



# *The Toodyay Naturalists' Club Inc.*

## **THE TNC NEWSLETTER**



### **INSIDE THIS ISSUE**

President's Report	Page 2
Papua New Guinea - a time capsule	Pages 3-4
Intriguing Life of Bobtails	Pages 5-6
East Africa 2009	Pages 7-8
Special Feature - The Orchids of Toodyay	Pages 9-12
Book Review - Napoleon	Page 13
Environment Report	Page
Kanyana Wildlife Rehabilitation Centre	Pages 15-17
A Draper to fix a Drain	Page 18

**GRATITUDE IS EXTENDED TO THE DEPARTMENT OF WATER, NORTHAM, FOR THE PRINTING OF THIS NEWSLETTER..**

## PRESIDENT'S MESSAGE

It is hard to believe it has been six months since the last Newsletter and who can forget that stunning photo on the front cover of that issue. This latest one promises to be packed with more news, views and updates from members.

Back in January our then President, Lee announced at the planning meeting her resignation from that position. As Vice-President I have stepped in as an acting role until the AGM in July. It is once again a privilege to be at the helm of a Club of such standing and history. I am sure that I speak on behalf of all the members when I thank Lee for the hard work and time she put in over those 18 months and the many memorable events during that time. I'm sure she will continue to be an active and involved member.

Thank you to all those that helped organise the new storage arrangements for the Club assets at the CWA Hall. This will be much more convenient.

One of the best TNC projects of recent times is the work currently happening with Julimar reserve 5273. This collaboration with WWF, TNC and the Shire will see the upgrading of the reserve's status and implementation of a management plan that will include rubbish clean up, weed control and signage. It is proposed the reserve be named in honour of one of our treasured founding members, Dawn Atwell. Member Frank Turnbull began raising the profile of the Reserve several years ago by conducting extensive botanical surveys and reporting there. This work was continued by Jacquie and Sally with Bethan concentrating on funding issues. This will be a project the TNC can be truly proud of as this near pristine bushland desperately needs protection.

The re-generation monitoring continues in Mavis Jeffery Reserve headed up by Desrae working hand-in-glove with DEC. The 2011 TNC Program features Vicki's photos of *Nuytsia floribunda* in dramatic bloom during January in the reserve. A powerful image of post fire recovery.

I look forward to the "Nats" year ahead which is already off to a flying start with Martin's stunning power point presentation of his adventures in the highlands of New Guinea. This was followed in March by the Clarke's Kenyan/Tanzanian Safari. April will see us on an excursion to Kanyana Wildlife Hospital.

I thank the Committee for the solid work they are doing for TNC and encourage members to consider nominations for the AGM in July.

*Greg (Acting President)*

Cover Photo: by Lee Francis : Bobtail - *Tiliqua rugosa* (Gray, 1825).

Also called Shingleback, or sleepy lizard) This Bobtail has a story to tell. Lee has helped tell that story in this edition of the TNC Newsletter.

### THE TOODYAY NATURALISTS' CLUB INC.

**ACTING PRESIDENT:** Greg Warburton 9574 5445

**SECRETARY/TREASURER:** Wayne Clarke 6364 3609

**OBSERVATIONS OFFICER:** Don Smith 9574 5854

**ENVIRONMENT OFFICER:** Desraé Clarke 6364 3609

**ADDRESS:** Post Office Box 328, Toodyay. 6566.

Editor: Desrae Clarke

## Papua New Guinea: A Time Capsule

Martin White

As my profession as a petroleum geologist took me to work in the area around the middle and western highlands of New Guinea in the early 1970s, I offered to give a presentation to the Club members at the February General Meeting.

The rugged mountainous beauty, the mists over the rainforests, the ravines with deep, gushing rivers and the impenetrable terrain were a photographer's delight. The mountainous backbone of the island was the result of the whole Australian tectonic plate moving northward and meeting a resistance against the Southeast Asian plates. This resulted in the massive system of mountain ranges which extend into West Ir-ian.

All our geological surveys used a base at one of the Patrol Office stations with its attendant airstrip. Offices were constructed of native materials. These were used to plan traverses from aerial photographs and side-looking radar, and later inspect specimens for age, environments of deposition, and details of rock type. While working out of the 'office', suitable dress was important for protection in some inimical vegetation types, to hold geological tools, such as hammers and acid bottles and to allay the attention of leeches. After much experimentation we used rubber-soled canvas jungle boots with trousers tucked into socks with socks over top of the socks! Because of the constant moisture notebooks were made of waterproof paper.

It was also most important to be protected from mosquitoes as malaria was endemic to the Island especially in the low-lying areas. Medical knowledge, at that time, relied mainly on quinine-derived prophylactics for suppression of malarial symptoms. This meant that when you ceased taking them and if you didn't 'come down' with malaria you had never had it. I contracted the disease on my last trip. When I got back to Melbourne I was placed in the Hospital for Infectious Diseases and put on a two-week course of Primaquine. This was supposed to eradicate the parasite from the liver (its home territory – the 'disease' resulted from a flood of parasites released into the blood stream). This treatment seemed to work as I have

never had a recurrence.



Left: Large Leaf Insect found in the middle and western highlands of New Guinea.



There is a never ending array of gloriously coloured butterflies, fascinating insects such as dragonflies, stick insects, beautifully marked St Andrews spiders, moisture daintily clinging to spider webs and an insect that resembled a bright green leaf. A dead, bright green snake (non-venomous) was brought to me by a local tribesman who was very pleased with his kill; it was a small tree python with its clearly visible heat pits. Tree kangaroos were relatively common and were a food source for the inhabitants. Few birds were captured on film as they mainly lived high in the canopy of the forest and I was generally looking where I was putting my feet unless I stopped to look around. However, the photographed Cassowary chick resembled an emu chick with its yellow striping.

When working in New Guinea in the 1970s the main language, apart from English, was 'pidgin'. However, there is a possibility this may have altered since that time. A sample of the language is as follows:

'Some pella bokis you hit im in teeth ee sing out'. - a piano.

'Pepa bilong inkamtakis'. - Paper belong Income Tax

Following the presentation, members had the opportunity to view a collection of artefacts that I had gathered over the many periods up in the Highlands.

Right: The beautiful St. Andrew's Cross spider



## THE INTRIGUING LIVES OF BOBTAILS

By Lee Francis

*Tiliqua rugosa* (meaning ridged or wrinkled) are actually members of the skink family, the same as the tiny little lizards that run along our fences. They are widespread in southern Australia and are known in other states as sleepy lizards and stumpy tails, but we know and love them as bobtail lizards, or just plain bobbies.

I grew up half believing what my dad had once told me, that if you were bitten by a bobby the wound would never heal, and I must say I haven't put it to the test, but I'm sure it isn't true, although being sometimes carrion eaters, if the skin was broken, some nasty germs might get in. This is probably the origin of that old wives' tale.

I decided to write this article because I have had so much enjoyment from observing "my" bobbies as they visit each summer.

For the past 4 or 5 years, towards late November, the gang starts arriving. In the last couple of years I have put water and food down for them, and they very quickly learn, and seem to bring their friends and family. Mostly they get tomato and other fruit (around Christmas I spoil them with strawberries and watermelon) but never to the extent that they become reliant. When I first noticed that they seemed particularly attracted to my yard (making their way through the dog proof fence in preference to staying in the bush on the outside) I was slightly alarmed to note that they seemed to be overly interested in the dog poo! As it happened, with further closer observation, this unfortunately appears to be true.

I also noticed that if I didn't put out any fruit for them, they would eat what few flowers I had that they could reach. I couldn't understand why my portulacca flowers that were there in the morning had gone when I got home from work, until I caught a bobby "in the act" of chomping on a lovely orange blossom. When I planted seedlings of thyme, marjoram and oregano in the ground, they very quickly disappeared, pulled out completely. They even started on the parsley, but mustn't be too keen because that has managed to survive.

What I had not known before this summer, is that they (or at least one of them does) eat the gum that exudes from one of the local Acacias (*A. meisneri*). I had seen a small area around the base of this bush which appeared to be worn smooth and free of leaf litter, then one day noticed a bobby climbing up the trunk to eat the gum. I then kept watch, and it's always the same bobby, getting as high as he or she can to graze. I don't know if this has been observed before, but have never heard or read of it (*see photo, Front Cover*).

The other thing that has intrigued me is how different they all are in their temperaments. Often I have 6 or 8 at a time on the verandah...the record I saw one day was 11, but they are all individuals. Some come straight to the front door as soon as the day warms up and wait for me to come outside, or make faces at the cat through the flywire. When I go out, there is one who actually follows me around, at quite a pace, waiting for me to stop. Even if I don't have any food, this one will happily walk across my feet, and even try to climb up my leg and lick my shin: I assume for the saltiness. Others just lie around resting or waiting, others hide until they think

it's safe to come out. There are some who take pieces of fruit from my hands quite gently, others who grab and run, and a couple who put on a display but will take the food if I put it in front of them and back off.

In the mid 1990's researchers in South Australia realized that bobbies pair in long term relationships. A recent David Attenborough programme about lizards showed a male whose mate had been a road-kill victim, and he stayed nearby her body (at great peril to himself) for nearly two days. According to the SA researchers, at that time bobbies were the only lizards known to maintain long term mating pairs. I certainly see the same ones, apparently "hanging around" together year after year. The young ones come too, and although I've never seen "mine" mate, I have seen newly born babies. They are absolute replicas of the adults in miniature, and are incredibly cute.

I've had a couple who I have hopefully saved from death by dehydration. Last summer a small one who I took to the vet and on advice fed it with a syringe with sweetened water until it was more lively. This involved taking it to work for a couple of days. This summer, a large but very thin and flat one appeared. I didn't resort to the syringe, but made sure it could access the water dish and hand fed it small bits of fruit. It seemed to get a bit more mobile and not look quite so flat, but has gone now, along with all the others, in the last few weeks, so I might have to wait until next year to see whether it returns. I look forward to another season of my fascinating visitors.

Oh, and by the way, that other old wives' tale that if you've got bobbies you won't have snakes...NOT TRUE.

*Lee Francis*



Left: Some members of my 'extended Family' enjoying their bowl of fruit.

Right: Count your toes... lucky!



## EAST AFRICA 2009

*By Wayne and Desraé Clarke*

One of the exciting natural history excursions we have undertaken over the years was our journey to Kenya and Tanzania in 2009. Action packed from the start (with a little bit of terrorism as side entertainment in the Buffalo Springs National Reserve), the fifteen-day adventure provided a vista filled to the brim with the fascinating animals and peoples of East Africa.

Commencing in Kenya, we visited Samburu, and Buffalo Springs. Driving in this part of the world is a challenge, as the roads(?) were beyond imagination. However the scenery made up for it, with Mt Kenya a magnificent backdrop. After staying a night at the Maili Saba Camp on the edge of the Managai Crater, we headed to the Lake Nakuru National Park, and its million plus pink flamingos, followed by the incredible Maasai Mara, where a tent-camp was our (luxury) accommodation.

The colourful and interesting native peoples of the area, the Maasai warriors, were dressed in their robes of brilliant red/orange (the reason given that the red resembled fire and wild creatures have a fear of fire). The very tall and slender Maasai were enthusiastic in showing visitors their incredible ability in leaping high off the ground from a standstill position. The small villages, of up to eight tiny houses built (by the women) from sticks and cow dung, were formed in a circle with spiky shrubbery forming a fence in which to keep goats and their cattle, (the latter resembling the Indian Brahman); calves were housed with the family.



Part two of our journey was to Tanzania. We passed Mt Kilimanjaro in our 20 seater coach, on (what would have to be) the roughest highway in the world, stopping at Arusha (a city of 1.5 million people) for lunch, we were happy to be on the road again in another safari vehicle. This took us to Lake Manyana National Park on our way to the Serengeti National Park.



The Serengeti is world renowned for its enormous migrations, particularly of the wildebeest (or gnu). These were abundant, as were their predator's, most notably the lion. Sunset here was an astounding array of colours. Being in a tent camp, the gnu's assassin could easily be the Clarke's, so the Maasai guarded the area very closely (thankfully).

From the Serengeti we drove to the Ngorongoro Conservation Area, a Garden of Eden, one of the richest and most diverse faunal kingdom's on earth. With a floor area of 260 square kilometres and a depth to 610 metres, this un-flooded volcanic caldera was nothing more than spectacular.

Winding up our adventure in the Tarangire National Park, we were astounded to see hundreds of elephants grazing in a swamp. Not specifically looking for the 'big five', these rounded off a wonderful trip.

### **The animals.**

It was interesting to note that three species of giraffe were seen namely the Maasai, Rothchild's and the Reticulated and two distinctly different Zebras being the Greevy's and the Birholtz. Several species of Vulture (the vacuum cleaners of Africa!) were either soaring in slow circles high overhead or fighting to get the best position when working. There were Golden and the Silver-backed Jackals, Bee-eaters, Bustards being the Kori, Black and the White-breasted, Eagles, Snake eagles, Hippopotamus (the most dangerous creature in Africa!), Weaver birds, Cheetah, Leopard, Elephant, Impala, Gazelle, Dik Dik, Gnu (Wildebeest), Nile Crocodile, Olive Baboon, Black-faced monkey, the beautiful Lilac-breasted Roller plus many, many more – an unimaginable list of animals and birds.

While the 'King of the Jungle' lounged in long grass, usually at the top of a small hillock, his pride rolled about like playful kittens or slept – but not always! A pair of lioness watched a very nervous herd of Zebras waiting to cross a grassed area to drink, when all at once, the two cats sprung into action with a third coming from the opposite direction to ambush a lone beast that was pulled to the ground and had very little time left till it was food for the pride.



Left: A cheetah on the move, probably looking for another area in which to sleep.



## SPECIAL FEATURE - THE ORCHIDS OF TOODYAY

*By Don and Eva Smith*

The 2011 ORCHID Season is upon us so be warned!

The first leaves of both the Bunny (*Eriochilus dilatatus* subsp *multiflorus*) and the Hare (*Leporella fimbriata*) should be bursting forth soon – subject to rain.



Bunny Orchid  
(*Eriochilus dilatatus* subsp *multiflorus*)

The orchid flowering season in both numbers and variety is totally dependent on the timing of and quantity of rain.

Several years of semi drought / drought have caused successive years of poor or no flowering - this does not bode well for the future. I believe that the way climate change is happening and the speed of this process will ensure mass extinctions of our endangered species. The areas surrounding Toodyay have a wealth of orchid species covering a wide range of genera. Included in our area are some Declared Rare Flora (DRF) such as the Star orchid (*Thelymitra stellata*), a particularly attractive and striking orchid.



Star Orchid  
(*Thelymitra Stellata*)

The Pterostylis family is common and wide spread and covers a great variety of species. Some species that we see around Toodyay include Broad petal snail orchid (Pt sp), Dark Banded Greenhood (Pt sanguinea), Cupped Banded Greenhood (Pt concava), Banded Greenhood (Pt vittata), Green-veined Shell Orchid (Pt scabra).



Cupped Banded Orchid  
(*Pterostylis concava*)



Green-veined Shell Orchid  
(*Pterostylis scabra*)

There are many other examples of orchids found locally. Perhaps best known are the spider orchid complex. Below are just a few of these magnificent orchids that can be found around the Toodyay area:



Reaching Spider Orchid  
(*Caledonia arrecta*)



Pink Fairy Orchid  
(*Caledonia latifolia*)



Sugar Orchid  
(*Caledonia saccharata*)



Cowslip Orchid  
(*Caledonia flava*)

Other orchids that may readily found by eager searchers around the bush areas around Toodyay are:



Enamel Orchid  
*(Elythanthera brunonis)*



Scented Sun Orchid  
*(Thelymitra macrophylla)*



Slender Hammer Orchid  
*(Drakea gracilis)*



Donkey Orchid  
*(Diurus corymbosa)*



Wandoo Beard Orchid  
*(Calochilus stramenicola)*



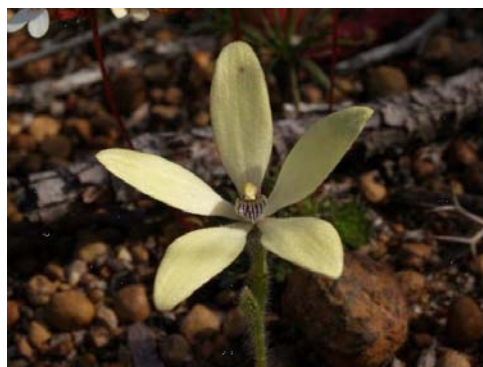
A number of orchids are seen only after fire. These include Red Beaks (Pyrorchis nigricans), Rabbit orchids (Leptoceras menziesii) and White China Orchid (Cyanicula ixoides ssp candida). Under those conditions, such species can appear in huge colonies. Yellow China Orchids (Cyanicula ixoides ixoides) is another species we rarely see unless there has been fire.



Red Beaks/ Elephant Ears  
(*Pyrorchis nigricans*)



White China Orchid  
(*Cyanicula ixoides ssp candida*)



Yellow China Orchid  
(*Cyanicula ixoides ssp ixoides*)

These are just a very few of a large number of species of orchids around Toodyay.

We are in a particularly active period of taxonomy. There are some 39 genera and 317 species of orchids in Western Australia. Over 80 of this species have been named since 1998. It is thought that our total number of species in WA will be well in excess 450.

A problem for the keen observer has been the changing of names and introducing new genera and changing genera mostly brought about by the greater levels of research and in particular the use of genetic typing. This means that our reference sources become obsolete, with problems of learning and remembering the new names.

When endeavouring to identify individual orchids, remember that they may vary markedly in colour and size from plant to plant.

*Don and Eva*

BOOK REVIEW  
**NAPOLEON, THE EMPRESS AND THE ARTIST**

*By Desrae Clarke*

*Authored by Jill, Duchess of Hamilton.*

This beautifully presented book tells of Napoleon, the Empress Josephine's garden at Malmaison, Redouté and the Australian plants.

Napoleon was born on the mountainous Mediterranean island of Corsica in 1769, the year following the French conquest of the Italian-owned Island. Napoleon's father, Charles Buona Parte, was a member of an old and noble family that had, for generation after generation, worked in Corsica as lawyers and officials.

As a youngster, Napoleon had a life of freedom with his seven siblings but in late 1778 Charles Buona Parte took his young son to school in France. In May of the following year he entered the Royal Military College at Brienne for a period of five and a half years where he received an excellent education in general science, mathematics and engineering. While at Brienne he built his first garden surrounded by his great love - beautiful trees.

Although he was not successful, Napoleon's first application for work was for the position of assistant astronomer with the ill-fated La Perouse expedition. He had a great interest in science and was subsequently elected a member of the mathematical section of the National Institute.

*It is stated 'Over the years Napoleon supported hundreds of scientists to make fresh observations and new discoveries, just as he supported hundreds of painters, sculptors and architects. It was this passion for science, art and literature which would soon be an influence in France on the group who documented the Australian flora.'*

Josephine, born 1763, spent her childhood and adolescent years on the tropical island, in the then French West Indies, of Martinique (*madiana*, 'island of flowers'). These early years were marked by closeness to nature and a deep love for the environment together with a respect and curiosity for plants and animals.

Josephine was the eldest daughter of an impoverished family that suffered the results of war with England with the island taken by the French in 1763; this was closely followed by a devastating cyclone in 1766. With the total destruction of their home the family lived in close proximity to the Negro slaves learning much of their songs, stories and knowledge of plants. Josephine received a basic education by attending a nearby convent until she was fourteen years of age.

Belgian-born (1759) Pierre Joseph Redoute, was a famous botanical artist and best known for his paintings of roses. Following her marriage to Napoleon, Josephine commissioned him to paint a wide range of Australian flora, plants, birds and flowers that were being brought back from scientific and exploratory trips of New Holland.

Find the surprising 'common thread' between Napoleon, rising from nothing to the mightiest ruler the modern world had known at that time, the not-well-educated Josephine from the tropical island of Martinique and well-known botanical artist of roses and Australian plants, Pierre Redouté.

Napoleon, the Empress and the Artist. Published by Kangaroo Press ISBN 0 7318 0834 7

## ENVIRONMENT REPORT

*By Desraé Clarke*

A Rapid Bushland Assessment was completed on Thursday March 10th at the Mavis Jeffery 'A' Class Nature Reserve with a 'first time experience' for Jacquie and 'first time lone experience' for Beth, Wayne and me. Prior to commencement we sprayed our footwear with Methylated Spirits to prevent the spread of 'die-back'.

The Reserve presented quite differently to the December scene when the Christmas Tree, *Nuytsia floribunda*, was in full blossom with many butterflies and moths checking the nectar supplies; the golden flowers emphasised the severely burnt trunks.

The Banksias originally reacted to the 'hot fire' with shoots on the bare branches and suckers at the base of the larger trees. However, the continuous hot weather has caused some of the shoots to dry out.

Birds were scarce in the Reserve but could be heard in the neighbouring unburnt properties. Several tiny creatures gleaned the shoots of the Banksias while a number of larger birds flew through the Reserve.

The ant's response to the sardine plates was interesting! Initially, small black ants became very excited with much brushing of antennae and some 'trying' the sardines. Sometime later we noted hundreds of tiny brown ants had come to the plates and very few of the slightly larger black ants remained. Copies of the data of the two-hour excursion have been sent to Dr Geoff Barrett, Ecologist and Ornithologist with the Department of Environment and Conservation (DEC), and Bob Huston, Senior Environmental Officer of DEC, Mundaring.

Friday March 11th saw Club representation on the Avon Nature Conservation Advisory Committee visit the Morangup Reserve to view the destruction from the December 29th 2010 'hot' fire. This was demonstrated by the gum, resembling molten lava, at the base of the Grass Trees and soil in the burnt areas resembling fine talcum powder; in many areas it was coloured a bright orange from the iron content of the soil. Many of the 20 to 30 metre high melaleucas are sprouting as are several marris; acacia seed was sprouting throughout. Silver-eyes, a Scarlet Robin, Rainbow Bee-eaters and a large flock of White-tailed Black Cockatoos were present.

The fire-damaged spring-fed well on the roadside opposite the entrance to Black Swamp Road showed no sign of the former spring. The well was once used as one of the watering points for stock and horses en route into the old Toodyay town site.

A General Meeting was held with Bob Huston describing the establishment of the Avon Gorge Invasive Species Group comprising of Bob, DEC, Mrs Viv Street and Gaven Donegan, land owners along the Avon River, Desraé Clarke, Toodyay Friends of the River (TFOR), Peruna Nature Reserve, Australian Wildlife Conservancy (AWC), Wayne Clarke, Toodyay Land Conservation District Committee (LCDC) and Bethan Lloyd, Shire of Toodyay. It is an attempt to lower the feral pig, and goat, numbers in the area.

Work has progressed following a liaison with the Hotham Catchment Group who had funding due to finish mid 2011. DEC will continue the programme and, to date this year, 64 pigs and 10 goats have been captured by the part-time DEC employee. Walyunga National Park has a dam frequented by goats. Gate traps and a 50m x 50m yard are to be constructed together with Susannah Brook Nature Reserve.

\$4,500 funding is sought for Spiny Rush, (*Juncus acutus*) control in Drummond Nature Reserve, Toodyay, for rotary hoe use for tree root removal and 7,500 seedlings; landowners are enthusiastic about the 'salinity control' project.

The Centre of Excellence for Tree Health at Murdoch University continues to research the devastation of Marri Trees from the South African fungus.

Saturday March 12th saw Club members at the Toodyay Business and Community EXPO held in the Memorial Hall with our table holding a variety of books and newsletters. Enquiries were made re sourcing of books as interested folk thumbed through them with reptiles being of special interest.



How would you feel if admitted to a hospital run almost entirely by volunteers? The injured, sick, orphaned and displaced wildlife who are brought to Kanyana by the public from all over Western Australia on a daily basis, are never asked that question! Last week Kanyana had 25 admissions; last month 112; in the last 12 months 1739. The recovery and release rate is close to 50% which is a very positive statistic, given the severe nature of the injuries sustained by many animals and the chronic disease symptoms they may be exhibiting on admission.

The admission of needy wildlife reflects a somewhat cyclical nature: In spring (August) we see a plethora of orphaned ducklings;

In September and October - juvenile magpies, ravens, honeyeaters, mudlarks and cuckoo shrikes. 66% of the Magpies admitted have one of the following diseases: calcium deficiency, throatworm or avian pox - all of which can be treated; In November and December it is the turn of the parrots: 28s, red-caps, galahs and lorikeets. Frogmouths also put in a regular appearance. These birds are one of the species which imprints readily, so care is taken during the rehabilitation process to minimize this occurring. In the summer months the numbers of Upper Respiratory Tract Infection (URTI) in bobtail lizards increases. Bobtail flu (URTI) can be identified by sneezing, fluids oozing from eyes, nose and mouth - and difficulties with breathing. 98% bobtails treated with this illness make a full recovery.



Source: Ruth Haight

December and January, the honeyeaters return, together with water animals such as ducks, kingfishers, egrets, herons and turtles. Kookaburras also become more frequent. This wave is followed in February and March with the granivore doves and pigeons suffering from crop stasis. April and May bring the mistletoe birds (we keep a supply of mistletoe berries for them!) - and the numbers of parrots suffering from Avian Gastric Yeast infections (AGY). This condition is treatable.

Throughout the year we work with animals on the receiving end of human thoughtlessness or who are just in the wrong place when bad luck hits : motor vehicle collisions; poisoning; whipper-snipper injuries; embedded fish-hooks; cruelty; tree-

falling; falling into swimming pools; collisions with glass doors and windows; pruning in the nesting season, cat and dog attacks, picking up diseases introduced by feral animals – to name but a few.....

When the wildlife are admitted, they are assessed and then placed in the hospital for treatment. Any animals with contagious diseases are placed in the isolation block until no longer infectious. The intensive care hotboxes are heated and the animal is both rehydrated and medicated. The patients may vary from a mere 5gm silvereye nestling or a 5 kilo black swan to someone mistaking a rat for a bandicoot! Weight gain or loss is one of the critical indicators of the patient's state of health so is monitored daily. Once the patient is improving he/she then advances into the Breezeway. Here the cages are larger and the acclimatization stage of the rehabilitation begins. Finally (hopefully!) the animal progresses to the Pre-Release stage where self-feeding and self-care is observed, interaction with other members of the same species is encouraged and weight gain is constant.

Many of the wildlife admitted go to off-site expert, DEC- approved carers. The roos and wallabies go to a sanctuary off the Great Eastern Highway; other mammals go to quenda, possum or echidna experts.... Pet birds go to our talented bird detective in the hope that they can be reunited with their owners. Tiny nestlings go to one of two round-the-clock sleep-deprived carers; goannas, geckoes and monitors go to reptile experts, seabirds, raptors and large waterbirds to carers that can provide more adequate facilities to cater for their rehabilitation than we can currently provide on site.



To work at Kanyana requires team skills. There are 3 shifts a day with volunteers ranging from octogenarians plus to work-experience Year 10s. Two local primary schools come and help each week with the complex task of food preparation. What a bilby eats is quite different to a woylie's meal! Sugar gliders would be very cross if they were served echidna slurry! Volunteer roles vary from being a receptionist on one of these shifts, or a supervisor, a treatment person, a tube-feeder, a meatball preparer, a mouse-thawer, a hotbox-cleaner-outer to a vital laundry operator or floor-vacuummer! Others conduct nocturnal tours, develop computer programmes, liaise with our indispensable veterinary team at Wattle Grove, liaise with the Mines who send us sick wildlife, conduct Educational Conservation programmes, participate in

the Bilby and Woylie Endangered Species programmes, run courses for volunteers, work with Murdoch's Research and Training partnership, offer work experience to international and interstate vets in training, arrange for wildlife releases, do microscopic work on faeces, garden, build aviaries and carry out routine maintenance. There's always a place for more volunteers! You'd be most welcome! Everyone has skills that can be utilised!

So Kanyana is somewhat reminiscent of a bee-hive, all the workers sharing a common goal: the welfare and rehabilitation of our wildlife yet each having their own valuable niche. All are governed by the same ethical principles and high standards of operation. All receive introductory training and have the opportunity to develop their skills to higher levels should they wish to do so. The flight-paths from Kanyana, Lesmurdie spread way beyond WA as we share research and knowledge with other workers across the world who are similarly engaged in this exciting but embryonic science of developing ever more effective ways of improving our quality of wildlife medicine and care.



*Above: Bobtails recovering from Upper Respiratory Tract Infection (URTI).*



## A DRAPER TO FIX A DRAIN

*From Wild Life , July 1952*

Questioned in the House of Commons on the wildlife of the Montebello Islands which might be affected by the atomic weapons tests projected there, the Prime Minister (Mr Churchill) replied that investigations had been made. The investigating officer had reported "only some lizards, two eagles and something that looked like a canary sitting on a perch". He felt able, therefore, to give an assurance that no serious damage to wild life could be done by the weapons to be tested there.

Either Mr Churchill was not prepared to be concerned about damage to wild life, or the choice of an investigating officer had been very badly made, because there are at least 20 species of birds recorded as nesting on the Montebellos, in addition to visiting species which nest elsewhere. Further, some of the islands in the group, and in close proximity, are the homes of distinctive types of mammals, such as the Barrow Island wallaroo (*Osphranter issabellinus*).

At least two of the resident (breeding) bird species of the Montebello are represented there by distinct sub-species not found on the mainland, but confined to the tiny island region. The creature that was dismissed as "something that looked like a canary sitting on a perch" was probably the extremely rare and localised spinifex-bird (*Eremiornis carteri*). The islands are also the home (but not the only home) of the magnificent white osprey, or sea eagle, which is almost certainly the species seen by the investigating officer.

In Sydney Alex H Chisholm, and in Perth Dr. D.L. Serventy, leading Australian ornithologists, have already raised their voices in protest, but it is obviously too late now to do anything about saving the fauna of the Montebellos. The only remaining hope would be to try, before the actual tests, to trap the resident birds and to transfer them to the nearest similar environment on the mainland, or to some island out of the danger zone.

That, however, is not so simple as it seems. The well-meaning officer who produced the report for Mr Churchill probably believed sincerely that he had seen all the fauna worth seeing. What he would not have known is that many of these small and rare gems of Australian bird life are so secretive and timorous that they hide in the spinifex and other undergrowth with which the islands abound, and may escape the eyes of even a practiced ornithologist for days. It is difficult enough to catch even a glimpse of them, let alone to trap them. And, having trapped them, it would be impossible to find another environment identical with the one which they have chosen.

Because of their distinctive environment, the Montebellos have developed over the ages a distinctive insular fauna of their own. The vegetation is of the dry-country type, but more luxuriant than the main land because the rainfall there is better. With less cover and more enemies the birds would have little chance.

Should there be any proposal to use other islands for further tests, the military authorities should call in some authorities on fauna to advise them before causing unnecessary and irretrievable destruction. Detailing the average military officer to obtain the information is about as foolish as calling the local draper to fix a faulty drain – it is fair neither to the draper or the drain.

*WILD LIFE July 1952, page 9*