S.W.A.N.S.

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State
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DEPARTMENT OF FISHERIES AND WILDLIFE, PERTH

S.W.A.N.S.

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Issued by direction of the Hon. Raymond O'Connor, M.L.A., Minister for Fisheries and Wildlife.

Director of Fisheries and Wildlife: B. K. Bowen, B.Sc.

The support of the public is an essential component in any conservation or reserve management programme—but an informed, educated public is needed to ensure its continuing success.

This publication is designed as a medium by which the various organisations, individuals, and wildlife management personnel may be kept informed of the work being carried out by this department; of departmental policies and directions; and for promoting a better understanding and appreciation of Western Australian wildlife and the role it plays in maintaining a suitable environment in which man can live.

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OBITUARY – BOB DEAR

It is with sadness that the Department records the death of recently retired Wildlife Officer Bob Dear.

Bob was a self-taught ornithologist and his love and knowledge of birds was evident in his hobby and work. He joined the Department in 1967 after returning from the U.K. where he was employed as the manager of a private zoo.

On his return to W.A. with the British Museum Harold Hall Expedition, Bob completed 6 months helping to collect some 2 000 bird skins from the South West, Hamersley and Chichester Ranges. He commenced duties as a fauna warden after the expedition disbanded and was the first departmental officer stationed at Wittenoom.

During his career with the Department Bob was stationed also at Onslow, Manjimup and finally at Wongan Hills until his retirement in July 1979.

Bob Dear was an excellent horseman and became an authority and judge of equestrian events in the various towns where he was stationed.

In the latter part of 1971 he accompanied the Operation Ord Noah Team which rescued many hundreds of animals from the rising waters of the then, new Ord River Dam. In 1973 he was again involved in yet another inter-departmental expedition to the north west islands of W.A.

A kind and gentle man was Bob Dear with a love of nature and open spaces. He will be remembered for his humorous reports, namely the saga of the "Tangle with Tonga", an apt and humorous masterpiece on a day in the life of Wildlife Officer Bob Dear.

The Director and staff of the Department of Fisheries and Wildlife are grieved at the loss of one of nature's gentlemen and offer sincere condolences to Mrs. Dear and family.

IN THIS ISSUE . . . .

VALE
H. B. SHUGG

As Editor of S.W.A.N.S. I owe a lot to Harry—very little passed over his desk as Conservator of Wildlife without him thinking "I wonder if this might be suitable for S.W.A.N.S.", and much was duly marked to me to see if I considered it worth publishing or following up as an item of news or interest for readers.

His knowledge of the English language and its grammar ensured that we thought a little more about our composition when writing—ungrammatical phrases or sentences, spelling mistakes and bad punctuation were the ultimate sins in Harry's eyes and one could expect a strongly-worded comment from him for any major digressions.

Some people may have thought him pedantic, but Harry came from that old world breed who believes that our language is part of our heritage and, while it may grow and change, it should never be prostituted for the sake of expediency or lack of thought; and rightly so. No—he wasn't pedantic, he was correct and to the point of searching through Roget's Thesaurus if he believed there was a better word than he could think of for the occasion.

Devoted to his belief of the importance of conservation, and, totally convinced that man **must** learn to live with nature instead of continually trying to conquer it, Harry undoubtedly will continue in the many years ahead of him to expound those beliefs in the better interest of his fellow man.

A. C. Waldon,
Extension and Publicity Officer.

I always admired Harry Shugg as a dedicated servant of the Crown, an excellent Chairman, an eloquent speaker, and for his ability to write so descriptively and precisely.

His devotion to the protection of wildlife, his strong thoughts and beliefs on anti-pollution and desecration of the environment, were ever present in his mind and he conveyed those thoughts without fear and with such eloquency that it was a pleasure to be an audience.

The protection so richly deserved and now enjoyed by our unique fauna was the brainchild of Harry Shugg. Much still needs to be done but, having had a "coach" like Harry, how can we fail.

Good luck and best wishes to Harry and wife Mary for a long, successful and happy retirement.

Brian Carmichael,
Chief Wildlife Officer.

I have known Harry Shugg over a period of thirty years, extending from young men returning from the war and believing that the world should become a better place in which to live to mature men carrying the responsibilities of senior office. We worked together for the last fifteen of those thirty years.

Harry maintained, and still maintains, his idealism and vision of all of us doing the right thing for the generations to come. Because of his steadfast view, and almost stubborn belief, he achieved a great deal for the conservation of wildlife; in fact he was the main architect of the structure of the legislation and conservation philosophy that we have today.

His one-eyed, dedicated and almost didactic support for wildlife conservation is going to be sorely missed.

Jim Mearns,
Secretary.

Something to think about

Three monkeys sat in a coconut tree,
Discussing things as they should be,
Said one to the others, "Now listen, you two,
There is a certain rumour that can't be true;
That man descended from our race,
The very idea is a disgrace.
No monkey ever deserted his wife,
Starved her babies, and ruined her life.
And you've never known a mother monk
To leave her babies with others to bunk,
Or pass them on from one to another
Till they scarcely know who is their mother.
And another thing you'll never see,
A monk build a fence around a coconut tree,
Why, if I put a fence around that tree,
Starvation would force you to steal from me;
Here is another thing a monk won't do,
Go out at night and go on a stew,
Or use a gun, or bomb, or knife—
To take some other monkey's life.
Yes, man descended, the awkward cuss,
But brothers, he didn't descend from us."

Our Diminishing Heritage

The Numbat, or banded ant-eater (*Myrmecobius fasciatus*), is a remarkable marsupial that feeds on termites. The animal has been little researched in the 130 years since its discovery by European man.

There are two subspecies of the numbat; *M. f. fasciatus* which lives in the south west of Western Australia and *M. f. rufus* which was found in the interior near the border of Western Australia, Northern Territory and South Australia. The Rufous Numbat is thought to have intergraded with the Western Numbat somewhere in the Kalgoorlie district. In the 1820s, the numbat ranged from western New South Wales to the Indian Ocean. By the 1950s its range had contracted to the South West of West Australia. Aborigines at Warburton, where the Numbat used to occur, report that they have not seen any around there in the past 30 to 40 years.

It is difficult to be sure which factors have been responsible for the numbat's decline. Certainly the clearing of land for farming has destroyed the habitat of numbats in many areas, but it is also probable that introduced predators such as the cat and Red Fox may have taken their toll. Natural predators probably include the Wedge-tail Eagle, goannas and Carpet Pythons. These latter two animals occupy hollow logs frequented by numbats. Mining activities may have also taken their toll, as strip-mining for the bauxite that frequently underlies the lateritic soil where the numbats are found, destroys their habitat. In the past the open eucalypt forest with its shrub understorey and abundant litter favoured by the numbat, was subject to infrequent, high intensity wild fires.

With the advent of a low intensity prescribed burns, these areas may be undergoing a transition to an unsuitable habitat. There has been a drastic decline in the numbers of numbats in the past 3 to 5 years and this may be due to drought and the recent increase in fox numbers.

In the south west of Western Australia, the numbat finds shelter in hollow logs, or infrequently, burrows underground. The termites that eat the heartwood of the logs also provide the numbat with its sustenance. The numbat detects its termite prey by olfactory cues, it then overturns branches and pieces of wood or excavates with its fore paws so that it can lick up the termites with its long, cylindrical tongue. The animal does not masticate its food but swallows it whole. Some ants are also found in the numbat's scats, but it is thought that these are accidentally ingested as predatory ants swarm into the termite galleries when they are opened. Only rarely can numbats break open a termite mound, generally the animal finds its food in leaf and stick litter or in the shallow feeding galleries. The numbat is one of the few diurnal marsupials, it is abroad in daylight and shelters in its log during inclement weather and at night. Perhaps in this way it escapes nocturnal predators.

The requirements of the numbat can be simply characterised as an open woodland dominated by a *Eucalyptus* species, with hollow logs, termites and an understorey of shrubs. A particularly suitable habitat in the south west of Western Australia is the wandoo poison shrub association.

A study is currently underway on the numbat in Western Australia. This study is funded by the Wildlife Conservation Trust Fund and is being undertaken by a consultant biologist and the Wildlife Research Branch of the Department of Fisheries and Wildlife. The six-month study hopes to demarcate the present-day range in Western Australia of the numbat and estimate the population size. If possible, a captive colony will be founded and this will serve as a basis for a nutritional study. The lack of a nutritionally adequate and palatable diet that is readily and universally obtainable has prevented their being represented in zoological gardens. Of the world's zoos, only Taronga Park in Sydney has any numbats and they have only one animal, a female. The numbat has never been successfully bred in captivity. If a breeding colony could be established, re-introduction of numbats to areas where they were formerly abundant would be feasible. Indications from the current study suggest that the numbat's range has contracted considerably since the last population study (1950–1954).

Breeding Season

Mating is between December and March with the birth of a litter (commonly four) between January and May. Unlike many other marsupials, the female numbat has no pouch. The young, however, are carried by the mother attached to the teat until they begin foraging on their own in spring.

Description

The Western Numbat's pelage varies from grey-brown to red-brown while the Rufous Numbat is brick red on its back. There are several prominent white bars across the back and the flattened rump. Underneath, the numbat is almost white. Hair is short except on the tail which takes on a bushy appearance when the hair is erect. The face is elongated and the animal has a worm-like tongue which can be protruded. Teeth vary between 50 and 52 and are degenerate. The animal commonly gives voice to a low, throaty growl when disturbed and will frequently hiss rapidly when held. An adult male weighs approximately half a kilogram, has a body length close to 25 cms and a tail length of nearly 18 cms.

Distribution

Previously throughout the southern half of Australia extending from western New South Wales to the Indian Ocean and in habitats as diverse as open eucalypt woodland and desert, now the numbat is largely confined to the open eucalypt forests of the south west of Western Australia and possibly the desert regions in the north west of South Australia and the Warburton Ranges of Western Australia.

NUMBAT or BANDED ANTEATER

Myrmecobius fasciatus

A rare glimpse of the female Numbat with her litter of four. Photo taken from 16 mm movie frame.

DUGONG SURVEYS

It has been thought to date that the dugong herds that frequent the vast offshore waters of north Western Australia were forever secure from man's predation.

Western Australia is currently expanding its frontiers both in exploration and recreation and with today's sophisticated equipment, encroachment into dugong habitat is already happening. No longer is it safe to assume that because of reasonable numbers, remote breeding grounds and the classification of rare and in need of special protection, the dugong is safe in W.A.

The areas of Shark Bay and Exmouth Gulf where dugong now abound are subject to increased boating pressure from amateur and professional fishermen. In the future these areas and others to the north will also be visited and searched by mineral exploration vessels.

During 1979 Dr. R. I. T. Prince of the Western Australian Wildlife Research Centre, with the assistance of Fisheries Inspector D. Blackman, continued to gather general information, by aerial survey, on dispersal and abundance of dugong in Shark Bay. Information on the North West Coast, prior to 1979, had been obtained in conjunction with the Pelican research programme and confined to the coastline between Shark Bay and Port Hedland. Detailed knowledge of Shark Bay dugong had also been obtained as a result of aerial surveys, a short field investigation during June 1978 and liaison with commercial fishermen based at Denham.

Four areas of significance to dugong have been identified *viz.* Shark Bay, Exmouth Gulf, the area between the mouths of the Cane and Robe Rivers and the Cape Preston-Dampier Archipelago area. Shark Bay and Exmouth Gulf appear to be the most important areas on present information.

Further research is needed to better understand the potential hazards which could effect the populations in these areas so that anticipatory management planning can be undertaken.

The Exmouth Gulf population probably exceeds 200 individuals on presented information. The inaccessibility of the eastern shores of Exmouth Gulf from the landward side and the extensive shallows in this part of the gulf have to date restricted knowledge of dugong prior to the current surveys.

Detailed knowledge of dugong populations in offshore waters north and east of Tubridgi Point (Exmouth Gulf) to Port Hedland and in coastal waters from Port Hedland to the Northern Territory border is also unknown. In order to conserve the dugong it will be necessary to gather such information.

Professor Paul Anderson from the University of Calgary in Canada recently completed a biological survey and research programme on dugong populations in the Shark Bay area. Departmental on-site involvement was limited, but logistic support, and co-operative involvement was directed to familiarisation with the research undertaken, the methodology used and the possibilities for additional follow-up work.

Shark Bay is a unique area for dugong observation in that the animals are rarely disturbed or hunted and are quite approachable in their clear water domain.

The Dugong

The objects of the study were to establish a basic understanding of the behaviour and habitat requirements and to lay a foundation for future protection of one of the world's most distinctive mammals.

In early June Professor Anderson's survey party started their observations at Dirk Hartog Island. The previous survey there in 1978 had disclosed 80–100 resident animals in extremely clear water in South Passage, with visibility to about 20 metres. It appeared therefore to be the best and easiest place to commence the behavioural observations in 1979. South Passage however, was vastly different this year with poor visibility and only a few animals around.

It was therefore decided to concentrate on areas off the eastern shore and northwards along Dirk Hartog Island, even though underwater visibility was only 3–5 metres. Animals were located by aerial spotting or by the use of outboard motor boats and then approached by divers in inflatable canoes.

During all occasions, the curiosity of dugongs presented the unwanted situation of the observers being observed. This unnatural situation persisted as the animals detected divers long before the divers saw the dugong. The beasts would appear out of the murk to circle at 1–4 metres, move ahead in a zig-zag fashion and then after a period swim away.

During June the weather deteriorated thereby decreasing underwater visibility and it was decided to establish shore-based observation points from high bluffs and promontories. This proved to be the most productive and economical way to locate, observe and photograph the animals during the entire exercise.

Throughout the survey it was noticed that dugongs appeared to prefer a 2–4 metre depth of water over banks of *Amphibolis antarctica*, one of the 2 predominant species of sea-grass in the area. Nearby depths up to 7 metres were used occasionally for feeding and idling.

From the data to hand it is not known why dugong spend time in South Passage, an area of heavy breakers and little sea grass.

Prior to the 1979 work it was generally thought that dugong sought sheltered areas in the event of rough weather. However, during one day of 30–50 k.p.h.

The Dugong and calf surfacing

winds and 1 metre waves in the Bay, the animals were observed not to alter their routines and were content to lie just beneath the surface.

Cow-calf relationships were noticed to follow the same pattern as observed in 1978. The usual position of calves, swimming above their mothers and appearing to use their slipstream for ease of swimming, were observed, with the occasional "piggy back" ride to the surface for air. (See photo).

To determine the reactions and abilities of dugong to cope with intruding power boats, an outboard motorboat was driven at varying speeds at and among a herd of animals. Below 15 knots, the boat caused the herd to take evasive measures by disappearing and appearing elsewhere *en masse*. This collective avoidance reaction is one of the factors which support the opinion that the animals are socially orientated. At 20 knots and above however, the animals were incapable of evasive action. When the boat was stopped amongst them, the animals commenced their inspection procedures, i.e. circling the boat, diving and surfacing up-sun to breathe. This inability to take evasive action points to a future conservation problem with possible injuries and death from fast moving boats.

During the survey hydrophonic microphones were used to record any evidence of vocalisations by dugong. The equipment was capable of recording any underwater sounds between 5 hertz and 20 kilohertz. One or two noises were recorded but until the tapes are investigated in a laboratory no positive conclusion can be made.

Bird-like sounds have been recorded from captive animals during an experiment in Queensland some time ago.

Interactions between dugong and other animals were noted during the survey, the most notable being between a dolphin and a dugong cow and calf. The dolphin appeared to harass or play with the cow and calf by speeding in from the side and veering away at the last moment. After a few passes several large mature dugong placed themselves around the calf in a diamond formation, thereby ending the dolphin's game. This appears to have been a herd reaction, again displaying social behaviour and a possible defence procedure.

Tiger sharks were seen in the area but at no time was there any interference to dugong even though on one occasion a large shark was seen to swim through a herd.

Cormorants were noticed to fly from a nearby colony, directly to a herd of feeding dugong, possibly to feed upon small fish flushed from the sea-grass. Individuals or small groups of fish were often seen swimming approximately 20 cms under a dugong's snout presumably to feed on small invertebrates also flushed from the sea-grass. Due to their curiosity however, the dugong did not feed in the presence of divers.

A photographic registry was made of all dugong sighted during the survey so that identification by patterns and scars can be used in future surveys.

The dugong population in Shark Bay is very likely the largest occuring in any single well defined area in the world. Aerial surveys were confined mainly to the Eastern side of Dirk Hartog Island.

The maximum number of animals seen on any single aerial survey was 500, and an unconfirmed report of a further 200 animals elsewhere in the Bay was made at the same time.

From these observations, it is estimated that there may be several thousand dugong in the Shark Bay population. With clearer waters than the Eastern Australian habitats, Shark Bay is a prime and as yet largely undisturbed area for studying dugong.

The Department of Fisheries and Wildlife is indebted to Professor Paul Anderson for undertaking this work which was supported by the National Science and Engineering Research Council of Canada, Earthwatch Massachusetts, U.S.A. and the Research Committee of the University of Calgary, Canada. Additional support was organised by Dr. Prince from Esso Australia Ltd., and Alcoa of Australia Ltd.

FIRETAILS AGAIN

In response to the article on Red-eared Firetail finches in S.W.A.N.S. Volume 9 Number 1, a farmer from the south coast near Denmark wrote to the Department describing those beautiful birds on his property. He stated that there are literally hundreds of them on the property and said that many feed and nest around his house.

A major portion of the gentleman's property has been retained in its natural state, therefore encouraging the birds to remain in the area, and he says that the sight of all the birds during the breeding season is one to behold.

Other reports from around the south west of the State show that Red-eared Firetails can be found in small pockets of suitable habitat along the South coast. The species is, however, now rare through most of its range along the west coast.

It would be nice to report areas where the birds can be readily observed, but such information would have illegal trappers swarming into the areas, and this would not help in the conservation of such a rare species. Unfortunately the activities of illegal trappers will always restrict worthwhile reporting of important sightings. People declaring such information to the Department will always have their observations etc. treated in the strictest confidence.

Rare Plant Discovery

MOGUMBER BELL

(Darwinea carnea)

A press release by the W.A. Herbarium early in 1978 revealed the re-discovery of the "Mogumber Bell" near Narrogin.

This species had not been sighted for many years and it was thought it might even be extinct. Its stronghold was once Mogumber, near New Norcia. There are now only six plants known in existence in the wild and these are found on a small stony ridge south of Narrogin.

A concerned conservationist, from Narrogin, told Dr. N. Marchant of the W.A. Herbarium of the plants' existence. Dr. Marchant has been successfully propagating the species from cuttings at the Herbarium.

The actual location of the plants is being kept a well-guarded secret.

A wildlife officer has since visited the area and saw the plant growing amongst *Dryandra nobilis* and *Beaufortia* on a small laterite ridge. The area was uncleared and had been fenced off to prevent the invasion of rabbits. The whole area only comprises of 0·5 ha and is completely surrounded by cleared cultivated land.

The "Mogumber Bell" is an extremely rare and endangered plant and it is vital to conserve the last known specimens as far as possible, in their natural habitat. Accordingly a project is underway to protect them and this is being supported whole-heartedly by the landowner.

FAT-TAILED DUNNART

(Sminthopsis crassicaudata)

Early in June 1979 Wildlife Officer R. Smith of Albany was called to a property at Ongerup, where a small marsupial mouse had been found.

The animal was identified as a Fat-tailed Dunnart (*Sminthopsis crassicaudata*). It was found under mallee roots in a cleared paddock.

The owner of the property said that he often found these animals when working around the farm. It is interesting to note that the farm has been completely cleared for fifteen years, and the dunnarts' habitat appears to be the open paddocks where they live in the old mallee roots and stones.

Dr. W. D. L. Ride in his book *A Guide to the Native Mammals of Australia* (Oxford University Press; Melbourne 1970) describes the Fat-tailed Dunnart as a small active predator, the size of a domestic mouse, which appears to live principally on insects.

If a dunnart is frightened, it will adopt a threatening posture opening its mouth wide and often making strange noises as it exhales. This dunnart, as its name indicates, has a fat store in the tail. This suggests that these animals live in dry areas.

Studies have shown that female Fat-tailed Dunnarts may begin breeding when only four months old; and for at least six months after this, she will continue to produce litters at intervals of about 82 days providing she can find enough to eat.

Male animals will fight over females on heat and females, especially the older ones with young in their pouch, will attack males. They have even been known to kill their mates.

Dunnarts are extremely cautious animals, and will look with great suspicion at any new or strange object appearing in their territory. Like some possums, the dunnart uses glandular secretions and saliva as territorial signals.

In Western Australia the Fat-tailed Dunnart is found in a large area extending inland from the south-west.

ALBINO AUSTRALIAN RAVEN
(Corvus coronoides)

On January 25, 1979, Wildlife Officer Bernard Masters investigated three reports that a "white crow" was flying around the Paynedale area, about 10 km south-east of Capel (half way between Bunbury and Busselton).

Wildlife Officer Masters had no trouble in locating the bird which he believed was an albino Australian Raven. The bird was pure white, except for a slight orange-yellow tinge to the beak and legs. It appeared normal in all other respects.

Although Australian Ravens are often found in flocks, the albino bird appeared to lead a more solitary life. However, it was seen several times feeding on the road in the company of other ravens, none of which made aggressive moves against it.

Wildlife Officer Masters did not hear the bird call at any stage of his hour-long observation. Its flight, feeding habits, size etc., did not seem in any way abnormal.

The albino mutation in the raven species is estimated to occur one in every ten million, a similar ratio as in humans.

Australian Ravens do not breed until they are three or more years old. Until then they feed nomadically in flocks of thirty or more. When a mate has been found, the pair occupies a territory of about 110 hectares. It is in this selected area that they find most of their food, roost and breed.

Australian Ravens pair for life and breeding pairs remain in their territory all the year around. They have no courtship displays apart from preening each other and occasional chasing flights. The ravens are always together and this is probably why they do not need elaborate courtship displays.

Irrespective of latitude, Australian Ravens breed in spring. Egg-laying begins in July and rarely continues beyond September. Generally the eggs are incubated for 20 days and the young stay in the nest for about 43 days. Having left the nest the young birds remain in their parents' territory for 3-4 months. At first they are fed by their parents but become increasingly independent, as they get older.

The Australian Raven is found in all Australian States except Tasmania.

Wildlife and Leisure

With an ever increasing amount of leisure time becoming available to the workforce of the State there is now, more than ever before, a need for an evaluation of the past and of hope for the future; a time for self appraisal and critical analysis of our attitudes.

How many of us will gaze in retrospect and admit that we could have contributed more to our recreational activities as far as they affected the fisheries and wildlife of Western Australia?

How many will concede that the scope of our interest did not extend beyond the size of the catch, the bag limit, or the price of a license fee?

Several areas come to mind in which we can all take an active part to ensure a stable future for the State's sport fisheries, wildlife, and wildflower attractions which we seem to have taken for granted in the past. We need to develop more understanding and interest in conservation and an awareness for maintaining a proper balance between supply and demand of our harvestable natural resources.

Support of the State's fish and wildlife authorities is another area where we can help our own cause. The biologist is a qualified expert dedicated to conservation of our animals and plants and their rational exploitation through modern management techniques; the wildlife officer co-operates with the biologist, the sportsman and the landowner to ensure the continuation of all species; the fisheries inspector polices the State's waters to guarantee a continuing supply of fish and recreation for the angler and a livelihood for the professional fisherman.

Laws controlling fisheries and wildlife are a necessary tool of management; we should abide by them in the true spirit of sportsmanship and be openly critical of those who fail to do so.

Finally we must recognise the landowner's rightful place. He should not be abused or taken for granted, for the commodity he owns is in demand and, with the progress of industrial and urban development, the supply is gradually dwindling. By taking an active part in all these areas we will be helping to preserve and improve the recreation and activities upon which we depend for outdoor pleasure.

PELICANS vs PEOPLE

Someone recently described a delightful scene during a crystal clear winter's morning on the Canning River near Perth.

The pre-dawn mist had just rolled away letting newborn shafts of sunlight dance across a reflection of blue sky mingled with eerie wisps of rising condensation.

Suddenly an intrusion that had become a ritual over thousands of years, erupted the placid mill pond surface of the the river into a million sparkling ripples.

Huge winged creatures of grotesque proportions, accompanied by an entourage of smaller beasts settled comfortably and prepared their military like tactics for the daily feeding foray on fish and crustacea. Like an armada of ghostly white galleons, the formations of bodies cruised effortlessly making uniform attacking movements into the dark waters below.

continued on back page

DINGOES UNPROTECTED ON RESERVES

The notice published in the *Government Gazette* on June 16, 1978, specified that certain mammals and reptiles were declared to be unprotected for a period of five years throughout Western Australia, except on nature reserves and national parks.

This required special permission to be sought by the officers of the Agricultural Protection Board to go on National Parks and Nature Reserves to enable them to carry out their duties in relation to the control of dingoes.

To overcome this problem a further notice has been published in the *Government Gazette* stating that dingoes and dangerous poisonous snakes are unprotected throughout Western Australia. This therefore permits Agriculture Protection Board officers to enter National Parks and Nature Reserves without special authority. The notice of this effect was published in the *Government Gazette* (No. 26) on May 11, 1979 and reads:—

WILDLIFE CONSERVATION ACT, 1950–1977

Notice

Department of Fisheries and Wildlife,
Perth, 1st May, 1979.

F. & W. 116/52.

THE Minister for Fisheries and Wildlife, pursuant to the powers conferred by section 14 of the Wildlife Conservation Act, 1950–1977—

(a) does hereby cancel wholly and absolutely the provisions and operations of the Notice published in the *Government Gazette* (No. 40) of 16th June, 1978; and

(b) does hereby declare that the species of fauna described in the Schedule hereto shall not be protected throughout the whole of the State.

R. J. O'CONNOR,
Minister for Fisheries and Wildlife.

Schedule

A. Mammals—
Wild Dog (Dingo); *Canis familiaris dingo.*

B. Reptiles—

(1) The undermentioned Venomous Front-fanged Land Snakes:

1. Common Death Adder; *Acanthophis antarcticus.*
2. Desert Death Adder; *Acanthophis pyrrhus.*
3. Black Whip-snake; *Demansia atra.*
4. Spotted-headed Snake; *Demansia olivacea.*
5. Papuan Whip-snake; *Demansia papuana.*
6. Green Whip-snake; *Demansia reticulata.*
7. Rosen's Snake; *Denisonia fasciata.*
8. Little Spotted Snake; *Denisonia punctata.*
9. Gould's Snake; *Denisonia gouldii.*
10. Northern White-lipped Snake; *Denisonia suta.*
11. Monk (or Hooded) Snake; *Denisonia monachus.*
12. Crowned Snake or Werr; *Drusdalia coronata.*
13. Bardick; *Echiopsis curta.*
14. Tiger Snake; *Notechis ater.*
15. Mulga (or King Brown) Snake; *Pseudechis australis.*
16. Dugite; *Pseudonaja affinis.*
17. Gwardar; *Pseudonaja nuchalis.*
18. Five-ringed Snake; *Pseudonaja modesta.*

(2) All Sea Snakes of the Family Hydrophiidae.

Rare Penquin visits Western Australia

On the 8th September last, Mrs. Winifred Caunce of Busselton was walking along the beach some 6 km west of Busselton when she came across a rather large, unusual looking penguin.

Mrs. Caunce said a few words of affection to the stranger and proceeded to return home. Without any further encouragement, the bird followed her 1·5 km along the beach and 300 m inland to her house.

Wildlife Officer Bernard Masters visited Mrs. Caunce and tried unsuccessfully to get the bird to follow him to the beach and back into the sea.

The penguin was eventually taken into custody by W.O. Masters and kept in his backyard for a few days. During this time details of the bird's physique and some behaviour traits were noted and a positive identification was made.

It was a large penguin, standing some 63 cm high and having an overall length of some 79 cm (from tip of tail to tip of beak). At times the bird extended its neck to such a degree that its length increased to more than 91 cm. Using a set of innacurate bathroom scales, the bird weighed between 11 and 11·5 kg.

On consulting various reputable books on bird identification W.O. Masters determined that the bird was a King Penguin, a species usually found in the Antarctic. After consulting with Perth zoo director, Mr. Tom Spence, it was established that this was the first sighting of such an animal in Western Australia.

The colouring of the penguin which is not fully seen from any one angle and is not evident in the black and white photo, was as follows.

The upper portions of the back were slate grey, the lower portions being a darker but mottled charcoal/dark grey. The front (underside) was predominantly white but there was a pale-yellowish-cream coloured "bib" below the neck which had a diamond shape.

The ear patches were a bright orange-tinted yellow but they were not dark enough in colour to be described as being "Kodak" yellow. The yellow extended in a very narrow line around to the front of the bird where, immediately below the neck, there was another yellow patch. The posterior borders of the yellow colourations were all lined with a thin black border. Also, where the grey of the back met with the white of the front, there was a similar black border.

The head was very dark slate grey to black in colour. The bill was black except for the posterior half of the lower mandible which was a pale pink colour, streaked with black.

The eyes were brown; feet were black, both upper and lower surfaces; the tail was mottled black and slate grey.

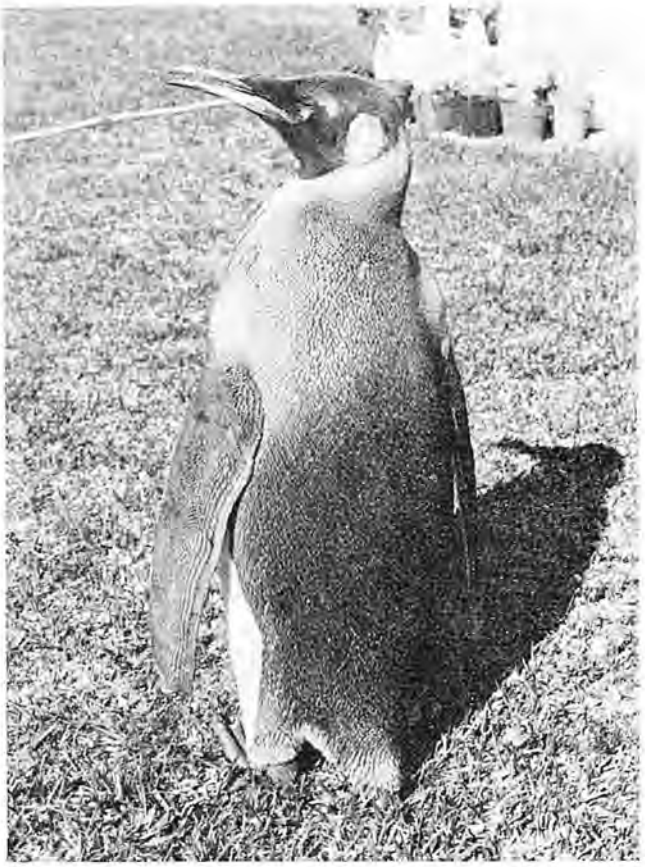
The flippers were white underneath; dark slate grey on the upper wing; the tip of each flipper was black underneath.

Behaviour

At no time did the bird show any fear of humans. With small children approximately the same height as itself, the bird sometimes showed some aggression if they ventured closer than about 60 cm.

Sudden movements by persons, vehicles, animals, etc. caused the bird to become alert but, otherwise it was very placid and readily accepted whole, dead fish as food from the hand. On only one occasion did it pick up food from the ground and that was when it had been hand fed a fish which it then dropped.

The penguin adapted quickly to confinement within an average backyard but did not enjoy being placed in a box during transportation. After one night in W.O. Masters' possession, it began calling at dawn, presumably for more food.



Because of its obvious attachment to humans and being over 2 000 nautical miles from its habitat, the bird was considered in danger of being deliberately or accidentally harmed by human actions. After further talks with Mr. Spence it was decided to send the penguin to the care of the Perth zoo.

THE RAOU BIRD OBSERVATORY AT EYRE

by S. J. J. F. Davies

When the Australian Post Office closed the Eyre Telegraphic Station in 1927 it sold the building for £30, presumably thinking that it was worth no more than the value of the materials it contained. Sited less than a kilometre from the Southern Ocean, sheltered from the storms of the Great Australian Bight by two sand dunes, the building stood, uninhabitated, for over forty years, defying both the elements and the vandals. The original purchaser took some materials from it and built them into his homestead on the Nullarbor, but the very rough terrain between the Eyre Highway and the old Telegraph Station protected it from the despoilation that has befallen the telegraph stations at Israelite Bay and Eucla. In 1965 the Government of Western Australia created the Nuytsland Nature Reserve, setting aside a long strip of the southern coast from Israelite Bay to the vicinity of Mundrabilla as a primitive area, with restricted access. The old Eyre Telegraph Station stood in this reserve, but still remained unused.

In 1976 two organisations, quite independently, became interested in Eyre. The Post Office Historical Society, realising the historic importance of the building and its remarkably good state of preservation, began to make plans for its restoration as a museum of the old Intercolonial Telegraph Line. The Royal Australasian Ornithologists Union at the same time realised its potential as a bird observatory and both bodies approached the W.A. Department of Fisheries and Wildlife to see whether restoration was feasible. Goodwill and co-operation have characterised the restoration project, so that by September of 1977, the RAOU was able to instal Syd Baker as the first caretaker of the Eyre Bird Observatory, followed by John Martindale as its first warden when the Observatory and Museum opened to visitors in April, 1978. A grant from the Utah Foundation helped the observatory to establish its scientific programme and the contribution of a great deal of material by the Department of Fisheries and

The former Telegraphic Station at Eyre which is now the RAOU Bird Observatory

Wildlife combined with a volunteer labour force of RAOU and Post Office Historical Society members, enabled the building to be restored. Scientific and domestic equipment was bought, a small telegraphic museum set up and Australia's first bird observatory brought into being.

What is a bird observatory? At the turn of the century a man living in the tiny village of Jutland in North-western Europe began to make careful records of the birds that struck the lighthouse near the village. He recorded the numbers of each species and the dates upon which he observed them. Gradually his records began to show the pattern of migration of various species of birds as they passed Jutland going north in the spring and south in the autumn. That was the first bird observatory. Thereafter many other observatories were established, both in Europe and North America, and they provided an increasingly clear picture of the patterns of bird migration, both from careful systematic sight records and from recoveries of birds banded at the observatories. But they did more than this. Because they provided accommodation for visitors, the observatories became a focus at which ornithologists, particularly young amateurs, could meet, could participate in careful regular scientific study of birds and could learn the techniques of scientific ornithology. Much of the success of amateur ornithology in Britain had its origin in the bird observatories.

By the mid-1970's the Field Investigation Committee of the RAOU had clearly in mind that observatories were needed in Australia. But where? Land was expensive, buildings more so and maintenance costs were inflating at a tremendous rate. An observatory had to be at an attractive site, somewhere where birds came and went, and yet where interesting species lived throughout the year so that a year-round programme could develop. The building had to be large enough to accommodate visitors and the site protected from "development" yet accessible to visitors.

Eyre Telegraph Station met these requirements well. Being on the sea, Eyre receives an annual influx of waders from the Northern Hemisphere. A mallee belt extends eastward from south-western Australia along the Nullarbor coast, and the mallees there flower earlier than those in the south-west. As a result many species of nomadic honeyeaters visit the area in winter, so that the observatory receives both summer and winter migrants. Local populations of Red-capped Dotterels, Major Mitchell Cockatoo, Mallee Hens and Fairy Penguins provide material for year-round study of interesting species, and the general bird life of the area (over 160 species are now recorded) adds to the variety. Eyre is only 20 miles from the Eyre Highway, and the nearest settlement, Cocklebiddy, is served by daily buses from Perth and Adelaide, so that access is fairly simple. At the same time, Eyre is sufficiently out of the way to have some of the romantic glamour that attaches to such famous overseas observatories as Skokholm and Fair Isle. Its environs lie in a fauna reserve and are, therefore, protected from unexpected development, and its historical associations give it an attraction beyond its biological ones.

Although I have written largely of the birds of Eyre, its reptiles and flora are equally interesting, containing an inter-mingling of south-eastern and south-western species, tempered with organisms from the inland that are characteristic of the Nullarbor plain itself. The Telegraph Station is a large building, with accommodation for 20 people at a time, and would be an ideal place for field excursions from schools. Full board is $10 per day ($65 per week) for those able to get to the Observatory under their own steam. For those needing to be picked up in a four-wheel drive vehicle at Cocklebiddy the charge for the first night is $16, to recompense the cost involved in the ferrying; subsequent nights are at the $10 a night rate. Although these charges may sound high, the RAOU receives no subsidy for the running of the Observatory, and they are the lowest that can be sustained. They compare well with hotel charges on the Eyre Highway. Teachers and others interested in using the facilities at the Eyre Bird Observatory may obtain further information by writing to the Warden, Eyre Bird Observatory, Cocklebiddy, via Norseman, 6443 Western Australia.

CORRECTION

The Diminishing Heritage story in S.W.A.N.S. Vol. 9 No. 1 was supported by two exquisite coloured photos of the Marl, *Perameles bougainville*. The photos were taken by well known wildlife photographers, Michael Morcombe and Bert Wells.

Apologies are expressed to Bert Wells for crediting him with the wrong photo and apologies to Michael Morcombe for omitting his name from the larger of the two portraits.

continued from page 45

With raised wings and quivering bill sacs the pelicans, supported by a flotilla of diving black cormorants, added spectacular majesty to a scene of peace and tranquility.

Then some thick-skulled moron in a speed boat circled and thundered through the flock scattering feathers and spray in all directions.

The river is still there . . . as beautiful as ever, but the birds have gone somewhere else. The chap in the photo p. 45 died of shock when a vet amputated his smashed wing. The Department's Wildlife Officers are wondering why people do this and why others don't simply report a boat's registration number when such an offence is committed.

To be apathetic is to condone this type of cruelty.

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