and the establishment of carbon sinks. For example, in some catchment blueprints such as for the Murray and Murrumbidgee Rivers, there are targets to restore 30% vegetation cover. If this repair agenda was adopted across all the over-cleared and degraded parts of Australia it would represent the rehabilitation of millions of hectares and require considerable scientific understanding.

I was pleased that some of the challenges that had occurred on the mine site at Mount Morgan during my research were recognised by one of my thesis examiners, Mr J.E. ‘Ted’ Coaldrake:

‘The thesis contains much that would daunt many a professional scientist from risking his reputation on investigations in rehabilitation it is not difficult to ... realise the added difficulties that were put on the candidate through not having complete control of his own experimental areas.’

This referred to how a number of my intensively laid out trial plots on the Mt Morgan spoil dumps were destroyed by the mining company dumping spoil on the plots and personnel stealing marker pegs for tomato stakes. Ted was a very experienced figure in mining rehabilitation and a former CSIRO research scientist. I had also been to see Ted early in 1972 after I had the aborted meeting with Joh, as to the direction he thought my position should go. Interestingly, he remarked how important it was to read landscapes, i.e., to understand the relationship between plants, land form and soils. This was to be the basis of describing Queensland’s bioregional ecosystems 27 years later.

Queensland Herbarium

On returning to the Co-ordinator General's Department, I found that the Environmental Control Section which consisted of a small, multi-disciplinary group of very talented people was still struggling with little direction to implement an environmental agenda. Significant outcomes were being achieved at an individual level, such as the preparation of the first noise legislation by Dave Perkins.

In 1975 I requested a further secondment, this time to the Queensland Herbarium, within the Department of Primary Industries. After all it would be nice to work with some like-minded souls. I was asked to be side-kick to botanist James Elsol who was working on the Moreton Region Vegetation and Mapping project and was about to start the Caloundra 1:100 000 map sheet. I could not believe my luck, having grown up in the Caloundra area and knowing it thoroughly. We quickly completed the mapping of this coastal area (*Elsol and Sattler 1979(a)*).

Around this time, the mapping staff at the Herbarium had a workshop with Dr Peter Bridgewater, then Director of the Australian National Parks and Wildlife Service, on the need for funding to comprehensively map vegetation across all of Queensland. These deliberations, thoroughly supported by Peter, fell upon barren soil and no Commonwealth funding eventuated. It would be another 38 years before the State was comprehensively mapped through the bioregional ecosystem mapping program.

Unfortunately, mapping vegetation involved the intensive use of a stereoscope. I found that having a slight squint in my left eye, which was operated for as a child, meant that I could not see stereoscopically to delineate vegetation patterns. This was annoying and curtailed my mapping activities. Whilst working at the Queensland Herbarium, the Queensland National Parks and Wildlife Service (QNPWS) was formed, and in 1976 I requested a permanent transfer to the QNPWS. This was to be my place of employment for the next 25 years. Three other colleagues from the Co-ordinator General's Environmental Control Section also moved to the Service, Pam Harmon-Price, Dave Perkins and Robyn Hesse.



Herbie and the original insignia.
Herbert River ringtail possum (*Pseudochirulus herbertensis*)

Chapter 4: Queensland's National Parks

Queensland National Parks and Wildlife Service

The QNPWS was proclaimed on 5 June 1975 through amalgamating the National Parks Branch of the Department of Forestry with the Fauna Conservation Branch of the Department of Primary Industries and was semi-autonomous as a sub-department of the Department of Lands. This action had been a political decision which miffed the old Public Service Department, responsible for meeting the administrative requirements of departments. Consequently, the new QNPWS did not receive the administrative support needed to fully establish a new organisation and the administrative support previously provided by the Department of Forestry was underestimated. Again, this demonstrated the independent nature of the public service and all departments of the day. However, what the new Service lacked in resources, it made up with the enthusiasm of its staff. Ideological differences on nature conservation between the previous Fauna Conservation staff and National Parks staff also created a tension at times as the new Service grew.

I was warmly welcomed by Dr Graham Saunders, the inaugural Director of the QNPWS. He suggested that I work in the Park Management Branch under Syd Curtis; one of nature's gentlemen. There were two major arms of the Service, Management under Syd and Research under Dr Hugh Lavery. An example of the talented staff employed with the establishment of the Service was the Interpretative Section under Peter Ogilvie. This section included photographer Steve Parish, who at the time produced one of the world's great natural history calendars, Simon McLean, whose brilliant animal cartoons were subsequently to cause me grief, and Tina Dalton who went on to television fame. Later, Ranger Tim (Moore) who produced and presented award winning children's television and nature documentaries, and others, carried on this great work in nature education.

Following the formation of the QNPWS, considerable emphasis was placed on the acquisition of new National Parks. Lands Department officers were far more disposed to assist in National Park acquisitions now that we were part of their department. For the first year, Peter Ogilvie had responsibility for acquisitions until a new position was advertised and filled by a Lands Department officer, Ken Green. I took over this role when Ken retired in the 1980s.

When I joined in 1976, it was on the eve of a major expansion of the Service estate on Cape York Peninsula, the total reversal of Joh's position that he made sure I knew about in 1972. When establishing the Service in 1975, Joh proposed that all of Cape York Peninsula be investigated as a wildlife reserve and again on the eve of the 1977 election Joh promised that the Peninsula would become a '*wilderness and wildlife area*'.

Our first head office accommodation was at 138 Albert Street, where we shared one of the floors with a working brothel. No more the use of a geological specimen to hold open the door when a bottle of baby oil was to hand.

Queensland National Parks: Beginnings

The world's first National Park, Yellowstone, was dedicated by the United States Congress in 1872 as: *'a public park or pleasuring ground for the benefit and enjoyment of the people.'* This related to a desire to set aside the spectacular natural monuments and curiosities of the New World.

Royal National Park on the southern outskirts of Sydney became the second National Park in 1879. However, other than borrowing the name National Park, it is considered more likely that the large commons established around London's expanding metropolis provided more of a model for the Royal (*Pettigrew and Lyons 1979*). On 21 March 1879, John Lucas MLA persuaded the NSW Legislative Assembly to agree that: *'to ensure a healthy and consequently vigorous and intelligent community ... all cities, towns and villages should possess places of public recreation.'* This reflected the concern at the unhealthiness of many areas of the city. The extremely high rate of infant mortality in some parts (Lucas claimed that one child in four died before its fifth birthday) was blamed both on the failure to properly dispose of sewage and on overcrowding. Three days later, a group of gentlemen met at the Sydney Exchange to form a Society to encourage the introduction and acclimatisation into NSW of birds and animals from different parts of the world. A few days later, to accommodate this wish with land for these influential gentlemen, the Hon. Sir John Robertson was credited as the initiator of the National Park covering some 18,000 acres (7,284ha). Previously as Premier, he was involved in setting aside a large tract of land on the southern shores of Port Hacking for a future rail link to the Illawarra region. Public response was 'fullsome', it would be a: *'sanctuary for the pale-faced Sydneyites – fleeing the pollution - physical, mental and social, of that densely packed city'* (*Pettigrew and Lyons 1979*).

In 1908, a scenic waterfall at Mt Tamborine, Witches Falls, would become Queensland's first National Park and Bunya Mountains National Park, a very significant park, was gazetted six months later. The first National Park legislation, The *State Forests and National Parks Act* was introduced in 1906 and the example of Yellowstone was used to argue for the passing of the Bill.

Lamington National Park was set aside in 1915 after extensive public agitation and typifies the on-going struggle to expand Queensland's National Parks right from the start. The original proposal for a permanent public reserve dated back to 1896 and is credited to Robert Martin Collins (*Jarrott 1990*). In 1898, R. M. Collins and others guided the Queensland Governor, Lord Lamington, up the mountain and they described the grandeur of the scenery. In 1900, a paper by Mr H. R. Maguire, a licensed surveyor, was read to the Royal Geographical Society of Australasia (Queensland Branch) in which he stated he was

urging the Surveyor General to reserve the first plateau for the establishment of a national sanatorium or park.

Progress for setting aside the park was slow but the Minister for Lands, the Hon. J. T. Bell, in 1908 issued the instruction: *'Proclaim as a National Park'*, but he then left this portfolio, became Speaker and died in office in 1911. In 1910, the Minister for Lands, the Hon. Digby Denham said:

"I appreciate the thought of a national park but for anyone to regard Lamington Plateaux as a national park, is under the circumstances an extreme view. One cannot get away from the track cut, the vegetation is so dense, and I think public interest would be served much more by having 30 to 50 families located on the plateau and the altitudes retained, especially those spots where tree ferns luxuriate, than by having a nominal national park which is practically inaccessible ..."

Cabinet decided to greatly reduce the area of the proposed park.

The Lahey families were timber-getters at Canungra and they had sought timber on the northern side of the plateau and proposed reserve. The next generation and son of David Lahey, Romeo Watkins Lahey, explored south to the Border ranges in 1909 and up the Coomera Valley. In 1911, Romeo Lahey, from the University of Sydney where he was studying, made his first approach to the Queensland Government for the park. He followed up with an article to *The Queenslander* that set in train his concept of a large National Park on the Queensland side of the McPherson Range of some 52,000 acres (21,000 ha). Romeo Lahey continued to lobby the Premier, now the Hon. D. F. Denham, as well as the Minister for Lands, the local member, the Beaudesert and Tamborine Shire Councils, the Progress Association and publicly. In a letter to both Councils he argued:

'Now, every race owes certain duties to its descendants, chief among which is to preserve, develop and hand down the great heritage which has been given it. In what sense, then, can a people have performed its duty, if in years to come one of its descendants can say, "Oh, yes, but where are those forests you talk of, those animals which were the wonder of the world, those birds that scientists came from the four corners of the world to see, that scenery which you say had no peer? Great that nation whose men can put their fingers on the map and say, Here, and here, and here you can see Nature undisturbed. Nature in the same guise as when your forefathers came here, a facsimile in fact of Nature on Creation's morn".'

In 1913, the Beaudesert Shire Council decided: *'the proposed area was altogether too large to be reserved as a National Park but Council was agreeable to the setting aside of 1000 acres (400ha) at any spot selected, for that purpose.'*

The Tamborine Shire Council view was quite different and unanimously carried: *'that after due deliberation, this Council considers it desirable that the whole of the vacant Crown lands adjacent to the south east border of the State be reserved and declared a*

National Park and that this resolution be submitted to the Minister for Lands and the Home Secretary.'

The Canungura and Pine Creek Progress Association weighed in and sought reconsideration of Beaudesert Shire Council's position: they: *'viewed with alarm the decrease in water supply through the ever increasing amount of timber taken away from the district. 'The adoption of Mr. Lahey's scheme for a National Park would go a long way towards solving this great problem.'* They followed up with a deputation that included Mr W. Curtis, a relative of Syd Curtis with whom I had the pleasure of working with for many years.

In 1915, Romeo Lahey had more than 500 residents in the district sign a petition for the park and said: *"the reserve should be set aside for the use and benefit of our people as a whole and not sacrificed to the short-sighted greed of a few"*.

In May 1915, the Queensland Government changed and became the Labor administration of the Hon. T. J. Ryan. Romeo lobbied the new Minister for Lands, the Hon. John Hunter and also presented him the petition of 521 Albert electors supporting the proposed park. On 31 July 1915, Lamington National Park was gazetted over approximately 47,000 acres (19,000 ha) (Jarrott 1990).

Romeo Lahey went on to form the National Parks Association of Queensland in 1930.

The focus on areas of scenic value which fortunately often included areas of high biodiversity continued to the early 1960s. In the late 1950s, the brigalow lands were described by a forest ranger as: *'dreary, depressing areas and in absolute contrast to the accepted concept of what constitutes a National Park.'* This lack of appreciation of the value of these ecosystems in their own right contributed to little of these extensive ecosystems and their associated biota being protected.

By 1963, this view had changed and the 1963-1964 *Department of Forestry Annual Report* stated that: *'an important object of National Park administration must be to reserve permanently, typical examples of all the main environments including the less scenic'*.



Photo 14. Lamington National Park (*DEHP photo*).

Chapter 5. Early Projects

Commonwealth Grants Commission

One of the first jobs Graham Saunders asked me to undertake was to prepare a submission to the Commonwealth Grants Commission (CGC). The CGC assesses whether the lesser populated States should receive financial assistance if the provision of services are more expensive than the average cost to provide such services in NSW and Victoria.

At the time Sir Leo Hielscher, the Under Treasurer, was very skilled at enlisting the help of other government departments to argue Queensland's case for financial assistance. I travelled down to the NSW National Parks and Wildlife Service in Sydney and the Victorian National Parks Service in Melbourne to derive baseline figures as to their costs in the provision of recreation services and conservation services (the CGC's two environmental expenditure categories) as well as revenue generated.

In NSW, I met up with Peter Hitchcock who was carrying out a detailed audit of the State's natural environment. This audit was impressive compared with the level of information we had at the time in Queensland and was to be a major influence in driving my later work to comprehensively assess the conservation and reservation status of bioregional ecosystems across Queensland.

In Victoria, I was introduced to the work of the Land Conservation Council, which was systematically planning the best and highest use of State lands. Though this planning did not apply to private lands, the recognition of land being considered for nature conservation as a significant and legitimate part of the mix was impressive and far advanced from the approach to land allocation in frontier Queensland.

I prepared the Service's case along two lines. Firstly, that the provision of equivalent recreation services through National Parks and other State managed lands in Queensland was disadvantaged owing to the decentralised nature of our population and that it was not economic to collect fees from small parks scattered across the State compared with the concentration of a few large parks around Sydney. Secondly, I suggested that Queensland, with much greater natural diversity (the term biodiversity had not yet been coined) and a smaller population, was therefore disadvantaged in providing an equivalent level of conservation service to that in NSW and Victoria (*Sattler and Saunders 1977*).

On arrival at the Commission Hearings, I awaited my turn to give supporting evidence. The QNPWS was called and Sir Leo looked around for someone he knew. A young lad at the back put up his hand and he greeted me as a close colleague in front of the Commission. I had never met Sir Leo or an Under Treasurer for that matter, but the welcome was impressive. Twenty-eight years later Sir Leo and I joked about this event

when we were both guests of honour at a reception by Redlands City Council to acknowledge our receipt of Queen's Birthday honours.

Unfortunately, the grey beards of the Commonwealth Grants Commission were not to be influenced by fluffy arguments about conservation. In 1980, I again made submissions to the Commission, with the same result (*QNPWS 1980*). However, the experience was valuable in closely looking at the approaches to nature conservation in two sister States.

The Sir Thomas Hiley Centre

In 1977, Sir Thomas Hiley, a former Queensland Under Treasurer and duck and quail shooter from old, approached the Service on behalf of the Bird and Wildfowl Society of Queensland offering to donate funds for: *'the preservation of birds whose continued existence is endangered; and to ensure that there would be sufficient opportunity for observation of these by future generations'* (*QNPWS 1977-78*). Sir Thomas was interested in the project occurring on wetlands at Kippa-Ring. However upon inspection, this area was found to have been degraded as waterfowl habitat owing to the construction of the Redcliffe Aerodrome. Any reinstatement of the wetlands was not supported by the Commonwealth Department of Transport owing to the potential for aircraft bird strike and I proposed that we drop this proposed site (*Sattler 1977*).

We considered a dozen alternative sites in South-East Queensland and I proposed that Kinaba Island on the northern edge of Lake Cootharaba and upstream of Noosa be considered. This proposal was presented to Sir Thomas who was supportive of the location and a rather novel interpretation centre was built over water with boat only access. I knew this area well through camping trips up the Noosa River. The Service was so under resourced that it did not have a boat for the inspections, so I made my own small boat available. A grant of \$68,000 was thankfully received from Sir Thomas and the Bird and Wildfowl Society of Queensland.

Revealing that I had a little knowledge of boats meant that I then had the job of overseeing the tendering process and construction of a number of patrol boats from 5m to 12m for the Service. The 12m patrol boat was based on the successful design of cray boats in Western Australia and I travelled to Mandurah to check them out. Unfortunately, when the Service's boat was built in Brisbane, the factory must have been short of a tape measure as it was built oversize and too heavy. The manager was sacked by the company and the young Secretary put in charge. However, the Service was desperate for the boat and accepted delivery: suffice to say it did not perform to stated requirements.



Photo 15. Dad opening a hive with Charlie Roff whilst hosting a field day at the farm, 1974.

One delightful aspect of this job was that I inspected the Kippa-Ring area with Charles ‘Charlie’ Roff, then Chief Management Officer, Wildlife. I had grown up knowing Charlie as the Senior Beekeeping Advisor through his many visits to the family farm where he organised Department of Primary Industry field days. In May 1969, Mum and Dad with the assistance of Charlie hosted the State Beekeeping Conference in Caloundra. Charlie was also one of nature’s gentlemen and a wrestling champion in his younger days. He carried an enormous work load in his various government roles and at one time was not only in charge of DPI beekeeping, but was the one wildlife officer for the State.

One of the forgotten achievements by Charlie was his joint authorship of ‘The Honey Flora of Queensland’ with Stan Blake, Government Botanist (*Blake & Roff 1972*). This valuable book describes the honey flora of Queensland including the honey and pollen characteristics of each species. Charlie’s contribution was recognised with the award of an M.B.E.

St Helena Island

A couple of years later in October 1979 an amusing boating day fiasco was had. St Helena Island was the site of a large penal settlement in the early days of Brisbane's settlement and significant historic ruins remain. Lengthy negotiations had been occurring to acquire the existing special lease to graze cattle, so that the island could be declared National Park. These negotiations resulted in tourism rights being granted to the lessee. The Service decided that a major event would be arranged for the new Minister, the Hon Ivan Gibbs, to open the park.

A large number of dignitaries including the other Members of Cabinet were invited. The opening was organised by one of the department's administrators and my role was to captain the Service's new 7.3m boat. I awoke at 4am and there was a solid westerly getting up. I felt some disquiet; this event was going to be touch and go. I had spent a few years mucking about on Moreton Bay fishing and knew how quickly conditions could change. I arrived at Manly Boat Harbour and the event was on. My first trip to St Helena Island was to take some of the food over. Unfortunately with the weather deteriorating, by the time I got to St Helena the watermelons were on top of the pavlovas, but we persisted.

The invited dignitaries left Manly on one of the old wooden ferries. Chas Carroll, now the tourism lessee on the island, was to transfer the guests onto the island on his flat pontoon as there was no wharf and the ferry had to stand off in deeper water. Chas however refused to do this when the ferry arrived and was last seen having a good time at the party. It was left to my boat and the boat builder's 6.4m boat to ferry the large number ashore six at a time. It was rough and docking on the lee side of the ferry was difficult enough.

By lunch we had half the guests ashore. It was blowing harder and we called off transferring any more ashore. Then came the problem with the falling tide of how to get everybody off the island. The car park behind the Moreton Bay Trailer Boat Club at Manly was cleared and the TV news helicopters started a shuttle service. There was earnest discussion to bring in the Army choppers.

The event certainly made the news that night. Those who made it ashore had a ball; a speed boat ride, double the food and drink and a chopper flight home. Those on the ferry, including my parents and sister, looked on in quiet bemusement. I finally tied up in Manly harbour only to find that my deckie had left the cap off the fuel tank that morning: it was lucky we didn't play a bigger part in the saga.

Unfortunately, the opportunity was lost to capitalise on the adventure. If the department had equipped Ivan Gibbs with an urgent submission for the next Cabinet Meeting, I'm sure the government would have appropriated the money for restoration of the St Helena Island wharf. As it was, St Helena Island National Park was to wait another eight years for a new wharf and jetty.

Chapter 6: Central Queensland Coast – National Parks and Sand Mining

Soon after taking up appointment in the QNPWS, I discovered that a large number of proposals for National Park and Environmental Park (generally smaller areas) along the central Queensland coast were in limbo due to conflict with sand mining interests.

I proposed developing a land use strategy to rationalise sand mining and nature conservation interests. This work built on the Service's vegetation and land system surveys by Peter Stanton and the Reverend S. McF. James, earlier park proposals by Richard Clarkson, and the tireless conservation advocacy by a part-time resident of Seventeen Seventy, Dr Tom Ferrier. Tom was a delightful gentleman who used to regularly drop into the office to encourage our conservation efforts around Seventeen Seventy and Agnes Water. At that time, the central Queensland coast was set to become the next sand mining battlefield after Fraser and Moreton Islands.

I briefed the Service that the concern over sand mining south of Agnes Water, expressed at the Mining Warden's Court, gave every indication that this region would be subject to another bitter sand mining versus nature conservation controversy.

I examined the park proposals from Baffle Creek, north of Bundaberg, to Byfield, north of Rockhampton and re-assessed their conservation values in conjunction with advice on the significance of ore bodies in various locations. The cooperation of Warwick Willmott of the Geological Survey Branch of the Department of Mines is acknowledged. His professionalism in negotiating mining interests, whilst recognising the legitimate role of National Parks, enabled many potential conflicts with park proposals to be resolved, not only in this area, but across Queensland before issues became political and polarised community views developed. He also promoted the protection of outstanding geological features in their own right.

In the 1970s, there was unfortunate notoriety around the Bustard Bay - Jenny Lind Creek area with the disappearance of two fisheries inspectors. It was widely rumoured that they had fallen foul of crabbers that worked the many inlets around Bustard Bay. Their bodies were never found.

We often used the Miriam Vale pub for accommodation whilst surveying the coastal areas. Access to Agnes Water was then a dirt road complete with corduroyed ruts, pot holes and washouts. It was another inconvenience for our field staff who had the thankless task of travelling it every day to control the infestations of the declared pest, Groundsel Bush, *Baccharis halimifolia*, on Eurimbula National Park.

In 1979, I produced a two volume internal report, *'Minimum Nature Conservation Requirements for the Central Queensland Coast - a compromise with sand mining and other land uses'* (Sattler 1979(b)). Dr Graham Saunders forwarded my report to Mr 'Olie' Patterson, Managing Director of Mineral Deposit's Ltd. Mineral Deposit's reviewed the proposed rationalisation of their mining tenements and Graham and I travelled to Southport to have lunch with Olie and David Brooks who was the company's rehabilitation officer. David and I knew each other well from the days of sand mining rehabilitation inspections when I was with the Department of Mines, five years earlier. At that time he was carrying out the most successful sand mining rehabilitation work in Queensland.

Mineral Deposits accepted the overall proposition and made some minor changes to the proposed leases that were to be retained – this was a major breakthrough. Large areas under mining tenements were also held by Murphyores and they agreed to the Department of Mines approaches to surrender significant areas. The National Parks proposals were starting to take shape.

I was pleased to have had this working relationship with Graham as he passed away prematurely from leukaemia in 1988: a fate he shared with many other fellow entomology researchers, presumably from the exposure to agricultural chemicals at the time. Graham walked a tight rope as the first Director of National Parks under a National Party government in Queensland. He was always gracious in all the dealings I witnessed, some of which incurred strident personal and political abuse and on occasion, publicly in front of his staff.

However, one amusing anecdote involved the Hon. Russ Hinz. Graham shared a podium with big Russ at the opening of the Burleigh Heads National Park Information Centre. Russ must have been chuffed to have the Centre built in his electorate as he introduced Graham as the best National Parks Director in Australia and sang his praises for his conservation work. The battles behind the scenes to advance conservation were something entirely different.

Another incident about this time involved the culling of feral horses on Moreton Island by the Service. One poor animal was not cleanly shot and wandered into the campground and dropped dead in front of some happy campers. Big Rus who was Minister for Police and everything else, screamed in The Courier Mail that he would leave no stone unturned to find the culprits. A quiet call was made from the Service to Russ: *"go a bit steady - it was us!"*

A feature of Sir Joh's administrations was that the approval of local Shire Councils had to be obtained for the gazettal of any National Parks. This was essentially a veto power over State government decisions on land use, often by local councillors with vested local interests. A number of the central Queensland park proposals fell within Miriam Vale Shire and the Council was strongly opposed to any new parks. They believed it would limit urban development and reduce their rate base. The concept of National Parks in spectacular coastal areas attracting future tourism development was a bridge too far.

I sought the assistance of the Minister for National Parks, the Hon. Ivan Gibbs to help persuade Miriam Vale Shire Council of the value of the central Queensland coast package. One notable day out was when the Minister and I travelled to Miriam Vale to meet the full Council. Steve Parish had prepared for me a fancy slide show with two projectors allowing images to phase in and out. One image showed a roo popping its head up in the bush. “*Bang!*” rang out from a Councillor down the back of the room; the day was lost, they were not interested.

New National Parks had to be approved by the Department of Lands, who were arguably the most influential department. This department administered 68% of Queensland that was leasehold land, and clutched on to their historical role of settling and developing the State.

A joint inspection tour of the park proposals contained in the deal with the miners was organised with the Department of Lands, Mines department and the QNPWS. Lands strongly resisted most of the proposed areas and particularly the proposed Deepwater National Park. They were determined that Wreck Rock in the southern part of Deepwater should become a coastal town on the *‘the last surf beach’*; the coast further north being sheltered by the reef and islands. Already, another Lands Department coastal development at Stockyard Point east of Byfield had become a disaster with no practical or formed access or any other infrastructure. They were not to be moved and even suggested doing a counter deal against Mines.

Wreck Rock is now recognised as a very significant nesting site for endangered Loggerhead turtles. It is one of the sites where Dr Col Limpus has dedicated a lifetime to turtle research.

Whilst the Department of Lands, particularly under political direction in the 1980s, were not about to support more National Parks, there was amongst some of the staff a strong commitment to the public interest. Their bureaucratic independence meant that they withstood many of the political calls to alienate vacant Crown lands and other public lands to private tenure. This meant that, in the main, beach esplanades were protected together with other reserves such as Camping and Water Reserves. Often though, there was intransigence to esplanades adjoining National Parks being absorbed into parks and this sometimes led to management difficulties.

The outstanding ‘resistance’ of this era was the protection of the very large Stock Route system across Queensland from being dismantled and incorporated into adjoining leasehold and freehold properties. Doug Grant was head of the Stock Routes Branch of the Department of Lands for many years and he fought a sterling fight to preserve ‘the long paddock’ as a key public land resource and for its intended purpose of moving stock. With the increasing impact of drought from a changing climate, this State wide network of Stock Routes may once again be extremely valuable to move stock and to provide wildlife corridors. Where possible, I ensured that park proposals did not incorporate Stock Routes; better that these lands be managed as a valuable multiple use resource.

Preparation of the central Queensland coast strategy and negotiations had been continuing for more than four years when in 1980, the Hon. Ivan Gibbs was elevated in Cabinet from Parks Minister to become the Minister for Mines and Energy. In this role he continued to support the rationalisation of both mining and conservation interests and I worked closely with him in this regard. We had developed a good working relationship, particularly through our work on the Southern Moreton Bay strategy, discussed below.

Ivan Gibbs proposed to take the central Queensland coast strategy to Cabinet as part of a bigger rationalisation of sand mining conflict areas. This submission also included the relinquishment of mining leases on Bribie Island and some leases (not all) on Moreton and Fraser Islands. However, the Department of Lands hijacked the submission and mention of future National Parks was removed: areas where mining tenements had been negotiated for surrender were simply shown as relinquished mining leases. Ivan however, immediately cemented the package by publishing a Special Report which was reproduced on 19 April 1981, as a colour spread with maps in the *Sunday Mail*, *Colour Magazine* – *ANZAC edition*. Comment by the environment reporter Bill Ord was that areas from Shoalwater Bay to Baffle Creek were soon to be added to the National Parks estate – Bill was always happy to assist. Three of the Service's annual reports from 1979-80 to 1983-84 had also mentioned the National Parks strategy for the central Queensland coast.

These actions essentially raised the awareness of conservation interests and had the effect of putting these key park proposals on ice until the government changed in 1989 and the Hon. Pat Comben pushed through the gazettal of: Deepwater National Park, Round Hill Head Environmental Park, extensions to Eurimbula National Park, Rodds Peninsula National Park, a Departmental and Official Purposes (Resource) Reserve on Wild Cattle Island, Curtis Island National Park and Byfield National Park.



Photo 16. Curtis Island National Park and its well developed parabolic dunes where sand mining was proposed

Separate battles were fought at this time over proposed sand mining on Moreton Island and Fraser Island and involved much public angst. These land use conflicts followed on the heels of the bitter dispute over proposed mining of Cooloola. This

fight was led by Arthur Harold and Bill Huxley of the Noosa Parks Development Association. The significance of the Cooloola win for nature conservation was that it was the first time a major economic mineral resource was foregone for nature conservation. One of my earlier jobs in the Department of Mines had been to inspect the beach mining along the beaches of Cooloola to ensure that the miners stayed some metres from the toe of the magnificent coloured sand cliffs.



Map 2. Map published by the Minister for Mines and formerly National Parks Minister, the Hon. Ivan Gibbs, showing relinquished mining tenements (red) in favour of National Park proposals for the central Queensland coast.

Other great advocates for conservation on the Sunshine Coast were Kathleen McArthur of the Caloundra Branch of the Wildlife Preservation Society and Stan Tutt. Stan was also the local historian and published many valuable books on the history of the area. I grew up knowing Stan who religiously dropped in home every Sunday afternoon for a 7lb (3kg) tin of Tea-tree honey. Many a discussion was had about the environment.

But the battles for Fraser and Moreton Island dragged on for years with enquiries and political intransigence. John Sinclair led the Fraser island fight as head of FIDO (Fraser Island Defenders Organisation). Through his efforts and many others, sand mining on Fraser Island was stopped, though John was ruined when he took defamation action against Joh. On Moreton Island a huge public outcry followed proposals for mining. A compromise to restrict mining to 6.4% of the Island south of Cape Moreton did not abate the public opposition. Joh held out against the wishes of the public, the recommendations of the Mining Warden Court against mining, the Commonwealth Government announcing a ban on export permits for the mineral sand, the opposition of Brisbane City Council whose right to veto mining under the town plan was revoked by an amendment to the Mining Act, a proposal by the Trades and Labor Council to ban mining (*Comben unpubl.*), and the Island being listed on the Register of the National Estate!

Eventually in 1988, the Hon Mike Ahern, then Premier, announced there would be no mining. For years the National Party would not support the elevation of the talented Mike Ahern to the ministry and when he finally took over as Premier in the last couple of years of the government, it was a poison chalice.

The central Queensland coast strategy was successful in preventing the escalation of another sand mining and conservation controversy as was experienced in most other areas along the NSW coast and in southern Queensland. Those mining lease areas not relinquished in central Queensland were not mined and with the intensive tourism today in areas such as Agnes Waters, it is most unlikely that areas adjoining the parks will ever be mined. Eventually, this will enable a further rationalisation of boundaries of Deepwater and Eurimbula National Parks in particular.

One of the development schemes that surfaced during the sand mining negotiations was for a resort on Rodds Peninsula on the northern side of Bustard Bay. An option of some sort was held over Rodds Peninsula by Geoff Burchill, an engineer and developer on the Gold Coast. Ivan suggested to Geoff that he ring me and discuss the likelihood of any proposal getting off the ground. I advised that unfortunately, Rodds Peninsula was the most remote part of the coastline between the town of Seventeen Seventy and Tannum Sands/Gladstone and any development would conflict greatly with preserving park values. Geoff took this advice professionally and withdrew his interests.

Chapter 7: Pumicestone Passage and Bribie Island

In 1977, the Queensland Government directed that the question of further urban development adjoining Pumicestone Passage be investigated. The Co-ordinator General's Department established an interdepartmental committee, ably supported by Robyn Hesse with whom I had worked in the Co-ordinator General's Department. Through this committee, I developed two major park proposals, a National Park adjoining Pumicestone Passage and an Environmental Park on Bribie Island, as well as a smaller Environmental Park to protect Bell's Creek at Caloundra (*Co-ordinator General's Department 1982*).



A major finding of the committee was the need for population limits within the catchment of the Passage to protect water quality and other environmental values. This issue is even more relevant today as large urban schemes are promoted and growth of existing towns within the catchment continues apace.

Photo 17. Determining boundaries for Pumicestone N.P. with Gordon Wilkinson (right).

Implementation of these park proposals was to become a most protracted affair. The park proposals over mostly Crown lands were strongly opposed by the Department of Lands, even though the Co-ordinator General's interdepartmental land use strategy had received Cabinet approval. The Department of Lands saw the park proposals as a diminution of the Crown land bank that should be available for future development. Again the Department of Lands was flexing their muscles against the government of the day.

There was obvious public support for the conservation proposals. With the Service's support, I set up an information booth at a Bribie Island festival at Woorim to promote the park proposals. I recall one forthright member of the public bailing me up and asking: "so when are you going to put some teeth in it".

To gain further public exposure of the park proposals, I presented a paper to the Royal Society of Queensland's symposium, *Northern Moreton Bay*: this was essentially a précis of this part of the interdepartmental report (*Sattler 1979(b)*).

The local National Party member, Billy Newton, a pawpaw grower from Upper Caboolture, was also tentative. Sir Joh always took on board the views of the local member as well as the views of the local Shire Council; if either objected the parks did not proceed. Fortunately, we had Caboolture Shire Council on side and eventually Caloundra City Council came on board after Robyn and I made presentations to both Councils.

One major conflict was with a family of brothers, three big men who had an Occupational Licence to run cattle on Bribie Island. They were very forthright in their representations to their local Member and put the wind up Billy. The issue was that they held only a licence to graze, not tenure. However, such was the political support for grazing interests that even poor grazing country beside the salt flats on Bribie Island was considered by Lands to be a better and higher land use than National Park.

Negotiations ground on to the late 1980s and I was on annual leave. The phone rang and I was told to get into the office quickly as the matter was with Joh. An election was looming and Joh wanted it sorted. Joh instructed that the licensees be given 50 hectares of freehold land on the island around Mission Point as compensation for surrendering their Occupational Licence. Joh made the comment that: "*others who had taken up country across Queensland had got permanent tenure*". Fifty hectares of real estate on Bribie! The provisions of an Occupational Licence were that it could be cancelled at 30 days' notice with any compensation limited to improvements only; in this case an old set of timber cattle yards at Mission Point.

I think I saw a mushroom cloud rising above the Department of Lands offices in George Street when they received this directive. At least the Department of Lands and the Service were on the same page and Mission Point was arguably the heart of the National Park proposal. It took the Department of Lands a long time to 'find the file' and ultimately, a Special Lease was issued, not freehold. This saga had played out across the whole decade of the 1980s with the park finally gazetted in the 1988-89 financial year. Upon the change in government in 1989, the Special Lease was purchased by the Service and the Mission Point area was added to the park. Unfortunately though, none of the undisturbed lands on the mainland side of the Passage that I originally proposed to be included to buffer the Passage were purchased.

At this time in the 1980s, the 'white shoe brigade' was at their zenith in Queensland. A proposal emerged to build a new Venice on Bribie Island, 'Molinara', with the central swamp that runs down through the Island to become a grand canal. The developers proposed a new bridge to the island across the northern part of the Passage. I indicated that would never happen and next day they published a proposal for a tunnel to the south of Golden Beach, Caloundra.



Photo 18. Tea-tree (*Melaleuca quinquenervia*) forest west of Golden Beach, Caloundra; now converted to urban development.



Photo 19. Pumicestone Passage and Halls Creek area, near where a tunnel was proposed for a mega resort on Bribie Island.

The new Director of National Parks was Herb Bonney, a person of great intellect and wit. He very quickly summed up how silly the whole proposal was and met with the developers in neutral circumstances. Herb asked them how much money they had for the development and then informed them that they would need that much again to fight World War III. The proposal was laid to rest.

Another interesting event occurred when local Caloundra real estate developers, Henzells, were before the Local Government Court seeking approval for extensive urban expansion behind Golden Beach including the building of a canal into Bell's Creek. I attempted mediation with the developers by pointing out the value of the extensive Tea-tree (*Melaleuca quinquenervia*) wetlands between the Airport and Bell's Creek and suggesting that the development be consolidated closer to the existing development at Golden Beach. The conservation value of the area had been recognised back in 1975 as part of the Co-ordinator General's Coastal Management Investigation (*Co-ordinator General's Department 1975*).

This genuine attempt, which I likened to the Department of Primary Industry providing an extension service, backfired when I was subpoenaed to the Court Hearing. The barrister

for the developers put it to me that I had a conflict of interest to protect this area as it was where my father kept his bee hives. This was preposterous for Dad never kept his bees there, nor was there any need with the family farm only a few kilometres away. The issue was becoming personal: besides, mangrove honey that the bees would have reached along the Passage, has a terrible flavour.

Robyn Hesse and my efforts were ultimately not in vain as Bell's Creek was left intact with no canals linking into the creek, but no areas on the southern side of Bell's Creek were reserved. Bell's Creek was seen then and should be today, as the natural demarcation to the southern part of Caloundra. Preventing the spread of urban development to the central Passage zone is important as this is a critical part of the Passage system that receives less tidal flushing to remove pollutants.

It was a baking day when I had to address the Caloundra City Council to convince them to agree to the proposed parks. The Council were rightly concerned to have authority to manage the fragile northern end of Bribie Island to protect Golden Beach should the dunes become vulnerable to being breached. In this regard, Environmental Park tenure with Council as trustee fitted the bill.

I tore up from Brisbane and with the heat of the day, it added to the stress of possibly being late. I arrived a few minutes early and decided to drive around the Happy Valley foreshore. Who did I find sitting on the rock wall, swinging back with fishing line in hand? - my brother, Ross. I seriously questioned who had the better deal!

It was a long way since Harry Sattler had built the second house on Golden Beach.

Chapter 8: Devastation of the Brigalow

I had become increasingly concerned in the early 1980s over the extent of land clearing across the Brigalow Belt in Queensland and NSW. In Queensland, this biogeographic region (bioregion) extends from the Great Dividing Range to west of Roma and from the NSW Border to south of Charters Towers, and to the coast in parts. It contains rich, fertile soils and has been the subject of extensive development schemes since the late 1950s.

This bioregion contained only a few small National Parks that were representative of the once extensive Brigalow, Gidgee and softwood scrubs, viz., Southwood National Park, Lonesome National Park and Dipperu National Park. For years the debate had raged with the Department of Lands for areas of Brigalow to be protected as the various stages of the Brigalow Development Scheme were rolled out and the large pastoral holdings were broken up into smaller properties of higher tenure. The Department of Lands, including the local Land Commissioners who provided the assessment reports, and the government, were not in the least sympathetic to retaining any of the fertile plains for their conversion to National Park. Some areas, confined mainly to the sandstone ranges of the Central Highlands, were made available for parks upon renewal of grazing leases as these areas had little grazing value.

Jim Gasteen was a grazier who grew up on Thrushton near Bollon, a little further west in the Mulga Lands. Jim did a power of good work in the late 1960s and '70s surveying and promoting National Parks proposals across Queensland from the Scenic Rim to the Gulf of Carpentaria. I got to know Jim when in conjunction with Adam Clarke, a grazier from Taroom and later Shire Council Chairman, was trying to secure areas in the Brigalow Belt in central Queensland.

Jim was later to write:

'Riding around in the cabin of brigalow tree crusher (which had been introduced from America), a bellowing monster coupled together by anchor chain and cable while they demolished thousands of acres of brigalow and softwood scrub full of wildlife, had a far greater impact on me 'The country for miles around was a tangle of flattened twisted timber with barely a tree remaining in places from one horizon to the other. 'The slaughter continued over watercourses and eroding breakaway gullies in unstable duplex soils and even over hills' (Gasteen unpubl.1991).

Jim told me that when surveying a proposed park in the Amphitheatre in the Expedition Range that upon returning to camp one evening he found bullet holes in his tent, such was the animosity towards parks being established.

To highlight the need for parks and conservation more generally in the Brigalow Belt, I proposed to the Royal Society of Queensland, then being on Council, that a symposium be held. The Royal Society supported this idea and I approached a large number of people to speak. The symposium, *The Brigalow Belt of Australia*, was held on 23 October 1982 and was a great success (Bailey 1984). The Governor as Patron, His Excellency Sir James Ramsay, opened the symposium and spoke of the debate the Society's first President, A.C. Gregory, the explorer and former Surveyor-General, had over the Land Bill of 1884:

'It is doubtful whether an extensive destruction of the Acacia forests may not decrease an already deficient rainfall in the interior, while it will certainly decrease the grazing capabilities of the country in seasons of drought.'

Gregory carried the day, however 13 years later, the Land Act of 1897 was amended to allow for the selection of scrub areas (Ramsay 1984). Interesting history indeed, especially in terms of today's concern over climate change.

One of the speakers I invited was Professor Len Webb who many years later thanked me for the encouragement to get up and "say it as it was"; not that Len ever needed any encouragement.

With the assistance of Rose Webster, I presented a paper on 'The Conservation Status of Brigalow (*Acacia harpophylla*) Communities in Queensland'. We surveyed every park containing patches of Brigalow and softwood scrubs (vine thickets). These patches of Brigalow totalled only 30,259 hectares out of the original occurrence of more than six million hectares (0.5%) (Sattler and Webster 1984).

In response to this paltry level of protection, in my address I called for: '*all remaining areas of brigalow and soft wood scrubs ... to be identified and their nature conservation value assessed.*' Further, for '*nature conservation to be recognised as a legitimate land use ...*' A colleague from the NSW National Parks and Wildlife Service, Ian Pulsford, also presented a paper pointing out that '*the conservation status of Brigalow generally in NSW was also extremely poor*' (Pulsford 1984).

One delightful opportunity in preparing our paper and organising the symposium was to work closely with Jim Gasteen and Dr Bob Johnson, then the Director of the Queensland Herbarium. Bob had worked extensively in the Brigalow Belt and always provided every support. It is indeed curious that only 11 years earlier at Agricultural College, one of the subjects I had to study included how to kill Brigalow and prevent it from suckering to facilitate pasture development.

Some park proposals were advanced about this time, including Moolayember Gorge within the Carnarvon sandstone ranges and Lake Nuga Nuga in the Arcadia Valley. I insisted upon Graham Saunders that he push for the surrender of parts of both properties with the Department of Lands as both properties were held conjointly. The persistence paid off and new parks were established over lands adjoining both Lake Nuga Nuga and the rugged

terrain of Moolayember Gorge and brought to fruition proposals made by the National Parks Association of Queensland many years earlier.

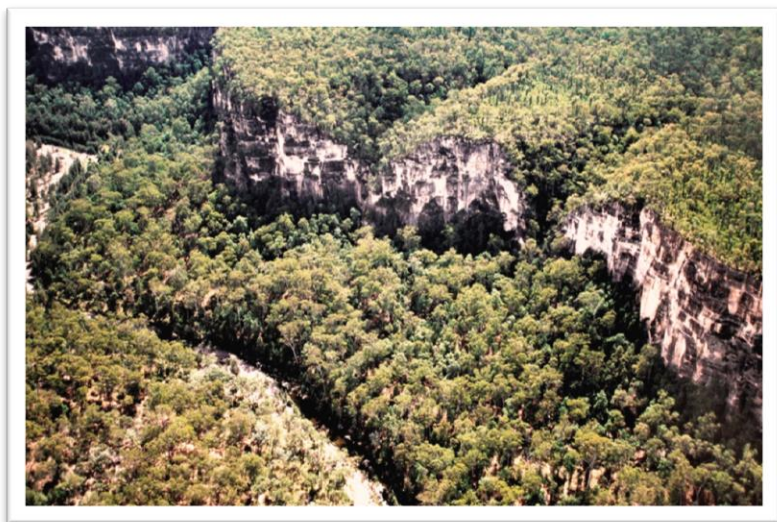


Photo 20.
Moolayember
section of Carnarvon
National Park
(DEHP photo).

Photo 21. Lake
Nuga Nuga
National Park
proposal in 1983.



Richard Clarkson who was with the Service from the start, played a leading role in the purchase of Mt Moffatt and other extensions to Carnarvon National Park. These extensions were secured at the time of lease renewal or the upgrade of the pastoral lease to a more secure lease tenure. Through Richard's efforts, the Service successfully secured the Kakamundi and Deepdale extensions to Carnarvon National Park. Significant stands of Brigalow occurred on Yandaburra adjoining Kakamundi and I made numerous submissions through the Service and in person to the Land Commissioner for part to be set aside to consolidate Carnarvon National Park. The Department of Lands would not have a bar of part of the lease over fertile lands being surrendered in the public interest.

Another interesting episode that reflected the times occurred on Wilandspey, a property south of Charters Towers. This property was held by Eric and Thelma Martel, an elderly couple whom we met whilst surveying the distribution of Brigalow and other acacia scrubs within the park estate. Their property contained a large patch of Gidgee (*Acacia cambagei*) of about 3000ha which represented only a small part of their overall property. This species and its various community types was (and is) even less protected than Brigalow.

Their property being leasehold land was subject to development conditions. The Martels told the story that they were instructed by the Department of Lands that they had to clear the Gidgee scrub or risk forfeiture of their lease if they did not comply. This was nonsensical, given that the balance of their large property was grassy woodlands with plenty of natural grazing potential. They were appalled by this direction and instead of clearing the Gidgee patch they donated it to the Service as an Environmental Park with a total area of 5,200ha. I had the feeling however, they were ostracized by the local community for taking such an enlightened view.

As an aside, Eric and Thelma Martel published a book *A Christmas Card in April – Station Life on the Palmer River in the 1940s and 1950s* (Illingsworth, ed. 1990). This book recalls their experiences and hardships on Strathleven on Cape York Peninsula before taking up Wilandspey and is a great insight into the hardships of early pastoralism.

The only other park at that time containing some Gidgee, a mixed Brigalow-Gidgee community, was Mazeppa National Park. Upon inspection of Mazeppa, it was found that the adjoining property owner had deliberately cleared a very wide fire break within the park, far in excess of what was reasonable and without permission. What was particularly galling was that the Service could only note the damage; such was the political protection afforded to rural landholders under Joh's government. The other concern with such a wide swathe being cleared within the park was that it would allow the introduced pasture species, Buffel grass (*Cenchrus ciliaris*), to establish as a dense sward and then carry damaging fires further into the park.

Regrettably, even after the government changed in 1989, actions to thwart securing National Parks over the few remaining areas of Brigalow continued. In the late 1990s, Foxleigh, a property immediately adjacent to Middlemount, a mining town in Central Queensland, was identified as a National Park proposal by departmental staff in Emerald. On inspection, this property was indeed a significant area, not only in containing Brigalow communities, but by being adjacent to the mining town of Middlemount where it could provide extensive open space and recreation opportunities for residents. It is understood that the landholder was informed by one of the rural industry bodies that the Service was interested and that they should pre-emptively clear the property. Foxleigh was lost!

Chapter 9: Creative Solutions

The Gold Coast to the Mulga

Southern Moreton Bay

Southern Moreton Bay, lying south of Russell Island to the Gold Coast, through Jumpinpin, along South Stradbroke Island and bordering Sanctuary Cove, consists of a maze of islands, mangroves and other littoral areas. This is prime fish habitat and the premium Bream spawning area in Southern Queensland: it is also vitally important habitat for migratory waders and other birds. In the early 1970s, intensive development pressure on the Gold Coast saw the development of Sanctuary Cove and such schemes were coming thick and fast for similar style developments to spread throughout the islands of Southern Moreton Bay.



Photo 22. Southern Moreton Bay wetlands and South Stradbroke Island (foreground).

This area was within the Albert electorate held by the Hon. Ivan Gibbs, who was Minister for National Parks in 1979-80. He was committed to the conservation of this major estuary and its many islands. (Incidentally, this is the same electorate where Romeo Lahey had collected the signatures for his petition for Lamington National Park). The detailed history

of how this area was saved is contained in Ivan Gibb's biography *Queensland's Quiet Achiever* (Galton undated). I assisted Barry Galton in recording Ivan's achievements and the following is extracted with little amendment from Ivan's biography:

'The protection of the Southern Moreton Bay waterways and islands was one of Ivan Gibb's biggest and most important tasks and was probably his greatest triumph.'

'He said that to understand the problems facing the Government about this project one had to go back in history. 'The Government's task would have been considerably easier, had the authorities of the late 19th Century simply not allowed any leases or freeholding of islands or wetlands and that was the case here. 'The Southern Moreton Bay islands were a mixture of old freehold tenure and leases of various kinds - often extending well out into the mangroves, recreation reserves and camp grounds.'

'In the postwar period on the Gold Coast, a Wing Commander Steeley was active in trying to sell islands to the Asians and it was not unusual to see an aircraft in the air regularly flying over the region with the Wing Commander on board obviously on a sales mission.'

'But it was all pretty wishy washy and there was no proper strategy of development, land approvals were subjected to some very harsh criticism and the councils realised something more concrete had to be put into effect. 'Currigee on South Stradbroke, for example, the township based on the oyster industry in the early part of the last century, was considerably bigger than Southport at that time. 'The scattered freehold allotments on South Stradbroke Island were the remnants of the old township. 'At Couran, the widest part of the island, and to the south of Couran, there were large freehold tracts of land.'

'In December 1970, the Working Committee on Long Term Planning of the Area between Jumpinpin and the Nerang River Bridge met and Ivan was on that committee which comprised representatives of the many Government departments, Gold Coast City and Albert Shire Councils. 'Its report, the Peel Report, (Queensland Government 1970) was presented to Parliament and had among its most significant recommendations that: "as many islands as possible should be retained in their natural state with as little development as possible, all existing vacant Crown Land areas of islands retained as Public Open Space and no further development leases approved".'

'When Ivan became Minister (for National Parks) in 1979, he brought together the Albert and Gold Coast councils with his department and instigated planning for the conservation of the whole of Southern Moreton Bay. 'Ivan said as long as he could remember the Albert Shire, particularly its Chairman Hugh Muntz and their Chief Engineer Ron Penhaligon both wanted the islands put aside and they were prepared to put a substantial amount of shire money behind a concerted plan to protect

Coomera, Woogoompah and Kangaroo Islands. ‘Subsequently Albert Shire contributed \$140,000 towards the ambitious purchase plan.

‘By May 1980, Ivan had emerged as a friend of fish and fishermen when he announced a move to protect a number of islands, mangroves and seagrass beds between the Southport Broadwater and Jumpinpin – a strip of some of the most environmentally important coastline in Australia. He said at the time: “A combination of National Parks and marine reserves will ensure the status of the region as a marine habitat”.’ ‘Ivan says: “that with the help of people like Paul Sattler, it took a total of eight years to put the whole strategy together”.’

This meant conserving Coomera, Woogoompah, Kangaroo, part of Tabby Tabby, Eden, Cobby Cobby, Stingaree and Short Islands, Behm Creek and south of McCoys Creek. It was a diverse landscape and comprised islands with well-developed eucalypt forests like Woogoompah Island, extensive areas of salt marsh such as Eden Island and numerous mangrove islets, sand and mud banks, and extensive waterways.

In 1987, to lock in the proposed conservation strategy, Ivan published a special brochure: *Jumpinpin for nature and recreation*, showing the details of the islands to be placed under conservation tenure. This was the same strategy he had used to publicly cement the central Queensland conservation and sand mining deal. Key to success was that Ivan as Member for Albert, convinced the Premier, Sir Joh, of the need to resume the islands of southern Moreton Bay and to draw a line in relation to spreading mega-tourism developments.

‘Ivan was quoted as saying: “Paul Sattler and I were able to develop a perfect relationship and a balanced situation to be able to achieve the best possible environmental result.” ‘Paul Sattler ... the state’s leading ecologist and conservation planner... was credited ... during Ivan’s term of helping to successfully fight against the massive planned Sanctuary Cove style developments of Southern Moreton Bay.

‘Ivan Gibbs says: “The conservation of the southern bay was assured, the three major islands were resumed, most of South Stradbroke Island was gazetted Environmental Park and the other small islands were to be permanently protected. Direct expenditure by visitors was substantial. The area is estimated to generate more than \$80 million a year in economic activity which included several thousand jobs (early 1980s value). Under the plan, residential development in the southern Bay would be confined to Russell, Karragarra, Lamb and Macleay Islands which had 18,000 freehold residential blocks north of the proposed conservation area”.’

‘Full credit for the success of the Southern Moreton Bay strategy is given to Paul Sattler and Ivan Gibbs by leading engineer and development analyst Geoff Burchill in his book ‘Passion, Power and Prejudice’ which details much of the history of development in this section of Queensland (Burchill 2005). ‘Burchill wrote that



Recreation

Southern Moreton Bay, often just 'The Pin', is a boating paradise.

The keen fisherman in his 'tinny' skips shallow banks to reach a favoured spot to wet a line.

Yachtsmen and launch owners are confined to serpentine channels to reach a score of safe anchorages.

Boaties and families escape in their thousands day and night the year round to share a mangrove and water landscape without a hint of urban development.

As day meets night, they alone hear the curlew cry, the crab holes pop and the fish splash as the tide floods.

Boating use registrations exceeding 20 000 locally and 50 000 for the Moreton Bay region is a significant part of the Gold Coast region's economy.

Recreational boating and fishing is estimated to be worth more than \$80 million a year and generates several thousand jobs.



- Proposed environmental park
- Fisheries reserves boundary
- Littoral vegetation



Map 3. Southern Moreton Bay park strategy, 1987.

some of the lands along the waterways were the subject of some kind of crude development leases as has happened on South Stradbroke Island and on the Sunshine Coast. 'He said the one on South Stradbroke in the early 1970s was a canal estate, Couran Point, and had been a disaster for many small investors.

'Burchill tells in his book about the resumption of Coomera Island which was: powerforced through by Ivan Gibbs as Minister and the battle was on at the Land Court for compensation. 'The owner of Coomera Island engaged Sir Frank Moore and his firm as valuers experienced in Land Court claims and also the well known environmentalist and television identity Harry Butler. 'He focussed on the lack of environmental value of the denuded land (natural marine couch meadows) and the immense cost involved in enhancing and maintaining it to reach worthwhile environmental quality. 'The Land Court gave a judgment that completely wiped the argument that the land had any developmental potential and little money was paid by the government for its acquisition.'

The 1,315 hectares were without doubt, potentially the most expensive land acquisition for conservation ever made by any Queensland Government. In addition, the government also committed itself to the reduction of privately-owned freehold land on South Stradbroke Island and when leases expired throughout the area, they were not renewed.

Resumption claims before the Land Court for Coomera and Woogoompah Islands adjacent to Sanctuary Cove were \$25 million and \$40 million respectively, against Crown valuations of \$570,000 and \$900,000. Thanks to the efforts of Greg Coonan, a young valuer in the Lands Department, and others before the Land Court, these valuations were not only upheld but costs were also awarded to the Crown. This was indeed, one of the highest acquisition stakes ever played out in Queensland for National Parks.

'According to Burchill, the Coomera Island scheme was probably one of the last of the serious attempts to emerge in the State from developers trying to use high profile coastal lowlands with substantial wetlands and mangrove vegetation.

'The passion of Ivan Gibbs about the South Moreton islands was revealed in an incident dealt with by Burchill in this book. "I remember when we were flying over these islands with the man who became Chairman of the Gold Coast Waterways Authority and who also built Sea World, Keith Williams, and Ivan as the Minister and also Member for Albert. "As we came over Coomera Island, Williams told him about his idea for a 747 airport on the island. "I thought Ivan was going to attack him there and then despite Keith being the pilot." 'Ivan, years later, said "he did have some strong things to say to William's but preferred not to reveal them, except to say he had felt like throwing William's out of the helicopter, but we had to get down again and he was the pilot".'

'At the end of the day, 95 per cent of the habitable land area of Southern Moreton Bay was dedicated as Environmental or National Park and ... very important

aspects of the whole deal were steps to arrest erosion, saving the sand dunes from further destruction and protection of stands of important species – cabbage tree palms, Phaius orchids, the Golden Stradbroke Wallaby and its habitat, the substantial freshwater aquifer, the mangrove forests and the archaeological and historical sites’.

When we first developed the conservation strategy, Ivan sent me along to have a chat with Keith Williams about: *“the Service’s plans for Southern Moreton Bay”*. Keith exploded



Photo 23. Wetlands of southern Moreton Bay.

when I told him that all the southern islands were to become National Park. He spelt out in no uncertain terms that by building canals on Coomera Island, the fill could be used to build an international airport onto Woogoompah Island. Upon my return, with ears ringing, I found Ivan sitting back with a big smile on his face.

The Mulga Lands – Stalemate

My work to promote conservation in western areas included the Mulga Lands, a bioregion that had no National Parks. This bioregion was being extensively degraded from clearing, especially in the ‘soft mulga’ eastern parts, and elsewhere from over-grazing. Early on, I formed the view that western Queensland had been overlooked in terms of conservation and while there existed a ready constituency on the coast to fight for the conservation of coastal areas and rainforests, no such constituency existed for the western bioregions. This was where I should devote a large part of my work.

Efforts to establish parks in the Mulga Lands ran in parallel with our work to bring the Southern Moreton Bay strategy to fruition. During the 1980s, the Service was becoming increasingly frustrated by the political impediments to expand the National Park estate, certainly after the rapid expansion in the late 1970s. In particular, there were very few National Parks west of the divide and no National Parks existed in sheep country, a major part of the State.

In 1984, Matt Bolton, a PhD student at the University of Queensland and Professor Ray Specht, Professor of Botany and Matt’s supervisor, presented a study to the QNPWS in which they developed a computer analysis (a quantitative planning tool) to determine how National Parks could be optimally selected in western Queensland. This novel approach

generated possible locations for parks based on efficiently selecting representative samples of the region's natural diversity in the minimum area. This work had been funded by a grant from the World Wildlife Fund (WWF).

After Graham Saunders and I received a presentation of the technique which focused on parts of three bioregions, I provided some funding assistance for the *Bolton-Specht analysis* to be aligned with the Stanton and Morgan bioregions. I suggested the analysis be carried out for one whole bioregion, the extensive Mulga Lands around Charleville. Dr Rosemary Purdie, a botanist who had worked in western Queensland, was retained and together with Ross Blick, a zoologist, they ground-truthed the sites that were generated by the retargeted computer analysis. This ground-truthing assessed the condition of each possible site and the few existing park proposals, to firm up a comprehensive system of proposed National Parks for the bioregion.

Upon completion of this proposed bioregional park system plan, I asked the Royal Society of Queensland in 1985 to hold its annual symposium on the Mulga Lands. The symposium, *The Mulga Lands* (Sattler, ed. 1986), was the first public airing of the scientific selection technique used for Mulga Lands and a calculated risk. The United Graziers Association, the industry's representative body, seized on the small-scale map identifying possible National Park sites (Purdie 1986) and immediately notified landholders that their lands were earmarked for National Park. This contributed to the animosity against the Service and implementation of the results of this technical work could not proceed further against the determined effort by the rural constituency to prevent National Parks being established. Nobody wanted National Parks, and furbies were commonly thrown around that the dingoes would breed up overnight and destroy their flocks. It was a considered risk to present a map as we felt it was essential to put up a National Park 'flag' for the region.

Some years later, a key member of the same industry body supported the approach taken, as he could see a scientific basis to the careful selection of National Parks, i.e., "*if you had to have them*".

The 1984-85 Annual Report (QNPWS 1984-85) makes the first official reference to the Mulga study and introduced that a number of bioregions were being surveyed as part of the comprehensive assessment of park proposals. There had been a huge accumulation of park proposals over the years, e.g., the 1979-80 Annual Report (QNPWS 1979-80) mentioned that there were 879 park proposals awaiting assessment. The new quantitative techniques, plus other surveys, provided the way forward to systematically assess proposals by building upon Peter Stanton's and Gethin Morgan's bioregional framework. In some of the Service's Annual Reports that followed, progress towards achieving bioregional representation of ecosystems was published as a key indicator of progress for this targeted approach to park selection, refer Part II below.

Thrushton

One of the areas in question, Thrushton, was a property near Bollon in South-West Queensland and the satellite image presented to the Mulga Lands Symposium clearly showed the intactness of its remnant vegetation compared to the surrounding eastern ‘soft’ Mulga lands. It was a key site to protect the ecosystems of this part of the Mulga Lands and this was confirmed by computer analysis of the whole bioregion.

Thrushton was originally the home of Jim Gasteen. Jim’s father took up the block in 1920s and Jim was raised there ‘*with axe in hand*’ cutting mulga for stock feed. His interesting recollections of this early era are contained in his book, *Under the Mulga* (Gasteen 2005). Jim pressed for his old property that had completely regenerated to become a National Park.



Photo 24. Thrushton National Park (DEHP photo).

The Service began negotiations with the owner of Thrushton in the mid 1980s with a view to purchasing it for National Park. Soon after however, the owner was killed when he drove into a flock of sheep one Friday night. A relative who inherited the property was keen to sell it and we knew that if it was sold elsewhere, the best opportunity to reserve a representative sample of the soft Mulga Lands of Queensland would be lost forever. Some neighbours indicated that their dozers were already fired up and ready to go as soon as they got their hands on the property. It was suggested to the owner that the best chance would be for her to appeal to Sir Joh directly, that she wanted to sell the property to the QNPWS. This she did and in tears convinced Sir Joh. However, the local National Party member, Don Neale, would have none of it and argued Sir Joh down saying that his pre-selection would be threatened if he allowed Thrushton to become a National Park. He held one of the safest seats in Queensland. Sir Joh equivocated.

Idalia

At this time another one of the selected areas for a National Park in the Mulga Lands, Idalia which is west of Blackall, came onto the market. Idalia also had been identified as a key site in the Stanton and Morgan biogeographic analysis of Queensland in 1977. It had been in drought for seven years and the young family wanted out. I approached them and they were happy to sell it for National Park. This created a further problem, the government did not want National Parks but if this property was sold elsewhere and the seasons changed, again extensive development could occur and it would be lost.



Photo 25. Idalia National Park
(*R. Purdie photo*).



Photo 26. Source of the Bulloo River
on Idalia National Park.



Photo 27. Currawinya Lakes National Park with Lake Numalla (fresh) foreground, and Lake Wyara (salt) and blue in colour (*DEHP photo*).



Photo 28. Large Pelican rookery on Lake Wyara (*DEHP photo*).

Southern Moreton Bay continued

These developments in the Mulga Lands occurred about the same time that we started to bring to a head the Southern Moreton Bay strategy. In Ivan's electorate, pressure was growing from developers following the resumption of Coomera Island for National Park. The old canal estate at Couran Point on South Stradbroke Island was a failed venture from the 1960s and was owned by Bruce Small (no relation to the Gold Coast Mayor and MLA, Bruce Small) and Pacific Ventures Pty Ltd. Pacific Ventures also held a number of large freehold blocks to the south containing extensive palm forests and extending out into the inter-tidal zone.

Ivan's biography continues:

'It was promoted that these areas should be relinquished in favour of concentrating development around the disturbed site at Couran Point. 'Pacific Ventures warmed to the notion and that a way to further increase their environmental credentials would be if they bought some western properties and made it part of a compensation package to get the leases around Couran Point.'

This provided a solution to break the impasse over Thurshton and Idalia. Further, I proposed that the package should include a significant financial contribution towards the acquisition of Currawinya Lakes. Currawinya, near Hungerford, was the most significant National Park proposal in the Mulga Lands.

The cost of a large capital works program for managing South Stradbroke Island as a park and for the employment of rangers was also included. This package was valued as an \$8.5 million environmental contribution towards the total cost of acquiring the necessary leases at Couran Point.

This was a high risk strategy at both a bureaucratic and political level as it acted, seemingly, in contradiction to the government policy of the day. Ivan saw the immense opportunity in achieving a wide range of environmental outcomes, as well as satisfying development interests in the area. Ivan and I put the proposal to Sir Robert Sparkes, President of the National Party, and it was quietly supported by him. One significant reason why there was National Party support, other than the high esteem that Ivan was held in, was that the Gold Coast and its development interests were essential for fund raising for the Party. Always follow the money!

The package was assented to by Cabinet and Rob Borbidge, then Minister for National Parks under the Mike Ahern government, was entrusted with its implementation. Time elapsed as the developer prepared concept plans for Port Livistona at Couran Point and in the acquisition of the western properties. Originally, the developer pressed for a development that was far too big for the environmental setting of South Stradbroke Island. I told them to go and have a look at the Binna Burra Resort for a more suitable model.

The Minister for National Parks changed again and Geoff Muntz took over as Minister in 1989. Ivan had worked closely with Geoff's father Hughie Muntz, Chairman of Albert Shire Council and Hughie was involved in the first discussions on our National Park plan for Southern Moreton Bay. The package was advanced but not without hiccup!

The western properties were bought by Pacific Ventures under \$2 shelf companies and put on ice. I suggested to a representative of the company: *"make sure any agent negotiating to purchase the western properties blends in with country folk"*. Sitting quietly at my desk one morning, I received an urgent call from the owners of Idalia. They said they had a real estate spiv from the Gold Coast in their living room with an open shirt and gold necklaces wanting to buy a sheep and cattle property; they would prefer to sell to the Service. I explained that the government had not given the Service the money to acquire Idalia and it was their decision.

Meanwhile, Bruce Small got wind that his neighbouring developer at Couran might be gaining an advantage and sought to sour any dealings. Mrs Gear, spokesperson for a Gold Coast environmental group, also got wind of the deal and a war of words erupted in the local press. Ivan said: *"he had to endure a lot of debate about this issue while it lasted"*.

But the government was in trouble. This was the aftermath of the Fitzgerald inquiry and in late 1989, it seemed that an election would be called any day. Once called, the government and public service go into caretaker mode and no contracts or land transfers can occur. In particular, the two special leases required on South Stradbroke Island had not been issued by the Department of Lands and the Department of Harbours and Marine and the deal had not been assented to by the Governor in Council.

Representatives of the company urgently sought Minister Geoff Mutz's signature on documents for the leases on South Straddie to go forward. Geoff stalled: did he feel miffed that he had been by-passed by the Gold Coast power brokers? The lifts were not fast enough and suited representatives were sprinting up and down the fire escape stairwells imploring the Minister to sign. Later that morning Premier Russell Cooper visited the Governor and the election was called. The Labor Goss government swept to power.

Less than a week later, I was appointed Private Secretary to the new Minister, Pat Comben.

Pacific Ventures presented to the new Minister saying they owned two 'worthless sheep properties' and no development rights. The department forthrightly brought the properties at fair market valuation out of the new government's \$39 million fund to double the National Park estate. Pacific Ventures subsequently fell into receivership.

Ivan had successfully allowed these key national treasures to be held in abeyance from development until their gazettal could occur. Couran Point on South Stradbroke Island did develop and included low key tourist lodges; part of the original development concept.

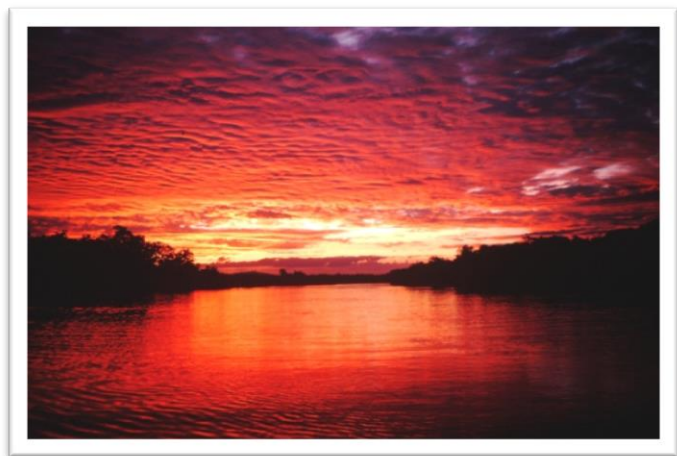


Photo 29. Sunset over the southern Moreton Bay wetlands.

Other Conservation Achievements by the Hon. Ivan Gibbs

Other parks in which Ivan was involved and which were brought to a successful conclusion during his term as National Parks Minister are contained in his biography. One of the significant acquisitions in 1979 was Mt Moffatt, a cattle station, which was added to Carnarvon National Park. This acquisition represented a break from the past in terms of purchasing a large pastoral property in western Queensland rather than relying on the surrender of parts of leases.

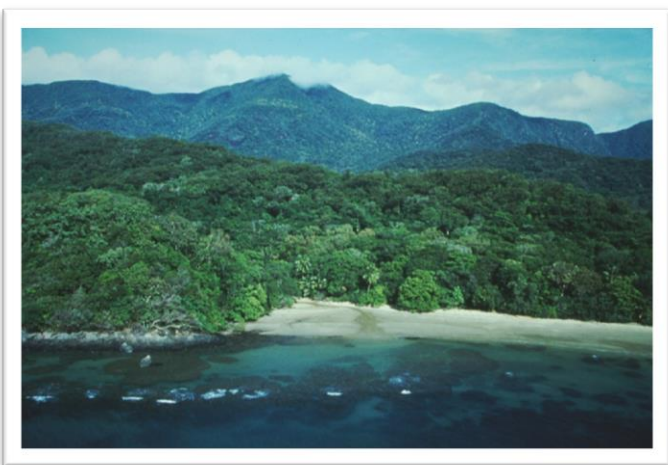


Photo 30. Cape Tribulation National Park, its gazettal was hard-fought in the 1980s (*DEHP photo*).

Another significant achievement was Cape Tribulation National Park. Against enormous opposition from local members and the Douglas Shire Council, Ivan persuaded Sir Joh to establish this internationally significant

park and to announce it on the eve of the World Wilderness Conference. Joh agreed to the park but decided not to make a major announcement of it. Ivan received great help from his wife, Doris, who worked behind the scenes to convince the wives of local representatives and councillors.

One interesting episode was the subsequent fiasco to develop a road through Cape Tribulation National Park. The political temperature was rising with Canberra's possible involvement and Joh banned any public service contact with the feds. It so happened I had one of the Commonwealth Heritage Commissioners, Michael O'Brian, in my office. I hid him in the tea room.

Fitzgerald Enquiry

The Fitzgerald enquiry found that not only the Chief Commissioner of Police was bent but a number of Ministers had committed improprieties including our former Minister, Geoff Muntz, who subsequently did time.

Ivan was also investigated and brought before the enquiry. This could only be described as a fishing expedition. Ivan was so straight that he would not even let his kids take a couple of tea bags from a motel room when on holidays. I was called to give evidence and took pleasure in supporting Ivan's character and dismantling spurious argument that he personally gained with overseas trips from his work to protect Southern Moreton Bay. Charges against Ivan were thrown out, however it cost him a small fortune to defend himself and ended his career in politics.

Chapter 10: Royal Society of Queensland

In the late 1970s, I joined the Royal Society of Queensland, historically the senior scientific society, and soon after took up the role of Treasurer. In 1985, I was nominated to stand for President by Dr Bob Johnson. During my presidential year, I organised regular public talks at the City Hall and elsewhere on some scientific issue of interest, e.g., ‘poisonous plants in your garden’. At one meeting we invited the Hon. Mike Ahern, then Minister for Technology, and with the assistance of Don Marshall from the Service we organised a small robot to precede Mike down the aisle introducing him – well it was novel in those days.

One of the opportunities afforded by the Royal Society of Queensland was to publish material relating to Queensland through the Proceedings of the Royal Society and through organising symposia. I was involved in organising and contributing to three symposia: the *Northern Moreton Bay Symposium* (Bailey & Stevens, eds 1978), *The Brigalow Belt of Australia* (Bailey, ed. 1984) and *The Mulga Lands* (Sattler, ed. 1986).

At the end of my term as president, I had the duty to prepare a substantial presidential address. On 7 April 1986, I presented an address entitled ‘Nature Conservation in Queensland: Planning the Matrix’ at the Brisbane City Hall (Sattler 1986).

This address promoted the concept that our National Parks system should be fully representative of the natural diversity of the State by comprehensively sampling and protecting the natural diversity (biodiversity) in each of the 13 bioregions across the State. The difficulty in evaluating how representative the current park system was in each bioregion, so as to provide a basis as to where effort should be applied in expanding parks, was the paucity of information available. Existing vegetation mapping or land system mapping covered only parts of a few bioregions and at various mapping scales and methodologies. Nevertheless, the growth of the park estate in area and representativeness was plotted from 1908 to 1986, together with a description of the representativeness of parks in each bioregion.

The point was stressed that this bioregional approach should be the basis for the assessment and gazettal of future parks across the State using the example of the work recently completed for the Mulga Lands. This work showed that if a systematic approach using quantitative techniques could be strictly adhered to, then much of the State’s natural diversity would be sampled with a doubling Queensland’s National Park estate. At this stage it did not address any targets for what an adequate sample might be; that was to come years later (e.g., Taylor *et al.* 2014).

As well as informing the Minister's office of my forthcoming Presidential address, I invited Angus Innes, the Liberal Party's spokesman for the Environment, and Pat Comben, the Labor Shadow Minister for the Environment. Both Angus and Pat attended.

Pat was sitting behind my parents, and part way through my address, he apparently tapped Dad on the shoulder and said: "*I want this bloke working for me*". Subsequently, Pat incorporated the proposition of developing a fully representative park system for Queensland into Labor's environmental policy in opposition and skilfully used the simplified slogan of committing to double the National Park estate.

Pat was later to publish in *Riversleigh Notes – The Newsletter of the Riversleigh Society* (Comben 1999):

'Paul Sattler took as his Presidential Address topic "Nature conservation in Queensland: Planning the Matrix." 'For the first time, a scientifically based authoritative list of the National Parks needs was being presented at a public meeting. 'This was a significant step forward in the maturity of the Queensland conservation debate. 'It could easily have been a dry evening full of technical specifications for biogeographic planning and decisions. 'However, Sattler's own enthusiasm and vision made it come to life. 'A proper technical base for my (Labor) party's policies on National Parks was now available.

'From the address came one of Labor Opposition's environment policies – "A World Class System of National Park." 'The policy contained the first promise of a doubling of the National Park estate in Queensland.'

Chapter 11: Change of Government in Queensland, 1989

In December, 1989 the government changed after 32 years of conservative governments to the Goss Labor government. The day after the election I deliberately wore my Service uniform into head office as a way of demonstrating that the game had changed. Who should I run into in the lobby of our offices in Ann Street - Pat, eager to get on with the job. I told Pat that convention required him to give the current Minister a few days to clear out his office: it was a portent of the frenetic activity that would follow over the next three years.

Pat asked me to be his Private Secretary – he tells the story that I said: “*but I can’t type*”! I agreed to be his Private Secretary on a temporary basis whilst he got things under control.

Being a Private Secretary I needed a ‘bag of fruit’. I high-tailed it down to Stuart the Suit Specialist and woe and behold nearly half of the new Queensland Cabinet were also being measured for a new suit. I joined the queue.

Pat was being bombarded with conspiracy theories concerning South Stradbroke Island and Pat was not alone. The Director-General, Herb Bonney, and I took Tom Burns, a senior Minister and keen fisherman, on a boat trip to southern Moreton Bay to show him the importance of protecting the islands and to give him a first-hand briefing. He did not want to hear of any of the details surrounding the islands or their conservation; it was a nice day out on the water.

The highest of the environmental promises was doubling of the National Park estate (*Comben 1992 unpubl.*). One of the first actions by Pat was to invite Peter Stanton, who was one of the most respected researchers with a long career in advancing National Parks, down from Cairns to work with me in the Ministerial office. This was one of many tactics Pat used to demonstrate that a new approach to nature conservation in Queensland was being implemented.

One of my first tasks was to assess for Treasury what the cost of the new government’s policy to double the National Park estate was going to be. This was difficult but with the assistance of Tim Ellis who had joined the team as Acquisitions Officer only a couple of months earlier, we looked at land values in each bioregion and suggested a minimum figure of about \$39 million. Tim previously had worked as a valuer for the Department of Main Roads and made a tremendous contribution as we set about acquiring parks across Queensland.

Pat tells the story that: “*as soon as Sattler got the cheque he said see ya and took off back to the Department to spend it*”.

Reviewing our progress at the end of the first 12 months, Tim and I calculated that we were probably going to be about \$8m short to secure the additional 3.6 million hectares to double the park estate. One contributing factor was that the Department of Lands provided valuations on what would likely be determined had the property been referred to the Land Court as a compulsory acquisition and severance costs awarded. We accepted this approach as it was reasonable to err in the owners' favour to encourage amicable settlements. But it meant that our initial estimate was lower than that required. Also, to estimate the likely overall value of properties that had not yet been identified across each bioregion was fraught.

We argued from the end of the first year on, that a fourth year had to be added to the program to make up this amount. Subsequently, Treasury ignored this request and drastically slashed the budget for the fourth year to one million dollars. Craig Emerson, our new Director General, rang and blasted the Under Treasurer over cutting off acquisition funding to reach the policy to double the park estate. We were also expecting that funding at similar levels would then continue to set up proper management of the new parks. Treasury required that any further funding had to be subject to the Cabinet Budget Review Committee.

Pat was in total control as the new conservation policies were rolled out over his three year term. With the large number of park proposals, many originating from the National Parks Association of Queensland going back decades, we set about systematically assessing each one and bringing them to fruition. We also initiated further bioregional assessments to define additional park proposals to fill in the gaps of biodiversity representation in each bioregion. It was about this time that the term biodiversity entered the lexicon instead of natural diversity.

Detailed briefings of progress were supplied, often monthly; the Department of Lands were prevailed upon to carry out valuations and help with negotiations in a timely manner; I addressed regional Service and Lands staff as to the purpose and underpinning principles of how the National Park estate was to be expanded; and, the Department of Mines were prevailed upon to assess their interests in a timely manner and to look for ways of resolving competing interests.

One of the discoveries Pat made on taking up the Minister's offices on the top floor was that every cupboard he opened contained booze left over from previous administrations. He instructed the Director General, Herb Bonney, to get rid of it. Herb rang me and said we had been given a very important task by the Minister: it was one to which we applied ourselves diligently.

Unfortunately, Herb became very ill and retired. Pat appointed Craig Emerson, who had worked as an economics policy advisor to Bob Hawke when he was Prime Minister, and subsequently became a Minister himself within the Australian, Rudd and Gillard, Governments.

Of course there was a lot of political hyperbole going on. One classic was a 12.01am speech in Parliament on 5 August, 1992 by Mr Dunworth, Member for Sherwood.

'I rise tonight to speak about the Labor Party's hypocrisy, cronyism, arrogance and contempt for public servants... 'The tragedy is that the Minister (for Environment, Mr Comben) had some of the most eminent environmental officers in Australia, such as Paul Sattler and Peter Stanton, employed by his department. 'He overlooked them and appointed Labor apparatchiks such as Dr Craig Emerson, the former Hawke sycophant who ... (is) to vet everything that the Minister does and to report directly to the Premier... 'He is doing that on the promise that he will be appointed Cabinet secretary when Kevin Rudd scurries off to Canberra ... '

I had not sought a higher position and was more than content with the task to hand. However, the last part of his speech was prescient.

Chapter 12: The Mulga Lands Continued – Implementation

Implementation of the Mulga Lands parks proceeded rapidly as the park proposals were already sitting in the top drawer, fully assessed and ready to go. Crown valuations were carried out by the Department of Lands for the Service based on fair market value according to the sales of similar properties in the district plus any severance costs. Sometimes a small premium was offered by the Service to entice the sale or short term transitional grazing rights were offered. Thrushton and Idalia were gazetted much to the chagrin of the local graziers, especially when Pat went out of his way to buy an ice cream in Bollon and walk down the main street.

The Duke of Edinburgh (as International President of the World Wildlife Fund) was invited to Idalia to open Queensland's first Mulga National Parks, Thrushton (the first National Park in sheep country) and Idalia. This action was to drive home that these parks were of international significance. One job to do was to quietly enquire where the Duke's plane, a BAe 146 could land: not a plane to be seen in the skies of western Queensland at that time. My various briefing notes referred to an inspection by a Mr Brown – well any alias would suffice.

A World First

The Mulga Lands parks system represented a first in nature conservation: the first implementation of systematic park plan derived by quantitative selection techniques for a whole bioregion. Today, Australia leads the world in the science of reserve selection techniques and more advanced tools, such as Marxan (*Ball et al. 2009*), are used as a standard tool of trade in systematic conservation planning to find efficient solutions. Of course, other regional strategies had been developed using expert opinion and detailed surveys such as Len Webb and Jeff Tracey's proposed system of parks for the Wet Tropics lowlands (*Webb 1966*) and Peter Stanton's proposed system of National Parks and reserves for Cape York Peninsula and elsewhere in the 1970s.

Implementation of the Mulga Lands strategy was one of the significant turning points in Queensland's conservation history. Not only were parks systematically established west of the Divide in the pastoral heartland of the State, but a cultural change was beginning. This was one of the most satisfying aspects I experienced. This cultural change, in terms of parks being accepted as part of the landscape and a legitimate land use, was demonstrated by many little things. For example, there was a different conversation in the beer gardens of the Charleville pubs as researchers stopped by on their way to do research on the western parks. A neighbouring grazier hanging over the fence at Idalia National Park after the property had been destocked and a good season had kick-started natural regeneration of overgrazed and completely denuded areas, saying: "*perhaps we have been running our*

country too hard". The increase in outback tourism was another important change as 'grey nomads' eagerly sought out new places to explore and much needed revenue flowed into depressed rural towns.

It is interesting how the research program on the new parks in the Mulga Lands started. *Per chance*, I was enjoying a very juicy steak and a *cerveza* in Caracas at the World Parks Congress in 1992 with Associate Professor Bob Beeton. Bob had been instrumental in developing the 'Wildo', Wilderness Reserves and Wildlife Course at Gatton College. Bob and I had known each other from our post grad. days at the University of New England in Armidale. I indicated to Bob that with the gazettal and subsequent destocking of parks across all of the major land systems of the Mulga Lands, a superb opportunity presented itself to monitor rangeland recovery and how this might be enhanced to protect natural values. Bob immediately seized on the idea as a useful topic for his PhD students to research, if I could find some seeding funds. This I was able to do and his subsequent research program produced a number of successful PhD graduates looking at diverse topics from vegetation succession in rangelands (*Page 1995*), to Lizard fauna ecology (*Beutel 1995*), and research papers into understanding 'naturalness' in terms of changes in shrub and grass composition that could help guide future park management (*e.g., Witt and Beeton 1995*). Bob's contribution to natural resource management through training, research and monitoring and the many forums where he has reviewed national conservation priorities has been immense.

Other Mulga Lands National Parks acquired in addition to those discussed below included Currawinya Lakes, Hell Hole Gorge west of Adavale, a spectacular small gorge with refugia species, Lake Bindegolly an important wetland for waterbirds and site of an endemic wattle species (*Acacia ammophila*), near Thargomindah and Mariala reserve west of Charleville in hard Mulga country was converted to National Park.

Welford

One of the important large park proposals was Welford on the Barcoo River near Jundah. This had been a family property across generations and the owners were reluctant to sell: a position that I was entirely sensitive to and found difficult in advancing the acquisition. However, they were handsomely compensated. Welford National Park extends from the alluvial plains of the Barcoo to the Yellow-footed rock wallaby habitat in the hard Mulga ranges and also includes the most eastern advance of the red sand dunes more common to the Simpson Desert and the Birdsville area. The homestead is one of the two pisé constructed buildings still lived in, in the region.



Photo 31, Magnificent large waterhole on the Barcoo River, Welford National Park.

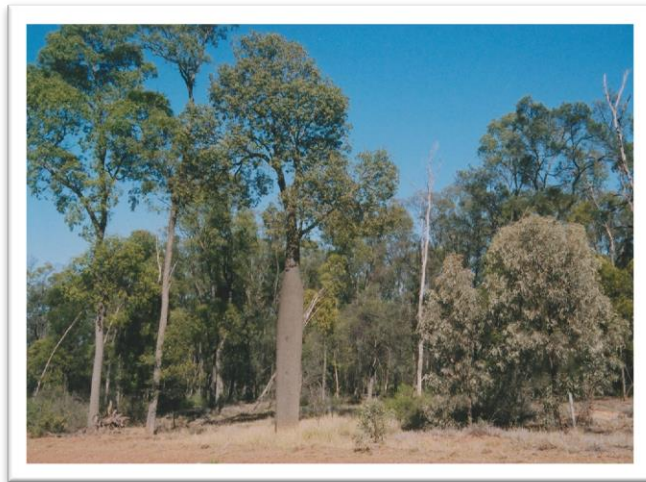


Photo 32. Tregole National Park, from left, Ooline, Kurrajong and Brigalow.

Welford National Park situated on the Barcoo River also evokes the western folklore of Queensland.

Banjo Paterson in December 1893, penned 'A Bush Christening'.

*'On the outer Barcoo where the churches are few,
And men of religion are scanty,
On a road never cross'd 'cept by folk that are lost,
One Michael Magee had a shanty.'*

The owners of Welford came down to Brisbane to meet with the Minister. Pat and Damien, who had followed me as Pat's private secretary, suggested that they go down to the coffee shop to continue discussions in more convivial surroundings. It came time to pay for the coffee and Pat said to Damien: "*you pay I have no money*". Damien did not have any money either. It was left to the owners to pay: not a good look, especially to encourage them to sell a multimillion dollar property.

Tregole

Tregole National Park at Morven was gazetted to protect a rare woodland of Ooline (*Cadellia pentastylis*), a tree species thought to be a relic from wetter geological times. No other large occurrence of this species remains. Unfortunately, upon inspection of this area, the other half of the Ooline woodland extending onto Maryvale to the south, was lying on the ground having been recently pulled. The park proposal we developed overlapped three bioregions, the Mulga Lands, the Brigalow Belt and the Mitchell Grass Downs giving it an outstanding range of ecosystems for a small area. Upon acquisition and gazettal, lessees were normally given a couple of years to destock and transition to a new property. Unfortunately during this time, tracks were bulldozed through this special woodland. The lessee was charged but found not guilty by a local jury in Charleville.

Culgoa Floodplains

By far the most bizarre acquisition was Culgoa Floodplains National Park. This proposal overlapped the Mulga Lands and the Darling Riverine Plains Bioregions, southwest of Dirranbandi. On further inspection, I found that an extensive area of very mature Gidgee and Gidgee-Brigalow communities extended further east on the deep alluvial plains of the Culgoa River and other creeks. The survival of these threatened ecosystems being due to the remoteness of the property and the cost of getting crops to market. Access was via Goodooga in NSW. Consequently, I extended the design of the proposed park to include as much as possible of these unprotected floodplain ecosystems.

I approached the owner of the station enquiring whether he might be interested in selling to the Service; the property had previously been listed on the market. He indicated an interest in selling and I advised that because some paddocks had been cleared we would have to identify the area most intact and design reasonable park boundaries. The balance could then be on-sold to a neighbouring property.

Soon afterwards, the owner became very anxious to sell. After designing the park boundaries, I again contacted the owner but to no avail: calls were not returned nor faxes or letters answered. I then discovered the owner was in Long Bay Gaol.

According to the neighbours, Ron, the owner, was in a joint venture with a Peter Ferugio of Kings Cross in Sydney: Ron knew a lot about sheep and Ferugio had the readies. Apparently, there was a falling out and Ferugio decided to pay Ron a visit.

He arrived with two heavies at the end of the garden path and yelled out to Ron: *“there are a couple of blokes who would like to meet you”*. Ron opened the door and said: *“hang on, I’ve got to turn the jug off”*. He ducked inside and came out with a revolver and shot Ferugio dead at the bottom of the front steps. The two heavies were last seen heading for the hills. Shearing in the shed near the house was also disrupted for the day.

The property then fell into the hands of receivers in Sydney. The last thing the receivers wanted was a property in one of the most remote parts on the Queensland - NSW border and quickly settled on the Crown valuation. In fact, at the subsequent official opening they were offering me tractors, the grader and other gear just to get rid of it all.

On the many visits in working up the park proposal, I met some very hospitable people, especially Dougal and Denise Smith on a property next door. Denise on one occasion said: *“you men cannot drive back to Brisbane unless I cook you a roast lunch”*. One night I was having a beer with Dougal, Saul Rankin, the overseer on the property, and his father Bill. After a while, Dougal who can only be described as the ‘salt of the earth’ and who spoke very slowly, piped up and said: *“you know I got into more trouble over the shooting than Ron”*. We were all quiet for a moment and then enquired, *“how’s that?”* Dougal drawled: *“well, Ron got off (self defence), whereas the coppers fined me fifty bucks for lending me pistol to Ron”*.

It is interesting that the Ferugio name popped up again at the Moran murder trial in Melbourne over a decade later.

We arranged an official opening of the Park by the Hon. Molly Robson, who had succeeded Pat Comben as the Environment Minister after Pat had been elevated to the Education Portfolio. I suggested to Saul who we had then employed as the ranger that he should clear up a nice area for the opening by Molly and for the visitors and the press. Saul did pick up the rubbish but left a couple of dead sheep lying around – ‘not rubbish’ for a local lad. It was a deliberate policy then, to employ locals ‘with fencing pliers in their back pockets’ as the first rangers to ease our way into the community and gain acceptance of National Parks.

The press cottoned on to Bill Rankin who was a well-known and respected local identity and member of the Goodooga Hospital Board. A reporter pointedly asked Bill on live TV: *“what do you think about locking up this country as National Park?”* Bill thought for a moment, then put his beer can in his top pocket and said very carefully: *“well, I think we should keep a bit of this country for future generations”*. Phew! I could have written a thousand words and it would not have had the same impact. The getting to know the locals as part of the whole saga had paid off in spades.

I suggested that the park should be named Culgoa Floodplains National Park rather than Culgoa, the name of the river nearby. The reason being, that Cubbie Station, the largest irrigated cotton farm in Australia, was not far upstream. Any over-extraction of water would impact on the flood plains downstream and be highlighted by the potential impact

on the National Park that had been specifically set aside and named to protect these floodplains.

The extension of this park proposal from the Mulga Lands into the Darling Riverina Plains established the only park within the Queensland part of this extensively cleared bioregion that extends southward into NSW. After the gazettal of Culgoa Floodplains National Park, our colleagues in the NSW National Parks and Wildlife Service also acquired further areas adjoining on their side of the border, greatly enhancing the overall size and viability of the park aggregation.

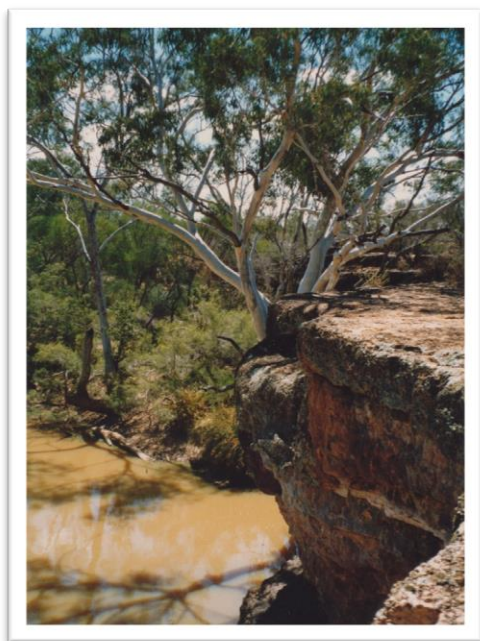


Photo 33. Hell Hole Gorge National Park, one of the network of parks for the Mulga Lands.



Photo 34. Coolibah woodlands, Culgoa Floodplains National Park.

With the exception of any parks on the Warrego Fan, a subregion running south from Charleville through Cunnamulla, the Mulga Lands parks strategy was implemented. Subsequently in 2009, Binya National Park (13,710ha) was established to represent the alluvial woodlands on the Warrego Fan. In a review of Australia's National Reserve System (*Taylor et al. 2011*), Martin Taylor of WWF and I highlighted this important conservation action as a notable Queensland park addition for its role in complementing the park system for the Mulga Lands. I recognized Tim Ellis' handiwork based on the framework we laid out two decades earlier. Better representation of a number of poorly represented ecosystems, including the dry wildflower heathlands and Silver-leaved ironbark woodlands, could be achieved with the acquisition of the park proposal that is still outstanding and extends over the area from Glenbar Ridge to Angellala Creek.

Boondall Wetlands and Bore Drains

One of my offsidiers was Ross Blick who had built the fauna component into the Mulga Lands park proposals. About this time, Brisbane sought to secure the Olympic Games. One of the proposed components of the bid was to build facilities over parts of the Boondall wetlands bordering Brisbane. Ross was so incensed he wrote to the Olympic Committee objecting to Brisbane securing the games if these wetlands were to be destroyed. Well, that certainly made the front page of the paper.

Ross was to go on and do valuable work in promoting the need for sustainable water extraction from the huge number of artesian bores across South-West Queensland and in the Mulga Lands in particular. Such extraction of water into open and wasteful bore drains had been going on for over a century in parts and was clearly unsustainable with the pressure of many bores dropping significantly.

Ross presented a project proposal to map and review the bores across the region to Geoff Edwards in Lands who rang me for a reference. This was readily given and the resulting report was very influential and augmented the bore capping program (*Edwards, pers. comm.*). The consensus of opinion until that time amongst the landholders and their representatives was that bore drains were not an issue. Ross's work turned all that around and quite quickly. This work helped achieve a joint State, Commonwealth and landholder-funded program for the capping of bore heads and conversion of bore drains to poly pipe. Much of the valuable artesian water is indeed fossil water and the ready availability of artesian waters, together with the conversion of dense shrublands to grasslands, provided the conditions for the huge increase in populations of some kangaroo species and changed the ecology of semi-arid landscapes.

...poor bloody dog

One day we dropped in at the homestead on Budgerigar, a large property near Idalia. We were met by an elderly lady, clearly the matriarch. She wanted to know: "*what three grown men were doing driving around looking for possums*". Clearly, we should get proper jobs.

After a considerable berating, I indicated to the others that we were out of here. We jumped in the truck and I took off – only to be met with yelping and howls – very loud ones. I had run over one of her dogs. She ran out ... I jumped out ... thinking "*I'm gonna cop it now*". The matriarch came over and put her boot into the dog: "*that will teach you for lying under a National Parks vehicle*"- poor bloody dog!

Chapter 13. Channel Country

Few parks existed in the Channel Country; the only parks being Simpson Desert, essentially part of the Simpson-Strzelecki Desert Bioregion to the west, and Goneway



Environmental Park near Stonehenge, which was converted to National Park. Very few park proposals existed and I organised that a systematic conservation planning exercise be carried out as was done for the Mulga Lands. This detailed work, involving a modified Bolton-Specht analysis, was carried out by Peter Young and Bruce Wilson who both made a major contribution to conservation planning in Queensland and were ably assisted in field work by Chris Mitchell. 'Mitch' was the Service's Senior Ranger in Longreach and was highly respected by the local community (*Young 1991; Wilson and Mitchell 1992*).

Photo 35. Which way? Chris Mitchell and Peter Young at the crossroads.

Diamantina

The most significant park proposal to emerge from this detailed planning was Diamantina Lakes. This was a large property of 470,000ha on the Diamantina River and consisted of three broad landscapes on a grand scale: the hard breakaway and stone country to the east, the extensive braided channels of the Diamantina River and the broad fertile Mitchell



Grass Plains to the west. Large waterholes occur throughout the central and western parts. The combination of these broad landscapes meant that the diversity of ecosystems on this property was unlike any other in the bioregion.

Photo 36. Diamantina National Park, a park of big landscapes.

This property occurring north west of Windorah, was owned by Janet Holmes à Court and was part of the Heytesbury pastoral group, one of the biggest pastoral companies in Australia. Pat and I, with other senior Service staff, met with Janet and she was very gracious in acknowledging that her property was considered worthy of a higher land use than its existing pastoral use. She agreed to sell and left the financial negotiations to her staff who negotiated hard but fairly. Diamantina National Park was subsequently gazetted and its purchase price was the highest paid for any Queensland National Park. Certainly, recommending its purchase, particularly within a constrained overall park budget, was no small consideration. It is one of Australia's great National Parks.

'Outrage over property sale', The Courier Mail screamed (17 July, 1993).

'Australia's richest woman Janet Holmes à Court had committed an 'almost criminal act' by selling the 470,000ha Diamantina Lakes cattle station ... to the State Government, Parliament was told yesterday. 'Mark Stoneman (NP Burdekin) said Mrs Holmes à Court was an "absolute disgrace to the pastoral industry of this nation. "(She sold it) for \$3.5 million earlier this year for use as an environmental park".'

'Mrs Holmes à Court ... on handing over the property title ... said "she expected pastoralists would call her a maverick environmentalist. "I've had managers tell me I'm mad and that they should book me into an old people's home now because I will lose all my money." 'Mrs Holmes à Court said "the property contained every type of channel country habitat worth preserving – criteria vital for species diversity. "She had already adopted conservative land management practices on her properties which comprise 1 percent of the Australian land mass".'

'Mr Stoneman said that: "in the name of conservation and biodiversity the bureaucrats were taking over management (and these properties will) become places where dingoes and vermin will abound." 'Winton shire Chairman Eric Lenton supported Mr Stoneman's comments, saying "Diamantina Lakes used to produce 4000-5000 bullocks annually. "The Government bought another station called Blagensburgh (sic), ... 19km south of Winton in the last couple of months... That is more lost revenue for this district".'

Astrebla Downs

In direct contrast to Janet's empathy with the park concept was the belligerence over the acquisition of Store Paddock, which was part of Davenport Downs, held by another large pastoral company, Stanbroke. Store Paddock overlapped with the southern Mitchell Grass Downs and was the site of the largest remaining colony of Bilbies (*Macrotis lagotis*), an endangered arid mammal species. Other threatened species such as the Mulgara (*Dasycercus* sp.) also occur in the area. These species are representative of the small to medium weight range mammals that are the most endangered suite of species in Australia with a large number of extinctions having already occurred. This Bilby colony had been



Photo 37. Bilby (*Macrotis lagotis*), an endangered arid mammal species (DEHP photo).

the subject of considerable research over a number of years by the Service's Zoologist in Charleville, Peter McRae.

Even though this 100,000ha poorly watered paddock was only a part of one of Stanbroke properties, they played unbelievable hard-ball. The Service was on solid ground with the research carried out by Peter. During negotiations, a truck load of cattle were unloaded onto the Bilby town (colony) which nearly destroyed them. The company then sank a new bore at a considerable cost within the proposed park design, a further indication of their disdain for the park proposal. On another occasion, the managing director threatened to punch my lights out at a meeting with my Director General, Craig Emerson. A major impasse occurred.

In the end, an extraordinary arrangement was entered into whereby the Service purchased an adjoining property, Springvale, so that it could be exchanged in part for Store Paddock. The park proposal was enhanced by retaining part of the Sandhills Paddock containing wetlands and channels on Springvale. Ultimately, Astrebla Downs (the scientific name for Mitchell Grass) was gazetted and today represents the most significant Mitchell Grass National Park in Australia. Unfortunately, the Park was never linked to Diamantina National Park through the area where the new bore had been sunk. Ironically, a decade later, the Stanbroke empire was broken up.

Lochern

Lochern, south of Longreach on the Thompson River, was another significant park proposal identified by Chris Mitchell, Peter Young and Bruce Wilson. This proposal was a little gem, containing large waterholes on the Thompson River with extensive alluvial flats of Gidgee and Mitchell Grass, though significantly, the Mitchell Grass only returned after the stock grazing pressure was removed.

The property's name, Lochern, was given by the original lessee whose name was Ernie and who had come out from Scotland (though the waterholes on the Thompson are a bit of stretch to the lochs of Scotland). His son-in-law, a businessman in Brisbane, was amenable to selling at the right price. Unfortunately, Crown valuation fell about 10% short of his bottom line.

At this time, the Australian (Keating) Government was making the first grants available to assist States in acquiring lands for National Parks. To meet the owner's minimum price a novel solution was developed. Normally, lessees or owners of pastoral properties could expect that a short term special lease for grazing would be granted to facilitate destocking and transition; the precedent was certainly established. It was calculated that the cost to buy back this short term special lease would approximate the difference between crown valuation and his asking price. Application for this amount to the Australian Government through the National Reserve System Program was successful. The deal was done amicably and Lochern was gazetted. The owner stipulated that not a word of the intended sale to the QNPWS was to leak out to his neighbours; such was the peer pressure even for a Brisbane businessman. His wishes were fully respected.

Unfortunately, tragedy was to occur after gazettal. The ranger appointed to live on and manage the park was digging fence holes and his four year old son fell into a hole and died. He rests in Lochern National Park.

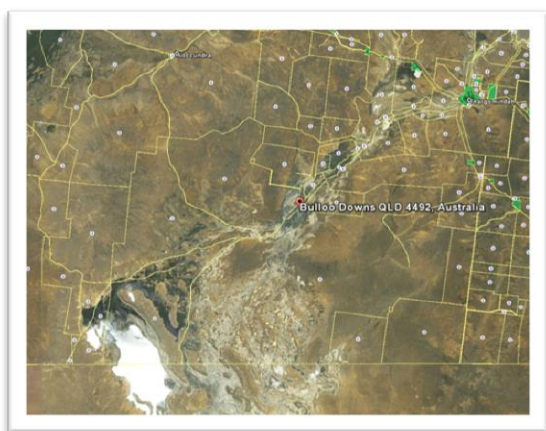
The Department of Defence purchased land near Lochern as part of the Jindalee Over the Horizon radar system. Apparently, fully uniformed officers stood out a bit in the main street of Longreach. I visited the Defence offices in Canberra and requested that their lands be managed for conservation in conjunction with operating their radar system, to which they were amenable. They had on-leased their lands to Angus Emmet, a well respected pastoralist and conservationist in the district.

Other Channel Country Parks

Blandensburg National Park near Winton originally consisted of only hard breakaway country. The opportunity presented to extend this park out onto the Mitchell Grass Plains and further back into the ranges. This created a significant park area of 84,900ha. The Australian movie *The Proposition* was filmed in this locality in 2005 and captures the starkness and blinding light in a brutal context.

Simpson Desert National Park was also doubled in size by the inclusion of an extensive area to the north. This extension was pushed hard by Pat who was worried that acquisitions were not happening quickly enough, nor the area expanding fast enough to meet the policy to double the National Park estate. This created some difficulty as I wanted the assessments to be thorough, such as the Channel Country study, whilst also proceeding with other longstanding proposals.

Herb Bonney, then Director General, took great delight one day over Pat's anxiety when presenting the park gazettal documents to be taken to Executive Council for signing. On top of the pile he put a half hectare boundary alignment, next a couple of hectares extension for management needs, then other minor additions. Pat was becoming very impatient with such small advances, only to discover the big gazettal was at the bottom of the pile.



The longstanding Bulloo Lakes park proposal was also confirmed by the Channel Country study and was extended westward to include the Grey Range. These large wetlands are essential to the migration and survival of water birds across arid Australia, especially when alternative feeding sites are droughted. The Bulloo Lakes and swamps are the terminus of the Bulloo River which rises on Idalia National Park. This is rather a unique situation where both the source

and terminus of a river could be secured as National Park. In the 1970s, upon renewal of this million hectare lease, it was hoped that Sir Joh would support the Lakes Paddock being excised in the public interest. This was not to be. Bulloo Lakes and the Grey Range remains a key National Park proposal today. Damien McGreevy carried out a detailed fauna survey of the Bulloo shire in 1977 (*McGreevy 1977*).



Pat, in his indomitable manner, had his own version of a 'naughty corner' for staff that he was not happy with; the threat of transfer to Betoota Environmental Park. This small park on the outskirts of the town is characterised by blistering heat from the hard stone pavement on its surface. Consequently, we made it a must be photo opportunity.

Photos 38 & 39. Bulloo Lakes, the terminus of the Bulloo River: a long standing arid wetland National Park proposal (*DEHP photo*). The 'naughty corner' Betoota.

Chapter 14. Advances in Other Bioregions

North-West Highlands

Early action was initiated to expand Lawn Hill Gorge National Park, originally a park of only 12,200ha. A major proposal had existed for many years over Lawn Hill Station and



one of Jim Gasteen's proposals from the early '70s was a major extension along the Constance Range. Lawn Hill Station was said to be the biggest pastoral station in the southern hemisphere and leased by a Brazilian, Sebastiao Maia. Earlier attempts in Joh's days to excise part of the lease to extend the park had been unsuccessful.

Photo 40. Edith Springs along edge of the Constance Range, Boodjamulla (Lawn Hill) National Park (*DEHP photo*).

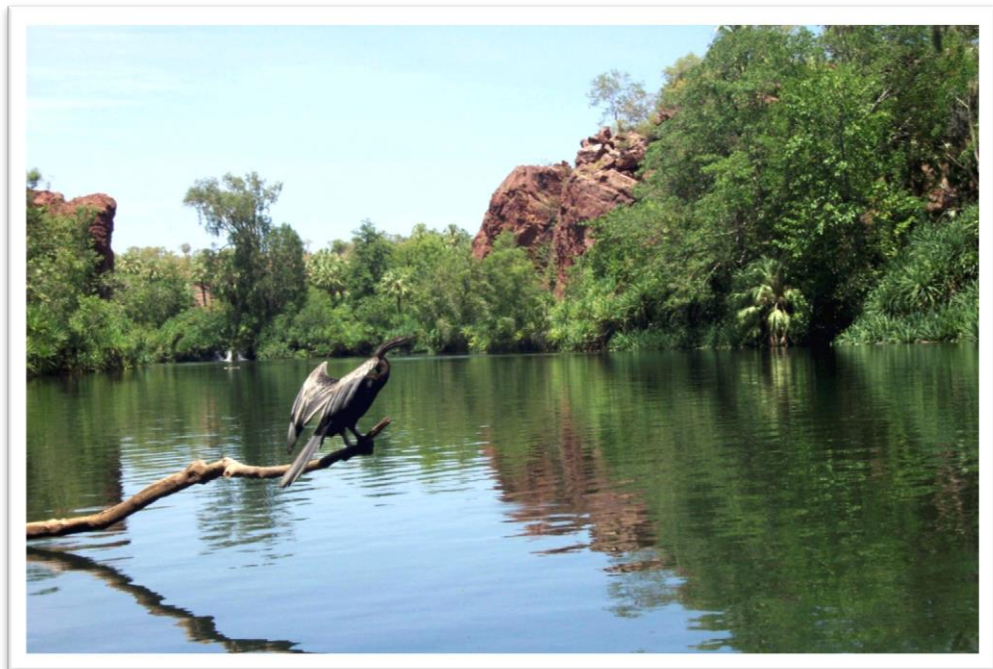


Photo 41. Darter, Lawn Hill Gorge (*DEHP photo*).

A large park extension was designed along the Constance Range and extending out onto the Mitchell Grass plains of the Gulf Plains bioregion. This work used the preliminary description by Gethin of the regional ecosystems for these bioregions for the first time. At the same time, the Minister became directly involved in seeking to secure the Riversleigh fossil fields. Earlier in 1989 in opposition, he had produced a policy entitled *Riversleigh Fossils – A National Project for Queensland* where he promoted establishing a centre for paleontological research in Mt Isa. Unfortunately, the proposed research centre was not funded by Treasury.

South of Lawn Hill Station, the Riversleigh fossil fields is the location of the internationally significant deposit of fossils from the Oligocene and Miocene periods, some 10-30 million years ago, and is where Dr Michael Archer from the Australian Museum had been extracting specimens for many years. Later it would be inscribed on the World Heritage List.

A large area essentially within the limestone hills was delineated to include the fossil sites, the extensive limestone karst formations, and to link with Lawn Hill National Park. Some adjoining lands to the east, necessary to achieve reasonable park boundaries, included the alluvial flats extending out from the limestone hills. These areas were badly overgrazed with extensive gully erosion. Again, our good working relationship with Warwick Willmott of the Geological Society Branch was invaluable to design the eastern boundaries of both the proposed Riversleigh section and the northern Lawn Hill National Park extension. Areas of mineral potential extended along the eastern edge of the proposals.

The lessees of Riversleigh, the majority of whom were accountants in Brisbane, were not in a mood to sell part of the station even though it was the area of most inferior grazing potential. Pat Comben directly intervened and worked hard to get the partners to the negotiating table. Pat did not want to resort to compulsory acquisition to get a sensible outcome and offered to meet the lessees anywhere any time. He flew to Townsville, met with the partner who managed the property and with the partners in Brisbane, but despite all endeavours negotiations deteriorated. The partners suggested a price of \$3million for an area that the Department of Lands considered was worth little more than a few hundred thousand dollars. The partner who managed the cattle property also gave Garry Rees, the Officer-in-Charge of the Mt Isa office, a pretty rough time when Gary tried to delineate boundaries that might be more acceptable to them. Pat was left with no alternative as we were all bound to be accountable for the proper expenditure of public funds.

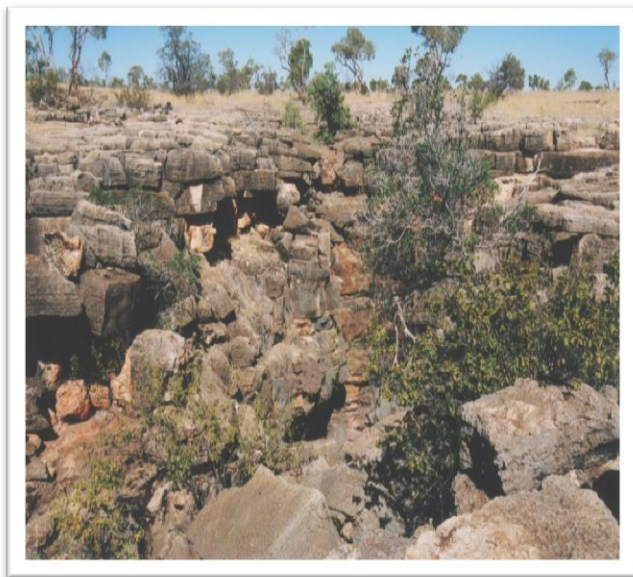
With negotiations also proceeding to acquire the Undarra lava tubes for National Park in the Einasleigh Uplands, many individuals in the northern grazing industry publically stated that these acquisitions would mark the end of the regional grazing industry as it had been for a century (*Comben 1999*). Pat tells the story that at the end of year Christmas party (1991), he was approached by a leading cattle industry figure who asked about Riversleigh. *‘I expected a tirade but instead received the surprising response, “get on with it, resume it. No thinking person would deny the need for the fossils to be in the hands of the state.” ‘I*

asked about opposition of her colleagues in the cattle industry and the reply gave me hope, “sometimes there is a bigger picture ... just don’t make a habit of it”.

Only a couple of properties proceeded to compulsory acquisition and Pat certainly did not take this action lightly. Upon presentation to Cabinet, apparently Premier Wayne Goss said: *“isn’t this the site of the old bones in the desert – get on with it”*. The Land Court determined compensation at \$406,600 for the 77,300ha of land from Riversleigh and improvements. It made little difference to the grazing potential of the 300,000ha property, such was the rugged nature of the karst limestone landscape over most of the area excised for park.

During this time Highland Plains to the north was offered to the Department for \$1/acre (0.4ha). Pat jumped at it to help speed up acquisitions to double the park estate and we had words, amicably, that it should be more thoroughly assessed. However, its purchase was strategic in complementing the existing park, the extension from Lawn Hill Station along the Constance Range and the Riversleigh excision. In total, the new, Boodjamulla (Lawn Hill) National Park, amounted to 282,000ha; a major park for the North-West Highlands Bioregion.

The spectacular rugged landscape surrounding Lawn Hill Gorge is shown on the front cover of this Memoir.



Camooweal Caves National Park was also extended to provide further protection to the extensive dolomite caves and the vulnerable Orange horseshoe bat (*Rhinonicteris aurantia*) notable in having a preponderance of the white colour morphology, and the vulnerable Ghost bat (*Macroderma gigas*). Kalkadoon Cave in Camooweal National Park being the only known breeding population of Orange horseshoe bats in Queensland.

Photo 42. Camooweal Caves National Park.

Einasleigh Uplands

The Einasleigh Uplands is a geologically diverse bioregion extending westward behind the Wet Tropics and the Central Queensland Coast Bioregions.

With Gethin Morgan in Townsville and Peter Stanton in Cairns working on the Wet Tropics and the Cape York Peninsula Bioregions, they carried out most of the park proposal assessments in North Queensland. Gethin described the preliminary regional ecosystems for the North-West Highlands, Gulf Plains, Einasleigh Uplands and the Northern Brigalow Belt by 1991 and used them for the initial office based assessments of proposed National Parks. He carried out extensive surveys and ground-truthing of park proposals in the Einasleigh Uplands that included: White Mountains, one of the most inaccessible areas of Queensland, the McBride Plateau; western extensions to the Lumholtz National Park along the Herbert River that secured the important ecotone between the eucalypt forests on the western side and the wetter coastal ranges and, Blackbraes, north of Hughenden.

I enjoyed a number of field trips with Gethin to place the various proposals in a State-wide perspective to determine priorities. On one trip we were out in heavy *Spinifex* country in the White Mountains area and could find no clear spot to roll out our swags amongst the prickly grass. Come nine o'clock we decided to camp on the track itself. Gethin said he had got a bag of lamb cheap; or was it mutton? We soon discovered we had no light or utensils. No bother, there was meat between the bone and fat, somewhere. All was forgiven when Gethin miraculously produced the *pièce de résistance*, a tray of Bowen mangoes for dessert. The next day we vowed to get organised before dark but we ended up out on the Mitchell Grass plains and it was nine o'clock before we found any timber for a campfire: it was a repeat performance.

Blackbraes is situated on one of the highest parts of the Great Dividing Range. In 1992, when I presented a paper to the Queensland Ornithological Society's conference (Sattler 1993), I was preceded by Professor Henry Nix who over the years has made an enormous contribution to nature conservation science. Henry presented the concept of the '*Mesotherm Archipelago*' that described a chain of climatically similar 'islands' between the temperate montane habitats of New Guinea and temperate southern Australia. These cooler habitats provide a range of habitats for resident breeding populations of temperate adapted Bassian bird species that otherwise would not occur further north than South-East Queensland. Henry stressed that: '*these factors need to be considered in the development of representative reserves*' (Nix 1993).

Blackbraes presented an opportunity to conserve one of the key 'islands' in the Mesotherm Archipelago in an otherwise very hot part of northern Australia. Subsequently, Gethin and I worked closely to secure this property and enjoyed the support by the owners who were prepared to sell the property for National Park. At the last minute though, the acquisition was threatened due to the occurrence of some old growth hardwood forest on the proposal

and opposition by the Department of Forestry (Natural Resources); it was necessary to accede to some logging.

Owing to the geological complexity of the Einasleigh Uplands, a detailed systematic survey using quantitative techniques is needed to efficiently identify remaining areas for a fully representative National Park system across this interesting bioregion. It is likely that the Valley of Lagoons area, west of Ingham, would figure highly in this analysis. This analysis is now possible with the completion of regional ecosystem mapping for the State.

Desert Uplands

Much of the Gidgee and other forests around Lake Galilee in the Desert Uplands Bioregion were cleared in the '60s when Jim Gasteen was carrying out his surveys. This meant a significant lost opportunity to establish a National Park adjoining this large freshwater lake in wooded desert country and to incorporate many threatened regional ecosystems.

Further to the north and south of Charters Towers lies Lake Buchanan, a large salt lake with some freshwater swamps and which has been an important park proposal for decades. Erosion has occurred from over grazing at times, however it remains relatively intact and would recover. Unfortunately, all attempts to purchase the surrounding large property have been unsuccessful over the years.

Gethin Morgan surveyed the northern part of this bioregion in detail and can be credited with identifying Moorinya National Park which contains woodlands typical of the Prairie-Torrens Creeks Alluvials subregion in the north western part of the bioregion. Interestingly, after this property was purchased and destocked, Julia Creek Dunnarts (*Sminthopsis douglasi*), an endangered small mammal species, were found to have re-established on the park. The only other population where they are known to occur on National Park is on Bladensburg. The recent Newman, Liberal-National Party, government in Queensland allowed grazing in the National Park and the fate of the Dunnarts is unknown.

Gethin also initially negotiated the acquisition of the small Forest Den National Park as a complementary representative area for this part of the Desert Uplands.

In 1997, Cudmore north of Alpha was another property that I surveyed with Juliana McCosker of the Emerald office. Juliana greatly assisted in securing this property. It is representative of ecosystems of the southern Alice Tableland subregion with low sandstone ranges and a complex of small valleys. It was relatively undeveloped and contains small stands of spotted gum (*E. citriodora*), a valuable hardwood species that, if widely known, would have prompted the Department of Forestry (Natural Resources) to thwart our attempts to secure the park. The immediate threat that this property was under could be judged by the recent clearing and the establishment of invasive Buffel Grass on adjoining properties.



Photo.43. Julia Creek Dunnart (*Sminthopsis douglasi*), an endangered small mammal species (DEHP photo after G.Mifsud).

I prepared a funding submission to Sen. Robert Hill from our Minister and the Commonwealth supplied \$337,500 towards its acquisition and subsequently \$120,000 for management, being two-thirds of the acquisition cost in total.

At this time, Dr Rod Fensham of the Queensland Herbarium, was carrying out extensive mound spring surveys throughout this region and the protection of these springs and their rich endemic biota remain unfinished business. Equally, no parks exist within the Cape – Campaspe Plains subregion and again, systematic planning is desirable to fill in the gaps for a fully representative park system across the whole bioregion.

Edgbaston, near Aramac, overlaps the Desert Uplands and the Mitchell Grass Downs and contains springs with a highly endangered, endemic, small fish fauna: the Edgbaston Goby (*Chlamydogobius squamigenus*) and the Red-finned Blue eye (*Scaturiginichthys vermeilipinnis*) as well as other endemic species. The Service was not successful in purchasing the property but it was acquired by Bush Heritage Australia which is carefully managing the property.

Mitchell Grass Downs

Astrebla Downs National Park discussed above is the premier Mitchell Grass Downs park. However, it represents the western and more xeric end of the bioregion in this poorly conserved bioregion. Extensive Mitchell Grass Downs and areas wooded with Boree (*Acacia tephрина*), an ecosystem not reserved and which shows poor regeneration under grazing, adjoin Edgbaston Reserve and is representative of the eastern and more mesic part of the Mitchell Grass Downs. This area also contains valuable springs supporting local endemic species. Consideration should be given to protecting this area. Again further planning to develop a representative park system for the whole bioregion and to complement these areas of specific value is indicated.



Photo 44. A gathering storm over the Mitchell Grass Downs.

Cape York Peninsula

With wilderness areas being a diminishing resource globally, Cape York Peninsula contains some of the most extensive wilderness remaining in Australia. As well, Cape York Peninsula contains a wide variety of regional ecosystems and habitats with an extensive endemic biota: some of which has evolutionary relationships with the biota of New Guinea.

Graham Saunders had a particular interest in Cape York Peninsula. On a number of occasions during the Service's early years, he chartered a twin engine light plane to fly the Peninsula (from Cairns to Thursday Island and back), landing at existing parks to meet staff and carry out on-ground inspections, and viewing areas of potential acquisition. As well as QNPWS officers, a senior Lands officer (District Land Commissioner) with responsibilities across the Peninsula would sometimes be present on the plane.

Peter Ogilvie recalls that on one such flight in the last half of 1976 or the first half of 1977 he accompanied Graham on the flight and recalls:

'As we were flying north over the Staaten River area, the Land Commissioner pointed out of his window and to his map and asked whether we had any National Park interest in land along the Staaten River as the massive lease over the area was up for renewal and the lessees would be required to surrender part of it. 'I pointed out in the brief discussion that followed that we were definitely interested because of the vegetation (Melaleuca woodland, eucalypt woodland, floodplains etc) and also because it was known habitat for the Antelopine kangaroo (Macropus antelopinus), sometimes known as the Antelopine walaroo, whose distribution in Queensland was restricted to parts of Cape York Peninsula.'

The interest was duly noted, the necessary paperwork was completed on return to Brisbane and, on 10 November 1977, Staaten River National Park of 467,000ha was proclaimed.

Whilst many of the other large National Parks such as Lakefield, Archer Bend, Mitchell and Alice Rivers, Iron Range, Cape Melville and Jardine River were established in the mid to late 1970s, further significant areas were acquired subsequently following detailed vegetation mapping and assessment by Peter Stanton. These included extensions to Cape Melville National Park, north of Cooktown, Rokeby now part of Mungkan Kandju National Park, east of Aurukun, and extensions to Iron Range National Park north of Lockhart River, acquisition of Kalpower and the difficult purchase of Marina Plains, an in-holding within Lakefield National Park. In 1992-3, Queensland was successful in securing \$1,000,000 towards the purchase of Starkey Holding and \$1,250,000 towards the purchase of Silver Plains Holding from the Commonwealth government. These funds were received under the program introduced by the Keating government to develop a comprehensive system of protected areas across Australia.

The other reason for establishing some of the large parks on the Peninsula in the 1970s-80s, such as Heathlands, was to provide a stock disease barrier for the cattle industry against Screw Fly and Foot and Mouth disease invasion into Australia from the north.

Controversy surrounded the declaration of Archer Bend (Mungkan National Park), one of Peter Stanton's priority areas. Pat Comben states that a proposed land claim (or purchase) over the area by Johnny Kowarta was deliberately frustrated by Joh through declaring the area National Park (*Comben 1992 unpubl.*) Some time later, I asked Ivan Gibbs about this manoeuvre but he said he had no knowledge of it.

In the early 1990s, the *Cape York Peninsula Land Use Strategy (CYPLUS)*, a joint Queensland and Commonwealth Government project was developed partly in response to concerns by Aborigines and conservationists over a proposal to build a satellite launching facility. Subsequently in 1996, the *Cape York Land Use Heads of Agreement* was signed by Aboriginal, pastoral and conservation interests on the Peninsula but excluded mining and tourism interests and the Queensland Government at the time. This was a negotiated regional agreement aimed at reconciling land use outside of the existing native title determination process. All parties agreed to '*work together to develop a management regime for ecologically, economically, socially and culturally sustainable land use ...*' (clause 5 – of the Agreement). In 1998, the Commonwealth and Queensland Governments pledged \$40 million towards its implementation including funds for purchasing land for conservation (*Stevenson 1998*).



From 2004 to 2014, over two million hectares has been made available for Aboriginal ownership including about 1.3 million hectares to be jointly managed for conservation and cultural activities by the State government and Traditional Owners with individual agreements for each park. Negotiations over Aboriginal and National Park interests have extended over two decades with Buzz Symonds from the Cairns office doing much of the heavy lifting.

Photo 45. Contact Aboriginal art, Flinders Group National Park, Cape York Peninsula.

It is hoped that the purpose of the lands, originally acquired for nature conservation, is respected in the decades to come and that the history of their acquisition as National Parks is not forgotten.

One of the areas that is particularly significant at a national, if not an international scale, is the aggregation of National Parks (CYP Aboriginal Land) and other Aboriginal lands that adjoin McIlwraith Range and the Gulf. This area extends right across Cape York Peninsula from the Coral Sea to the Gulf of Carpentaria, incorporating a magnificent diversity of landscapes. Such conservation and cultural values have resulted in World Heritage Area status for parts of Cape York Peninsula being advocated.

The National Park system in the Cape York Peninsula Bioregion is now one of the most representative bioregional networks in Queensland and Australia. Successive government policies have sought to secure further areas on the Peninsula, but future acquisitions here should now not be at the expense of securing National Parks in the much more unrepresented bioregions.

But don't take the Minister to inspect them in a small plane!

Early in Pat's term as Minister for the Environment, he decided that we should visit the Aboriginal communities on the Cape. This was critically important as further National Park gazettals were going to be allied to meeting Aboriginal aspirations and respecting land rights.

We booked the government plane, the King Air, and flew up to Cairns, refuelled and headed for Kowanyama. I suggested to the pilot that we detour slightly and fly low over Staaten River National Park. Owing to its remoteness, very few staff had been on Staaten River National Park and it was too good an opportunity not to do a brief aerial inspection. We came down low to within a few hundred metres and followed the river. Pat happened to look out of the window. All hell broke loose and he demanded that we call it off and head straight for Kowanyama.

We did not know he had a major aversion to flying, especially in small planes, and close to the ground. This tension went on for much of the week as we flew around the Peninsula visiting various communities. We particularly wanted to do an inspection of the McIlwraith Range area, then the most significant National Park proposal on Cape York Peninsula. But Pat would have none of it and ordered the pilot to Coen. However, on coming up to the Range the pilot looked back to me and asked where was Pat sitting? I told him on the port side. As we flew low through the gap in the range he dropped the starboard wing so Pat could only see blue sky while a few of us on the other side had a close encounter with the beautiful rainforests below. Upon landing Pat said: *"take the plane and have a proper look"*. We sure did.

Gulf Country

The Gulf Country Bioregion was the least known bioregion in terms of park proposals, and regional ecosystem mapping was not completed until 2013. However, a long-standing park proposal does exist on Wentworth, with its frontage onto the Gulf containing stranded dunes and wetlands, and extending from the coast to the hinterland ranges along the Northern Territory border. The adjoining co-managed property in the Northern Territory is also recognised as a significant park proposal in the Territory. It was not possible to advance this proposal which dates back to Jim Gasteen's work of the early 1970s.

A significant ecosystem that is not protected by parks around the coastal plains of the Gulf is the extensive fresh water wetlands. A proposal over Kuparee was developed by Gethin to secure a key sample of these wetlands, but again this area could not be advanced. Significant threats to the wetlands exist from weeds from ponded pasture schemes using aggressive exotic pasture species.

South-East Queensland

When I joined the Service, one major acquisition project underway was implementing the Scenic Rim concept, a proposal that was being hard fought and which had garnered considerable community support. Building on a core of existing parks, the surrender of State Forest areas and many purchases along the Rim in the late 1970s, laid the framework for this magnificent park within a day's drive of Brisbane. Subsequently, it was to become the Central Eastern Australian Rainforest Reserves World Heritage Area. Jim Gasteen and a few other souls had formed the Border Ranges Preservation Society in 1972 in response to proposed logging on the Tweed Range (Wyangaree State Forest). Jim Gasteen and Warwick Willmott, who was interested in also protecting significant geological features along the Rim, together with the National Parks Association of Queensland, were at the vanguard to protect this magnificent area.

It is interesting that the adjoining Moreton Basin subregion in South-East Queensland is in such poor ecological health that it is grouped in the highest category of 'Continental Landscape Stress' in Australia (*Morgan 2001*). The pressure from agriculture and urbanisation on this area to the east of Main Range makes the foresight of those who championed protection of the Scenic Rim only a few decades ago even more significant.

Whilst political decisions were being made over the fate of the large sand islands of Moreton and Fraser, we proceeded with purchasing a number of small parcels that established new parks or consolidated existing parks throughout South-East Queensland. On the Rim, these included the purchase of lands around Mt Castle near Cunningham's Gap, being the first parcel I had recommended for purchase in the 1970s, and lands around Lamington and near Mt Cougal. Two of the Glasshouse Mountains National Parks were linked, Mt French extended, and a new park gazetted on Mt Grenville. Extensions to Lake Weyba, Mt Coolumb, Poona, southern Cooloola, the western catchment of Cooloola, Kondalilla and Burrum River National Parks were acquired to name some. Southern

Moreton Bay, the proposed sand mining areas north of Bundaberg, Pumicestone Passage and Bribie Island have been discussed more fully above.

One significant acquisition when Molly Robson was Minister from 1992-1995, was the purchase of the freehold land around Theodolite Creek; an in-holding within the proposed Kinkuna National Park, south of Bundaberg. This removed the future possibility of a resort being established in the heart of the proposed park. Kinkuna is also significant for a number of rare and threatened species including Goodwood Gum (*E. hallii*), a vulnerable species with a very restricted distribution and the rare Tea-tree species, *Melaleuca cheelii*. This purchase utilised the balance of the meagre funding available for acquisitions in 1994-1995 and Molly correctly quizzed me as to its priority. The crown lands at Kinkuna and the acquired freehold lands established a significant coastal park and brought to fruition a park proposal advocated since the 1960s by the National Parks Association of Queensland.

Northern New England Tablelands

A number of land parcels were purchased to expand Girraween National Park and to establish Sundown National Park in the 1970s. The consolidation of these parks was actively promoted by the Service's then Acquisition Clerk, John Churchward.

My continuing interest in the Northern New England Tablelands Bioregion has been in two areas. It is possible to link Sundown National Park with Girraween National Park along the Roberts Range and a narrow link across the New England Highway north of Wallangarra. Secondly, to secure a significant remnant of the lower Traprock country that has been extensively cleared: the upland Traprock country being well represented in Sundown National Park. The lower Traprock country extending to the north west of the bioregion contains a wide diversity of eucalypt species, which I know well from my younger years camped under a Yellow Box tree; only remnants remain.

Sugar Coast Environmental Rescue Package

This Package extended over three bioregions, the Wet Tropics, the Central Queensland Coast and South-East Queensland. In the mid-1990s there was considerable public concern over the plight of the endangered Mahogany Glider (*Petaurus gracillis*), one of Australia's most threatened mammals. This species has a very limited range on the Wet Tropic lowlands from just south of Ingham to the Hull River near Tully, an area where extensive sugar cane expansion was then occurring.

The need for substantial funding to protect the glider's habitat, over high value potential cane lands, was pushed strongly by the conservation non government organisations (NGOs) and the Australian Democrats in Canberra. I prepared a cabinet submission, with advice from Gethin, on a range of funding scenarios and the option for a joint \$16 million conservation rescue package was agreed to by the Queensland Government. Canberra agreed to meet half of the cost of this package and an agreement was signed in December 1995.

At officer level both Canberra and ourselves were keen that such a substantial package should help protect more than just one threatened species and that it be used to protect other threatened coastal species and ecosystems. Consequently, it was named the *Sugar Coast Environmental Rescue Package (SCERP)*. On an alternating annual basis, I chaired a small committee with Andrew Campbell in Canberra to oversee implementation of the package within the guideline that 75% of the funding was to be used to protect Mahogany Glider habitat and the balance for other coastal conservation priorities.

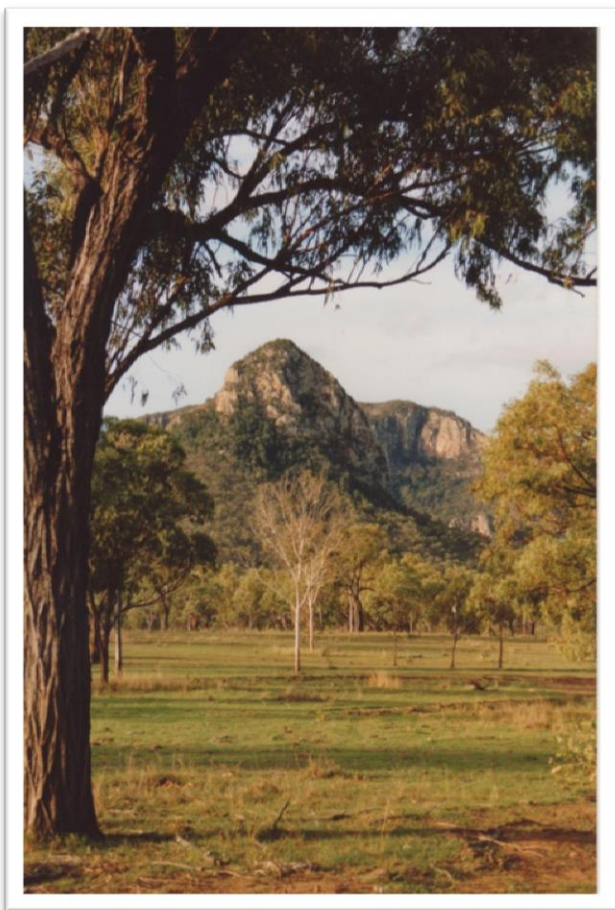
Gethin assessed lowland areas for acquisition, including threatened areas near Edmund Kennedy and Hull River National Parks, Paluma Range, Halifax Bay, around Tully and Wyvuri Swamp. Some of these areas included valuable remnants of lowland rainforest, the most threatened of North Queensland rainforests, and Mahogany Glider habitat. Unfortunately, negotiations to secure the large area of Mahogany Glider habitat on Wharps Pastoral Holding on the outskirts of Ingham were not successful and this property remains a key proposal.

I proposed that lands owned by the Moreton Sugar Mill at the foot of Buderim Mountain on the Sunshine Coast also be acquired as part of the 25% of funding available for the protection of other lands. These mill lands contained an important area of the wallum heaths of South-East Queensland with many threatened species, including the disappearing Christmas Bells (*Blandfordia grandiflora*), now an endangered species. These lands adjoin Mooloolah River National Park, though severed from the existing park by a motorway, and contain some of the most highly threatened ecosystems in Australia due to rapid urban expansion. The subsequent purchase of the Moreton Sugar Mill by a Belgian company, which stripped the company's assets and sold them off, further vindicated the decision to protect these important wallum heathlands. Maroochydore Shire Council assisted in funding the purchase and their contribution helped extend the State monies available within *SCERP*.

Two staff were employed under *SCERP* and based in regional offices in North Queensland to work directly with the cane industry. They assisted in promoting ecologically sustainable production techniques and in developing nature conservation agreements on private lands with landholders. We also worked closely with the Tully Mill highlighting the importance that new cane assignments not be issued over pristine lowland habitat. Fortunately, I had some knowledge of the sugar cane industry as I was growing cane commercially at the time on the family farm in partnership with my sister, Val.

Chapter 15: The Brigalow Belt – Conserving What was Left

The Brigalow Belt is a very large bioregion and to understand nature conservation needs and to systematically design a representative park system, it was necessary to delineate and describe the major landscape patterns within the bioregion. The Brigalow Belt became the first bioregion where subregions or provinces were defined by Gethin. This was also the first attempt to refine the subregions originally described in the *RAKES* report. Subregions were subsequently defined as delineating the significant landscape patterns within the bioregion usually associated with geology and geomorphology or finer climatic differences. The delineation of subregions also played an important role in defining regional ecosystems. The differences between subregions generally indicate differences in landscape processes and species distributions.



Homevale

An old park proposal file was titled Marling Spikes and Diamond Cliffs. This evocatively named area is west of Mackay on the western side of the range and south west of Eungella National Park. Much of the proposal was contained within the pastoral property, Homevale. Gethin and I inspected the property and it was realised that this was an extremely important area in terms of protecting an environmental gradient from the top of the range and the Central Queensland Coast Bioregion, to the woodlands of the Brigalow Belt. The regional ecosystems on the drier end of this gradient included extensive alluvial flats supporting threatened Blue Gum (*E. tereticornis*) woodlands and other species.

Photo 46. Homevale National Park, overlapping the Brigalow Belt and Central Queensland Coast Bioregions.

Again, mining interests overlapped part of the area and I sat down with Warwick Willmott from the Geological Survey Branch to sort out some sensible boundaries and a combination of National Park and Resource Reserve was agreed.

However, acquisition funds were becoming scarce and I explored the possibility of private funding from an overseas zoological society. I will not be more specific for reasons that will become obvious. A representative of the society accompanied me on an inspection of the property and though very sympathetic to the cause they could not provide the funding. This was not the first time I had sought overseas funding as I had hosted at home, in the early 1990s, the Deputy Director of The Nature Conservancy, the largest U.S. private land conservation fund.

The society's representative was a demure lady. That evening after a few drinks she told us of a little mishap she had had recently. She was nursing an orphan baby wombat and to provide security for the baby wombat she had made a little bed for him in her bedroom. She volunteered that she did not wear bedclothes. Well this night he was very restless and to quieten little Wally, she picked him up and her feisty little wombat latched on to her. She raced to the hospital emergency department with a partially severed nipple. The doctor enquired what had happened and she said *"my wombat bit it"*: to which the doctor said *"well tell him not to be so rough next time"*.

Funding for Homevale was cobbled together and this 35,100ha property successfully acquired. This was also the first time I became aware of the huge coal seam gas potential west of the Range. One of the gas exploration companies that I was negotiating with said that all they had to do was put a bore hole down on every grid intersection on a 1:100,000 scale map and they would hit gas.

In recognition of the conservation significance of this new National Park and Resource Reserve, the World Wide Fund for Nature - Australia (WWF) in 1995 awarded the Queensland Government its inaugural New Reserve of the Year award. On behalf of WWF, I presented the award to our Minister, Molly Robson, as she was packing up her office. Molly had just lost her seat on the south side of Brisbane over the government's plans to duplicate the Gold Coast Highway through her electorate. Among other things, one of the proposed highway routes would have destroyed some of the most significant koala habitat in South-East Queensland. She confided that she had told the Labor power brokers, including Craig Emerson, that it would cost her her seat: it did and contributed to the downfall of the Goss government.

Other Brigalow Parks

Chesterton Range, north of Mungallala, was identified by Peter Taylor (not our Commonwealth colleague) and Paul Grimshaw from the Queensland Herbarium. This proposal captured many of the open forests and woodlands of the southern Brigalow Belt.

Peter subsequently went on to be the chief trainer for the roll out and adoption of the new regional ecosystem classification system, discussed below; a most important contribution.

Extensions to Robinson Gorge in the Expedition Range were secured as well as Beilba located in the head of the Acadia Valley and linking through to Expedition National Park. The Acadia Valley is an area of rich Brigalow clay soils that had been nearly totally cleared: the remnant Brigalow ecosystems on Beilba were all that was left in the Arcadia.

Part of Curtis Island was set aside as National Park after much negotiation. The Gladstone - Rockhampton area is a significant biogeographic locality being one of the two corridors where the dry Brigalow Belt reaches the coastline from the interior. Unfortunately, any Brigalow remnants are long gone. Cape Capricorn Peninsula on the north eastern part of the Island contains magnificently sculptured parabolic dunes whose swales support a dense laced shrubland of *Melaleuca leucadendron*. This was one of the areas where we removed the sand mining tenements in the 1980s.

South of the Cape is a large marine plain. In my 1979 report rationalising sand mining, I recommended that any grazing on the marine plains on Curtis Island should be carefully monitored in terms of impact on avi-fauna. Being unable to set the marine plain aside as part of the National Park, the Curtis Island Conservation Park was established as a compromise to accommodate the prior existence of a grazing lease. Recently, the endangered Dawson Yellow Chat, *Epthianura crocea macgregori*, has disappeared from the Park (Taylor et al. 2014).

The conversion of the Conservation Park to National Park, and the removal of grazing to ensure better ecological management of the wetlands, has recently been announced by the Queensland Government, with the financial support of one of the liquefied natural gas companies on the Island.

Down towards the southern end of the Narrows (the waterway between the Island and the mainland) is the large Graham Creek estuary. This is where our original park proposal was severely curtailed. This south western part of Curtis Island is now subject to massive industrial development for the processing and liquefaction of natural gas with multiple plants under construction. It is important the park was secured when it was.

I proposed the purchase of a significant part of Goodliffe, a large property that linked the Salvador Rosa section of Carnarvon National Park with the Castlevale pastoral lease. Castlevale contains the largest area of Brigalow remaining in Australia together with extensive escarpments and rich Aboriginal pre-history. Castlevale had also been identified by Jim Gasteen as a key area.

Part of Goodliffe was purchased for one and a half million dollars, but not without protest by the lessees: my name was painted on a sheet of tin as the person responsible and hung beside a track leading to the property. Notwithstanding the Service having made a substantial commitment to buy part of Goodliffe to link Carnarvon National Park to Castlevale, all negotiations to secure Castlevale as National Park have been unsuccessful. Its acquisition would see the completion of Carnarvon National Park, the first part of

which, Carnarvon Gorge, was gazetted in 1938. Castlevale remains as one of the key National Park proposals in Queensland today.

Another key area in the Brigalow Belt that I helped secure was Carnarvon Station in the Carnarvon Range and adjoining Carnarvon National Park. The Australian Bush Heritage Fund (ABHF) (now Bush Heritage Australia), a private conservation land fund, was interested in acquiring this property: a move that we strongly supported from the Service's point of view as it complemented the existing Carnarvon park aggregation. I helped prepare their funding application to Senator Robert Hill for 2:1 funding and we were successful. This was a very strategic acquisition for the ABHF, as it elevated their vision from that of acquiring small parcels in Tasmania and elsewhere, to securing and managing large parcels of land for conservation across Australia. From 2000-2002, I served as a Director on the Board of the Australian Bush Heritage Fund.



Photo 47. Lonesome National Park, one of the few Brigalow parks: note the silvery crowns of the Brigalow.

Photo 48.

Castlevale, a key park proposal to complete Carnarvon National Park.



Albinia

The final acquisition I was involved with was part of the Albinia Downs property near Rolleston in 1999. Albinia Downs occurs on the rich basalt plains of the central highlands and contained over 10,000ha of Blue Grass (*Dichanthium sericeum*) downs in excellent condition. This highly threatened regional ecosystem was once extensive on the Darling Downs, west of Toowoomba, where extensive cropping has reduced it to less than 0.5% of its original distribution with remnants confined to roadside verges and stock routes. To secure an extensive area of Blue Grass was therefore of huge significance. The occurrence at Rolleston also contained King Blue Grass (*Dichanthium queenslandicum*), a vulnerable species in Queensland which has long disappeared elsewhere from overgrazing and poor fire management.

This proposal was identified by Juliana McCosker and Melinda Cox of the Emerald office and by Rod Fensham from the Queensland Herbarium. They rang me and told me that this very significant area should be considered for National Park and that the property was coming up for auction in about three weeks time. I immediately flew up and inspected the property and saw what a unique opportunity it presented to conserve Blue Grass downs.

Mining interests for a major coal mine overlapped on the western end of the property and it was agreed with Warwick Willmott that this part would be left out of the proposed National Park and on-sold to the miners on condition that no disturbance, including weed introduction or changed fire regimes, was to occur to the balance area.

I immediately prepared a submission seeking 2:1 Commonwealth funding and highlighting that the property would be auctioned in 19 days. The Department of Lands was requested to carry out urgent valuations, the landholder was contacted and the Commonwealth National Reserve System Program staff given a 'heads up'. I met with the owner and he was concerned that any whiff of National Park interest would ruin his auction: I assured him it was our intent to keep it under wraps and on a need to know basis.

Robert Hill approved the request for nearly \$2m in about a week, a record for any dealing I ever had with the Commonwealth Government. This success was due to the respect that had developed over time based on the reasoned arguments put forward in the Queensland submissions. Matching one-third Queensland funds were found - just!

The auction was held in the Bowls Club in Emerald on 3 March 1999. There were four parcels making up the property that were going to be auctioned separately: two had significant improvements with areas under cultivation and two were in natural condition. I told the auctioneer that we would be turning up to play but only on the basis that the large underdeveloped block was put up before the other smaller underdeveloped block. My concern was that if we only acquired the smaller parcel and missed out on the larger block, it would not be a viable conservation unit. The auctioneer accommodated this request.

The Department of Lands bid on our behalf but left the bidding till the others had nearly run out of steam and then made very positive bids. We were successful for both blocks

and the locals wanted to know who the out of town purchaser was. The auctioneer was also mindful that if it was known that National Park's were bidding, it would destroy the rest of the auction. He said: *"we're short of time and will advise who the successful bidders are at the end of the auction"*. The owner was more than satisfied, we had kept our promise to keep the Service's interest under wraps and our keen interest in half the property helped him achieve a good overall market price.

Of course, the locals were flabbergasted when they found out National Park's had purchased part of the property and a grassland at that. The big hats standing around the walls of the Bowls Club were all bobbing in different directions. To have helped conserve such a special area and in record time was particularly satisfying. Albinia was finally gazetted on 5 December 2008.

The back cover of this Memoir depicts Albinia National Park with its rolling Blue Grass downs.



Photo 49. King Blue Grass (*Dichanthium queenslandicum*), a vulnerable species also occurs on Albinia National Park.

Chapter 16: Building Support for the Park System

During the ongoing acquisition activities I was always keen to expose our work to peer review and to increase awareness of the park expansion program and its underlying methodology. I also set a personal milestone of publishing a paper each year: the influence of working with CSIRO during College days which stressed the professional importance of publishing.

In 1990, I drafted a resolution to be presented to the 18th General Assembly of the International Union of the Conservation of Nature (IUCN) which after amendment by delegates read (*Resolution 18/27*):

‘Calls upon national governments, state governments, international agencies and the nongovernmental community to establish and support the principle, implementation and practice of the protection of biological diversity as a prime reason for the establishment, maintenance and expansion of National Parks and other protected areas.’

This provided broad international support for the direction we were now pursuing.

In May 1991, I was invited to give a paper at the international conference on *Science and Management of Protected Areas* held at the Acadia University, Nova Scotia, Canada. My paper titled ‘Planning towards consolidation of Queensland’s National Parks estate’ (*Sattler 1992*) was the first opportunity to present Queensland’s park expansion program internationally. I described the approach taken in the Mulga Lands to achieve systematic park selection and the government’s commitment to double the area of National Parks. Delegates were clearly envious of Queensland’s efforts.

A very funny incident occurred at the conference. On my way to Nova Scotia, I visited the University in Tucson, Arizona, to discuss work being carried out on arid land management. Within a couple of hours of landing I nearly stepped on a large rattler in Sonora National Park, the site of the magnificent Sonora cacti often featured in John Wayne films. But I digress. When I was introduced by the Canadian chairman to give my paper, he said we now have a contribution from ‘down under’. I immediately shot back that this was not so! I had happened to have included a slide of McArthur’s Universal Map of the World which showed the world the other way up with Australia on top and North America down under. The international audience loved it.

At lunch, a student and his professor from the University in Tuscon who I had met the previous week, came up to me: the student enquired: “*are all your maps printed that way*

around?” I assured him they were with Queensland pointing down to Papua-New Guinea. His professor was cringing with embarrassment.

I met up with Jim Thorsell from the International Union for Nature Conservation (IUCN) in Switzerland who was about to make the final decision on the boundaries for the Great Sandy region World Heritage Area and he enquired whether Cooloolool should be included with Fraser Island. For better or worse, I said not, mindful of the degree of alienated land south of Cooloolool National Park on the Noosa North Shore.

This was my second trip to North America, my first trip was in late 1989 when the Southern Moreton Bay Strategy was being rolled out and I was particularly interested in the type of commercial developments occurring beside or in National Parks and the potential conflicts that ensued. In those days loyal service after about 20 years was often rewarded with an overseas study tour (a ‘grand tour’ has a long history in English scholarship).

A very poignant experience was had in Washington D.C.. There I met Rob Milne and Sharon Cleary of the international arm of the National Park Service who did great work, particularly assisting developing countries with emerging park systems. Sharon organised an official tour for me of the monuments in Washington D.C. which are managed by the National Parks Service. One of the sites visited was the Vietnam Wall. This monument commemorates the 54,000 American boys who died in the war. It is made out of highly polished black granite with the names of the fallen superimposed. The imagery is that when reading the names you see your reflection as being part of society that sent these boys to their death.

We stopped to read one name: it was my surname! He was a lad of my age from Colvina in California. In Australia, conscription had been introduced in 1964 (something not even accepted for the Great War) and I was eligible for the Vietnam birthday ballot when I turned 20. The marbles for the two days before and the day after my birthday had dropped – I was spared.

I had this overwhelming feeling: *“there, but for the grace of God, go I”*.

A further connection I felt was that Dad had told me that when his grandfather had migrated to Australia, his brother had gone to America. This is further discussed in PART III.

Though we acknowledged Prime Minister Whitlam for doing away with conscription when elected in 1972, I could not support his callous record of leaving behind those desperate South Vietnamese who had been loyal to our armed services, and who faced a very uncertain future, in his rush to appease Chairman Mao. We also joined the Citizens Military Force (CMF) whilst at College, ‘Cut Lunch Cowboys’, as insurance in case the ballot went the wrong way. The day after the ballot we returned our army gear.



Photo 50. Reflections on the Vietnam Memorial, Washington D.C. where the fallen are inscribed.

On this trip I also met a number of U.S. Vietnam Vets who were excited to meet an Aussie, such was the esteem they had for our diggers. On one occasion whilst having a cleansing ale after dinner on Hawaiian Volcanos National Park I met a Vet., a local rancher, who mind you, didn't much like his National Park neighbours. Later that evening after much camaraderie, he invited me to his sister's wedding the next morning. I thought discretion was the better part of valour and left him in the hands of the bridegroom to get him cleaned up to be best man. In Washington D. C., I met another Vet. after dinner who promptly cancelled his flights home to the Mid-West so he could have a drink with an Aussie. I'm sure his wife thought it sounded like a pretty lame excuse when he rang her and said he was not coming home for the night.

In July 1991, I was asked to give a paper to the Queensland Ornithological Society's conference which I entitled, 'Protecting Queensland's Biodiversity' (*Sattler 1993*). In this paper I described how Queensland's new acquisition program was focussed on developing a representative National Park system based on a network of parks across each bioregion. This conference also coincided with the time when the new Nature Conservation Act was being drafted. I was keen to portray how biodiversity should be considered and protected at multiple levels from landscapes to ecosystems, to species, and to genes and how the park acquisition program was a key part to achieve nature conservation in conjunction with legislative and incentive measures.

One of Pat's crowning achievements was the introduction of the new Nature Conservation Act in 1992. This was based on extensive review, the consolidation of a number Acts dealing with nature conservation, and included the identification of a range of conservation tenures to complement the strict preservation objective of National Parks. This review was carried out by a core group consisting of Noel 'Smokey' Dawson, Ross Hynes and Bob Speirs, with the assistance of others.

I continued to promote that in defining biodiversity, it should include the landscape scale. Subsequently, the meaning of biological diversity was defined in the Act to include the landscape scale, probably the first legislation to do so:

'S. 10.(1) "*Biological diversity*" is the natural diversity of native wildlife together with the environmental conditions necessary for their survival, and includes-

- (a) regional diversity, that is the diversity of the landscape components of a region, and the functional relationships that affect environmental conditions within ecosystems; and ...
- (b) ecosystem diversity,...
- (c) species diversity...
- (d) genetic diversity...'

A humorous moment came about when the previous speaker from the Rainforest Preservation Society, which generally took a narrow view on overall conservation priorities, had been waxing lyrical about rainforests as the most important and romantic of all landscapes. I came on and asked who had not seen the recently released movie, *Dances with Wolves* and the romance on the Prairies; or was it on the Mitchell Grass Downs? The point was well appreciated and a great introduction to talk about one of our forgotten bioregions in the general conservation debate.

It was not without some personal experience that such images could be conjured. Peter McRae used to go out from Charleville to the Bilby research site on what is now Astrebla Downs National Park for weeks on end. To make life a little easier, he took an old cast iron bath tub out and set it up beside the old artesian bore nearby. When next the Water Resources Commission checked the bore head, as well as maintaining the six inch (150mm) cocks for the bore drains, they added a one inch (25mm) cock for Peter's bath tub. After a hot and dusty day I can vouch for the total relaxing feeling of basking in a hot overflowing tub, with not a tree from horizon to horizon to shield your modesty.

A Bioregional Framework for Australia

In the early 1990s I presented a paper, 'Towards a Nationwide Biodiversity Strategy: the Queensland Contribution' (*Sattler 1993*) to the University of Queensland Symposium on *Conservation Biology in Australia and Oceania*, (*Moritz and Kikkawa eds 1993*). In this paper I argued that the Queensland biogeographic approach be adopted nationwide as a framework for conservation planning for both park consolidation and other conservation activities. Up until this time the Commonwealth Department of Environment was promoting an environmental classification based on broad environmental parameters developed by the Environmental Resources Information Network (ERIN), however this classification did not reflect patterns of biota.

In the final wrap up of the Symposium, Norm McKenzie, a close colleague from the Western Australia Department of Conservation and Land Management (CALM), and I drew out recommendations from the conference assembly that, *inter alia*, said: '*A biogeographic framework be established for Australia by ANPWS in conjunction with the States to identify rapidly the major gaps in the reserve system...*' (*McKenzie and Sattler 1993*). Norm has worked tirelessly for conservation in Western Australia and nationally.

These papers, together with the HORSCERA enquiry, discussed below, contributed significantly in the early 1990s to establishing the biogeographic approach to reserve system planning nationally.

An update was provided on how the representation of regional ecosystems in Queensland's protected areas over the past three years to 1993 had grown from about 50% to 63%. I also described the various bioregions in Queensland in terms of their condition, trend and broad conservation needs.

At this conference I introduced the work that Gethin Morgan was doing in North Queensland. Whereas in southern and central Queensland, we had comprehensive land system mapping and some vegetation mapping to allow the use of quantitative techniques, such as the *Bolton-Specht analysis*, the lack of comprehensive mapping data in the north dictated that a different approach to the assessment of park proposals was needed.

Gethin was developing a new classification system that defined regional ecosystems: this work was brought to fruition in 1999 with the publication of our book, *The Conservation Status of Queensland's Regional Ecosystems* and is discussed below (Sattler and Williams 1999). This work provided a way forward to systematically and rapidly assess proposed parks where comprehensive mapped data were not yet available. Gethin and I instigated this work in 1989: in effect it took 10 years to complete and was to involve a large number of contributors.

HORSCERA Inquiry and Commonwealth Financial Support

On the 9 October 1992 I gave evidence to the House of Representatives Standing Committee on Environment, Recreation and the Arts (HORSCERA), a joint Commonwealth Parliamentary enquiry into *Biodiversity – the Role of Protected Areas* (HORSCERA 1993).

The report of this bipartisan committee was a key turning point in the elevation of the Commonwealth interest in National Parks, the recognition of the importance of working with State governments through providing funding incentives to expand the park system and the need to take a biogeographic approach to develop a fully representative park system nationally. This committee was ably assisted by David Brunckhorst as Inquiry Officer. Pleasingly, a lot of my evidence was incorporated into the HORSCERA report:

'S.3.2. Participants of the Committee's workshop agreed with the priorities emphasised by Mr Paul Sattler of the Queensland Department of Environment and Heritage:

"... A bioregional approach is fundamental to conservation planning.

"... The next step will be environmental audits of each region to develop regional conservation strategies. "This will enable integration of an

expanding park system with ESD (ecologically sustainable development) measures”.

‘S.3.50 Mr Sattler (told the Committee)

“The second major point is funding. “This whole exercise today is of very limited value if substantial land acquisition funding is not made available for implementing a nationwide biodiversity strategy.

“... Given that the States and Territories will continue to shoulder substantial ongoing management responsibilities for the parks, it is suggested that such funding should be at least on a two to one, Commonwealth-State basis for land acquisition”.

‘S.3.52 Further specific ... details were provided by Mr Paul Sattler after consultation with State and Territory colleagues:

“An estimate of the ... funding required across Australia to capture priority regional ecosystems is of the order of \$150 million.” (This was 1992 dollars). Elsewhere (S.3.74), I suggested: “an additional \$50 million ... to meet (the management cost of) establishment should be considered”.

That is, funding should be on a 3:1 basis when considering the cost to set up new parks and for on-going management.

‘S.3.78 The point was made strongly at the Committee’s workshop, best summed up in the words of Mr Paul Sattler:

“... If we do not achieve sustainable land use, our reserves will not survive and we will not be able to put them in a regional context and ensure maintenance of biodiversity throughout that landscape. ... “I do not think we should kid ourselves. “This is the very difficult part of the process: the development of regional conservation strategies. “A lot of us have been involved for a long period of time in designing representative park systems. “The methodology and the tools are there, and we just need to get on and do that part. “The next part that confronts this country is how we can develop regional conservation strategies that link our reserve park system with sustainable land management”.

This is equally true today.

It was particularly satisfying that funding from the Commonwealth (Howard) Government from 1997-2001, under the first Natural Heritage Trust program, saw the allocation of \$80 million for the protected area system and these funds were made available to the States, Territories and other partners on a 2:1 basis. This funding arrangement greatly encouraged a partnership approach in expanding the park system.

Before this initiative in 1992-1993, under the Keating government, \$16.25 million was made available by the Commonwealth to provide incentives for States and Territories to progressively develop a comprehensive system of protected areas and to protect old growth and wilderness. That year successful applications were made to help purchase Lochern in the Channel Country, discussed above, and Starkey and Silver Plains on Cape York Peninsula.

The Commonwealth Government managed the funding for park expansion through the National Reserve System Program which conducted its activities in true partnership with the States. Key figures within the Commonwealth National Reserve System Program included Bruce Cummings, David Forsyth, Peter Coyne, Sarah Pizzey, Gillian Lee, Doug Brown and Peter Taylor, with great support from the Director of the Australian National Parks and Wildlife Service, Peter Cochrane. Bruce Cummings provided great support for a wide range of conservation initiatives over the years.

Over the 1997-1999 period, more than \$6 million was secured from the Commonwealth for acquisitions in Queensland with each proposal carefully scrutinised by Senator Robert Hill as Commonwealth Environment Minister. This assistance led to the successful acquisition of Cudmore in the Desert Uplands and Albinia in the Brigalow Belt South Bioregions. Funding for Humboldt in the Brigalow North Bioregion, and Edgbaston and Lake Buchanan in the Desert Uplands was also secured. Most of Humboldt was acquired after I left the Service, Edgbaston was purchased by Bush Heritage Australia with a mixture of private and Commonwealth funds, but unfortunately negotiations for Lake Buchanan were unsuccessful, as discussed above. This financial assistance followed the \$16 million joint governments *Sugar Coast Environmental Rescue Package*.



Photo 51. Humboldt National Park and *Micromyrtus capricornia*, a shrub restricted to the Humbolt-Collinsville area.

Considerable advantage was taken of Commonwealth funding, after Queensland's State funding was drastically curtailed following the initial three year funding program from 1990-1993. All funding submissions submitted to Sen. Robert Hill clearly set out the bioregional, ecosystem and species significance of each area and all were successful.

The Romeo Lahey Memorial Lecture

On 19 April, 2000, I was honoured to be invited to give the 13th Romeo Lahey Lecture to the National Parks Association of Queensland in their 70th year (*Sattler 2000(a)*). The introduction by President Mr John de Horne was very generous:

“Tonight’s speaker is Mr Paul Sattler who has dedicated his career to advancing conservation and sustainable land management. “His knowledge of the state’s national parks is prodigious – even the remote ones. “Over the past 24 years Paul has been involved directly in the selection and negotiation of many parks throughout Queensland and has particularly sought to address conservation needs in the lesser known and less visible parts of the state, often where the threats to biodiversity have been acute.”

With the finer scale classification of regional ecosystems becoming available through the Queensland Herbarium’s mapping program, it was possible to more accurately trace the growth in the area and representativeness of the National Park estate, refer PART II -Table 2. The expansion of over 5.5 million hectares in total from 1975 to 2000 saw the area of parks increase from 0.64% to 3.86% of Queensland and the representation of regional ecosystems increased from 32% to 69%. The finer scale regional ecosystem mapping showed that the estate was less representative than I had originally assessed for my Presidential Address to The Royal Society of Queensland in 1986, based on broad land systems and limited vegetation mapping .

That evening I took the opportunity of inviting both Ivan Gibbs and Pat Comben along. With some pleasure I was able to acknowledge them both publicly, and assert that out of the 10 Ministers that I had served it was their particular contributions that were outstanding. Interestingly, they were from opposing sides of politics.

I proposed that a final drive towards 80% representation could be achieved with about 5% of Queensland being reserved. This might not mean adequately reserved, but it represented a priority target for comprehensiveness. Premier Beattie announced it as a policy, but it was not funded. I had estimated that to secure the remaining jewels in the crown a new budget of \$48m was required and, with the experience of the past decade, I felt that this proposal and costing was sound. This proposed target was criticised by some sections of the conservation movement as being too modest. It is interesting that 13 years later, this target has not been reached even though the Beattie and Bligh governments were considered to be conservation-leaning governments over that period. I was always a believer in setting solid incremental targets for conservation based on realism rather than idealism. Instead, funds for the next decade were frittered away to meet noisy, green political interests, such as rehabilitating cleared rainforest patches at Springbrook in South-East Queensland.

To try to promote the need for new investment, I presented the argument that parks have great economic value for direct uses, such as tourism and recreation, and for indirect uses,

such as ecosystem services and cultural values. I sought the assistance of Sally Driml, a resource economist, to look at the potential tourism value, particularly for use by ‘grey nomads’ touring two hypothetical tourism trails across Queensland. One route I proposed was a Leichhardt Heritage Trail. Leichhardt got hopelessly lost on his exploration from Jimbour Station on the Darling Downs to Port Essington on the north western extremity of Arnhem Land in 1844. However, his meandering route actually followed a very diverse range of country and could be linked to a number of existing and proposed parks. It was calculated that the likely increase in tourism could more than meet the costs of acquiring a number of parks along the route and help stimulate depressed rural towns.

Similarly, a Stockman’s Hall of Fame Ring of Green around Longreach, would be popular to broaden tourism opportunities. Information on the unique fish species associated with mound springs would add interest and a major off-site attraction based on these highly threatened aquatic species, and of the need for careful arid water management more generally, could be established in Aramac.

Having talked about the scientific basis for park selection and economic opportunities, I concluded this address on a cultural note.

‘There is a growing city-country divide in Australia. ‘As a highly urbanised community we are cocooned from our landscape yet, this landscape, its panoramas, its wildlife and its diversity is part of our national identity. ‘Not only has it been sacred to black Australians but white Australians identity is connected with our landscape and enriched through its images, its poetry and folklore. ‘From the poetry of Judith Wright to the theology of David Tacey there is a common theme of participation in our land, of not denying ourselves access to the sacredness of the land through the clutter of our secular habits (Tacey 1995).

‘But our landscape and its natural diversity is deteriorating. ‘To address this requires the combined support of all Australians and particularly needs the urban majority to care, understand and commit to its restoration.

‘This reconnection with our landscape is a fundamental issue for all Australians.

‘Can we afford to be so deeply divorced from nature? ‘The suasive or moral appeals to a collective guilt may serve short-term resource management goals but in the longer term we have to deepen our consciousness if we are to fully address our ecological crisis.

‘Queensland’s National Park system is a vital link for embedding a cultural appreciation of our landscape and re-establishing our identity with the land. ‘As the biggest public land estate in Queensland our National Parks can be the conduit for the urban majority to experience and connect with our landscapes, the bush.’

Unfortunately, the Queensland Government and the department were no longer listening.

Chapter 17: Conservation Policy Development

During the 1990s, I was closely involved in the development of a number of national policies, viz., rangelands, forests, vegetation, ecological sustainable management, as well as on-going advocacy for the National Reserve System. This provided enjoyable opportunities to work closely with colleagues from other States and Territories. There was much common respect as we had all experienced similar trials and tribulations in promoting conservation on our own patch; it was only that the biota was different. We respected each other's knowledge of their jurisdictions and got on with pulling out the key principles and advancing nation-wide conservation outcomes. Some of the key players from each jurisdiction are noted below when discussing the National Land and Water Resources Audit.

This involvement often related directly with State policy development, such as rural reconstruction schemes in marginal rangelands and the commercialisation of kangaroo meat for human consumption.

Rangelands

I was particularly interested in rangeland policy, given my previous work in western Queensland and witnessing the degradation of soils and vegetation, as well as seeing the poor economic circumstances of those eking out a living in marginal areas.

At the Arid Land Administrator's Conference in Charleville 3-5 April 1990, I gave a paper titled 'Nature Conservation in Western Queensland' (*Sattler 1991*). I introduced this paper by saying that "*we stand indicted*" for our management of our fragile, arid landscapes. I listed the symptoms of the insidious degradation occurring, viz:

- loss of productivity
- lack of sustainability of pastoral activities
- marginal clearing and agricultural use where poker is played with droughts
- woody weed growth and invasion of exotic weeds
- loss of natural grasses and herbage species
- loss of habitat diversity and extinction of wildlife species
- our blighted inheritance from the introduction of rabbits and other feral animals
- lack of land use planning and clearing guidelines
- lack of financial incentives for good management, particularly taxation incentives
- lack of land management controls and the implementation of lease conditions
- overstocking
- unrealistic subdivision into property sizes far too small for a sustained and reasonable economic return

- the use of drought relief as a means of economic subsidisation without regard for the ecosystem being further stressed
- land administration based on land alienation rather than sustainable land management or stewardship
- loss of Crown lands from multiple use to private ownership, such as stock routes and water reserves
- resistance to diversification and change of land use
- resistance to establishment of National Parks for protection of biological diversity, recreation, future tourism, and as benchmarks to monitor the health of the pastoral landscape
- our apathy about Aboriginal history, archaeology and their traditional values of sustaining the use of the landscape
- the lack of rangeland science and management in decision making
- ignorance of land care by lessees and the community
- the lack of land care and stewardship subjects in school curricula, as a basis for extension services, and as a requirement of tertiary courses
- lack of political commitment over many years by all levels of government, local, State and Commonwealth, to local land care, implementation of land management strategies, and implementation of the fundamental objectives of the National Conservation Strategy of 1984.

Most of these shortcomings remain applicable today.

In 1993, the Commonwealth Government initiated the development of a National Rangelands Policy. This initiative resulted from an approach by Australia's Arid Land Administrators in 1992. I was nominated as the Queensland conservation representative together with Dr Warren Hoey representing the Department of Primary Industry. This committee, charged with developing a rangeland policy, met on many occasions with 30 workshops held around the country to garner public input.

It was at least curious that at one meeting in Canberra it was decided that the next meeting should be held in the rangelands. Our Commonwealth colleagues subsequently organised the next meeting: it was held on the North Shore of Sydney, not as dusty as I was expecting.

The final report's recommendations in 1999 included:

'10.1. States and Territories will identify areas and resources required to implement a comprehensive, adequate representation reserve system for the rangelands ...

'10.2 That off-reserve conservation ... (should) complement the establishment of the reserve system.'

These recommendations were presented as a given by the Commonwealth Department of Environment. There was no dissent, including from industry representatives – how attitudes towards National Parks and conservation more generally had changed over the decade and were much more enlightened on the national stage.

I promoted the idea that many rangeland areas were sub-marginal and that a new approach and tenures were needed to achieve sustainable management. One example was the administrative bodies and sustainable management arrangements put in place in North America following the dust bowl years of the 1920s.

In 1994, I fleshed this proposal out in a paper I gave to the *Ecological Research and Management in the Mulgalands* symposium (Page and Beutal, eds 2004), titled ‘Ecologically Sustainable Management and the Protection of Biodiversity in the Mulga Lands – The Need for a Strategic View’ (Sattler 1994). In this paper I argued that property build-up might work for the more productive parts of the region, but for the extensive degraded and sub-marginal areas a new approach was needed as a mere change in property size was unlikely to lead to sustainable management and least of all, meeting the cost of rehabilitation. I advocated that these sub-marginal lands were still of value to society for a range of non-market as well as market benefits and that a new public tenure, such as a Rehabilitation and Resource Reserve, was needed where use rights could be strictly controlled. At this time, Prof. John Holmes, Head of Geography at the University of Queensland was also promoting the need for non-exclusive access and use rights based on a new form of public title with reference to the sub-marginal tropical savannahs (Holmes 1994).

After much discussion, the final report on rangeland policy by the joint Ministerial councils (ANZECC and ARMCANZ, 1999) included a recommendation that *inter alia*:

‘5.2.2 ... Governments and communities should: ... promote opportunities for alternative or multiple use of areas held as a common resource, consistent with the principles of ecologically sustainable management.’

Unfortunately for the intensively settled areas such as the Mulga Lands, change in tenure will probably only come on the back of an environmental and socio-economic crisis where severe degradation and poverty develops. Climate change and increasing warming promoting greater drying of these submarginal semi-arid landscapes can only deepen long term degradation and hardship. Deprivatisation of rangelands is occurring in northern Australia in other ways.

Even though the pastoral industry was closely involved in the development of this rangeland policy blueprint and supported the long negotiated recommendations, the Commonwealth Government at the last minute dropped the ball and downgraded the policy findings to ‘National Principles and Guidelines for Rangeland Management’. This hijacked an enormous amount of work and good will from the extensive public consultations throughout Australia’s rangelands.

In 1999, an economic analysis commissioned by the Council for Sustainable Vegetation Management (discussed below) demonstrated that a large part of Australia was of poor economic - status (*Dames and Moore NRM 1999*). In 2007, I mapped out this area across the continent as an area where climate change could cause additional degradation and loss of biodiversity exacerbated by the stressed economic situation facing enterprises. The protection of poorly representative ecosystems within this area, which represented a significant part of Australia, was a priority for consolidating the National Reserve System (*Sattler 2009*). In Queensland, these submarginal lands include significant parts of the Mulga lands, the Desert Uplands and Cape York Peninsula.

Kangaroo for the Table

During the development of the ‘National Principles and Guidelines for Rangeland Management’, I was the Service’s representative on the Queensland Mulga Lands reconstruction committee. As well as promoting the need for National Parks and off park conservation, I strongly promoted the legalisation of kangaroo meat for human consumption in the State. Value adding of ‘roo meat was one way of increasing economic productivity in the Mulga Lands and potentially, a way of reducing total grazing pressure from sheep and ‘roos. That is, a greater conservation benefit could be realised from further development of the ‘roo industry. At that time, ‘roo meat was banned from human consumption in Queensland as a direct result of lobbying from the red meat industries who did not want a cheaper competing product on the supermarket shelves. I suggested to our Minister, Molly Robson, that Queensland should proactively promote ‘roo meat for human consumption to achieve initial market penetration as well as achieving a greater conservation gain. Government funding would also help.

In February 1994, the University of Queensland ran a conference on *Conservation through Sustainable Use of Wildlife*. I assisted Molly with preparing her opening address and she included in her address:

‘... one major component of ... revitalisation (of the Mulga Lands) is the conversion of the kangaroo industry. ‘We envisage a move from an industry which is essentially a cheap means of mitigating agricultural damage, to one which is a highly profitable, intensive pastoral industry ... it is essential that there be an enhanced value for individual kangaroo products’ (Robson 1995).

This was a gutsy effort for a conservation Minister. Of course, the other red meat producers objected to any government financial assistance to get ‘roo for human consumption accepted as this would be preferential treatment. The idea of actively promoting ‘roo meat was also squashed at the time by the Department of Primary Industry, which ultimately had carriage of the initiative.

At this conference, I presented a paper ‘The Greater Conservation Gain from a “New” Kangaroo Industry for the Mulga Lands: Ecological Sustainable Management’ (*Sattler 1995*). I presented data showing that of the 1.6 million take in 1992 in Queensland (out of

a sustainable quota of 2.3 million), 75% of the harvest was for skins only and 25% for pet food, with a small tonnage exported for human consumption. This was a huge waste of good protein. (Today these figures are reversed in terms of the proportion for pet food and skins). The Australian harvest quota is based on approximately 15% of the overall population of the commercial species of macropods, with the Mulga Lands being the principal location of the Eastern Grey Kangaroo.

I worked out the weighted carcass weight in 1992 across all commercial species and sexes was 19.7kg, and based on a 60% utilisation of the carcass for pet food could yield 27,000 tonnes of meat. The proportion taken in the Mulga Lands was potentially 14,000 tonnes of meat. Specifically, if \$3 - \$3.50 per kilogram could be achieved for 'roo meat for human consumption on the wholesale market, the landholder could receive \$10 per 'roo harvested (meat and skins). For a property of 30,000ha, after a build-up in property size, this could generate a gross return of \$20,000. The argument being that this income could assist in lowering the stocking rate of sheep as part of achieving sustainable management.

The rural reconstruction scheme was however, focussed on property build up to achieve economic outcomes, especially sought by the rural bankers, rather than focusing on meeting sustainable natural resource management criteria. At the time, considerable funds were made available for people to exit the industry, but few took advantage of the scheme. It was a life-style more than a business and other assistance, such as for education at boarding schools, encouraged marginal operations to persist.

Whilst on my second trip to Washington, D.C. in 1992, I informally met with the Department of Fisheries and Wildlife about the ban on kangaroo products into the U.S.A. At a technical officer level, they had no problems with the importation of sustainable harvested 'roo products and closely followed our management arrangements. However, *"there was not a politician on the Hill that would be prepared to take a bill forward to eat Australian skippies"*. It took many years for the U.S. ban to be overturned.

Subsequently, I had a visit in Brisbane from another officer from the U.S. Fisheries and Wildlife. This gentleman had a very ruddy complexion and a shortness of breath when he arrived in my office. When I told him of the very low fat health benefits of 'roo meat and that it was being fed to cardiac patients at the Royal Adelaide Hospital, he was very keen to help promote the meat. South Australia was the first State to legalise 'roo meat for human consumption.

I formed a small committee of key 'roo industry representatives to assist in promoting human consumption. Interestingly, many of the industry players had already secured their market niches for various 'roo products and there was not a great industry push to value add. Prof. Gordon Grigg at the University of Queensland tirelessly promoted value adding the 'roo industry for many years. My involvement was to promote a new 'roo industry as part of the Mulga Lands reconstruction scheme to achieve more sustainable management, however there was only so much that could be achieved from within a conservation agency.

Following on from the Mulga Lands reconstruction scheme, I was involved with the Desert Uplands reconstruction scheme. This time, the scheme was effectively managed by the Department of Lands and I had a very good working relationship with Geoff Edwards who was one of the new appointments within Lands and who took a much more considered approach to land management. Geoff was a breath of fresh air.

Interestingly, there was a different mindset by many of the cattle graziers promoting the Desert Uplands reconstruction scheme and it was spearheaded by a number of ladies from properties in the region. Often with the menfolk working away to gain extra income, they were confronted with the reality of digging cattle out of bogs of a night, etc. and felt there must be a better way. They were keen to explore all options to achieve better outcomes for their region. In comparison, many of the sheep graziers in the Mulga Lands could still remember when wool was a pound (£1) a pound (lb) and felt 'the country owed them'.

The driving force of the Desert Uplands reconstruction body was Mrs Lesley Marshall. Geoff and I assisted her in gaining a Churchill fellowship to do a study tour overseas and look at alternative management arrangements such as the Prairie Farm Rehabilitation Administration in North America. In the end, little government funding was available to assist in developing more sustainable management of these marginal landscapes and such reconstruction schemes have faded away. Australia-wide, these schemes fell out of favour with economists who saw them as distorting market disciplines for commercial rural enterprises, and the prospect of funding reconstruction to achieve better land management fell away as collateral damage (*Edwards, pers. com.*).

One of our interdepartmental meetings on drought relief, chaired by Kevin Rudd as Director General of Premier's Department, was in the inner sanctum of the top floor of the Executive Building, a room with no windows. We were all lamenting the effects of the drought, that it never rains ... Little did we know that outside there was a torrential tropical downpour with the streets flooded.

Box 1. Sojourn to South America

In 1992, I attended, at my expense, the IUCN World Parks Congress in Caracas, Venezuela to give a paper on rangeland management. I arrived at the Caracas airport, a good distance from the city, at midnight. I was met by a conference representative who invited me and two others to make ourselves comfortable in the protocol lounge and help ourselves to the bar as another flight was expected in at 2am. Well, I should have known it was going to be a bad joke: there was a Yank, a Kiwi and an Aussie and we discovered that the South American dark rum is the best in the world. On finally arriving at my hotel, a party was underway in the next room. They were conference delegates from Jamaica – “*come in and have a rum*” – very generous of them! The next morning I wandered down stairs looking for a cup of coffee only to be confronted by uniformed soldiers with automatic weapons.

The Canadian Ambassador had the ‘good oil’ on what had happened whilst we were enjoying the products of the South American cane fields. A group of rebels decided to stage a *coup d’ état*. Their carefully devised plan was to seize the TV station and call the populace out onto the streets whilst *el Presidente* was away with his mistress. Late in the evening the rebels took off to the TV station but their jeep broke down. They quickly hailed a cab, piled in with their machine guns and stormed the TV station. Only to discover that their pre-recorded tape calling for the revolution had been recorded on PAL, not NTSC (or maybe it was the other way around) and it wouldn’t play. By the time they found a technician, *el Presidente* had returned from romancing his mistress, realised what was up and called the army out. It was all over and not a shot was fired. Needless to say, we didn’t go wandering around Caracas.

Ten years later, I was at an Australian Bush Heritage Fund’s workshop in Emerald when I ran into a Kiwi who was working for The Nature Conservancy. During the evening he volunteered he’d gone to the World Parks Congress in Caracas and had sampled a few rums with an Aussie and a Yank at the airport late one night: it is a small world indeed.

You may recall that I mentioned earlier that when the Service was established it employed a brilliant cartoonist, Simon McLean. Simon had the knack of drawing animals as human caricatures. In Caracas, I delivered a paper on degradation in Australia’s rangelands and thought that to make my presentation more interesting, I would intersperse my slides with some of Simon’s cartoons.



Photo 52. My Aussie mates who got me into trouble (*Sketches by Simon McLean*).



There was Wally the Wombat with his mates knocking back a few cans, a rough looking kangaroo in thongs and a durry hanging out the corner of his mouth and old sheila emu wearing a bra that was far too small: you get the drift.

I darkened the theatre to show my slides and in the darkness a lot of people filed in. When the animal characters popped up every now and then, I didn't get a laugh, not a murmur! Though I was also showing some very hot and dry landscapes, things felt decidedly frosty. When I finished and turned up the lights I discovered that most of my audience were Muslim ladies, very traditionally dressed. They were interested to take back ideas on arid land management to the Middle East – oops!

I left the theatre feeling more than a little embarrassed and was tapped on the shoulder. It was a reporter from IUCN in Gland, Switzerland who published the IUCN bulletin: “*loved your talk, could you do an interview*” – phew!

At the closing cocktail party, I bumped into Rob Milne (the Director of the International Division of the U.S. National Parks) whom I got to know in Washington a couple of years earlier. Rob was more than a little merry and had the female Venezuelan Minister for the Environment on his arm. We were surprised to bump into each other and he immediately swung the Minister around and said: “*I want to introduce you to the goddam best park ranger in Australia.*” I was not sure if I was expected to wrestle a croc or what? Rob was always very generous.

Post-conference, I cruised up part of the Orinoco River looking for freshwater dolphins, paddled to the Columbian side and brought a bottle of rum from a very seedy bar and flew over Angel Falls; the highest falls in the world. I had teamed up with some southern African colleagues and the first post-Apartheid cricket match was being played against Australia. Camped in the jungle, we had no outside communication on who had won. There was a lady from the World Bank who had a small transistor radio that we commandeered, but no reception.

After leaving Venezuela we headed for Rio, well it was the week before Lent and one of the great spectacles on earth awaited, *Carnaval!* They went straight to their Embassy to find out the score; I had to pay up. I then continued down to Argentina to see the wildlife on Valdez Peninsula. What was amazing was seeing Rheas, a brown/buff coloured, flightless bird that looked very like a small emu (not wearing bras) running through semi-arid shrubland reminiscent of much of western Queensland.

This was one of the many Gondwanaland connections I have felt over the years: others include the Araucarian (same genus as our Bunya pines) forests of Chile; the Kangaroo grass (*Themeda triandra*) on the Maasai Mara in Kenya, same species even though a very big cat could be lying amongst it; and, the Tea-tree (*Melaleuca quinquenervia*) forests of New Caledonia that is the same species as occurs in South-East Queensland.

Further south, I visited Patagonia and the spectacular Moreno Glacier and gave a talk on our National Parks to the Argentinean parks staff who managed the Los Glaciares National Park and World Heritage Area near El Calafate. They asked what we had got out of World Heritage listing of parks – their beef was that all they got was a brass plaque and a lot more tourists. Little did I know that I would be back in Patagonia 15 years later *en route* to Antarctica.

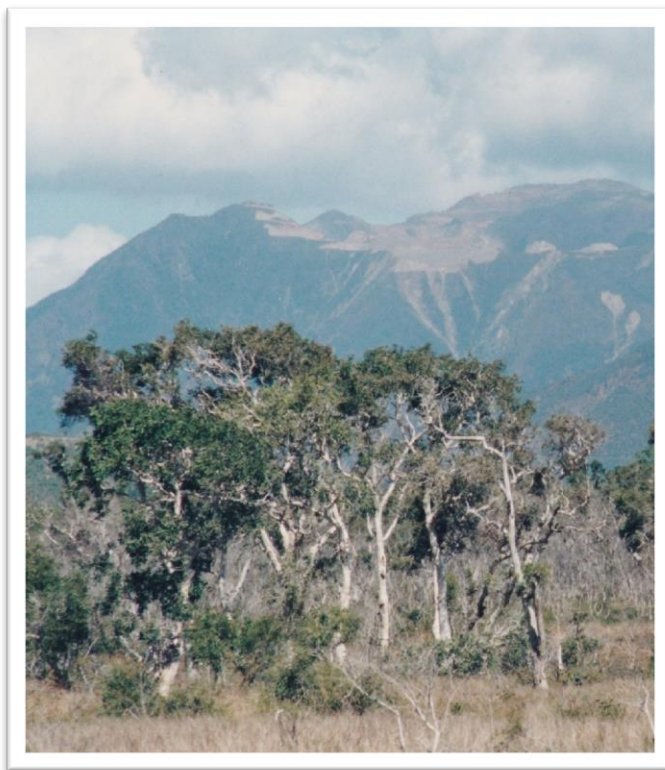


Photo 53. Tea-tree (*Melaleuca quinquenervia*) forests of New Caledonia (pity about the abysmal mess from nickel mining on the mountains in the background).

Box 2. Sojourn to Antarctica

It all started in a bar late one night in Sydney; The Basement. I was invited to join the crew of a yacht sailing down to Antarctica: well, I had always wanted to go to the frozen continent and it seemed like a great idea.

It turned out the yacht's owners, Cath and Daryl, lived in Brisbane and together with Toni Fox from Sydney, who was keen to sail to Antarctica, we subsequently got together for dinner – by the end of the evening I was also hooked! Though I had done a lot of inshore boating, I'd never done any blue water sailing: it was going to be some baptism. Events moved quickly as I bought cold weather and yachting gear in Sydney and Brisbane. Trying on thermals and other layers in Brisbane in the middle of summer was certainly novel.

It is interesting that at this time, in 2007, there was a whole new conservation concern; global warming. Whereas climate change over the main continental area of Antarctica had not been detected, the warming over the Antarctica Peninsula, where we were heading, was much greater than the global average and the contraction of the adjacent ice sheets was obvious from satellite imagery. Since then it has been detected elsewhere in Antarctica, that the warming ocean is causing significant melting under the ice sheets, causing a greater outflow of ice.

The yacht, *Spirit of Sydney*, was moored in Ushuaia in southern Argentina. As we got closer to my departure from Australia, Cath asked could I take some extra gear for the yacht. They had suffered a knockdown on the way back from South Georgia in the south Atlantic on the previous trip. Gulp! Everything was fine except they had ripped the mast chain plates out of the deck, everything got very wet, the computer, auxiliary power drive was wrecked etc., etc. They limped into Port Stanley in the Falklands and sufficient aluminium plate fell off the back of a British Army truck to effect repairs. Ben Tucker from Tassie flew over and re-stepped the mast.

I was walking through Glebe on the way to Sydney Uni. and found a delightful old second-hand bookshop. The first book I picked up was *Two Below Zero* describing Don and Margie McIntyre's 12 month expedition in Antarctica (McIntyre and Meredith 1996). The McIntyres are true adventurers who supported Jessica Watson for her heroic round the world achievement. This book described the arduous overwintering in a hut they built at Commonwealth Bay in Antarctica with four tonnes of materials they had brought down lashed to the foredeck of *Spirit of Sydney*. I was comforted by Don's comment after they departed from their hut the following summer that he felt "*happy to be back in the Southern Ocean. It's an old friend.*" For *Spirit of Sydney* to inspire such confidence was a relief.

After much negotiation with Chilean customs in Santiago about the gear I had with me: many metres of rope, an engine drive unit, shackles, a badly needed new computer hard drive and other sundry items plus my own gear, I convinced them it was 'tools' and proceeded to Ushuaia. I found *Spirit* being loaded with supplies in the harbour and introduced myself as the 'Mule from Brisbane'.

Spirit of Sydney is an old (1986) southern ocean racing yacht of 60 feet designed by Ben Lexcen (of America's Cup fame). It had few creature comforts, though importantly a solid dodger, a heater and coils of rope to tie off securely from each quarter of the boat had been added.

There were six of us, including Ben Tucker as Skipper and 'Siggy', Sigurour Jonsson, from Iceland as First Mate. Ben was a qualified sea captain who had lived much of his life on yachts and had sailed his own 34 foot yacht, *Snow Petrel*, down to Commonwealth Bay from Hobart. He was highly competent. Siggy ran a similar charter operation on his boat out of Iceland in the northern summer and was keen to experience Antarctica. He was a qualified naval architect as well as a fantastic cook.

We left Ushuaia and sailed down the Beagle Channel, named after Charles Darwin's ship which had sailed these waters on his way to the Galapagos Islands. Our first call was at Puerto Williams where we had to do the necessary immigration procedure to enter Chilean waters. Much distrust still existed between Argentines and Chileans with rumours of land mines still existing on Cape Horn. Puerto Williams is a naval port from where the Chilean armada controls the southern waters down to the Antarctica Peninsula. Both countries lay claim to the Antarctica Peninsula with both building reciprocal bases and apparently, pregnant Argentine women have been taken down so they could give birth there to further the Argentine's claim. Chile had also sided with Great Britain in the Falkland's War and this may explain why Margaret Thatcher felt she was indebted to General Pinochet. He was finally extradited back Chile to face war crimes but died with many people still missing and leaving great sorrow.

In Puerto Williams we rafted up to some other yachts alongside an old ship, the *Milcalvie*, which rests in the mud. After a few pisco sours the *Milcalvie's* 15° list seemed to right itself. The weather was foul in the Drake and we sailed a little further down the Channel to Puerto Toro, the last inhabited southern 'town' on the planet, to wait for a better weather envelope. Puerto Toro is occupied by a few King Crab fishermen. I walked beyond the little town into the hills and found a lonely graveyard in a wet and cold corner of the forest. It brought back memories of finding old graves in a dusty forgotten corner on the northern edge of Diamantina National Park at the site where the old Hamilton Hotel had once stood. But the forest was alive: in the brief summer period everything was flowering and fruiting.

After being holed up for three days in the Beagle Channel and eager to get going, we poked our head past Cape Horn and set course for Deception Island. The weather calmed out but it did not last.

The crossing was a four day sail but by the end of day 2 the weather had changed with about 30knts on the beam. I was getting progressively stricken with the *mal de mar* and our watches on the helm, three hours on and six off round the clock, were becoming a challenge. On day 4, I was starting to get my sea legs as we entered through Neptune's Bellows on Deception Island. A large German cruise ship also took refuge and we chatted with the Captain who sounded like a frustrated yachty on a big ship.

Deception Island is the site of an old Norwegian whaling station from around 1911, now partially immersed in volcanic ash. Next day we pushed south to the Antarctica Peninsula with 30knts forward of the beam and a 5m swell made for a lively ride, but we were making nine knots and feeling good. We started encountering huge tabular icebergs, like coal ships lined up at Gladstone, most being many kilometres long (maybe there is a cause and effect in using this analogy).

We made landfall at Paradise Harbour, a beautiful little natural anchorage. Desperate to get ashore, Siggy roped us up together for a much needed walk up into the snow.

The following day we sailed on to Cuverville Island and next morning we were greeted with the most amazing sight. After more than a week of ordinary grey weather, the sun came up on a perfectly calm, crystal clear morning. I was on early ice watch pushing away the build-up of ice on the ropes and lines. As the morning progressed it became warm enough to strip down to a t-shirt. I went ashore and found myself surrounded by many thousands of Gentoo Penguins on their pebble nests protecting a couple of full sized chicks. A cacophony of sound filled the air, as penguins argued over pebbles for their mounds and pushed away the Skuas expectant for a tasty chick. In the mid ground was a perfectly calm sea with partially melted blue bitty bergs seemingly dancing on the water. In the background loomed a mountain range more than a kilometre high with glaciers falling off its flanks. This sight alone made crossing the Drake worthwhile.

Further on at Port Lockroy we had settled in for the evening when the radio burst into life. It was an invitation from a British yacht with a group of army personnel on a survival training exercise. It was Robbie Burns' anniversary: would we like a Highland Cream to celebrate? Is the Pope a Catholic?

Immediately we jumped into the zodiac, a nice whiskey or two sounded much better than the cheap Argentinean plonk we had on board. We were not alone. I had not noticed two other French yachts and a Kiwi yacht anchored up – we all converged and were welcomed aboard with bagpipes and yes, he was wearing a kilt. A kilt in Antarctica can only be described as heroic.

At midnight it was Australia Day, so I broke out my Kangaroo Rugby League finery – at least I had another four or five layers under my jersey.

Port Lockroy is one of the former British research bases scattered around the Peninsula and contains the original equipment that monitored the hole in the ozone layer over Antarctica in the 1950s. For three months of the year, a Scot opens Port Lockroy as a British Post Office. It is surrounded by a Penguin colony with its distinctive aroma.

We pushed on down the Peninsula enjoying many magnificent sights; the wildlife having no fear whatsoever of man. One day a couple of whales sailed with us as we quietly sailed along in light air. Crabeater, Weddell and Elephant seals lazed around. Occasionally Leopard seals would investigate our anchor lines by rubbing their noses along them. Each night we lifted the zodiac out of the water as they are known to chew on the teat-like ends of the pontoons.

We took the precautions of putting our boots through an antiseptic bath before getting off and on the yacht to prevent any possible contamination of this pristine environment. Also, any water containing egg scraps was bottled and stored to prevent the possibility of Salmonella being introduced and which could devastate the penguin populations.

As we ventured south, brash ice became more common and at 65° 16' South we called in at Vernadsky. This is a Ukrainian Research Base purchased from the British for a pound on condition that its heritage status be preserved. Mind you a very interesting addition was a bra collection behind the typical English pub bar. *Spirit of Sydney* was welcome at Vernadsky as we brought sugar. After a long winter, supplies of sugar for vodka production were low: I took my job seriously of staggering across the snow with a couple of bags.

The previous year *Spirit of Sydney* had also saved their bacon. One morning whilst anchored up in the harbour the radio crackled into life with the formal, dulcet voice of a British officer. He was the captain of a British destroyer who had Princess Anne on board. As Patron of British Historical Sites, she was taking a visit to the heritage listed Vernadsky.

“Vernadsky, Vernadsky, this is HMS....., Her Royal Highness is ready to lift off, are you ready to receive her?”



Photo 54. Cuverville Island, Antarctica.

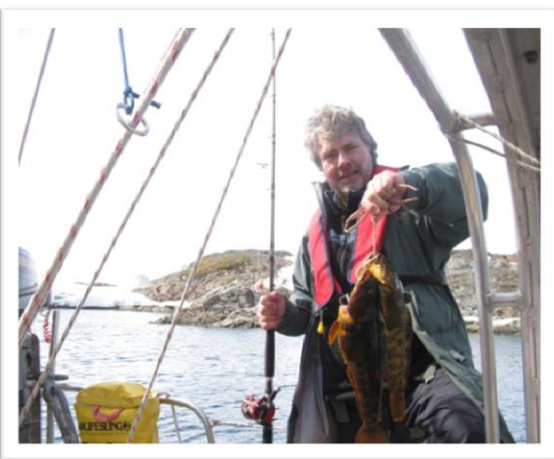


Photo 55. Piscatorial sampling, Antarctica
Cod - a welcome change for dinner.



Photo 56. 'Spirit of Sydney' in Antarctica.

Reply: not a bo-peep.

Daryl, who was Skipper for that trip, immediately realised what was up and jumped on the radio.

“HMS, this is Spirit of Sydney, we are anchored off Vernadsky and it is obvious they cannot receive your transmissions. They are carrying out emergency welding repairs on the tower; can you hold Her Royal Highness’ departure?”

Daryl jumped in the zodiac, screamed ashore and ran through the base – *“get out of bed you bastards – she’s coming!”*

They staggered out still slightly comatosed from the previous night’s vodka session, just as her chopper landed. But where was the cake? They found the cook and he arrived with the cake just as she walked in. Where’s the cutlery? Oh no! Princess Anne, never one to stand on ceremony, grabbed a piece by hand ... or so the story went. After bringing the sugar we had a great night too.

I had been trying to do some piscatorial sampling (fishing), and though persisting under extreme conditions I had no luck. I had snagged a Crocodile Icefish (Channichthyidae) in Puerto Williams and was amazed at its physiology. Their blood is colourless because it contains no haemoglobin, the only vertebrate to lack red blood cells. The fish can live without haemoglobin because of their low metabolic rate and the high solubility of oxygen in water at low temperatures (Wikipedia 2014).

I asked one of the Ukrainian officers who had had a few vodkas, where was the best spot for fishing. He suggested a location and that I bait with meat. I set up a three hook rig with beef, roast lamb and bacon and went fishing beside an iceberg. It was the roast lamb that worked a treat and I got a couple of lovely Antarctic Cod (Nototheniidae), an oily, plump fish that was bright yellow underneath. Apparently their adaptation strategy to survive freezing waters is based on lots of antifreeze, glycopeptides, in their blood. The little Cod were most welcome on board as a change from the fatty Argentinean beef we had been supplied. I suggested that with all the glycopeptides in us we could get down to three layers tomorrow – it wasn’t much of a theory.

Our Ukrainian hosts were most generous towards us and other yachties – a marked contrast to six years later (2013) when we were trying to enter the Ukraine to attend Apimondia, the international beekeeping conference. Due to airline changes we were detained in Kiev under guard for 13 hours with the other ‘illegals’: I was wishing I was back with their happy colleagues in Antarctica. Two months later Ukraine was to erupt with the Soviet invasion of Crimea.

We headed for the Drake for our return crossing only to retreat to the Melchior Islands, for it was blasting 75knts at the Horn. After holing up for a couple of days and with flights to catch, we headed back out into the Drake and on day 2 it was snowing whilst on the helm. On the 3rd day the sea state was worse, up to 35knts on a 5m swell. My reality check one night on the helm was looking back at this big black thing curling up behind the boat. Just what my stomach needed. Our watches were already two hours on and four off as one of our fellows was bed ridden.

I was very crook too and became progressively weaker. I said to Ben that I was concerned I could not safely control the boat with such a lot of sail up. Ben was happy to take the helm for my watch and suggested I keep watch with him. I made it a challenge not to miss a watch: it was a close run feat. After each watch I'd collapse on the bunk often with life jacket and wet shell jacket still on. Water at -0.8C was trickling down the foot of the mast beside my bunk anyway. After a while I'd get the life jacket and wet jacket off. But the jarring through the hull made it most uncomfortable until you drifted off. I started hallucinating from the cocktail of seasick pills. Then a shake, "*your watch.*" Climb out of the bunk, fly straight into the other side of the boat, wedge yourself in the hatchway to get the shell jacket on, then the life jacket, but by the time I got the simple buckle together, my stomach was not together, crawl on deck, feed some fish and take up position. On day 4 the long-awaited Cape Horn came into view through the gloom, a foreboding sight to many a mariner. We had been blown east and there was nothing for it but to drop sails and motor for the sheltered islands behind Cape Horn. With the westerly still blasting we could only make half a knot, the final cruel stroke in sight of land. Ships of old were regularly blown back from rounding the Horn. What pleasure to hole up in a quiet little inlet on Herschel Island.

They say there is a condition called 'green out' for those returning from Antarctica: certainly the green mountain ranges took on a brilliant colour. Late the next day we arrived safely back to the *Milcalvie* bar in Puerto Williams for a long awaited Pisco Sour or three. A slow sail up the Beagle to Ushuaia made the yearning even greater for a long hot shower, our water maker had broken down on our outward leg, and a few *cervezas*.

Antarctica is awe inspiring, you feel such insignificance on this huge continent of rock and ice, but there is fragility. I found it amazing how simple the food chain was, e.g. zooplankton → krill → whales: any perturbation could easily upset this fragile ecosystem. Quietly sailing amongst the penguins, seals and whales was a fantastic way to experience a very small part of this magnificent continent.

I flew back to Santiago and was introduced to Chilean hospitality and the sights of Valparaíso. A year later, I was back to Chile, there was much to see and experience.



Photo 57. Street art in the World Heritage listed 'Historic Quarter of the Seaport City of Valparaíso, Chile'.

Forest Policy

In 1992, the *National Forest Policy Statement (NFPS 1992)* was agreed to by all States and Territories, except Tasmania at that time. Paul Keating was Prime Minister and Wayne Goss the Premier of Queensland. This followed Australia's endorsement of the Global Statement of Principles on Forests and the signing of Conventions on Biological Diversity and Climate Change in Rio de Janeiro in 1992. This Statement called for:

'... a comprehensive, adequate and representation network of dedicated and secure nature conservation reserves for forests and reserves for protecting wilderness.'

The Forest Statement established a Steering Committee of the Australian and New Zealand Environment and Conservation Council (ANZECC) and the Australian Forest Council (AFC) known as JANIS (Joint Australian National Forest Policy Statement Implementation Sub-committee). The JANIS brief was:

'to make recommendations to the Governments on broad criteria on which to base reserve systems to protect the nature conservation values of forests. 'Specifically, this Statement called for a 'working group to develop criteria on how the forest reserve system would be based on the principles of comprehensiveness, adequacy and representativeness as well as the protection of old growth forests and wilderness.'

I was appointed chair of this technical working group and gathered together colleagues from the other States and Territories to develop the criteria. The initial drafting was taken up by one of us, Dr Jim Shields from NSW. The Interim Biogeographic Regionalisation of Australia (IBRA) was settled on as the underlying basis for developing the reserve design criteria. The work that Gethin Morgan and I were doing to define the conservation status of rare and threatened regional ecosystems also informed the development of forest criteria.

As we reported back, major arguments raged in JANIS with the Directors of Forestry from the southern States who were particularly keen to retain as much as possible of the native forest estate and particularly, old growth forest for logging. A compromise had to be struck and the *Nationally Agreed Criteria for the Establishment of a Comprehensive Adequate and Representative Reserve System for Forests in Australia* was published after much debate (JANIS 1997). The Commonwealth Department of Environment dug in for 15% of the pre-European distribution of each forest type to be reserved, much to the chagrin of the forest Directors from NSW, Victoria and Tasmania. The Committee accepted total protection of rare and threatened ecosystems and species, but the foresters would not go beyond 60% protection of old growth. This was a hard won deal.

Following the release of the forest reserve criteria, the Commonwealth organised public workshops in each of the States. One was organised in Queensland and I assisted the Commonwealth officers to present the outcomes. The more vocal elements of Queensland's conservation movement would have none of it. Their aspiration was the

total closure of all native forests to logging. They directly moved their agenda to a political level and convinced the Beattie and Bligh governments that this was the most significant conservation issue in the State.

Many of my professional colleagues and I were troubled by this ‘squeaky wheel’ approach to nature conservation. To us it was an ideological position, not one based on science to protect biodiversity and other resource values, or to determine State-wide conservation priorities. In fact, it looked more like grabbing easy conservation gains, ‘the low hanging fruit’, whereas more highly threatened ecosystems and species existed elsewhere, particularly in the semi-arid and arid areas. Conservation of these pastoral areas as demonstrated above, were the ‘hard yards’ to be won. Conservation priorities were now being established to favour the allocation of green voting preferences.

Furthermore, Queensland’s logging regimes differed markedly from those of southern States. Queensland’s logging of forests was based on selective logging of individual trees for hardwood (and cypress pine) timber, not the open coupe logging as in the southern States, which in many cases was for export of low value woodchip. In Queensland, considerable scope existed for strict ‘Codes of Practice’ for native forest harvesting to be applied to protect key conservation values, in addition to the reservation of a representative forest reserve system. By stipulating sustainable forest management, scarce conservation dollars would not be tied up on managing former State Forests and allow protection of other more vulnerable areas. Subsequently, areas like Barakula State Forest, part of the western hardwood forests, were left as a wildfire time bomb as commercial forestry pulled out and fire trails fell into disrepair. At times this debate became acrimonious and personalised against some of my colleagues and staff: this was most galling. Considerable work was done by Damien Moloney and Jeff Bedford in my group together with the Department of Natural Resources on determining sustainable forest management (SFM) regimes (*e.g.*, Smyth *et al.* 2000). These efforts were to no avail in developing a balanced forest policy.

The argument was put that Queensland forests were of limited economic value versus the forests of the southern States. This is true, but Queensland forests are still important for many small towns, for employment where few other jobs are available, and for a range of uses if sustainably managed. Many State Forests were gazetted as parks, but further conversion to parks, particularly the western hardwood and cypress forests, was stopped following a change of government in Queensland led by Campbell Newman.

Vegetation Management

Queensland has had a dubious recent history over vegetation clearing. The rate of clearing in the 1990s and 2000s being up to half a million hectares per year, meant that clearing pushed increasingly into more marginal areas. Further, there was little regard to protecting key habitats or vulnerable parts of the landscape. These important and vulnerable parts included riparian corridors besides watercourses, clearing of steep slopes, erodible soil types, habitats of key species and vegetation types that had been cleared to such an extent that many species and ecosystems were threatened with extinction.

The legacy of past clearing means that extensive areas could become highly salinised in Queensland as had occurred in other States, where the history of clearing is much older and is discussed below in relation to my work with the Murray-Darling Basin Commission. The Western Australia wheat belt being a case in point, where two and a half million hectares is now severely degraded due to salinity with large areas completely poisoned. On one occasion, Dr John Williams from CSIRO told me when we shared a podium in Emerald on tree clearing, that once you find salinity expressed in Queensland's brigalow creeks, it will be too late to retrieve the situation. Small examples of salinity outbreaks have occurred in the State where the history of tree clearing is much older. When I was at College, their prime lucerne farm near Forest Hill had been destroyed as a result of salt coming to the surface with the rising water table. This was due to over clearing on the Marburg and Minden Ranges many years previously.

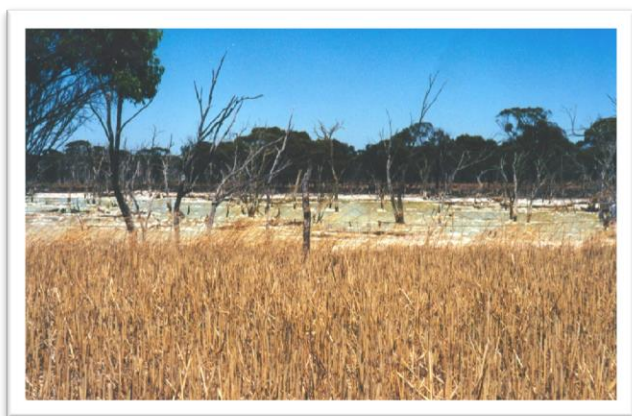


Photo 58. Salt beside a wheat paddock in Western Australia. Millions of hectares have been destroyed.

It is interesting to look at the satellite photos of the southern Brigalow Belt, west of the Darling Downs, which was cleared under the original Brigalow Development Scheme in the 1950s. Clearing at that time had been done by hand or with small equipment and you can see buffer strips and wind breaks left around the fences of paddocks and farms. Indeed, there was a requirement by the Department of Lands that 10% of the property be left vegetated. With the advent of big clearing equipment and chain pulling, this requirement was ignored and clearing occurred from fence line to fence line, horizon to horizon. Lands Department did not intervene.

In 1992, the Department of Lands was amending the Lands Act and provisions of the Act include the requirement for approval of tree clearing on term leasehold lands. This meant that with large parts of Queensland being leasehold land, there was the opportunity to develop rigorous guidelines and regulations to manage clearing.

Working closely with Gethin Morgan who had been trying to get local Department of Lands officers to adopt a more considered approach to clearing approvals, we proposed that a set of guidelines be established for each bioregion that addressed landscape vulnerability and biodiversity values. This followed work that Gethin had achieved that year with local Department of Lands staff and graziers in developing tree clearing guidelines for the Prairie – Torrens Creek Alluvials, which were applied as policy. We drafted the first set of tree clearing guidelines for leasehold lands, the first of many vegetation guidelines that were to follow over the next couple of decades in Queensland. We proposed that amendments made to the Lands Act and vegetation regulations be developed to give authority to these guidelines.

One of the concepts I advanced was the protection of riparian corridors on the basis of stream ordering, e.g., for gullies (order 1 and 2 streams), a 10 - 50m buffer either side of the gully, for creeks and larger water courses (order 3 and 4 streams), this buffer might increase to a corridor of 20 - 100m either side and for rivers (order 5 and 6 streams), the riparian buffer would be larger again.

Again, I exposed this approach to peer review and presented a paper, 'Riparian Zone Management in Queensland and the Northern Territory: Policy and Practice' (*Sattler 1993*), at a National Workshop on the *Ecology and Management of Riparian Zones in Australia* (*Bunn, Pusey and Price, eds 1993*). I sought the assistance of Dr Stuart Bunn who was a leading freshwater ecologist at Griffith University to help convince the Department of Lands and stream ordering was subsequently recognised in legislation.

The criteria that Gethin and I had been working on to define Queensland's Regional Ecosystems (*Sattler & Williams 1999*) and which had been included in the national forest policy formed a solid basis for the vegetation management guidelines.

Upon presenting these guidelines to the Lands Department head office, we were invited to speak to them at a meeting of regional Lands officers from across Queensland. All hell broke loose: the guidelines were seen as hindering rural development. I was amazed at the strongly expressed feelings coming from the rural based Department of Lands officers who saw their role as promoting industry development, as distinct from sustainable resource management. It was the first time that conservation values had intruded directly into their decision making.

Our Department remained solid for a more judicious approach to 'broad acre' vegetation clearing and prevailed politically with the support of my Director, Ross Rolfe. This resulted in regional vegetation management guidelines being developed with landholders around the State: a difficult task carried out by many of our department's regional officers.

In March 1995, the Queensland Government introduced the draft State-wide tree clearing guidelines for leasehold and other Crown lands. There was also a parallel consultation proceeding within Lands under the oversight of Geoff Edwards. After extensive public debate, often very angry debate, revised guidelines were approved in December, 1995. Later this reform process would extend to freehold lands with equal dispute.

Though I had little involvement with the development of vegetation policies for freehold lands, it occurred to me that some landowners could unfairly suffer considerable financial loss from blanket controls even if these were tempered by local guidelines. Rod Fensham and I developed a method for calculating financial assistance where clearing controls extended beyond a reasonable duty of care to protect vegetation in terms of the landscape vulnerability and biodiversity values. We suggested that for each land type within a property, that a duty of care be determined where clearing did not occur and would take cognizance of soil type, slope, the location of riparian corridors, threatened species and the status of regional ecosystems, etc. Controls over the clearing of remaining areas would then be subject to financial assistance. We developed a paper titled 'A proposal for financial assistance and a duty of care to accompany legislation controlling remnant native vegetation clearing on freehold land in Queensland' (*Fensham and Sattler 2002, unpubl.*). On the eve of this paper being published in the Australian Rangelands Journal, the editor was heavied by Queensland bureaucrats to withdraw the paper. I did not push the issue as Rod was still in the employ of the Queensland Public Service and vulnerable to retribution. I remain convinced that had the government funded such an arrangement to partially compensate, or offer financial assistance through a mainstream valuation exercise, then it would have been much harder for the subsequent State (Newman) government to unravel vegetation clearing controls.

Council for Sustainable Vegetation Management

Conservation groups were pressuring the Commonwealth Government to be more proactive in vegetation management from the mid 1990s. I was invited by Senator Robert Hill to sit on a new national vegetation advisory body, the Council for Sustainable Vegetation Management (CSVM). I think I had Liz Bourne, Co-ordinator of the Queensland Conservation Council to blame for putting my name forward. This appointment was not as a representative of the Queensland Government but as a personal, technical appointment.

The CSVM role was to review vegetation management around Australia and provide advice directly to the Commonwealth Minister. The Council consisted of a number of landholders from Victoria, Tasmania and Queensland; the Queensland representative being Gus McGowan from AgForce (formerly, the United Graziers Association). Gus was a wool grower running sheep near Bollon and we had been sparring partners for many years, but the lines of communication were always kept open. The Council was ably chaired by Dr Nigel Monteith and we met on numerous occasions in all States and Territories and provided considerable advice to the Minister. However, Senator Hill was clearly constrained in how far he could push the vegetation management issue, being in a coalition

government with the rural based National Party. One of the significant roles played by the Council was in recognising the work by the regional groups around Australia who made many representations.

Participation in this broad ranging Council, from July 1997 to December 2001, enabled me to see the condition of vegetation across Australia. This included the devastating effects of over clearing in Western Australia discussed above, and the ‘land of the living dead’ in parts of southern Australia, a term that relates to the ongoing loss of the last remaining paddock trees and the lack of any regeneration.

The Natural Heritage Trust and the National Reserve System Co-operative Program

From 1996-2007, the Australian Government invested \$2.58 billion in establishing the Natural Heritage Trust (NHT) rounds 1 and 2. This initiative was funded by the partial sale and privatisation of Telstra. Substantial additional funds were allocated to natural resource management (NRM) initiatives and to encourage sustainable agriculture.

The Commonwealth decided to set up regional bodies across Australia, essentially bypassing State administrative structures and ignoring much of the research findings and resource management information that had been accumulated by State departments over many decades. Subsequently, the Australian Auditor General (2008(a)) was to find that:

‘...there was little evidence that there has been any substantial movement towards landscape scale repair and replenishment of natural resources as envisaged by the NHT...which suggests that stronger tightening ...towards the highest priorities and most critical national assets is necessary...’

This was a damning finding after the expenditure of some billions of dollars from the NHT and NRM programs.

In contrast, the Auditor General (2008(b)) found that:

‘the National Reserve System program is a cost-effective mechanism for achieving conservation outcomes...’

One of the successful Commonwealth and State/Territory initiatives was to develop scientific guidelines for establishing the National Reserve System (*Commonwealth of Australia 1999*). This underpinned the allocation of Commonwealth funds to meet nationwide bioregional priorities and ensured a high degree of efficacy in the assessment of funding applications for proposed acquisitions and related projects. It also presented a pleasant opportunity to work closely again with my peers in the other jurisdictions.

Ecologically Sustainable Resource Management

From the mid-1990s, considerable debate was occurring over the concept of ecologically sustainable management of natural resources and how progress could be evaluated. The Commonwealth Government put considerable resources into the development of environmental indicators. However, these indicators did not find traction; often they were far too complex and generally had no ownership by other jurisdictions or by those working on the ground.

It was critical that more targeted off-park conservation mechanisms be developed, together with methods to monitor and evaluate ecologically sustainable management. I was closely involved in two conferences to advance this issue with the University of Queensland. I invited to the first conference on *Conservation outside Nature Reserves* (Hale & Lamb, eds 1997), two overseas colleagues, Ken Cox of the North American Wetlands Conservation Council in Canada and Ron Physick of the Natal Parks Board in KwaZulu – Natal, South Africa. I had been very impressed with Ken's work in developing partnerships on private lands to protect wetlands throughout North America (Cox 1997) and also the work of the Natal Parks Board in promoting conservation outside of reserves (Physick 1997). The work of the Natal Parks Board and others in southern Africa was practical and novel, and though grossly under resourced, they were achieving major conservation gains. Both Ken and representatives of the Natal Parks Board had given papers at the Nova Scotia conference that I addressed in 1992. I was able to gain financial support for both to travel to Australia and hosted them at home.

I gave a paper to the conference titled: 'Integration of bioregional conservation planning with ecologically sustainable management: examples from the coastal lowlands and rangelands of Queensland' (Sattler, Morgan & Wilson 1997). Again, we pushed the need for integrated bioregional conservation plans to prioritise conservation effort. We also released the first results of our State-wide assessment of the conservation status of the State's bioregional ecosystems.

To try and marshal the extensive resource management experience at this large conference and advance some clear findings, we pulled together four pages of recommendations (Hale & Lamb, eds 1997). It is always uncertain what impact such conferences have on decision making, but they do encourage valuable professional interchange and camaraderie.

In 1999 we organised the second conference, *Managing for Sustainable Ecosystems* (Hale, Petrie, Moloney & Sattler, eds 2000). I was invited to write the foreword to this publication and took the opportunity to encourage industries to embrace structural reform to achieve sustainability in terms of ecological and socio-economic objectives. Further, it was important for industries to achieve this before community attitudes were polarised. This polarisation was occurring with the forest industry: the stage having been reached where sustainable native forest management was being repudiated as an acceptable paradigm (Sattler 2000(b)). I stressed that Australia was not managing its natural resources in terms of ecological sustainability.

Transport Corridors

In the late 1990s, I chaired a Transport Corridor Committee which brought together transport departments and local government to consider policies and mechanisms to conserve valuable ecosystems or species located on roadsides, rail lines, stock routes and other utility easements. At times these corridors support the only remnants of once widespread ecosystems, such as the Blue Grass downs on Queensland's Darling Downs. These areas are increasingly at risk from road works, construction of gas pipelines, etc.

Rare plant species also occur on roadside remnants e.g., near Clermont, the Belyando cobbler's peg (*Trioncinia retroflexa*) was rediscovered on a roadside and may have survived only due to a peculiar historical disturbance regime (Fensham 1999).

A Transport Corridor Management conference was held and I used the opportunity to launch at the conference a new 'Significant Environmental Area' signage system in Queensland (Sattler 1999). These signs were to signal to road, rail and utilities and other workers that something significant was located there and to seek the appropriate advice. The first sign installed was on the Warrego Highway near Bowenville on the Darling Downs to protect a remnant of Blue Grass.

Box 3. Sojourn to East Africa

For many years I regretted not taking up the reciprocal offer from the Natal Parks Board to visit them, however, my daughter Melita and I did do a daughter/dad holiday to East Africa in 2011. We were lucky to see the Maasai Mara in Kenya as a veritable Garden of Eden with its full complement of wildlife; the blurring pink of flamingos on Lake Nakuru National Park, leopards emerging from the jungle of Aberdare National Park and the Wildebeest and Zebra migrations on the Serengeti. We experienced the vastness of Lake Victoria and heard of the tragic impact of the introduction of Nile Perch on the local fishery that so many lives depend upon, and visited Karen Blixen's homestead (I am an *Out of Africa* tragic).

I caught up with researchers from the Frankfurt Zoological Society on the Serengeti in Tanzania. These guys do valuable on the ground research across the world. Amazingly even with the tourist pressure, poaching and other impacts, they indicated that the Serengeti was in pretty good shape.



Photo 59. Melita on safari.



Photo 60. A cleansing ale on the Serengeti.

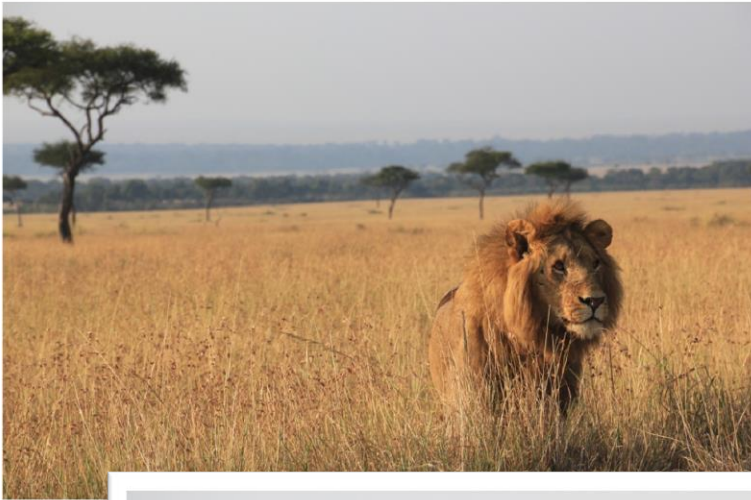


Photo 61. Lake Nakuru National Park, Kenya.

Photo 62. Lion amongst the Kangaroo grass (*Themeda triandra*), a Gondwanaland moment on the Maasai Mara, Kenya.

Photo 63. Wildebeest migration, Serengeti, Tanzania.

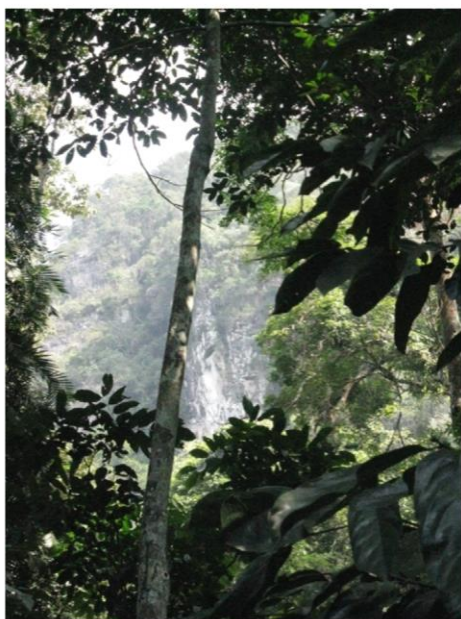
Box 4. Sojourn to South-East Asia

In 2010 I travelled to Vietnam and Cambodia. South east of Hanoi is Cuc Phuong National Park where again I met some of the Frankfurt Zoo's researchers working on the recovery of endangered Lemurs and Gibbons. Their task was not easy, with limited resources and the threat of the captive bred Lemurs and Gibbons when released into the park being eaten by people adjoining the park.

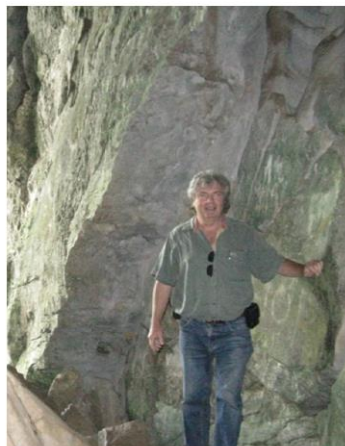
I secured a bottle of plum wine at the park with the following instructions on the label:

*'Cuc Phuong has yellow plums
I use them to make wine for my husband to get drunk
The smell from heaven and taste from earth is very good
Getting drunk and awakening makes him want to stay here for a long time.'*

After leaving the northern part of Vietnam, with many happy memories of Ha Long Bay, except for the depressing air pollution, and a delightful trip to Sapa and meeting the Hmong and Tao peoples in the highlands, I headed for the Mekong. The first impression of the massive Mekong Delta was its vulnerability to sea level rise and salt water incursion. This is the principal location of Vietnam's rice production which feeds millions of people and provides valuable export earnings. A 15cm change would be disastrous and already, some salt incursion is occurring.



Photos 64 & 65. Cuc Phuong National Park, Vietnam: dense rainforest on limestone. Standing in the cave of prehistoric man whose remains date to 7500 bp.



I continued by boat up the Mekong to Phnom Penh and thence up the Tonle Sap River to Siem Reap. These two rivers are part of a magnificent river system that support millions of people and unique wildlife but its long term sustainability is of great concern. With the Mekong flowing through the jurisdictions of five governments, its management for the overall good of the river system will require the wisdom of Job and much compromise. Already major hydroelectricity schemes are proposed by Laos and others which could significantly alter the flow characteristics of the River. And the Murray-Darling Basin Commission in Australia thinks they have it tough managing the sustainability of our premier river system!

In 2011 I returned to Cambodia and was again disheartened by the seeming growing extent of corruption and the impact of questionable logging operations. In fact, the largest remaining lowland rain forest in Cambodia and on the Indochinese Peninsula, the Prey Lang forest, remains unprotected with disturbing stories of rough handed tactics employed on local indigenous peoples. Major forest disturbance is occurring. Though by far the most disturbing, was the suffering by the survivors of the Pol Pot genocide awaiting the outcome of painfully slow process of the international war crimes court hearings against the few that the government had sanctioned to be tried.

My concern over the disappearance of rainforests was heightened by driving around parts of Malaysia where palm oil plantations extended as far as you could see with not a remnant of natural vegetation to be seen. The efforts by conservation groups to promote sustainable palm oil production are to be commended. This initiative is limited now by the lack of demand for sustainably produced oil from unaware western consumers. The Heart of Borneo project by WWF is one example of a great project to try and secure critical habitat for Orang-utans and other species.

Chapter 18: Publication of 'The Conservation Status of Queensland's Bioregional Ecosystems'

As indicated from the start of this story, Queensland had been disadvantaged from having poor data upon which to plan for conservation and sustainable resource management, in fact the poorest of any State. Vegetation and land system mapping existed only for parts of Queensland. This was highlighted when I set about analysing the representativeness of the National Parks system for my Presidential Address to the Royal Society of Queensland in 1986. Increasingly, with the advent of new conservation policies such as the doubling the National Park estate in 1989, and new vegetation management policies from the mid-1990s, the need for comprehensive assessment of Queensland's ecosystems became urgent.

Gethin's approach to define regional ecosystems was based on identifying in each bioregion, those ecosystems that represented a distinct combination of vegetation in relation to a land zone, a unit combining geology, land form and soil. This represented a more comprehensive basis for the identification of ecosystems than relying upon vegetation patterns *per se* as it recognised ecological processes operating at a landscape scale. Such units would have applicability for sustainable resource management as well as for nature conservation as it recognized differences in soil productivity and degradation potential. I formed a team of botanists and ecologists from within the Department from 1992 to 1999 to further develop and apply this classification across all 13 bioregions of Queensland. This classification enabled us, in the absence of a comprehensive mapped data, to identify the distinct ecosystems of each bioregion, assess their remaining extent and determine their conservation status and reservation status. This analysis relied upon reviewing local mapping and other data where available and importantly, on capturing expert local knowledge.

This was a difficult task as few of us other than Gethin had little more than a rudimentary knowledge of geology and geomorphology. Gethin played a pivotal role in developing the basic suite of land zones, and vegetation communities within each land zone were then identified by the team to describe regional ecosystems for each bioregion. Later in the process, the Queensland Herbarium obtained the assistance of geologists from the University of Queensland. In fact, we were ready to publish in late 1997, when we realised that we had not followed a proper geological time sequence in the description of land zones and all regional ecosystems had to be reconfigured.

Workshops were held around Queensland on each bioregion to identify ecosystems, their extent and status, and any other special ecological values. These workshops were

organised by Rebecca Williams who collated the extensive information that local staff and other experts had on ecosystems and vegetation.

The 13 bioregions were also divided into subregions (originally known as provinces) by Gethin to delineate significant differences in landscape pattern within bioregions. This step was based on his developmental work and that of his partner, Jenny, in the late 1980s (*Morgan & Terrey 1990*). We settled on some 1,085 regional ecosystems across Queensland which were defined by:

- *the bioregion;*
- *the geomorphic category or land zone that the ecosystem falls within (e.g., all regional ecosystems occurring on basalts are grouped); and,*
- *the dominant vegetation.*

We classified conservation status based on the remaining extent of regional ecosystems in the bioregion against the pre-European extent together with its condition and the presence of threatening processes. The classification status was defined into three classes:

- *endangered, less than 10% of pre-European extent remains in an intact condition;*
- *of concern, 10% – 30% remains intact;*
- *not of concern, over 30% remains intact.*

Criteria for rare and naturally restricted regional ecosystems were also developed. Reservation status was determined in relation to the extent of regional ecosystems within existing parks. Special ecological values were identified and included the occurrence of known rare and threatened flora and fauna species associated with regional ecosystems listed.

Of the 1,085 ecosystems, 107 or 10% were classified as ‘endangered’ and 243 or 22% were classified as ‘of concern’; not a good report card.

Considerable pressure was being put on us to finish this report, as the debate over tree clearing was increasing and moving on to freehold lands. However, we paused and had the work peer reviewed by our colleagues in the Western Australian, Department of Conservation and Land Management.

We finally published *The Conservation Status of Queensland’s Bioregional Ecosystems* as a handsomely illustrated book to justify the work of ten years and its importance for State-wide planning (*Sattler & Williams, eds. 1999*). Ten authors described the regional ecosystems of each of the 13 bioregions and numerous other staff assisted. I contacted the Minister’s staff and tentative arrangements were started for an official launch. I also put a few copies in the Naturally Queensland shop, the Service’s bookshop. On returning from a Council for Sustainable Vegetation Management meeting in Canberra, I was immediately summoned to the Director-General’s office.

I was informed that I had produced a “*negative document for your own political ends*”. Furthermore, “*what are you going to do about the copies in the bookshop?*”

There was no way that I was going to remove the book from sale and allow it to be buried. Over the preceding couple of months, new management had taken over as part of a reorganisation and conversion of the Department of Environment and Heritage to an Environmental Protection Agency. The book took the new head of department by surprise and I had run into some very big egos. It was also the period, with the advent of the Beattie government, that we finally lost the best of the tradition of the Westminster system for public administration in Queensland where the public service provided frank and fearless, and independent advice. Now it was an era of second guessing ministerial and political whims. Within days I found myself with no staff, no budget and in case I did not get the hint, no windows – my desk had been removed from my office to a dark space. Needless to say, the proposed ministerial launch was squashed.

Something completely unexpected then occurred: peers, colleagues and professional acquaintances from around Australia heard what happened, contacted me and complimented us on our ground breaking work. This support was much appreciated at the time: these were the people that really counted. I specifically recall sometime later, Professor Geoff McDonald’s lengthy and embarrassing praise when introducing me to give a paper on vegetation management to the *National Conference of the Environmental Institute of Australia* (Sattler 2002).

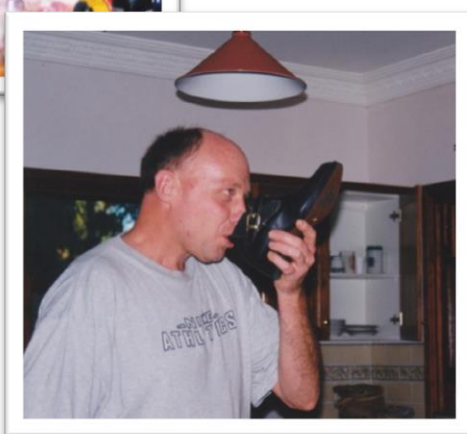
The genie was out of the bottle: within 12 months, the publication was directly referred to in two pieces of legislation, new mining legislation and in the new vegetation legislation.

Sincere thanks are given to the National Parks Association of Queensland (NPAQ) and particularly to their long standing member, George Haddock who quietly supported my work over the decades. They also provided financial assistance towards the publication costs of the book. The NPAQ has been the longstanding and successful supporter of Queensland’s National Parks for more than 80 years; always quietly advocating and promoting its expansion in the background.

Dr John Neldner, Bruce Wilson and other colleagues from the Queensland Herbarium rolled out regional ecosystem mapping program across the State and over the next 15 years, all of Queensland would be systematically mapped with a number of mapping teams in the field at any one time. The Queensland Herbarium under the Directorship of Dr Gordon Guymer had finally achieved the major goal of comprehensively mapping the ecosystems of Queensland. This has been a great achievement for conservation and for resource management more broadly.

Some years earlier when we were struggling to get the publication to the starter’s gate, Peter Young, one of the contributing authors, jokingly said that: “*if we ever get published, he would drink champagne from Kate’s shoe*”. Kate Gamble was my personal assistant who did a magnificent job in preparing the manuscript to a perfect ‘camera ready’ stage. I

hosted a book party at home to thank the authors and all who had been involved, and yes, Peter drank champagne from Kate's shoe.



Photos 66 & 67. Book party and Peter Young drinking champagne from Kate's shoe.

The authors who described the regional ecosystems for each bioregion were:

North-West Highlands, Gulf Plains, Einasleigh Uplands, Desert Uplands	Gethin Morgan
Mitchell Grass Downs, Channel Country and Mulga Lands	Bruce Wilson
Cape York Peninsula	John Neldner
Wet Tropics	Steve Goosem, Gethin Morgan and Jeannette Kemp
Central Queensland Coast and New England Tableland	Peter Young
Brigalow Belt	Peter Young, Bruce Wilson, Julianne McCosker, Rod Fensham, Gethin Morgan and Peter Taylor
South-East Queensland	Peter Young and Hans Dillewaard

One of the repeated shortcomings of the Queensland Public Service and governments generally, is the little value they place on preserving corporate knowledge as staff depart. I therefore closeted myself away and collated all the information I had accumulated on National Park proposals across the State and the key proposals that would achieve the goal of 80% representation. An economic analysis was presented to help justify any new funding initiatives and to help access Commonwealth funding assistance. Nobody was listening and the department's acquisition program stalled.

A few weeks later the phone rang: it was Col Creighton who I had previously met when he was with the Department of Primary Industry in North Queensland. Col now headed up the National Land and Water Resource Audit in Canberra, a \$30 million initiative set up by Senator Robert Hill to assess the condition of a range of natural resources across Australia. The Audit was entering the final year of a five year program and Robert Hill belatedly decided that biodiversity should be included in the assessment. Col asked me would I co-ordinate the national biodiversity assessment. I was on the next plane to Canberra. My future no longer resided with the Queensland Public Service.

Box 5. Sojourn to The Middle East

Before starting with the Audit, I attended the World Environment Conference in Amman, Jordan, held in October 2000. A notable highlight was the opening of the congress in the Roman amphitheatre in the old part of Amman; Mark Anthony had sat there.

Following delightful flute and pipe music from the Royal Jordanian Band drifting out on the still desert air, the conference was opened by Queen Noor, a very gracious lady and Patron of the International Union for the Conservation of Nature (IUCN), on behalf of His Majesty King Abdullah II.

She gave a very thoughtful address, saying that she feared conflict in this part of the world over access to diminishing natural resources; water being a case in point with over utilisation of the River Jordan and diversions of the Tigris and Euphrates Rivers upstream of Iraq. This was a view before the sectarian violence erupted across the Middle East, or perhaps, it was a much longer term view of the pressures that will face humanity, especially in this part of the world. I jotted down some of Queen Noor's address:

'In this Roman amphitheatre where thousands have gathered at the cross-roads of civilization, it is appropriate that we gather to chart the world's environmental agenda.

Without environmental security we cannot have political and economic security – the next Middle Eastern war could be over water – the water dilemma being an example of the need for environmental management. Such management can promote a wider peace – a code of ethics is needed.

Wealth breeds indifference.

Poverty breeds desperation.

Conservation must speak the language that people understand.

People must be transformed to be guardians not predators of biodiversity. All religions unite for their respect for nature –the three pillars of Islam are the same as for IUCN...'

Indeed, David Kilcullen, an Australian counter insurgency officer, identifies that the Syrian war that started in 2011 was partly in response to the lack of water due to mismanagement, changing rainfall patterns and urban growth aggravated by the influx of Iraqi refugees (Kilcullen 2013). His book *Out of the Mountains – the coming age of the urban guerrilla* is a disturbing description of future conflict. But conservation achievements even in the conflict ridden Middle East are occurring. Iraq's first National Park was established in July 2013, the Mesopotamia Marshland National Park, in the delta of Iraq's great rivers - good on them!

I travelled from Bangkok to Amman on Royal Jordanian Airlines and was seated amongst some burly Iraqis. After a while I asked them what they did. “*Why do you want to know?*” was the reply. I convinced them I was an Australian merely going to a conference and had no axe to grind. They then informed me “*they had been in China selling (buying?) air conditioning units*”: mmmm that’s interesting. At Queen Alia airport they helped out and gave me a lift to my hotel in town in the back of their van. I would have declined such hospitality these days.

I stood on Mt Nebo where Moses saw the Promised Land, ‘the land of milk and honey’, and saw only desert extending to the Dead Sea.

Apparently, this extensive desertification has occurred only in recent centuries. I travelled east of Amman along the road to Iraq and interestingly, the frescoes in one of the old desert castles, Qasr Amra, a UNESCO World Heritage Site, depicts luxuriant hunting scenes and large animals. It was built as a sporting retreat in the eighth century; now it stands beside a dried out wadi. Elsewhere, such as Qasr Azraq, a number of oases and lakes have dried out as recently as the past 20 years from over utilisation of ground water.

The day before the Congress I arranged to meet up with Marc Hockings from the University of Queensland - Gatton to do a little trip. I approached the concierge and yes, he had a cousin with a taxi. Early next morning we met Ali who arrived in an immaculately restored 1974, bright yellow Mercedes; we would be visible if we got lost.

We set off for Dana Nature Reserve in the southern part of the country. Dana was the first park in Jordon set up along the lines of our National Parks with impoverished villagers now earning income from tourism and making silver jewellery in return for reducing grazing pressure from goats and donkeys.

As the day wore on we started to get to know Ali who was a delightful Palestinian lad, had trained as an interior decorator but could not find work and was now driving a cab. He and many Palestinian people I met were generous in spirit and willing to share simple things. We asked him did he have a girlfriend? This was met with much excitement – he had the most beautiful girl in the world! We said that was great; but wait there were problems. She was from Iraq and spoke a different language; she was Christian; she liked Heineken; and, there was to be no tom-foolery before marriage, but hey, he was overcoming all – she was the most beautiful girl in the world. The telling took some time with much excitement and laughter. Suddenly we found we were completely lost; somewhere in Jordon was our new address. We did reach Dana, but the gates were shut for the night.

Desert landscapes are fascinating: Wadi Rum with its rocky outcrops amongst the shifting sands and herds of goats watched over by the Bedouin who seem to have unfettered access to common lands. The Egyptian Desert, different again and often within metres of the Nile. I was fortunate to see such places in those relatively stable times.



Photo 68. Mt Nebo and 'the land of milk and honey', now desertified: Jordon.

Photo 69. Dana Village and Nature Reserve, Jordon.



Chapter 19: Eco-Consulting

The National Land and Water Resources Audit

Conducting a comprehensive assessment of Australia's terrestrial biodiversity in a 12 month timeframe was going to be a tall order. I immediately called together colleagues from each State and Territory and the Commonwealth, to develop a detailed structure and to agree on the particular biodiversity components that should be reviewed. This was the core group that worked together and had variously contributed to the HORSCERA enquiry, forest policy and the national reserve system working groups and in other fora. The co-ordinating group was: Norm McKenzie - WA, John Woinarski - NT, Tony Robinson - SA, David Parkes - Vic., Louise Gilfedder and Dave Peters - Tas., Mike Cavanagh - NSW, David Shorthouse - ACT and Andrea Leverington - Queensland. Other contributors included Andy Burbidge, Tim Bond, Bob Inns, Chris Mitchell, Steve Garnett, Wayne Martin, Sally Egan, Richard Kingsford, Peter Bosworth, Bruce Cummings - NRSP, and Craig James and Judy West from CSIRO.

I was given a budget of \$1 million from the National Land and Water Resources Audit (NLWRA) which I immediately offered to the other States and the Northern Territory as seed money for them to employ dedicated staff to work on the assessment plus some funds for speciality consultancies from CSIRO. In the end, the States and Territories contributed at least another \$2 million in kind and up to 40 staff were involved Australia-wide.

We developed a detailed set of criteria to assess the condition, trend and threatening processes of biodiversity in each of Australia's 85 bioregions and the 384 subregions. Fortunately, Gethin Morgan was finishing a contract with the Audit reviewing: *Landscape Health in Australia – A rapid assessment of the relative condition of Australia's bioregions and subregions (Morgan 2001)*. This project required Gethin to finalise the boundaries of the subregions with State and Territory agencies across Australia.

The biodiversity assessment included: wetlands and riparian zones; the identification of threatened ecosystems across Australia; the condition, trend and threatening processes on threatened species and ecosystems in each subregion; special analysis of birds, mammals, eucalypts and acacias; assessment of the representativeness of the National Reserve System; review of off-park conservation and the need for landscape recovery; and, 14 regional case studies stratified across six landscape stress classes. These bioregional and subregional case studies were included to provide direction on how integrated bioregional and subregional conservation strategies could be developed across Australia, a proposal we had long argued for, e.g., the HORSCERA Enquiry in 1992. This comprehensive

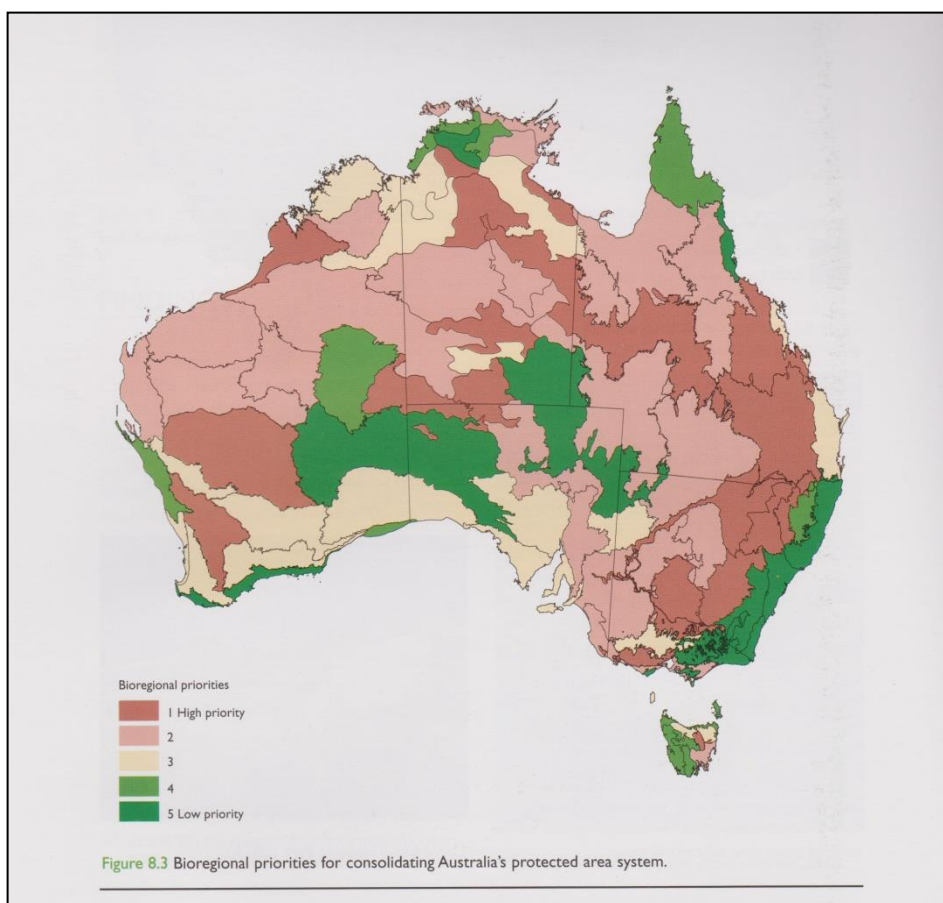
information was intended to inform all levels of government and non government stakeholders involved in conservation and resource management and especially, in the regional delivery of conservation programs, which had been less than well informed with the roll out of the NHT program. It also enabled nation-wide priorities to be set and vice versa, to allow local issues to be put in a bioregional and national context.

Key findings of the Assessment (*Sattler and Creighton 2002*) included:

- the identification of 2,891 threatened ecosystems with one-third of Australia's bioregions having a significant proportion of ecosystems threatened;
- 42 or nearly half of the bioregions to be of high priority to develop a fully representative reserve system;
- the condition of many wetlands were good but declining, and poor across southern Australia;
- riparian zones were degraded and their condition declining;
- mammals, a group where extinctions have been substantial in the last 200 years, were still suffering major contractions in arid and semi-arid areas;
- with birds the extinction debt had not yet manifested itself but grassland, woodland and ground nesting birds were being impacted;
- the importance of determining and recognising irreplaceability of key locations including species endemism in conservation planning; and,
- vegetation clearing, overgrazing, exotic weeds and feral pests, and changed fire regimes were the most significant threatening processes for biodiversity

This review enabled us for the first time, to identify the bioregional priorities for consolidating the protected area system across Australia (see Map 4). This map clearly showed the priority that needed to be afforded to Australia's semi-arid woodlands and grasslands. Twelve years later these bioregional priorities still exist as shown in Taylor, *et al.* (2014).

The enthusiasm of the team was fantastic, especially given the unrealistic 12 month timeline. Rochelle Lawson of the Audit developed a great website (www.environment.gov.au/atlas), which provides ready access for information on the conservation status of each element reviewed for each subregion. Wayne Martin developed a detailed database, the Biodiversity Audit Data Entry System (BADES), which is still being interrogated a decade on. For example, a World Wildlife Fund colleague, Martin Taylor has reviewed the data and found that only subregions across Australia with strictly reserved areas showed a positive trend in threatened species recovery (*Taylor et al. 2011*). This empirical evidence emphasises the importance of National Parks and questions a lot of the off-park conservation effort where the bulk of Commonwealth funding has been spent under the NHT and Caring for Our Country programs.



Map 4. Bioregional priorities for consolidating Australia's protected area system (*Australian Terrestrial Biodiversity Assessment, Sattler & Creighton 2002, fig.8.3*).

Upon completion of the *Australian Terrestrial Biodiversity Assessment*, the Commonwealth Government (with the exception of the National Reserve Section) went cold on the project and did not promote our report or findings even though staff were involved on the Steering Committee. The Audit's biodiversity assessment could have provided on-going comprehensive information to regional bodies in particular, as well as being a useful guide for many national programs. It was obvious that different agendas were being played within the Commonwealth Department of the Environment.

I approached a senior officer with whom I had worked with on the CSVm and asked her what was the problem. She told me: "*you achieved for one million dollars what we wanted an allocation of 10 million dollars for the Department to carry out*". Was this just a bureaucratic game!

I reconvened the original Audit team, including Commonwealth officers, to see how we could build on the first report for a second review, Audit II. We were keen to further quantify assessments where possible, add other components such as soil biota, and to start a process to more empirically assess trend, but there was no Commonwealth support for a

comprehensive follow up. This burnt considerable jurisdictional goodwill across the States and Territories. Similarly, Col Creighton's push for a separate national resource monitoring and assessment body to be permanently established was never acted upon. The National Land and Water Resources Audit program, and then Land and Water Australia, a successful body providing natural resource management advice to rural Australia, were closed down by the Department of Agriculture, Fisheries and Forests. The waste in setting up and then closing these successful Commonwealth programs was staggering.

Later however, we were able to use the NLWRA's *Terrestrial Biodiversity Assessment* as one of the key planks for the 2006 *State of Environment* reporting. I also used the Audit's findings to describe the condition and trend of biodiversity to regional bodies such as the South-West Queensland Natural Resource Management group (*Sattler 2007(b)*).

It was interesting where our efforts were recognised. After release of the Audit Report, I found my efforts being complimented by Germaine Greer (of *Female Eunich* fame) and in her Quarterly Essay *Whitefella Jump up* (*Greer 2003*), she highlighted the Audit's findings. At the time Germaine was managing her own small rainforest block on the Border Ranges.

Murray-Darling Basin Commission

In 2002-2003, I consulted to the Murray-Darling Basin Commission. The principal authority of the Commission relates to the allocation and quality of water, though they do consider some catchment issues with respect to water quality. To extend this remit to broader catchment management and conservation of non-aquatic biodiversity was essentially a bridge too far for the member jurisdictions. Nevertheless, some progress was made in bringing the salinity legacy to the fore, especially relating to over clearing in Queensland.

We commissioned the CSIRO's Division of Land and Water to model future salinity scenarios. This report showed that the legacy of past clearing in parts of the Murray-Darling Basin in Queensland could be a tenfold increase in salinity in streams when salinity is fully expressed in 50 years time. Local and intermediate ground water flow systems were the priority areas for rehabilitation, especially in the extensively cleared and higher rainfall, eastern parts of the Basin in Queensland (*Dawes et al. 2003*). Further, that only a small window of time existed to adopt rehabilitation measures to keep the salt down in the soil profile.

However, action to address landscape repair has yet to be taken seriously, especially to design recovery actions to optimise multiple outcomes, e.g., salinity, water yield, carbon capture and biodiversity outcomes, across a diversity of landscapes. This work was strongly supported by Scott Keyworth who played a major role in advancing natural resource management issues within the Commission. I also recalled that 25 years earlier, I had recommended in my Master's thesis that a dedicated unit for landscape rehabilitation research be established within government.

State of the Environment Reporting

State of the Environment reporting is a statutory requirement of the Australian Government every five years. In 2006, Dr Steve Cork was seconded from CSIRO to the Commonwealth Department of Environment to prepare the biodiversity chapter. I assisted Steve in this project and we relied extensively upon the Audit's *Terrestrial Biodiversity Assessment* data (Cork, Sattler and Alexandra 2006). In fact, it was the only national data set available to assess condition and trend, and to review threatening processes for many biodiversity assets.

Regional consulting

I teamed up with Jason Alexandra, a consultant from Melbourne and we did a number of joint consultancies. One contract reviewed the attributes of what made regional bodies successful. Among the more successful bodies that we identified was the Moreton Bay Waterways and Catchment Partnership. Attributes that lead to their success were an independent scientific advisory body providing solid scientific advice and the publishing of a performance score card each year, which focused public attention on the environmental performance of local councils and others.

Another interesting project was developing a conservation incentive scheme for private lands for a Catchment Management Authority in north western NSW. I developed a transparent sliding scale for financial incentives based on a percentage of the unimproved value of the property and weighted for: the term of the conservation agreement; whether the area would be grazed or not; and, the significance of conservation values.

One of the properties where the owners agreed to manage a large area for conservation was east of Gurly, south of Moree. The area identified for a conservation agreement contained extensive Blue Grass and some Mitchell Grass. These grasslands and grassy woodlands are designated as threatened ecosystems in NSW. This property was only a few kilometres from Terry Hie Hie where Harry Sattler owned the sawmill before the family moved to Queensland from Moree in 1915; I had come full circle with my family history. The owner of the property also had a 1909 docket from Grandie for some timber, see Part III Figure 2(a).

Another conservation agreement reached was on the Gwydir floodplains in North-West NSW. Unbeknown to me whilst negotiating the terms of the agreement in his kitchen, the landowner was illegally clearing a large swath of country elsewhere on the property. Part of his defence at the resulted court case in Sydney was that I had told him that this would be the best way to control the weed, Condamine Couch or Lippa (*Phyla canescens*). I gave no such advice as this would not control and potentially encourage the spread of the weed. He was found guilty and received a heavy fine. Tragically, whilst writing this Memoir, a NSW vegetation compliance officer was fatally shot in the back in North-West NSW.

I was nominated by the Redland Shire (now City) Council, my local council, to serve on a Greenspace Environment Committee. This local government area falls within the key koala habitat zone in southern Queensland. Koala populations are crashing due to rapid urban development and the associated problems of habitat fragmentation, increased cars and dogs. However, I fear our committee was more for green-wash than achieving any real constraints on development.

Chapter 20: Honours

In 2004, I was pleasantly surprised to receive the honour of the Medal of the Order of Australia (OAM). The citation reads:

'For services to biodiversity conservation, particularly in assessing and protecting the values of conservation in Queensland.'

It was particularly nice to share the award ceremony at Government House with my two daughters, Seola and Melita, Mum, and my sister and brother in law Val and Bob.



Photo 70. Bob, Val, Melita, Seola, Mum and author at Government House, 2004.

Chapter 21: Jane

Jane, a very close friend, lost her battle with breast cancer at a young age. Throughout her convalesces from chemo treatments she sought solace and a 'connection' with nature, living in her van within the rainforests of the Scenic Rim.

Jane made a bequest to the Bush Heritage Australia to support land being purchased for nature conservation and a plaque to the generosity of Susan Jane Davey hangs inside the shed on Edgbaston Reserve. Edgbaston was chosen to commemorate her life and generosity as it was a proposed park that I had been working on around the time of her death.

Jane is also sadly missed by my two daughters.



Chapter 22: World Wildlife Fund and Humane Society International

In early 2000s, I was invited to be a Governor of the World Wildlife Fund - Australia (WWF) and served on their Scientific Advisory Committee for six years and was then appointed a Fellow of the WWF. The WWF is a sound, scientifically based conservation organisation and I was happy to assist. In fact, I was becoming tired of the bureaucratic games and was more than happy to provide the ‘bullets’ for others to fire.

In 2003, I produced a report for WWF titled *Treasures for Humanity – a gift to the people of Queensland’ to celebrate its National Park Centenary 2008 (WWF 2003)*. This was on the eve of the State election and its purpose was to secure a new park expansion initiative. This report identified 20 key National Park proposals and park extensions across the most unrepresented parts of Queensland. It would reserve about 1,000,000ha of the most biologically important areas, achieve close to 80% representation of ecosystems and improve the protection of 58% of the most poorly protected ecosystems. The initiative was costed at \$48 million for acquisition and an additional \$16 million for management. Of this, \$32 million might be secured from the Commonwealth Government towards acquisition. With help of Andreas Glanznig from WWF, we gained the support of: the National Trust of Queensland; the National Parks Association of Queensland; the Wildlife Preservation Society of Queensland; the Royal Society of Queensland; the Queensland Academy of Arts and Sciences; and the Royal Geographical Society of Queensland. We were not supported by other members of the conservation movement that were focusing solely on the conversion of State Forests to parks.

Little came of this initiative, even though it was supported by seven of the most respected non government organisations in Queensland. Subsequently, five of the 20 proposals have been acquired in total or part, or through the acquisition of a similar area nearby, by the Department and by Bush Heritage Australia. It was not until 2006 – 2007 that Queensland enjoyed a significant boost to acquisition funding, but only a limited amount went towards achieving State-wide bioregional priorities.

In 2007, WWF and IUCN invited me to give the final address at the conference on: *Protected Areas: Buffering Nature against Climate Change*. My address titled ‘Directions for the National Reserve System in the Context of Climate Change’ (Sattler 2007(a)) focused on three main topics:

- the National Reserve System not being fully representative of Australia's biodiversity with many priority areas for reservation occurring in marginal rangelands and the semi-arid pastoral zone where land degradation will be exacerbated by climate change;
- refugia as key areas to protect species in a changing climate; and,
- carbon trading to be designed to maximize opportunities for biodiversity conservation as well as greenhouse objectives.

Subsequently, the Commonwealth made \$250,000 available to CSIRO for research into refugia, but I am uncertain what trickled down, if any, to bioregional planning or conservation actions.

At various times I assisted Humane Society International (HSI), a small non government organisation in Australia which, under the Directorship of Michael Kennedy and with the assistance of others including Rod Holsgrove, has significantly punched above its weight. Many of the endangered ecosystems that were identified in reviewing the conservation status of Queensland's regional ecosystems have been taken forward by HSI for listing under the Commonwealth's Environmental Protection and Biodiversity Conservation Act, 1999.

In 2006, HSI strongly pushed for the development of comprehensive bioregional or subregional conservation strategies along the lines of the case studies that we had presented in the Audit's *Terrestrial Biodiversity Assessment*. I assisted HSI in presenting the case that a fundamental precursor for the delivery of an integrated program for protecting biodiversity, now rebadged 'Caring for Our Country', should be the development of bioregional/subregional strategies (*Sattler 2006(b) and Sattler & Taylor 2008(a)*). We suggested a budget of \$40 million over five years for jurisdictions to develop comprehensive bioregional plans. Further, that until there was a strategic business model based on developing these strategies, informed with the best science, intersected with national priorities and integrating all levels of government, then government delivery would continue to be piecemeal, inefficient and ineffective.

A few of us, including Michael Kennedy, Alistair Graham and Ray Nais (WWF), were wearing a path to Canberra to promote this approach and to strongly comment on the deficiencies of the Commonwealth's proposed 'Caring for Our Country' programme. But the administrators were not listening: after all it would involve working closely with the States and Territories and our proposals all seemed too close to the coal face.

We renamed the bar at the Canberra Airport – the GOG Bar: the 'Grumpy Old Greenies Bar'.

Building Nature's Safety Net

In 2006, I prepared an extensive review of the National Reserve System with Andreas Glanznig of WWF titled *Building Nature's Safety Net – A Review of Australia's Terrestrial Protected Area System, 1991 – 2004* (Sattler and Glanznig 2006). This review plotted the significant progress that had been made over the preceding decade, identified the major gaps in the National Reserve System and promoted the need for Commonwealth leadership and funding support.

More specifically, we reviewed the comprehensiveness, extent, and management standard for the protected area system in each State and Territory and published a report card. Ten outstanding protected areas across all jurisdictions and non government organisations since the inception of the National Reserve System Program in 1992 were acknowledged to give accolades where they were due. In Queensland, the Diamantina and Astrebla Downs National Parks aggregation was recognised as the top protected area achieved for that period. A description of each bioregion and its priority for expanding the protected area estate was also provided by building on and enhancing the Audit's *Terrestrial Biodiversity Assessment* data. This was the first of four such reviews of the National Reserve System (NRS) in conjunction with WWF.

In 2008, I carried out a second review of the National Reserve System for the period 2004-2006 with the assistance of Martin Taylor of WWF (Sattler & Taylor 2008(b)). The second report, *Building Nature's Safety Net, 2008*, focused on the performance of the Commonwealth, State and Territory governments in implementing the National Reserve System targets or 'Directions' that had been agreed to by the Commonwealth, States and Territories. Both of the *Building Nature's Safety Net* reports relied heavily upon questionnaire responses from State and Territory governments which in the main were happy to provide frank appraisals of their progress.

Growth in the National Reserve System was occurring with the estate growing to 11.6% of Australia's land area by 2006, but it was very uneven amongst jurisdictions and bioregions. At the time, Western Australia and Tasmania were the top ranking jurisdictions for expansion in the National Reserve System. Over the whole decade, NSW made significant funding available for acquisitions which focused on the high priority western NSW bioregions: this work was lead through the dedicated efforts of Rob Dick and others.

It was pointed out in our report that:

'The slow progress towards targets is reflected in the very low Australian Government investment which has averaged about \$8 million per annum for the National Reserve System Program.'

It was recommended:

'The Australian Government should as a first step, invest at least \$250 million over 5 years to make significant progress towards . . . comprehensiveness and endangered species targets for the National Reserve System. 'Grants should be disbursed for up to two thirds acquisition and establishment costs ...'

This report was strongly advocated in the halls of Parliament House by Martin Taylor of WWF, Penny Figgis, Chair for Oceania for the IUCN World Commission on Protected Areas, Tom Lovejoy then with Heinz Foundation on a visit to Australia as guest of the Australian Wildlife Conservancy, Evan Hall of the Tourism and Transport Forum and by Michael Looker of The Nature Conservancy. I am sure our colleagues in the Commonwealth National Reserve System Program also vigorously briefed the Minister of the need for significant funding. Penny in particular has played a major role over the years as a great communicator for nature conservation.

Success! The Hon. Peter Garrett, Minister for the Environment, put \$180 million on the table for the National Reserve System program and \$50 million for the Indigenous Protected Areas (IPA) program.

Unfortunately, Queensland did not fully avail itself of this funding. Over the next few years, Queensland would slip to having the lowest percentage area under strictly protected areas (National Parks) of any jurisdiction in Australia (*Taylor et al. 2011(a)*).

Subsequently, I was involved in two further *Building Nature's Safety Net Reports* in 2011 and 2014, through providing assistance to Martin Taylor in reviewing the status of the terrestrial part of Australia's protected area system (*Taylor et al. 2011(a)* & *Taylor et al. 2014*).

I was invited to a reception at Kirribilli House in 2011 for WWF - Australia's 50th anniversary. Robert Hill and Peter Garrett, both former Commonwealth Ministers for the Environment were present. I took the opportunity of thanking them both privately for the significant financial support they had provided to Queensland in the late 1990s and to the National Reserve System Program in the late 2000s. Again, these former Ministers represented opposing sides of politics.

Peter confided that he would like to set up a couple of beehives: I told him he had come to the right place. I had started up beekeeping again: *Mt Cotton Apiaries – beyond organic honeys*.

Chapter 23: Growth of the National Park Estate

In mid 1976, soon after the Service was formed, the National Park estate stood at **0.68%** of Queensland or **1,153,350ha** and then doubled in size by 1980.

In 1985, Graham Saunders wrote in the introduction to the Service's Annual Report:

'Despite all the planning, only a brave man would hazard a guess as to what the Service and its estate ... might be in another 10 years.'

So true, for in the period, 1985 – 1995, the estate grew from 1.98% or 3,425,433ha to 3.81% or 6,586,606ha: this was the golden era of modern times for the expansion of Queensland's National Park estate. Graham would have been delighted.

In 1989, Pat set in train the promise to double the National Park estate, then 3,528,052ha or 2.04% of Queensland. In 1992 at the end of his term as Minister for the Environment, Pat was particularly gracious when he wrote:

'With the staff changes within the Service following the election (1989) Sattler was appointed Acting Assistant Director (Resource Planning and Research) ...and with his team would identify, negotiate, purchase and gazette 2,000,000ha of national park.' (The) *'calendar year 1991 was to be one of the most important in acquisition terms since 1906'* (Comben 1992, unpubl.).

By 2000, National Parks totalled **6,675,829ha or 3.87%** and Conservation Parks totalled a further 34,804ha.

In total, over \$65,000,000 was spent on land acquisition from 1975 to 2000, utilising both State and Commonwealth funding, to secure biogeographic priorities and threatened ecosystems and species. As well as lands purchased, extensive vacant Crown lands, surrendered parts of leasehold properties and the conversion of other park tenures were included in the total acquired as National Park. It would be misleading to calculate an average value per hectare purchased from the overall figures presented here because of the inclusion of those lands not purchased. Further, payments for State Forest lands at Cooloola and to secure mining leases e.g., Moreton Island, and other Cape York acquisitions are not included.

The representation of Queensland's ecosystems, the primary basis for reserve selection over most of this period, from 1975 to 2000, grew from approximately **32%** to **69%**.

Maps 5 and 6 show the distribution of Queensland's National Parks in 1967 and 1997. These maps closely reflect the distribution of parks for the period discussed in this Memoir from 1975 to 2000.

In Queensland, the semi-arid woodlands and grasslands, the arid and semi-arid wetlands, coastal wetlands especially around the Gulf, and refugial areas remain the top priority for future park expansion. Expansion of the park system in these areas will protect many of the threatened and unrepresented regional ecosystems, and greatly assist in the recovery of rare and threatened species.

Details of the overall expansion of the National Park and Conservation/Environmental Park estate are provided year by year from 1975 to 2000 in PART II of this Memoir.

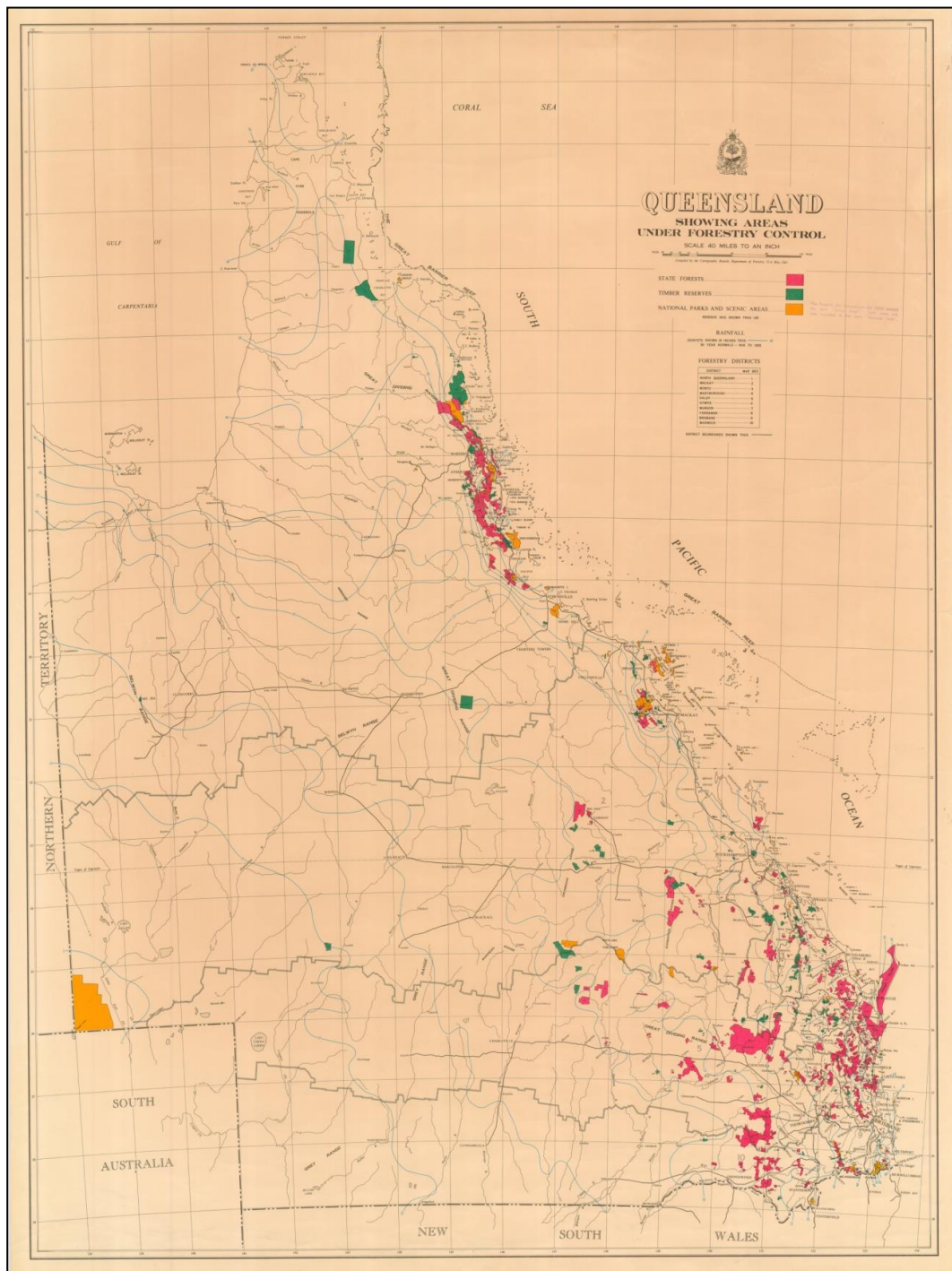
A Final Note

For me personally, it was immensely satisfying and exciting to have been involved at a unique point in history when Queensland's National Parks expanded by over 5.5 million hectares. The increasing scientific approach to nature conservation through key initiatives such as the development of the bioregional ecosystem approach to conservation planning, and the availability of continental studies that have identified nation-wide priorities, such as the NLWRA *Australian Terrestrial Biodiversity Assessment*, have also characterised this period.

The permanent protection of biodiversity through the expansion of National Parks and other secure conservation reserves is the most lasting conservation legacy that we can leave.

Our park system is the cornerstone of nature conservation: it contributes significantly to the maintenance of ecosystem services, underpins our tourism industry and protects much of the cultural identity for both black and white Australians. It is Australia's treasure trove.

Together with the many great colleagues I met and friendships formed along the way, made it a great job. As it transpired, my move from the Queensland Public Service to consulting for the last eight years of this story allowed me to spend lots of daughter – daddy time with my two daughters, Seola and Melita. Helping them to succeed was the greatest priority of all.



Map 5. Distribution of Queensland's National Parks in 1967 (orange highlight)

Map 6. Distribution of Queensland's National Parks in 1997 (green highlight)

PART II - Expansion of Queensland's National Park and Environmental/Conservation Park Estate 1975 - 2000

PART II of this Memoir sets out the details of the annual growth of the park estate from 1975 to when I left the department in 2000.

Annual Growth and Acquisition Funding, 1975-2000

Table 1 provides a summary of the growth of the park estate under the most secure tenures i.e., National Park and Environmental/Conservation Park, and the expenditure on purchases (where known) or funding allocations for each year from 1975-2000.

Expenditure in one year does not necessarily mean that gazettal of the park occurred in that year. Yearly expenditure figures in Departmental Annual Reports, from about 1994-95 onward, appear unreliable and may include unspent funds that were carried forward and shown as expenditure again; this could result in double counting. For the years where actual expenditure is uncertain, the known allocations of new funds are shown in Table 1 and details of funding sources are provided in the yearly tables, Tables 3-27.

Whilst additional funding for political priorities may have been allocated from 1994 on, the combination of expenditure figures in the early years and known allocations in later years, provides an overall sense of funds spent to expand the National Park estate to meet State-wide bioregional priorities. From 1994 on, additional funding for the purchase of Aboriginal lands and Aboriginal National Park lands on Cape York Peninsula also occurred.

Some variation in the area of the estate over some years occurs due to the use of different approaches to determining total size; this is noted in footnotes when such changes were highlighted in Annual Reports. Also, some parks were amalgamated in later years involving revocation and regazettal, often in different years; this influences the picture of real annual growth to some extent.

Table 1. Area gazetted National Park and Environmental Park and expenditure on purchases or known allocations per year, 1975 – 2000.

Year	Area Gazetted (ha)*	Expenditure (\$)	Known Allocations (\$)
1975 – 76	24,806	190,091	
1976 – 77	23,345.5	242,256	
1977 – 78	1,013,645	710,762	
1978 – 79	12,016	874,500	
1979 – 80	638,314	539,589	
1980 – 81	13,121	684,300	
1981 – 82	347,554	900,000	
1982 – 83	77,150	1,250,000	
1983 – 84	63,810	378,771	
1984 – 85	46,076	600,000	
1985 – 86	14,327	675,000	
1986 – 87	68,059	776,505	
1987 – 88	73,069	45,000	
1988 – 89	16,009	0	
1989 – 90	115,281	260,000	
1990 – 91	380,610	10,000,000	39,000,000
1991 – 92	996,689	10,754,000	
1992 – 93	293,135	10,206,000	
1993 – 94	654,799	4,587,000	1,000,000
1994 – 95	165,522	NA	1,000,000
1995 – 96	235,746	NA	7,150,000
1996 – 97	4,806	NA	7,000,000
1997 – 98	100,029	NA	3,720,000
1998 – 99	91,968	NA	3,320,000
1999 – 00	14,537	142,000	

Footnote Table 1:

* Includes vacant Crown lands and surrendered parts of leasehold properties as well as lands purchased.

Increase in Representativeness

Table 2 shows the increase in the representativeness of the National Park estate with increasing area. Table 2 is indicative only, as representativeness is based on varying data sets available at the time. The first assessment from 1908 to 1985 was published in my Presidential Address to the Royal Society of Queensland in 1985 (*Sattler 1986*) and representativeness was based on and the recognition of 218 broad vegetation types across the State and weighted where more detailed data existed for some bioregions. In 1993 and 2000, further estimates of the representativeness of the estate were published based on the increasing identification of the State's regional ecosystems (*Sattler 1993(a) Table 1 & EPA & QPWS Annual Report 1999 - 2000*).

Table 2. Growth in the area and representativeness of Queensland's National Park estate from 1975 – 2000.

Year	Area (million ha)	% of Queensland	% Representation of biodiversity
1975	1.153	0.64	32 [*]
1985	3.417	1.98	44 [*]
1993	6.329	3.66	63 ^{**}
2000	6.667	3.86	69 ^{***}

Footnote Table 2:

^{*}Based on a weighted estimate from an analysis of 218 major vegetation types identified at that time across Queensland (*Sattler 1986*) – Table 1

^{**}Based on 775 Regional Ecosystems recognised at that time (*Sattler 1993(a)*).

^{***}Based on 1,085 Regional Ecosystems defined in *Sattler and Williams (1999)*.

Gazettals for each Year, 1975-2000

Tables 3 to 27, provide details of each major park and park extension gazetted in each year from 1975 to 2000, together with further details on expenditure and the increase in representativeness for some years. This information is extracted from Queensland National Parks and Wildlife Service and Departmental Annual Reports, 1975-76 to 1999-00, the 1994-95 to 1999-00, Annual Reports on the Administration of the Nature Conservation Act, 1992, and from private records.

Table 3. New National Parks and extensions, and Environmental Parks, gazetted 1975 – 1976, expenditure on purchases for that year, total area of the park estate and representativeness.

Summary for the year 1975 - 1976

Total area gazetted (ha)*	NP	23,820
	NP extension	257
	EP	727
	Total	<u>24,806</u>
Total expenditure on purchases		\$190,091
Commonwealth Government funds under the States Grants Nature Conservation Act, 1974.		\$88,330

	Name/Location	Identification No., Parish	Area (ha)
Major new National Parks	Nypa Palms	NP 727, Marathon	
	Chinghee Mountain	NP 1139, Telemon	
	Cooloola	NP 1238, Como <i>et al.</i>	
Major National Park extns	Near Killarney	NP 452, Killarney	175
	Major's Mountain	NP 255, Ravenshoe	64
Major new Environmental Parks		EP 728, Waterview	447
	Mt Blarney	EP 829, Sarina	73
	Near Babinda	EP 1558, Gladys	170

Total Area and Representation of Major Ecosystems in the Estate

Total area of National Parks	1,153,350
Total area of Environmental Parks	26,950
Representation of ecosystems**	32%

Footnote Table 3:

* Includes lands purchased, vacant Crown land and surrendered parts of pastoral holdings. The same applies for each year in Tables 3 -27.

** Weighted estimate based on 218 major vegetation types across Queensland.

Table 4. New National Parks and extensions, and Environmental Parks, gazetted 1976 – 1977, expenditure on purchases for that year, total area of the park estate and representativeness.

Summary for the Year 1976 - 1977

Total area gazetted (ha)	NP	15,833
	NP extension	1,776
	EP	5,734
	Total	23,343

Total expenditure on purchases **\$242,256**

Commonwealth Government funds under the States Grants
Nature Conservation Act, 1974. **\$400,000**

	Name/Location	Identification No., Parish	Area (ha)
Major new National Parks	Cape Palmerston	NP 801, Mt Funnel	7,160
	Sundown	NP 191, Mingoola	3,542
	Eurimbula	NP 278, Eurimbula	5,050
Major National Park extns	Limestone Ridge	NP 846, Fitzroy	83
	Dagmar Range	NP 150, Whyanbeel	118
	Castle Tower	NP 331, O'Connell	919
	Maria Creek	NP 1445, Hull	197
	Maiala	NP 796, Samsonvale	150
	Eubenangee	NP 1334, Gladly	286
Major new Environmental Parks	Sheep Station Creek	EP 2696, Caboolture	231
	Wilandspey	EP 5, Wilandspey	5,200
	Near Proserpine	EP 384, Dryander	253

Total Area and Representation of Major Ecosystems in the Estate

Total area of National Parks	1,171,000
Total area of Environmental Parks	32,684
Representation of ecosystems*	32%

Footnote Table 4:

**Weighted estimate based on 218 major vegetation types across Queensland.*

Table 5. New National Parks and extensions, and Environmental Parks, gazetted 1977 – 1978, expenditure on purchases for that year, total area of the park estate and representativeness.

Summary for the Year 1977 - 1978

Total area gazetted (ha)	NP	935,182
	NP extension	77,920
	EP	543
	Total	1,013,645

Total expenditure on purchases **\$ 710,762**

Commonwealth Government funds under the Environmental (Financial Assistance) Act, 1977. **\$200,000**

	Name/Location	Identification No., Parish	Area (ha)
Major new National Parks	Near Cunningham's Gap	NP 671, Gilbert	126
	Possession Is.	NP 23, Seymour	510
	Conondale	NP 11, Conondale	1,740
	Iron Range	NP 8, Lloyd	3,770
	Edmund Kennedy	NP 771, Meunga	5,900
	Kurrimine	NP 1608, Hull	910
	Mt Jim Crow	NP, 893, Cawarral	144
	Mitchell & Alice Rivers	NP 5, Bateman & Irby	37,100
	Mt Colosseum	NP 281, Miriam Vale	840
	-	NP 215, Munburra	7,960
	Jardine River	NP 26, Amory <i>et al.</i>	235,000
	Archer Bend (now part of Mungkan Kaanju)	NP 3, Meta <i>et al.</i>	166,000
	Staaten River	NP 2, Courtenay <i>et al.</i>	467,000
	Cania Gorge	NP 233, Clonmel	346
	Mt Barney	NP 737, Melcombe	730
	Jourama	NP 584, Waterview	1,070
Major National Park extns	Mt Mistake Ranges	NP 836, East Haladon	4260
	Mt Blackwood	NP 678, Ossa	318
	Hull River	NP 647, Rockingham	518
	Fraser Is.	NP 16, Carree <i>et al.</i>	17,521
	Cape Melville	NP 4, Nelville <i>et al.</i>	19,700
	Girraween	NP 281, Broadwater <i>et al.</i>	1,260
	Mount Chinghee	NP 1139, Telemon	95
	Jirramun	NP 933, Alford	94

	Mt Roberts	NP 1050, Alford & Clumber	1,094
	Main Range	NP 905, Clumber	1,416
	Lamington	NP 496, Roberts & Numbinbah	220
	Mt Finnigan (Cedar Bay)	NP 212, Monkhouse	4,620
	Iron Range	NP 8, Lloyd	27,018
	Perseverance Creek	NP 629, Crows Nest	240
Major new Environmental Parks	Perigian Beach	EP 1098, Maroochy	93
	Horan's Gorge	EP 377, Broadwater	293
	Near Mt Perry	EP 283, Baywulla	60

Total Area and Representation of Major Ecosystems in the Estate

<i>Total area of National Parks</i>	2,184,645
<i>Total area of Environmental Parks</i>	33,227
Representation of ecosystems*	38%

Footnote Table 5:

*Weighted estimate based on 218 major vegetation types across Queensland.

Table 6. New National Parks and extensions, and Environmental Parks, gazetted 1978 – 1979, expenditure on purchases for that year, total area of the park estate and representativeness.

Summary for the Year 1978 - 1979

Total area gazetted (ha)	NP	898
	NP extension	9,614
	EP	1,504
	Total	12,016

Total expenditure on purchases **\$ 874,500**

	Name/Location	Identification No., Parish	Area (ha)
Major new National Parks	North West of Taroom	NP 14, Marengo	895
Major National Park extns	Bunya Mountains	NP 603, Haly	83
	Girraween	NP 281, Broadwater	776
	West Hill	NP 114, West Hill	340
	Ella Bay	NP 1,024, Gladly	2,915
	Mount Bauple	NP 453, Gundiah	227
	Mount Beerwah	NP 750, Beerwah	245
	Many Peaks Range	NP 331, Pemberton & Polmaily	783
	-	NP 771, Meunga	139
	Girraween	NP 281, Folkstone & Tenterfield	4,004
Major new Environmental Parks	Mount Zamia	EP 229, St Peter	1,140
	Turtle Rock (Lamington)	EP 1,411, Numbinbah	68
	Baffle Creek	EP 288, Baffle	130
	Livers Plateau	EP 1,429, Telemon	147

Total Area and Representation of Major Ecosystems in the Estate

Total area of National Parks	2,194,614
Total area of Environmental Parks	34,731
Representation of ecosystems*	38%

Footnote Table 6:

* Weighted estimate based on 218 major vegetation types across Queensland.

Table 7. New National Parks and extensions, and Environmental Parks, gazetted 1979 – 1980, expenditure on purchases for that year, total area of the park estate and representativeness.

Summary for the Year 1979 - 1980

Total area gazetted (ha)	NP	540,000
	NP extension	95,000
	EP	3,314
	Total	638,314

Total expenditure on purchases **\$ 539,589**

	Name/Location	Identification No., Parish	Area (ha)
Major new National Parks	Round Hill	NP 289, Uxbridge	305
	St Helena Is.	NP 3004, Noogoon	75
	Lakefield	NP 10, Lakefield	528,000
	Bendidee	NP 227, Bendidee	931
	Charlevue Creek (Blackdown)	NP 181, Wattle	6,359
	North West & Wreck Islands	NP 296, Bunker	111
	Russell River	NP 160, Russell	2,930
	Wild Duck Is.	NP 31, Long Isl	207
	Crows Nest	NP 666, Crows Nest	473
	Hasties Swamp	NP 1694, Barron	48
Major National Park extns	Eurimbula	NP 278, Eurimbula	2,218
	Conondale	NP 477, Conondale	127
	Mt Moffatt	NP 236, Aubrey	65,960
	Cape Cleveland	NP 767, Abbotsford	22,613
	Cania Gorge	NP 233, Clonmel	675
	Dryander	NP 255, Dryander	1,015
	Conway Range	NP 227, Conway	2,284
	Lamington	NP 496, Roberts	177
	Girraween	NP 281, Broadwater	200
Major new Environmental Parks	South east of Boonah	EP 1393, Knapp	123
	Townsville Town Common	EP 800, Coonambelah	2,920
	West of Springsure	EP 7, Uranna	216

Total Area and Representation of Major Ecosystems in the Estate

Total area of National Parks	2,811,292
Total area of Environmental Parks	38,094
Representation of ecosystems*	41%

Footnote Table 7:

* Weighted estimate based on 218 major vegetation types across Queensland.

Table 8. New National Parks and extensions, and Environmental Parks, gazetted 1980 – 1981, expenditure on purchases for that year, total area of the park estate and representativeness.

Summary for the Year 1980 - 1981

Total area gazetted (ha)	NP	2,490
	NP extension	9,151
	EP	1,480
	Total	13,121
Total expenditure on purchases		\$684,300

	Name/Location	Identification No., Parish	Area (ha)
Major new National Parks	Nymph Island	NP 230, Munburra	65
	Littabella	NP 301, Littabella	2,420
Major National Park extns	Tamborine (Cedar Ck Falls)	NP 863, Tamborine	60
	Scenic Rim (South of Cunningham's Gap)	NP 933, Alford	1,050
	Scenic Rim (Mt Mistake area)	NP 836, East Haldon	1,268
	Scenic Rim (the Steamers)	NP 933, Alford	2,775
	Scenic Rim (Mt Barney)	NP 737, Melcombe	3,257
	Edmund Kennedy	NP 771, Meunga	157
	Cape Hillsborough	NP 60, Ossa	89
	Mount Jukes	NP 616, Ossa	383
	Blue Lake (Nth Stradbroke)	NP 1951, Stradbroke	67
	Girraween	NP 281, Broadwater	138
Major new Environmental Parks	Horseshoe Lagoon	EP 266, Selkirk	76
	Pine Ridge	EP 1565, Barrow	109
	Lake Broadwater	EP 245, Weale	1,220
	Mon Repos	EP 1133, Barolin	24

Total Area and Representation of Major Ecosystems in the Estate

Total area of National Parks	2,822,932
Total area of Environmental Parks	39,575
Representation of ecosystems*	42%

Footnote Table 8:

* Weighted estimate based on 218 major vegetation types across Queensland.

Table 9. New National Parks and extensions, and Environmental Parks, gazetted 1981 – 1982, expenditure on purchases for that year, total area of the park estate and representativeness.

Summary for the Year 1981 - 1982

Total area gazetted (ha)	NP	250,000
	NP extension	78,590
	EP	1,414
	Total	347,554

Total expenditure on purchases **\$900,000**

	Name/Location	Identification Reserve No.	Area (ha)
Major new National Parks	Rokeby – Croll Creek	22	250,000
Major National Park extns	Iron Range	8	3,800
	Cape Tribulation	164	14,713
	Sundown	191	3,138
	Carnarvon	236	57,000
Major new Environmental Parks	Lake Quarry	2	374
	Wallaroo	87	428
	Corbould No. 5 * (Coolum)	1226	82
	Corbould No. 4 * (Wararba)	1227	88
	Corbould No. 3 * (Cedar Ck)	1593	408

Total Area and Representation of Major Ecosystems in the Estate

Total area of National Parks	3,151,359
Total area of Environmental Parks	40,989
Representation of ecosystems**	43%

Footnotes: Table 9

* These were the first of many blocks donated by Mr H.E. Corbould.

** Weighted estimate based on 218 major vegetation types across Queensland.

Table 10. New National Parks and extensions, and Environmental Parks, gazetted 1982 – 1983, expenditure on purchases for that year, total area of the park estate and representativeness.

Summary for the Year 1982 - 1983

Total area gazetted (ha)	NP	42
	NP extension	75,604
	EP	1,504
	Total	77,150

Total expenditure on purchases **\$1,250,000**

	Name/Location	Identification Reserve No.	Area (ha)
Major new National Parks			
Major National Park extns	Simpson Desert	1	49,800
	Courtenay	2	525
	Blackdown Tableland	181	17,430
	Castle Tower	331	780
	Mount Cougal	694	114
	Mount Greville	755	53
	Mount Chinghee	1139	177
	Mount Tempest (Moreton Is.)	2155	6,719
Major new Environmental Parks	Townsville Town Common	820	328
	Corbould No. 7 (Eudlo Ck)	1211	73
	Corbould No. 10 (Caloundra Turnoff)	1264	105
	Corbould No. 1 (Lake Weyba)	1387	149
	North Shore, Noosa River	1450	196
	Corbould No. 11	1685	243
	Corbould No. 8 (Kipper Creek)	3233	290
	Corbould No. 6 (Byron Ravine)	3239	72

Total Area and Representation of Major Ecosystems in the Estate

Total area of National Parks	3,229,495
Total area of Environmental Parks	42,496
Representation of ecosystems*	43%

Footnote Table 10:

* Weighted estimate based on 218 major vegetation types across Queensland.

Table 11. New National Parks and extensions, and Environmental Parks, gazetted 1983 – 1984, expenditure on purchases for that year, total area of the park estate and representativeness.

Summary for the Year 1983 - 1984

Total area gazetted (ha)	NP	1743
	NP extension	43,821
	EP	424
	Total	45,988

Total expenditure on purchases **\$378,771**

Commonwealth Government funds under Environmental
(Financial Assistance) Act, 1977. **\$200,000**

	Name/Location	Identification	Area (ha)
Major new National Parks	Gemini Mountains		787
	Eastern Peak		784
	Wolfgang Peak		172
Major National Park extns	Rokeby		41,000
	Isla Gorge		2,908
	Cooloolo		17,822
Major new Environmental Parks	Betoota		97
	Baffle Creek		86
	Cedar Creek		81
	Corbould No. 9 (Native Dog Creek)		65

Total Area and Representation of Major Ecosystems in the Estate

Total area of National Parks	3,292,882
Total area of Environmental Parks	42,920
Representation of ecosystems*	44%

Footnotes Table 11:

* Weighted estimate based on 218 major vegetation types across Queensland.

Table 12. New National Parks and extensions, and Environmental Parks, gazetted 1984 – 1985, expenditure on purchases for that year, total area of the park estate and representativeness.

Summary for the Year 1984 - 1985

Total area gazetted (ha)	NP	45,900
	NP extension	176
	EP	270
	Total	46,346

Total expenditure on purchases **\$600,000 (approx.)**

	Name/Location	Identification	Area (ha)
Major new National Parks	Lawn Hill NP		12,200
	Bladensburg		33,700
Major National Park extn	Magnetic Island		176

Total Area and Representation of Major Ecosystems in the Estate

Total area of National Parks	3,346,524
Total Area of Environmental Parks	43,190
Representation of ecosystems*	44%

Footnote Table 12:

* Weighted estimate based on 218 major vegetation types across Queensland.

Table 13. New National Parks and extensions, and Environmental Parks, gazetted 1985 – 1986, expenditure on purchases for that year and total area of the park estate.

Summary for the Year 1985 - 1986

Total area gazetted (ha)	NP	0	
	NP extension	12,540	(approx.)
	EP	3,303	
	Total	12,540	(approx.)
			)
Total expenditure on purchases		\$675,000	

	Name/Location	Identification	Area (ha)
Major new National Parks			
Major National Park extns	Carnarvon (Deepdale)		6,500
	Mt Tempest (Moreton Is.)		6,040
Major new Environmental Parks	Eight EPs gazetted (no details)		3,303

Total Area of the Estate

Total area of National Parks	3,360,887
Total area of Environmental Parks	46,493

Table 14. New National Parks and extensions, and Environmental Parks, gazetted 1986 – 1987, expenditure on purchases for that year and total area of the park estate.

Summary for the Year 1986 - 1987

Total area gazetted (ha)	NP	49,400
	NP extension	16,669
	EP	1,990
	Total	68,059

Total expenditure on purchases **\$776,505**

	Name/Location	Identification	Area (ha)
Major new National Parks	Great Basalt Wall		30,500
	Herbert River Gorge		18,900
Major National Park extns	Palmerston		10,698
	Cooloolo		1,435
	Sundown		4,536
Major new Environmental Parks	Mt Archer		1,990

Total Area of the Estate

Total area of National Parks	3,427,323
Total area of Environmental Parks	25,906

Table 15. New National Parks and extensions, and Environmental Parks, gazetted 1987 – 1988, expenditure on purchases for that year and total area of the park estate.

Summary for the Year 1987 - 1988

Total area gazetted (ha)	NP	17,930	
	NP extension	55,000	(approx.)
	EP	139	
	Total	73,069	(approx.)
Total expenditure on purchases		\$45,000	
Gold Coast City Council funds		\$55,000	

	Name/Location	Identification	Area (ha)
Major new National Parks	Deepwater		4,090
	Camooweal Caves		13,800
	Masthead Island		40
Major National Park extns	Expedition Range (The Amphitheatre)		55,000
Major new Environmental Parks	Flinders Peak		105

Total Area of the Estate

Total area of National Parks	3,512,867
Total area of Environmental Parks	47,168

Table 16. New National Parks and extensions, and Environmental Parks, gazetted 1988 – 1989, expenditure on purchases for that year and total area of the park estate.

Summary for the Year 1988 - 1989

Total area gazetted (ha)	NP	11,955
	NP extension	2,909
	EP	1,145
	Total	16,009

Total expenditure on purchases* ?

	Name/Location	Identification No., Parish	Area (ha)
Major new National Parks	Pumicestone	NP 1462, Woorim	1,940
	Byfield	NP 872, Bayfield	4,090
	Sir Charles Hardy Group	NP 14, Grenville	129
	Howick Group	NP 17, Howick <i>et al.</i>	155
	Hann Tableland	NP 1252, Layland	4,839
	Restoration Island	NP 54, Weymouth	26
	Undara Crater	NP 26, Billgolla	597
Major National Park extns	Cania Gorge		980
	Kroombit Tops		1,908
Major new Environmental Parks	Harry Springs	EP 1676, Tewantin	85
	Corbould No. 13 (Serpentine Creek)	EP 3416, Redland	121
	Waverley Creek	EP 138, St Lawrence	118
	Mt Leura	EP 191, Keilambete	196
	Bullyard	EP 909, Gin Gin	193
	South Head	EP 1541, South Head	166
	Saddleback Mountain	EP 1454, Canning	71
	Mt Eerwah	EP 2594, Maroochy	64

Total Area of the Estate

Total area of National Parks	3,528,052
Total area of Environmental Parks	48,314

Footnote Table 16:

*No expenditure for parks is reported in the Department's 1988-89 Annual Report.

Table 17. New National Parks and extensions, and Environmental Parks, gazetted 1989 – 1990, expenditure on purchases for that year and total area of the park estate.

Summary for the Year 1989 - 1990

Total area gazetted (ha)	NP	65,634
	NP extension	47,025
	EP	2,622
	Total	115,281

Total expenditure on purchases* **\$260,000**

	Name/Location	Identification**	Area (ha)
Major new National Parks	Fitzroy Is.		278
	Peak Range		761
	Mt O'Connell		757
	White Mountains		52,100
	Precipice		9,050
	Rundle Range		2,170
	Ruins of Dalrymple		511
	Fort Lytton		7
Major National Park extns	Dryander		9,524
	Yamanie Falls		1,880
	Carnarvon		28,000
	Scenic Rim (Mt Mistake)		340
	Cania Gorge		932
	Mt Etna		15
	Kondalilla		193
	Cooloola		4,140
	Forty Mile Scrub		1,680
	Hull River		224
	Eubenangee Swamp		39
Major new Environmental Parks	Joseph Banks		114
	Mt Hopeful		554
	Tully		89
	Bribie Island		1,330
	Cowra Point		219
	Corbould No. 19		64
	Venman's		228

Total Area and Representation of Major Ecosystems in the Estate

Total area of National Parks	3,640,652
Total area of Environmental Parks	51,185

Footnote Table 17:

* Expenditure, Tim Ellis pers. com.

**New parks no longer given a unique identifier.

Table 18. New National Parks and extensions, and Environmental Parks, gazetted 1990 – 1991, expenditure on purchases for that year and total area of the park estate.

Summary for the Year 1990 - 1991

Total area gazetted (ha)	NP	350,999
	NP extension	28,324
	EP	1,287
	Total	380,610

Total expenditure on purchases **\$10,000,000** (approx.)

	Name/Location	Identification	Area (ha)
Major new National Parks	Forbes Is.		109
	Erringibba		877
	Rodds Peninsula		4,150
	Mt Coolum		60
	Idalia		144,000
	Thrushton		25,652
	Nuga Nuga		2,550
	Currawinya		148,000
	Palmgrove		25,600
Major National Park extns	Burrum River		392
	Jardine River		2,000
	Springbrook		302
	Mt Barney		500
	Great Sandy (Fraser Is)		22,500
	Lamington		300
	Noosa		1,140
	Porcupine Gorge		1,160
Major new Environmental Parks	Walligan		684
	Mt Marlow		63
	Coolmunda		89
	Vernon		60
	Mt Kinchant		65
	Tooloombah Creek		261

Total Area of the Estate

Total area of National Parks	4,020,532
Total area of Environmental Parks	52,652

Table 19. New National Parks and extensions, and Environmental Parks, gazetted 1991 – 1992, expenditure on purchases for that year and total area of the park estate.

Summary for the Year 1991 - 1992

Total area gazetted (ha)	NP	153,088
	NP extension	840,900
	EP	2,701
	Total	996,689

Total expenditure on purchases **\$10,754,000**

	Name/Location	Identification Bioregion	Area (ha)
Major new National Parks	Blackwood	Brigalow Belt	1,648
	Narrien Range	Brigalow Belt	4,020
	Thistlebank	Desert Uplands	5,890
	Lake Bindegolly	Mulga Lands	11,930
	Poona	South-East Qld	4,250
	Kinkuna	South-East Qld	13,300
	Curtis Island	Brigalow Belt	1,550
	Chesterton Range	Brigalow Belt	16,100
	Bulleringa	Einasleigh Uplands	54,400
	Mariala	Mulga Lands	27,330
	Hell Hole Gorge	Mulga Lands	12,700
Major National Park extns	Expedition	Brigalow Belt	23,900
	Simpson Desert	Channel Country	457,000
	Bellenden Ker	Wet Tropics	34,600
	White Mountains	Desert Uplands	55,900
	Lumholtz	Einasleigh/Wet Tropics	78,300
	Mt Etna Caves	Brigalow Belt	260
	Cooloola	South-East Qld	13,800
	Great Sandy	South-East Qld	8,800
	Byfield	South-East Qld	4,360
	Lawn Hill	North West Highlands	161,800
	Mt Walsh	South-East Qld	2,180
Major new Environmental Parks	Woogoompah, Coomera & Kangaroo Islands (Jumpinpin)	South-East Qld	1,315
	Princhester	Brigalow Belt	722
	Broadwater Creek	South-East Qld	339
	Buckley's Hole	South-East Qld	88
	Maroochy North Shore	South-East Qld	119
Total Area of the Estate			
Total area of National Parks		5,020,578	(2.91%)
Total area of Environmental Parks		NA	

Table 20. New National Parks and extensions, and Environmental Parks, gazetted 1992 – 1993, expenditure on purchases for that year, total area and representativeness of the park estate.

Summary for the Year 1992 - 1993

Total area gazetted (ha)	NP	161,812
	NP extension	129,539
	EP	1,784
	Total	293,135

Total expenditure on purchases **\$10,206,000***

Commonwealth Government funds under NRSCP for Lochern \$150,000

Total allocation of State funds for the period 1990-91 to 1992-3 \$39,000,000

	Name/Location	Identification	Area (ha)
Major new National Parks	Welford	Mulga Lands	124,000
	Shirley	Desert Uplands	32,607
	Wondul Range	Brigalow Belt	3,555
	Minerva Hills	Brigalow Belt	1,650
Major National Park extns	Lawn Hill	North West Highlands	88,000
	Undarra Volcanic	Einasleigh Uplands	17,000
	White Mountains	Einasleigh Uplands	10,296
	Kroombit Tops	South-East Qld	5,100
	Cape Upstart	Brigalow Belt	2,840
	Mt Spec	Wet Tropics	2,306
	Moreton Island	South-East Qld	1,400
	Porcupine Gorge	Einasleigh Uplands	1,310
	Pumicestone	South-East Qld	420
	Ella Bay	Wet Tropics	280
	Russell River	Wet Tropics	202
	Black Mountain	Wet Tropics	122
	Mutcherio inlet	Wet Tropics	79
	Mt Etna Caves	Brigalow Belt	66
	Pioneer Peaks	Central Mackay Coast	46
Major new Environmental Parks	South Stradbroke Is.	South-East Qld	896
	Hays Inlet	South-East Qld	285
	Dwyers Scrub	South-East Qld	259
	Gurgeena	South-East Qld	220
	Etty Bay Road	Wet Tropics	126

Total Area and Representation of Major Ecosystems in the Estate

Total area of National Parks	5,301,651
Total area of Environmental Parks	58,132
Representation of ecosystems**	63%

Footnotes Table 20:

**Alternative figures of \$10,040,000 and \$11,046,000 are also referred to in the QDEH Ann. Rep. 1992-93.*

*** Based on 775 Regional Ecosystems recognised at that time.*

Table 21. New National Parks and extensions, and Environmental Parks, gazetted 1993 – 1994, expenditure on purchases for that year and total area of the park estate.

Summary for the Year 1993 - 1994

Total area gazetted (ha)	NP	538,542
	NP extension	115,478
	EP	779
	Total	654,799

Total expenditure on purchases **\$4,587,000**

Commonwealth Government funds under NRSCP for Lochern
(2nd payment) **\$70,000**

Allocation of new State funds **\$1,000,000**

	Name/Location	Identification	Area (ha)
Major new National Parks	Diamantina		470,000
	Culgoa Floodplains		30,719
	Lockern		24,293
	Melaleuca		11,890
	Dalrymple		1,640
Major National Park extns	Bladensburg		} 115,478
	Undara Volcanic		
	Blackdown Tableland		
	Great Basalt Wall		
	Sundown		
Major new Environmental Parks and extensions	Reinkes Scrub		} 779
	Extensions to Plunkett		
	Extensions to Venman's		
	Extensions to Coolum		

Total Area of the Estate

Total area of National Parks	5,955,671
Total area of Environmental Parks	58,911

Table 22. New National Parks and extensions, and Conservation Parks (CP), gazetted 1994 – 1995, expenditure on purchases for that year and total area of the park estate.

Summary for the Year 1994 - 1995

Total area gazetted (ha)	NP	25,680
	NP extension	139,463
	CP	379
	Total	165,522

Total expenditure on purchases NA

Commonwealth Government funds under NRSCP for Starke \$1,000,000

Allocation of State funds NA

	Name/Location	Identification	Area (ha)
Major new National Parks	Homevale		18,100 *
	Tregole		7,580
Major National Park extns	Cape Melville		101,000
	Chesterton Range		15,100
	Culgoa Flood Plains		12,136
	Tully Gorge		120
	Tarong		1,490
	Conondale		4,850
	Burru Coast		600
	Hann Tableland		2,021
	Precipice		370
	Glasshouse Mtns		92
	Mount Webb		197
	Noosa		80
	Bribie Island		1,200
Major new Conservation Parks	Mouth of Baffle Creek No. 2		308
	Tomewin		45
	Combo Waterhole		26
	(Waltzing Matilda)		

Total Area of the Estate

Total area of National Parks	6,235,688
Total area of Conservation Parks**	25,747

Footnote p20:

* Plus large D & OP reserve: Total 35,100ha.

** A number of previous Environmental Parks were converted to National Parks rather than conversion to Conservation Parks.

Table 23. New National Parks and extensions, and Conservation Parks, gazetted 1995 – 1996, expenditure on purchases for that year and total area of the park estate.

Summary for the Year 1995 - 1996

Total area gazetted (ha)	NP	174,000
	NP extension	61,746
	CP	2,690
	Total	235,746

Total expenditure on purchases **NA**

Joint Commonwealth/State Sugar Coast Environmental
Rescue Package funds \$6,000,000

Commonwealth Government funds under NRSCP for
Silver Plains \$1,125,000

Allocation of State funds **NA**

	Name/Location	Identification	Area (ha)
Major new National Parks	Astrebla Downs		174,000
Major National Park extns	Diamantina		37,000
	Lumholtz		15,000
	Hull River		960
	Dryander		800
	Burrum Coast		600
	Eungella		300
	Endeavour River		330
	Mt Archer		1,340
	Mt Walsh		70
	Springbrook		100
	Forty Mile Scrub		100
Major new Conservation Parks	Shoalwater Bay	}	2,690
	Kirrama		
	Morven		
	White Rock		

Total Area and Representation of Major Ecosystems in the Estate

Total area of National Parks	6,466,587
Total area of Conservation Parks	28,437

Table 24. New National Parks and extensions, and Conservation Parks, gazetted 1996 – 1997, expenditure on purchases for that year and total area of the park estate.

Summary for the Year 1996 - 1997

Total area gazetted (ha)	NP	0
	NP extension	4,501
	CP	305
	Total	4,806

Total expenditure on purchases NA

Joint Commonwealth/State Sugar Coast Environmental
Rescue Package funds \$7,000,000

Allocation of State funds NA

	Name/Location	Identification	Area (ha)
Major new National Parks	-		-
Major National Park extns	Homevale		3,700
	Poona		780
	Mt Etna Caves		21
Major new Conservation Parks	North Pointer		240
	Five Rocks		32

Total Area of the Estate

Total area of National Parks	6,471,088
Total area of Conservation Parks	28,742

Table 25. New National Parks and extensions, and Conservation Parks, gazetted 1997 – 1998, expenditure on purchases for that year and total area of the park estate.

Summary for the Year 1997 - 1998		
Total area gazetted (ha)	NP	6,477
	NP extension	93,265
	CP	287
	Total	100,029
Total expenditure on purchases		NA
Joint Commonwealth/State Sugar Coast Environmental Rescue Package funds		\$3,000,000
Combined Commonwealth NRSCP funds and State funds for Cudmore*		\$720,000
Allocation of other State funds		NA
	Name/Location	Area (ha)
Major new National Parks	Goodnight Scrub	6,330
	Mowbray	147
Major National Park extns	Great Sandy	79,564
	Lumholtz	11,000
	Chillagoe-Mungana	1,800
	Ravensbourne	340
Major new Conservation Parks	Jalum (Ingham)	227
	Carbrook Wetlands	103
Total Area of the Estate		
Total area of National Parks		6,570,839
Total area of Conservation Parks		29,029

Footnote Table 25:

*Includes Commonwealth contribution of \$457,500 for Cudmore of which \$120,000 was for management.

Table 26. New National Parks and extensions, and Conservation Parks, gazetted 1998 – 1999, expenditure on purchases for that year and total area of the park estate.

Summary for the Year 1998 - 1999

Total area gazetted (ha)	NP	50,200
	NP extension	41,148
	CP	620
	Total	91,968

Expenditure on purchases **NA**

Commonwealth Government funds under NRSCP for Albinia* \$1,646,666

State Government funds for Albinia* \$823,333

Commonwealth Government funds under NRSCP allocated for Humboldt \$850,000

Allocation of other State funds **NA**

	Name/Location	Identification	Area (ha)
Major new National Parks	Blackbraes **		29,800
	Cudmore ***		20,400
	Broad Sound Islands		1,620
Major National Park extns	Lumholtz		17,000
	Narrien Range		3,440
	Expedition		2,000
	Astrebla Downs		2,000
	Goodedulla		13,610
	Snake Range		1,478
Major new Conservation Parks	Evelyn Creek		620

Total Area and Representation of Major Ecosystems in the Estate

Total area of National Parks	6,664,723
Total area of Conservation Parks	29,222

Footnote Table 26:

* Albinia not gazetted until 5.12.2008.

** Plus Resource Reserve of 21,900 ha

*** Plus Resource Reserve of 6,900 ha

Table 27. New National Parks and extensions, and Conservation Parks, gazetted 1999 – 2000, expenditure on purchases for that year, total area and representativeness of the park estate.

Summary for the Year 1999 - 2000

Total area gazetted (ha)	NP	0
	NP extension	11,107
	CP	3,430
	Total *	14,537
Total expenditure on purchases		\$142,000

	Name/Location	Identification	Area (ha)
Major new National Parks	-		-
Major National Park extns	Lumholtz		3,000
	Bowling Green Bay		2,500
	Eungella		1,200
	Mt Archer		640
	Daintree		700
	Mt Ossa		363
	Eurimbula		500
Major new Conservation Parks	Bowling Green Bay		3,380
	Elizabeth Springs		101

Total Area and Representation of Major Ecosystems in the Estate

Total area of National Parks	6,623,648
Total area of Conservation Parks	32,930
Representation of regional ecosystems	69%**

Footnote Table 27:

* Totals do not necessarily correspond to the sum of individual parks owing to omissions, revocations and regazettals.

**Based on 1085 regional ecosystems identified State wide, Sattler and Williams 1999.



Photo 71. Harry Sattler's saw-mill at Terry Hie Hie circa 1909.

Part III - Family History

Dad and Mum were both 3rd generation Australians. Both their grandparents migrated to Australia in the 1850s when migration to the colonies was encouraged following the cessation of transported convict labour and the extensive loss of labour to the goldfields.

Paternal history

My great grandfather, Jakob (Jacob) Valentin Sattler (11.11.1833 – 31.3.1887), who came to Australia in 1855 was born in Niederwalluf, in the Rhine Valley in Germany. Walluf today, is a pretty village on the Rhine and gateway to the oldest wine growing region in the Rhine Valley dating back to 779.

His mother, Anna Maria Sattler (19.4.1800 – 12.8.1863) was born in the nearby village of Schierstein and worked as a domestic servant across the Rhine in Mainz at the time of Jacob's birth. Schierstein is now part of the city of Wiesbaden.

Jacob's grandfather, Johann Anton Joseph Sattler (20.03.1785 – 8.9.1840) was born in Schierstein and was a cooper in Niederwalluf. On 1.7.1799, he married Maria Anna Steib (Steip) (16.11.1777 – 2.11.1849): they had 10 children with the first being Anna Maria.

Jacob's great grandfather, Clemens Sattler (27.5.1732 – 1795) was the Administrator of the Tithe Court of Bleidenstadt in Scheirstein (Good and faithful Romi Chapter) and on 13.2.1763 married Catharina Othilia Weiland (1738 – 4.6.1811). The Monastery in Bleidenstadt and the farm attached to the church where they may have lived at Schierstein existed until the secularisation of Catholic properties under the French occupation at the turn of the 19th century (Norbert Michel, pers. com.). Both Clemens and Jacob's great great grandfather, Johannes (1709 – 1763), were from Georgenborn.

Jacob was a shoemaker and my Dad still had some of his hard wooden cobbler pegs. His mother, Anna Maria Sattler was unmarried and apparently, Jacob's education and trade was paid for through some royal patronage (Geoffrey Bell, pers.com.). This may have been from the charitable foundation established for the benefit of the community of Niederwalluf by Prince Emanuel von Salm-Salm who was born in 1742 (Michel 1997). One specific aim of the foundation was to provide a training allowance for impoverished boys to learn a craft. Jacob being the grandson of a large well established Catholic family in Niederwalluf, poor with no natural father, may have been well suited for such assistance. This foundation continued to 1923 when it was wiped out by hyperinflation in Germany (Michel 1997).

Jacob's mother, Anna Maria, had two other children out of wedlock before Jacob was born and this could explain her working in Mainz to avoid the family scandal. Subsequently,

she had another child and then married Anton Kiefer and they returned to Niederwalluf and had three other children. Dad told me his grandfather's brother had migrated to America. As two of Jacob's six siblings were boys, one of these half brothers may have immigrated to America, see also page 95.



Photo 72. A street in Walluf village on the Rhine, 2014.
Walluf today is a wine producing area as it was when
my great, great, great grandfather was a cooper.

In 1854, Jacob left Germany under the false name of Adolf Krämer (Kreimer) to escape conscription into the army (Anonymous record, Armidale and District Family History Group). He arrived in Sydney from Hamburg on the *Louise* on 21.2.1855.

Jacob worked as an indentured immigrant for Henry Dangar of Gostwyck Station near Uralla in NSW. Henry Dangar visited Germany in 1854 to buy sheep and recruited a group of 20 German immigrants to join the Gostwyck workforce as the labour shortage was desperate (*Eichorn 2006*). Jacob being a skilled tradesman repaired leather tack for the men and horses at Gostwyck and also worked, mustering and shearing. Figure 1 details his remuneration in 1863. Both my brother Ross was a shearer in his younger days and Dad went shearing when he was middle-aged to support the farm.

Jacob Sattler married Jane Cattel (Cattle) (1842 – 1878) in Armidale on 26.12.1857. Jane immigrated from Long Sutton in Somerset, England as a 13 year old with her family on the

Kate and worked on Gostwyck as a young kitchen hand. Other members of her family working on Gostwyck were her father, Thomas Cattle and uncle, William Cattle. Jane having borne nine children before her tragic death at the age of 36 from being gored must be the heroine of this story. The words on her headstone in Armidale give an indication of her long suffering, which exceeded 12 months after being injured.

Jacob was naturalised in 1862 and was then able to purchase real estate in the Colony. Around this time much animosity developed between the small settlers in gaining land against the aggressive tactics employed by Grace Dangar, wife of the late Henry Dangar, and her sons who were keen to secure the large Gostwyck run with as much freehold tenure as possible; this conflict is described in a paper by *Ferry (1988)*. Jacob purchased Portion 43, Parish of Saumarez, at Bald Knobs, being an area of 40 acres (16ha) south of Armidale. The lands to the east, south and south west were all owned by the Dangars.

A handed down story involved the bushranger, Thunderbolt. Apparently, of an evening the back door of the house would be left open with some food on the kitchen table. Next morning there would be a few coins left on the table; after all, Thunderbolt was known as 'the gentleman bushranger'. Thunderbolt was certainly active in these parts as he robbed a shepherd's hut on Gostwyck on 24.10.1883, three days before he was wounded and escaped from a shoot out with the troopers at Thunderbolt's Rock, nearby.

It is understood that Adolf Krämer who gave up his authorised berth to leave Germany to Jacob, also may have left for America (Geoffrey Bell, pers. com.).



Photo 73. Grandie, (Henry 'Harry' Charles) Sattler, Aunty Lil (Lillian Aureli), Grandma (Ellen Ann nee Jackson) (back). Aunty 'Dulcie' (Florence Elizabeth Jane), Uncle Arthur (Arthur Clifford) and Dad (Guss Henry), 1907. Aunty Marj (Marjory Ellen) was yet to be born.



Photo 74. Harry Sattler at his Golden Beach residence, circa 1940.



Photo 75. Ellen Sattler (nee Jackson) circa 1894, with a fashionable 18 inch (45cm) waist.



Photo 77. Booloominbah, 2014.

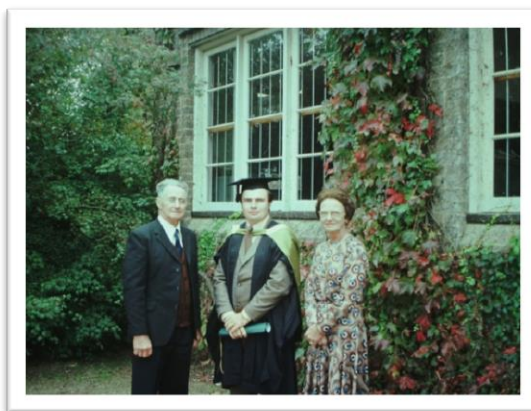


Photo 76. My graduation on the grounds of Booloominbah with Mum and Dad, 1977.

My grandfather, Henry ‘Harry’ Sattler (16.1.1869 - 15.5.1947) was a sawyer and farmer. He owned the mill at Terry Hie Hie near Moree and milled timber in the district. The payment for logs and an account for milled timber are shown in Figure 2. In 1915, Harry’s family with wagons, sulkies and horses moved from Moree to take up the property

Roseneath, at Weengallon in Queensland. They then moved to Cabarlah where he cut timber and kept fruit trees. Harry Sattler, retired to Caloundra in 1937.

Harry married Sarah Simmons (1875 – 16.4.1897) who died seven months later at the age of 22. Harry subsequently married Ellen Ann Jackson (1877-1952) in Armidale and they reared five children.

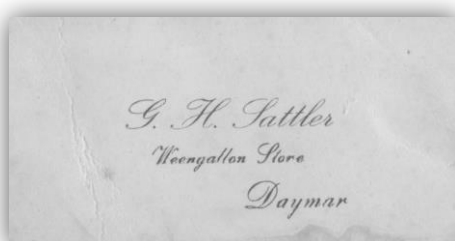
Ellen worked at Booloominbah in Armidale which was completed in 1888. This stately historic house is now the centre of the University of New England (UNE) campus and it was indeed coincidental that the graduation ceremony for my post graduate degree was on the lawns of Booloominbah.

Dad was born in Barraba, NSW in 1906. At an early age he was ring barking, delving bore drains and developing land on Pinevale at Weengallon, a property that had been taken up by his oldest sister Lillian and her husband, William Lamb.

Dad married Mum in Toowoomba on 3 June.1933 and they went back to Weengallon where dad had built a store to service the needs of the families on properties in the area. Mum said: *“it was a big shock for a lass growing up on the green hills around Toowoomba to get off the train at Daymar, near Weengallon, amongst the dreary scrub, dust and flies”*.



Photo 78. Mum and Dad out for a ride *‘when you and I were 17...’*, Mum’s 17th birthday, Toowoomba, 1928.



In the mid 1930s they returned to Toowoomba and Dad made furniture, chiefly of red cedar and oak and one of his account's is shown in Figure 3(a). It started a heritage of my love for red cedar and making red cedar furniture as a hobby. Before and during the war Dad worked as a qualified mental health nurse at the Willowburn Asylum as it was then known in Toowoomba; though the folks more affectionately called it, 'Comical College'. He worked night shifts and made furniture during the day. Dad also successfully completed his 'Red Book' nursing exams in half the time normally taken. Both Uncle Arthur and Aunty Dulcie also nursed at Willowburn.

One night after his 10.00pm shift, Dad brought home a beehive to 8 Cavell Street in Toowoomba on his push bike. He had spied a swarm along the road that morning and borrowed a kerosene tin to catch it. Later, the Medical Superintendent, Dr McDonald, enquired of Mum's arthritis and told Dad to give her a bee sting. Throughout her life Mum kept at bay debilitating arthritis by asking Dad to get a bee and give her an injection when she felt a twinge (apitherapy). After the war in 1946, they took up land at Meridan Plains and along Pierce Avenue, near Caloundra. There they started mixed farming which led to commercial beekeeping with about 400 hives. The annual beekeeping cycle is described in Part I.

Maternal history

My great grandfather on Mum's side was Heinrich Volp (1836 – 17.3.1918), born in Friedberg, Hesse, Germany. He was well educated, became a joiner and left Hamburg on 20 October 1854 and arrived in Brisbane on 14 February 1855 on the barque *Aurora*. As it happened, he arrived in Brisbane only a few months before my paternal great grandfather arrived in Sydney in 1855; their families would become intertwined three generations later.

The Moreton Bay Courier published the disastrous arrival of the *Aurora*: '*Aurora came into the bay on Wednesday by the South Passage, and went aground on the sea side of Moreton Island where she now lies with small hope of ever getting off. The crew and passengers have all been landed, some on Moreton Island and the remainder at Cleveland Point.*' I reflect on this eventful arrival 160 years ago each time I cross South Passage Bar to go fishing. These early German settlers were also indentured to work on pastoral stations; as such, they were helped with their passages from Germany. Their immigration into Queensland was encouraged for the same reason as for Jacob; to meet the desperate shortage of labour. On 5 August 1865, Heinrich married Anna Ganzer (1848 - 1919) in Toowoomba and went onto the land that was granted in the Highfields district.

The land was cleared with axe and hoe and they grew maize and potatoes. Anna carried wattle bark to a Toowoomba tannery, then walked home with supplies and with some of her small children at her side. They had 14 children and raised 10, two pairs of twins did not survive.



Photo 79. Anna Ganzer, circa 1864.

Their fourth child, Henry ‘Harry’ Volp (29.6.1872 – 15.6.1962), my grandfather, married Anna Elizabeth Boshamer (28.11.1873 – 24.12.1972) on 2 May 1894 at St Paul’s Lutheran Church in Toowoomba. Anna had one of the most outstanding weddings with 10 bridesmaids.

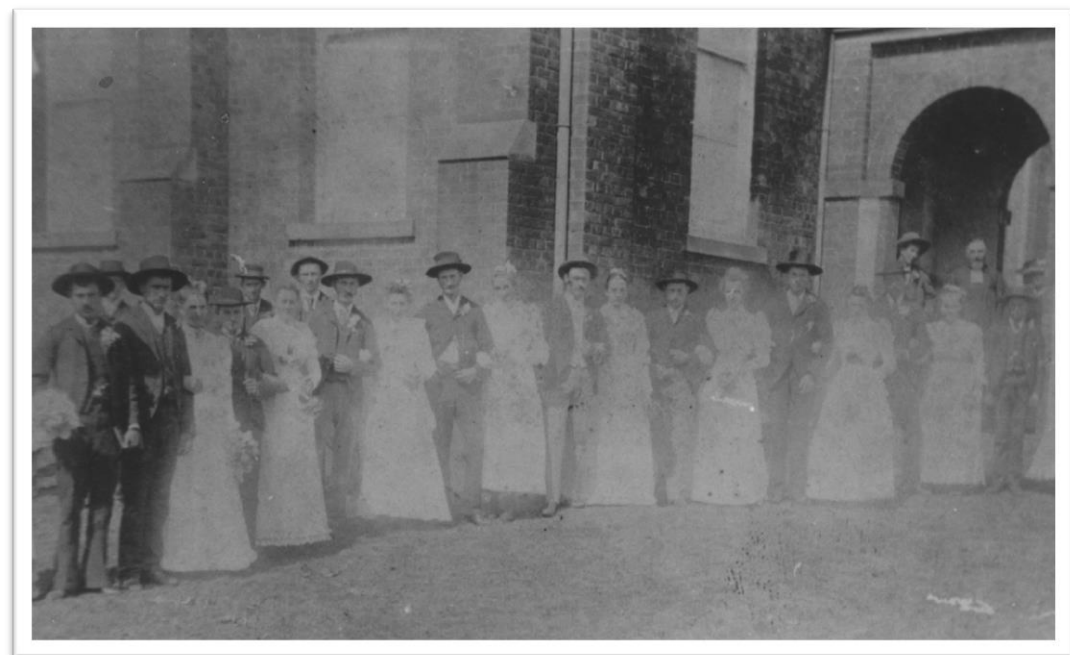


Photo 80. Grandma Anna’s spectacular wedding in 1894 with her 10 bridesmaids, Toowoomba.

They farmed at Highfields and Mum's recollections were that they learnt not to waste, but they were never short of anything on the farm. They reared five children; a sixth died a few days after childbirth.

Mum's uncles, her sisters boyfriends Bert Lawton and Ernie Zimmerle, and cousins Henry and Jack, all enlisted and went to Gallipoli and the Western Front in World War I. Mum recalled the community division over Prime Minister's Billy Hughes proposed conscription bill. Particularly of one of the neighbours coming over to visit Grandma and asking her not to vote for conscription: "*Mrs Volp you wouldn't vote for the conscription in case I killed one of my cousins over there.*" Grandma was chipping under the plum tree in the front yard and was 'ropeable' over him asking her that: the family's attitude was they didn't need to vote for it as "*they were all, already at the front*". The nation didn't vote for the referendum either.

Mum's long life is told in detail in '*Mum's story: the life and times of Stella 'Bobbie' Sattler 3.8.1911 – 29.9.2000*' (Sattler 2006(a)) and is reproduced in the Sattler Family History Supplement (Sattler 2015).



Photo 81. Grandad 'Harry' Volp, 1923.



Photo 82. Grandma and grandad Volp shopping in Ruthven Street, Toowoomba, 1934.

And so to 1950 when I was born.



Photo 83. Dad, Mum, Val and friend, Edna Loftus, beside old 'Lizzy' on lagoons behind the farm, 1950.



Photo 84. Ross, Mum, Val and Dad with guess who, 1952, on the farm in front of the adzed square, tank-stand stumps and the old copper boiler for washing.

Work down through the years

Work ledgers extending over 100 years for: Jacob Sattler, 1863; Harry Sattler, 1909, 1911 & 1913; and Guss Sattler, 1936 & 1966, are shown in Figures 1,2 & 3 and reflect changing earnings over three generations.

132 — Armidale and District Historical Society Journal No 39

EMPLOYEES IN THE GOSTWYCK LEDGER FOR THE YEAR 1863

NAME	WORK DONE	WORK PERIOD	PERIOD EARNINGS
Matthew Kerwan	Stockman and Shepherd Shearing 1842 sheep	all year shearing season	£41. 5. 0 £15. 7. 0
Charles Betts	Stockman	all year	£52. 0. 0
Richard Noble	Haymaking, reaping, general work	42 weeks	£42.15. 0
Thomas Tynan	Haymaking	6 weeks 3 days	£6. 5. 0
Jacob Sattler	Mustering and Haymaking Shearing 2323 sheep	15 weeks shearing season	£15. 0. 0 £19. 7. 2
Joseph Post	Shearing 1953 sheep	shearing season	£16. 5. 6
Henry Holloway	Engine driver Shearing 626 sheep	6 months shearing season	£50. 0. 0 £5. 4. 4
Robert Holloway	Threshing, mowing, general work, sheep washing	all year	£51. 0. 0
Patrick Bannon	Harvesting	7 weeks	£7. 0. 0
William Cattle	Gardener	all year	£39. 0. 0
Dougald McPherson	Shepherding 1 flock	all year	£34. 0. 0
John Gill	Superintendent	all year	£350. 0. 0
A. A. Dangar	Salary	3 months	£46. 0. 0
Maurice Welsh	Overseer	all year	£70. 0. 0
Henry Cruickshank	Overseer at Yarrowick	all year	£200. 0. 0
John Conway	Shepherding 1 flocks	all year	£40. 0. 0
Thomas Cattle	Shepherding 2 flocks General work	as commissioned	£45. 6. 8 £61. 0. 0

Figure 1: Gostwyck Ledger, 1863 (extract) for Jacob Sattler, Thomas Cattle, his father-in-law and William Cattle, Jane's uncle (Ferry 1996).

Terry Hie Hie Steam Sawmills and Planing Works.

Feb 28 1909

Mr. *Katon*

Dr. to H. C. SATTLER.

		Feet.	At per 100	£	s.	d.
<i>Nov</i>	<i>1</i>	<i>75</i>	<i>12/-</i>		<i>9</i>	
<i>Feb</i>	<i>6</i>	<i>1074</i>	<i>12</i>	<i>6</i>	<i>9</i>	<i>6</i>
		<i>100 slabs</i>		<i>1</i>	<i>5</i>	<i>0</i>
		<i>450 cut</i>	<i>4/6</i>	<i>1</i>	<i>0</i>	<i>3</i>
		<i>400 H M</i>	<i>6/6</i>	<i>1</i>	<i>6</i>	<i>0</i>
			<i>12/-</i>		<i>4</i>	<i>0</i>
<i>6/3/09</i> <i>Received cheque</i> <i>Ten pounds 14/9</i> <i>H C Sattler</i>				<i>£</i>	<i>10</i>	<i>14</i>
					<i>9</i>	

Figure 2(a): Docket for sawn timber, 28 February 1909 from Terry Hie Hie Steam Sawmill and Planning Works.

april 1913

abkhae	Llanagan	R. Kae		
1156	1493	1431		
1636	1499	1750		
1802	1838	164		
1220	1720	1703		
1703	1166			
1407	7722	5048	3/8	9.5-4
1530	£ 14-13-4			Paid full
443	Paid			
149				
1799 3/8				
12865	£ 23-11-6			Paid

May

Llanagan	abkhae	W Brenner	R. Kae	
1746	1513	1600	1765	
1353	1416	1645	1796	
1461	1607	1394	1308	
1908	1496	1390	1271	3/8 Paid
Paid	1278	6029 3/8	6140	£ 11-5-4
6458	1126	£ 11-0-0		
£ 11-16-8	1607	Paid		
	1263			
	9806 3/8			
	£ 17-19-4			
	Paid			

Figure 2(c): Payment for logs at Harry Sattler's sawmill, Terry Hie Hie, April and May 1913 at 3 shillings and 8 pence (3/8)/100 super feet.

1936			Retail		L. S. D.	L. S. D.	L. S. D.	L. S. D.
Qty	Name	Goods						
284	W. H. Lawton	3 Chairs		5/3		10 6		
4.11	W. H. Lawton	50 coverstrips 65		6/-		19 6		
5.11	"	2 Doors 6 1/2 x 2 1/2 in 1 Ditto 5 1/2 x 1 1/2	parico	4/7		13 9		
7.11	"	50 Brackets 6 locks		3/-		3 0		
6.11	"	1 gallon turpentine 4/- 28 white lead 1 1/6				1 6		
9.11	"	12 Brackets		1 1/6		13 0		
11.11	"	2 Doors		6/6		7 10		
14.11	D. Bird	2 chairs @ 6/3 & 2 tables 16/- less 10% on £2-13-0 5/4 Dis.		4/0		4 0		
21.12	W. H. Lawton	1 Window				6		
23.12	"	1 Bottle turp				6		
30.12	W. H. Lawton	7-4.8x18 Windows 1/4 2-4.3x18 1/4 2-4.3x18 1/4 2-4.3x20 1/4 2-4.8x18 1/4 2-4.8x20 1/4				18 10 6		
"	"	1-15x15 3/5 3-4.3x4.5 3/4 1 Door 1/2 1 Door 1/2 2-26x18 1/4 2-4.8x20 1/4				8 19 6		
"	"	2 Doors 6/4 x 2 1/4 1-4.3x4.5 3/4 1 glass 4/- 3.5x1 1/4 2 glass 4/2 1 pane 2/6				4 19 8		
30.12	L. J. Marshall	4 Stands + 1 Indicator £4-10-0				4 10 0		
						36 11 4		
28.12	A. Musgrave	1 Dutchess R. Oak		1 7 6				
29.12	"	1 Ditto		1 7 6				
4.1	"	1 Ditto		1 7 6				
7.1	"	1 sideboard 3 1/2 1 table 2 1/2 1 Dutchess 4/6						

Figure 3(a): Guss Sattler's furniture ledger book 1936 (extract) when he started making furniture in the back shed at 8 Cavell Street, Toowoomba.

W. Lawton was his brother-in-law and a builder.

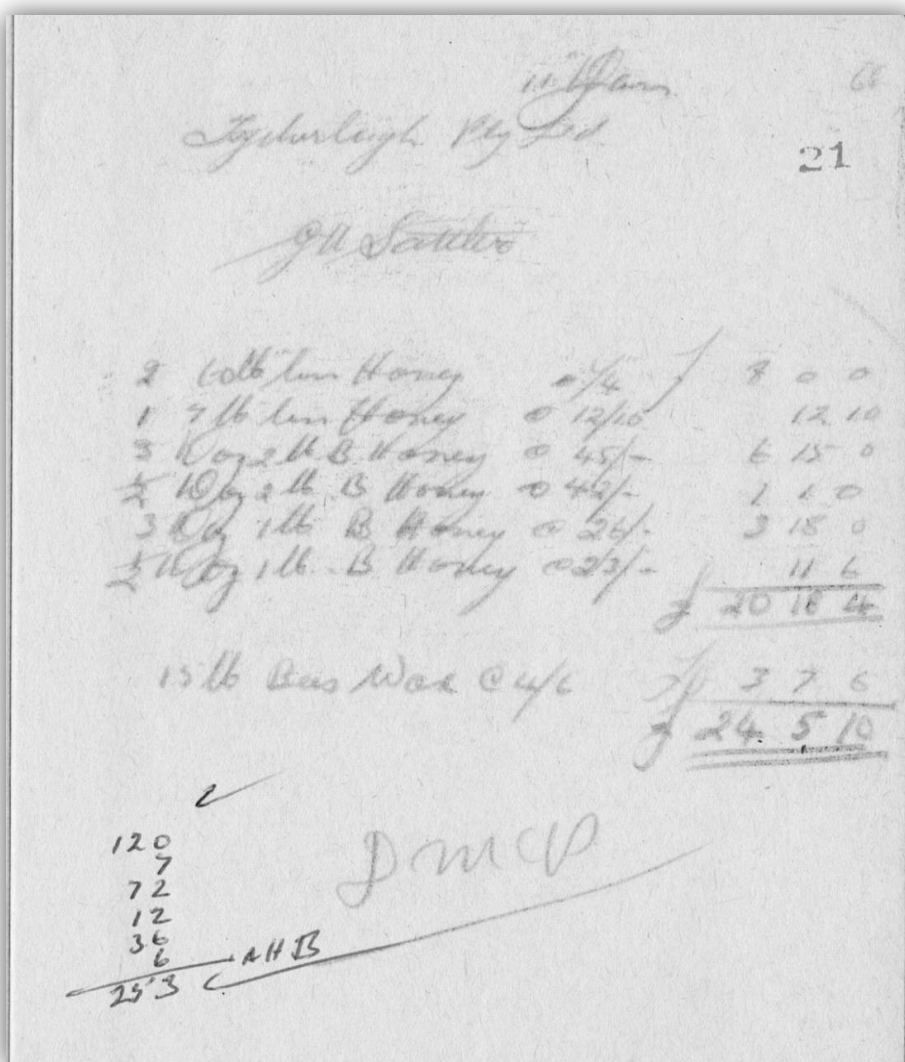


Figure 3(b): Guss Sattler's honey docket, 11 January 1966 (just before decimal currency came into effect on 14 February) to Tytherleigh Pty Ltd, an old firm in Caloundra and the district. Sixty pound (lb) tin of Yellow Box honey was £4.0.0 (other honeys were £3.15.0), one 7lb tin was 12 shillings and 6 pence, beeswax at 4 shillings and 6 pence per pound, and the levy to Australian Honey Board calculated at 253 pence.

Today an equivalent 27kg pail is \$145.00, a 3 kg pot is \$7.10 and beeswax is about \$6.00/ kg wholesale.

Sattler Family History – Supplement

A detailed family history, expanding on this summary, together with copies of many records, and the family trees for the Sattler, Cattell and Jackson, and Sattler and Volp families are contained in the 'Sattler Family History – Supplement' (Sattler 2015).

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Appendices

List of Tables

Table 1. Area gazetted National Park and Environmental Park and, the expenditure on purchases per year, 1975 – 2000.	159
Table 2. Growth in the area and representativeness of Queensland's National Park estate from 1975 – 2000.	160
Table 3. New National Parks and extensions, and Environmental Parks, gazetted 1975 – 1976, expenditure on purchases for that year, total area of the park estate and representativeness.	161
Table 4. New National Parks and extensions, and Environmental Parks, gazetted 1976 – 1977, expenditure on purchases for that year, total area of the park estate and representativeness.	162
Table 5. New National Parks and extensions, and Environmental Parks, gazetted 1977 – 1978, expenditure on purchases for that year, total area of the park estate and representativeness.	163
Table 6. New National Parks and extensions, and Environmental Parks, gazetted 1978 – 1979, expenditure on purchases for that year, total area of the park estate and representativeness.	164
Table 7. New National Parks and extensions, and Environmental Parks, gazetted 1979 – 1980, expenditure on purchases for that year, total area of the park estate and representativeness.	166
Table 8. New National Parks and extensions, and Environmental Parks, gazetted 1980 – 1981, expenditure on purchases for that year, total area of the park estate and representativeness.	167
Table 9. New National Parks and extensions, and Environmental Parks, gazetted 1981 – 1982, expenditure on purchases for that year, total area of the park estate and representativeness.	168
Table 10. New National Parks and extensions, and Environmental Parks, gazetted 1982 – 1983, expenditure on purchases for that year, total area of the park estate and representativeness.	169
Table 11. New National Parks and extensions, and Environmental Parks, gazetted 1983 – 1984, expenditure on purchases for that year, total area of the park estate and representativeness.	170
Table 12. New National Parks and extensions, and Environmental Parks, gazetted 1984 – 1985, expenditure on purchases for that year, total area of the park estate and representativeness.	171
Table 13. New National Parks and extensions, and Environmental Parks, gazetted 1985 – 1986, expenditure on purchases for that year and total area of the park estate.	172

Table 14. New National Parks and extensions, and Environmental Parks, gazetted 1986 – 1987, expenditure on purchases for that year and total area of the park estate.	173
Table 15. New National Parks and extensions, and Environmental Parks, gazetted 1987 – 1988, expenditure on purchases for that year and total area of the park estate.	174
Table 16. New National Parks and extensions, and Environmental Parks, gazetted 1988 – 1989, expenditure on purchases for that year and total area of the park estate.	175
Table 17. New National Parks and extensions, and Environmental Parks, gazetted 1989 – 1990, expenditure on purchases for that year and total area of the park estate.	176
Table 18. New National Parks and extensions, and Environmental Parks, gazetted 1990 – 1991, expenditure on purchases for that year and total area of the park estate.	177
Table 19. New National Parks and extensions, and Environmental Parks, gazetted 1991 – 1992, expenditure on purchases for that year and total area of the park estate.	178
Table 20. New National Parks and extensions, and Environmental Parks, gazetted 1992 – 1993, expenditure on purchases for that year, total area and representativeness of the park estate.	179
Table 21. New National Parks and extensions, and Environmental Parks, gazetted 1993 – 1994, expenditure on purchases for that year and total area of the park estate.	180
Table 22. New National Parks and extensions, and Conservation Parks (CP), gazetted 1994 – 1995, expenditure on purchases for that year and total area of the park estate.	181
Table 23. New National Parks and extensions, and Conservation Parks, gazetted 1995 – 1996, expenditure on purchases for that year and total area of the park estate.	182
Table 24. New National Parks and extensions, and Conservation Parks, gazetted 1996 – 1997, expenditure on purchases for that year and total area of the park estate.	183
Table 25. New National Parks and extensions, and Conservation Parks, gazetted 1997 – 1998, expenditure on purchases for that year and total area of the park estate.	184
Table 26. New National Parks and extensions, and Conservation Parks, gazetted 1998 – 1999, expenditure on purchases for that year and total area of the park estate.	185
Table 27. New National Parks and extensions, and Conservation Parks, gazetted 1999 – 2000, expenditure on purchases for that year, total area and representativeness of the park estate.	186

List of Maps

Map 1. The biogeographic regions of Queensland with their distinctive landscapes and species superimposed on the State's topography (<i>EPA & NPAQ poster, 1999.</i>) - Front piece	
Map 2. Map published by the Minister for Mines and formerly National Parks Minister, Hon. Ivan Gibbs, showing relinquished mining tenements (red) in favour of National Park proposals for the central Queensland coast.	34
Map 3. Southern Moreton Bay park strategy, 1987.	47
Map 4. Bioregional priorities for consolidating Australia's protected area system (<i>NLWRA Australian Terrestrial Biodiversity Assessment, 2002, fig. 8.3</i>).	143
Map 5. Distribution of Queensland's National Parks in 1967 (orange highlight).	156
Map 6. Distribution of Queensland's National Parks in 1997 (green highlight).	157

List of Figures

Figure 1. Gostwyck Ledger, 1863 (extract) for Jacob Sattler and Thomas Cattle, his father-in-law and William Cattle, possibly the uncle of Jacob's wife, Jane.	198
Figure 2(a). Docket for sawn timber, 28 February 1909 from Terry Hie Hie Steam Sawmill and Planning Works.	199
Figure 2(b). Logs drawn to Harry Sattler's sawmill at Terry Hie Hie, November 1911 (extract). Columns : species (mostly cypress pine and some bloodwood), Drawer, Brand, Number, Girth, Length, Super feet, Total supplied.	200
Figure 2(c). Payment for logs at Harry Sattler's sawmill, Terry Hie Hie, April and May 1913 at 3 shillings and 8 pence (3/8)/100 super feet.	201
Figure 3(a). Guss Sattler's furniture ledger book 1936 (extract) when he started making furniture in the back shed at 8 Cavell Street, Toowoomba. W. Lawton was his brother-in-law and a builder.	202
Figure 3(b). Guss Sattler's honey docket, 11 th January 1966 (just before decimal currency came into effect at the end of February) to Tytherleigh Pty Ltd, an old firm in Caloundra and the district. Sixty pound (lb) tin of (Yellow Box) honey was £4.00 (other honeys were £3.15.0), one 7lb tin was 12 shillings and 6 pence, beeswax at 4 shillings and 6 pence per pound, and the levy to Australian Honey Board calculated at 253 pence. Today an equivalent 27kg pail is \$145.00, a 3 kilogram pot is \$7.10 and beeswax is about \$6.00/ kg wholesale.	203

List of Photos

Photo 1. Dad and Ross on sled behind ‘Diamond’ on the farm at Meridan Plains, Caloundra, 1940s; banana plantation and partly finished house in background.	3
Photo 2. One of the big Blackbutt logs cut from the farm in the 1940s.	4
Photo 3. Bedford truck and bee boxes in the old shed on the farm, early 1960s. (<i>Hal Loftus sketch</i>).	5
Photo 4. Dad showing extracted frame to queen breeder, Norm Rice, at a field day in the honey house in 1969. Davidson uncapper feeding two 21 frame Pender semi-radial extractors – state of the art then.	6
Photo 5. Dad, Seola and nephew Jason, at the Sunshine Apiaries exhibit at the Nambour Show, 1984.	7
Photo 6. Early introduction to beekeeping for Melita with Dad and Ross, 1988.	7
Photo 7. Growing up with the Stato, 1988 and 2014.	8
Photo 8. Christmas Bells, Mum’s favourite flower.	9
Photo 9. Opening of the Bobbie Sattler Bushland Reserve, 2003. Mum with friends and early Caloundra identities, from left: Ray Liekefett, ‘Manny’ Comino, Des Dwyer and Stan Tutt from Landsborough.	9
Photo 10. Grandie’s House, 14 Landsborough Parade, Golden Beach, Caloundra, 1937.	10
Photo 11. Bulcock Street, Caloundra, 1930s.	10
Photo 12. Handling a sheep with catheter and rumen fistula as part of research into oxalate toxicity, Gatton College, 1971.	12
Photo 13. Intercollegiate large bore rifle competition 1969, Prospect Rifle Range, NSW. Stan Petherick, a College lecturer, in foreground beside author.	12
Photo 14. Lamington National Park (<i>DEHP photo</i>).	25
Photo 15. Dad opening a hive with Charlie Roff whilst hosting a field day at the farm, 1974.	28
Photo 16. Curtis Island National Park and its well developed parabolic dunes where sand mining was proposed.	33
Photo 17. Determining boundaries for Pumicestone National Park with Gordon Wilkinson (right).	36
Photo 18. Tea-tree (<i>Melaleuca quinquenervia</i>) forest west of Golden Beach, Caloundra; now converted to urban development.	38
Photo 19. Pumicestone Passage and Halls Creek area, near where a tunnel was proposed for a mega resort on Bribie Island.	38
Photo 20. Moolayember section of Carnarvon National Park (<i>DEHP photo</i>).	42
Photo 21. Lake Nuga Nuga National Park proposal in 1983.	42
Photo 22. Southern Moreton Bay wetlands and South Stradbroke Island (foreground).	44

	217
Photo 23. Wetlands of Southern Moreton Bay.	49
Photo 24. Thrushton National Park (<i>DEHP photo</i>).	51
Photo 25. Idalia National Park (<i>R. Purdie photo</i>).	52
Photo 26. Source of the Bulloo River on Idalia National Park.	52
Photo 27. Currawinya Lakes National Park with Lake Numalla (fresh) foreground, and Lake Wyara (salt) and blue in colour (<i>DEHP photo</i>).	53
Photo 28. Large Pelican rookery on Lake Wyara (<i>DEHP photo</i>).	53
Photo 29. Sunset over the southern Moreton Bay wetlands.	56
Photo 30. Cape Tribulation National Park, its gazettal was hard-fought in the 1980s (<i>DEHP photo</i>).	56
Photo 31. Large waterhole on the Barcoo River, Welford National Park.	65
Photo 32. Tregole National Park, from left, Ooline, Kurrajong and Brigalow.	65
Photo 33. Hell Hole Gorge National Park, one of the network of parks for the Mulga lands.	68
Photo 34. Coolibah woodlands, Culgoa Floodplains National Park.	68
Photo 35. Which way? Chris Mitchell and Peter Young at the crossroads.	70
Photo 36. Diamantina National Park, a part of the big landscapes.	70
Photo 37. Bilby (<i>Macrotis lagotis</i>), an endangered arid mammal species (<i>DEHP photo</i>).	72
Photo 38. Bulloo Lakes, the terminus of the Bulloo River: a long standing arid wetland National Park proposal (<i>DEHP photo</i> .)	74
Photo 39. The ‘naughty corner’.	74
Photo 40. Edith Springs along the Constance Range, Boodjamulla (Lawn Hill) National Park (<i>DEHP photo</i>).	75
Photo 41. Darter, Lawn Hill Gorge (<i>DEHP photo</i>).	75
Photo 42. Camooweal Caves National Park.	77
Photo 43. Julia Creek dunnant (<i>Sminthopsis douglasi</i>), an endangered small mammal species (<i>DEHP photo after G.Mifsud</i>).	80
Photo 44. A gathering storm over the Mitchell Grass Downs.	81
Photo 45. Contact Aboriginal art, Flinders Group National Park, Cape York Peninsula.	83
Photo 46. Homevale National Park, overlapping the Brigalow Belt and Central Queensland Coast Bioregions.	88
Photo 47. Lonesome National Park, one of the few Brigalow parks: note the silvery crowns of the Brigalow.	91
Photo 48. Castlevale, remains a key park proposal to complete Carnarvon National Park.	91

Photo 49. King Blue Grass (<i>Dichanthium queenslandicum</i>) a vulnerable species on Albinia National Park. Front Cover depicts Albinia with its rolling Blue Grass downs (<i>D.sericum</i>).	93
Photo 50. Reflections on the Vietnam Memorial, Washington D.C., where the fallen are inscribed.	96
Photo 51. Humbolt National Park and <i>Micromyrtus capricornia</i> , a shrub restricted to the Humbolt-Collinsville area.	100
Photo 52. My Aussie mates who got me into trouble (<i>Sketches by Simon McLean</i>).	110
Photo 53. Tea-tree (<i>Melaleuca quinquenervia</i>) forests of New Caledonia (pity about the abysmal mess from nickel mining on the mountains in the background).	112
Photo 54. Cuverville Island, Antarctica.	117
Photo 55. Piscatorial sampling, Antarctica Cod – a welcome change for dinner.	117
Photo 56. ‘Spirit of Sydney’ in Antarctica.	117
Photo 57. Street art in the World Heritage listed ‘Historic Quarter of the Seaport City of Valparaiso, Chile’.	120
Photo 58. Salt beside a wheat paddock in Western Australia. Millions of hectares have been destroyed.	123
Photo 59. Melita on safari.	129
Photo 60. A cleansing ale on the Serengeti.	129
Photo 61. Lake Nakuru National Park, Kenya.	130
Photo 62. Lion amongst the Kangaroo grass (<i>Themeda triandra</i>), a Gondwanaland moment on the Maasai Mara, Kenya.	130
Photo 63. Wildebeest migration, Serengeti, Tanzania.	130
Photo 64 & 65. Cuc Phuong National, Vietnam: dense rainforest on limestone. Standing in the cave of prehistoric man whose remains date to 7500 bp.	131
Photo 66 & 67. Book party and Peter Young drinking champagne from Kate’s shoe.	136
Photo 68. Mt Nebo and ‘the land of milk and honey’, now desertified: Jordon.	140
Photo 69. Dana Village and Nature Reserve, Jordon.	140
Photo 70. Bob, Val, Melita, Seola, Mum and author at Government House, 2004.	147
Photo 71. Harry Sattler’s saw-mill at Terry Hie Hie circa 1909.	189
Photo 72. A street in Walluf village leading down to the Rhine, 2014. Walluf today is still a wine producing area as it was in the late 1700s when my great, great, great grandfather was a barrel maker.	190
Photo 73. Grandie, (Henry ‘Harry’ Charles) Sattler, Aunty Lil (Lillian Aureli), Grandma (Ellen Ann nee Jackson) (back). Aunty Dulcie (Florence Elizabeth Jane), Uncle Arthur (Arthur Clifford) and Dad (Guss Henry), 1907. Aunty Marj (Marjory Ellen) was yet to be born.	191

Photo 74. Harry Sattler at his Golden Beach residence, circa 1940.	192
Photo 75. Ellen Sattler (nee Jackson) circa 1894, with a fashionable 18inch (45cm) waist.	192
Photo 76. My graduation on the grounds of Booloominbah with Mum and Dad, 1977.	192
Photo 77. Booloominbah, 2014.	192
Photo 78. Mum and Dad out for a ride 'when you and I were 17...', Mum's 17 th birthday, Toowoomba, 1928.	193
Photo 79. Anna Ganzer, circa 1864.	195
Photo 80. Grandma Anna's spectacular wedding in 1894 with her 10 bridesmaids, Toowoomba.	195
Photo 81. Grandad 'Harry' Volp, 1923.	196
Photo 82. Grandma and grandad Volp shopping in Ruthven Street, Toowoomba, 1934.	196
Photo 83. And so to 1950 when I was born. Dad, Mum, Val and friend. Edna Loftus beside old 'Lizzy' on lagoons behind the farm.	197
Photo 84. Ross, Mum, Val and Dad with guess who, 1952 on the farm in front of the adzed square, tank-stand stumps.	197

