



*Toodyay Naturalists' Club Inc.*  
**THE TNC NEWSLETTER**

*Number 9 December 2012*



*The Toodyay Naturalists' Club is indebted to the Wheatbelt NRM for their support in sponsoring the TNC Newsletter*



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# PRESIDENT'S REPORT

Three Toodyay Naturalist Club (TNC) members travelled to Southern Cross in the Shire of Yilgarn, to attend the Cliffs Mining Community Reference Group (CRG) meeting Thursday September 13th. The visit is further described within the newsletter.

Patron of our Club, John Dell, met members at Heine Road for a walk through the Julimar Conservation Forest for the September get-together. On completion of the stroll, and listening to John's explanations of all aspects of natural history, the group returned to Toodyay for a 'pizza' tea and General Meeting. This, in turn, was followed by John's presentation on his research of reptiles of Rottne Island.

Over the weekend of September 22nd and 23rd, twelve Club members journeyed to Korrelocking, Shire of Wyalkatchem, to attend a Bioblitz organised by WWF and Wheatbelt Natural Resource Management. The excursion resulted in the recording of a great list of birds, wildflowers, invertebrates and a number of reptiles.

The 'Environment Matters' marquee at the October 159th Toodyay Agricultural Show was a winner! Featured were a collection of reptiles from the Armadale Reptile Centre with Hailey and Jonathon, ("Miss Hiss"), 'Harmony', the White-tailed Black Cockatoo from the Department of Environment and Conservation in the care of Zara, and the delightful collection of bush-babies in the laps of Wildcare volunteers, Robyn, Brian, Michalie, Sacha and Doreen. Included in the marquee were displays by Wheatbelt Natural Resource Management, Toodyay Naturalists' Club, Land for Wildlife, Toodyay Friends of the River and Toodyay Tidy Towns.

Drummond Lookout, containing a native garden established by the Toodyay Naturalists' Club in 1968, is situated above the town in Pelham Reserve. Over the weekend of October 25th and 26th, the Reserve received an intensive volunteer 'clean up' involving approximately 40 staff from a Perth-based Australian corporate body, Stockland.

On Friday November 16th Sharon Ponsford, a professional architect/designer, accompanied three Club members to inspect the site of a bird hide proposed along the Toodyay section of the Avon River Walk Track in the vicinity of the Red Banks Pool. It is a special area as it allows an excellent viewing of bird life up and down stream. It is planned, at this point in time, to have two areas of a 'shielding' construction with a small overhung covering (not an actual roof) and gaps in the shielding structure to view the birdlife and also a resting shelf for binoculars, cameras and tripods. There will also be seating available and the structure is to be built of 'environmentally friendly' materials. Toodyay Shire Planner, Graeme Bissett, had visited the area with Club members some time back and gave very helpful and important suggestions about which we were so grateful. Wheatbelt Natural Resource Management has been the financial sponsor for this planning project.

Saturday November 17th saw the camaraderie of members and visitors on the property of Bethan Lloyd at the end-of-year function. Members were joined by the Toodyay Friends of the River (TFOR), who in many cases, were members of both groups! Bethan has developed a wonderful garden of native plants, plus a Sandalwood area, on a site that was once open farmland. The pool was enjoyed by the children and TFOR President, Greg, after which guests were led by Bethan to view her interesting garden and the thriving Sandalwood.

Among the guests were Toodyay Chief Executive Officer, Stan Scott, and his wife, Laurel, members Frank Turnbull and Frank Carr, from Rockingham, new members from Toodyay, Deb and Tom McQuire, and, Lyn and Ian Phillips from Dowerin. It was also very special to meet the newly appointed Toodyay Shire Environmental Officer, Karla Hooper. Karla was pleased to meet Wildlife Carers as she has been a registered Wildlife Carer and wishes to continue that role.

The evening was extremely enjoyable with the added enjoyment of cello music from TFOR member, Rebecca Megan-Lowe, and a fitting closure to a busy, but accomplished, year of activities and presentations for both the TNC and the TFOR.

Desraé Clarke

*Front cover photograph: Conospermum densiflorum, Morangup Nature Reserve by Sandy McKay*

## PLANTING AT SHIRE RESERVES by Bethan Lloyd

Biodiversity outcomes have been improved in two Shire reserves with the planting of 750 seedlings in Dawn Atwell and 1500 at Malkup Brook this winter. Seedlings were provided through funding from WWF via grants to the Shire of Toodyay. Members of the Toodyay Nat's and Friends of the River, along with neighbours of the reserves, helped with the planting in late July and early August. Luckily significant rain was received shortly after planting on both occasions so we hope the plants will flourish. In the Dawn Atwell Reserve the need was to rehabilitate bare areas and an old tip site. At Malkup Brook a large area, once dominated by weeds, will provide an area of understory species which will bring insects and birds to assist in the long term survival of mature trees. This planting also reduces the fire hazard in this area of the reserve.

The Shire has applied for further funding for Malkup Brook Reserve through State Government Natural Resource Management (NRM) funding to continue much needed work of weed control and revegetation of the reserve and we have just heard that this application has been successful. Many thanks are extended to Kim Angus, at the Shire, for getting it in on time.

Further work at Dawn Atwell Reserve will be the placement of logs or rocks to prevent access by motorbikes. In order to protect these reserves visitors are asked not to ride motorbikes, walk their dogs or collect fire wood in these reserves.

Anyone wanting to assist further with future projects in these reserves should contact Bethan Lloyd on 9574 5882 or email [bethanlloyd\\_8@msn.com](mailto:bethanlloyd_8@msn.com). We would love, especially, to form 'a friends group' for Malkup Brook Reserve to help implement some of the actions planned as part of the funding application and identified in the management plan.

(Note: Photographs in Newsletter No. 8 August 2012 depicts the work undertaken on both these reserves)

## SEPTEMBER VISIT TO KOOLYANOBING

Three members representing the Toodyay Naturalists' Club (TNC) travelled to Southern Cross, in the Shire of Yilgarn, to attend the Community Reference Group (CRG) September meeting organised by Cliffs Mining. The relationship between TNC and the CRG is because of the protection afforded the declared rare plant, *Tetrateca paynterae*, from the mining operations in its vicinity. This small, delicate plant was discovered at Mt Jackson by Mrs Ray Paynter, one of the four founding members of the TNC. It is confined to a very small area on an extremely steep hillside in crevices of iron ore rock.

The CRG comprises of Cliff's Mining administration and environmental staff, the Shire of Yilgarn president, Chief Fire Control Officer, councillors and a Southern Cross community member, Western Australian Wildflower Society, Department of Environment, the Toodyay Naturalist Club, a pastoralist and the Malleefowl Preservation Group.

The group travelled by a small coach to the mine site of Windarling noting the incredibly diverse vegetation en route. It consisted of mallee and tall eucalypts (to a height of upwards of 20m), allocasurinas, senna, *Eremophila*, daisy plants, *grevillea*, *callitris*, *hibbertia*, *dryandra* and many others. Also noted were the vast areas of successful revegetated areas that had been previously mined.

At the commencement of a mining operation the topsoil and subsoil is stock-piled for future use in areas to be revegetated. It has been found, through trials, that it is preferable to reuse the removed soils, as soon as practicable, to achieve a significantly better result.

Large boulders and logs are retained for microhabitat for flora and fauna; they are laid in lines to prevent erosion on the steep, revegetated slopes. Three small CAT D28 bulldozers, each fitted with three tines, are utilised to excavate furrows and each tine is fitted with 'wings' to widen the furrows to allow moisture to reach the 'thrown' (by hand) plant seed. It is amazing to see the difference between the 'thrown seed' growths compared to the vegetation that that has been planted. Seed is 'thrown' in February/March ready for any rain that may be forthcoming from the summer storms. 2012 had a maximum of 150mm and it was amazing to see the vegetation result from that small amount of moisture.



# Reptiles of Rottnest Island

by John Dell APSM

## Précis of a presentation to the Toodyay Naturalists' Club given by Patron John Dell APSM September 15th 2012

From 2002 till 2007 and from October to May (73 days in total) a reptile survey was conducted over Rottnest Island with 48 pit traps monitored over 5 sites. Opportunistic microhabitat searching for reptiles was undertaken on roads on hot nights.

Structure of a 'pit trap'. A bucket is dug into the ground with its top level with the surface. Sand is placed in its base plus several small rocks for a creature to escape ants or a scorpion and to escape drowning if rain develops. Fine fly wire, approximately eight metres in length and 20cms wide, is supported upright and fixed across the centre of each bucket along which the creature will run to fall into the bucket. The structure of the Rottnest pit traps was 9 buckets along 4 sites with 12 on the 5th site.

Historically, 19 species occur on the island - 2 geckos, 2 legless lizards, 2 snakes and 13 skink species. The highest numbers of captures were in November tapering off dramatically from March. Captured creatures were weighed with snout, vent length (SVL) and tail length measured.

The Marbled and the Spiny-tailed Geckos are egg-layers with two to a clutch resulting in a low reproductive rate. The geckos use warmth on the roads after sundown and on hot nights.

The Spiny-tailed Gecko (*Strophurus spinigerus*) is arboreal preferring taller vegetation types and the Marbled Gecko (*Christinus marmoratus*) uses crevices in trees, shrubs and limestone.

Legless Lizards are Burton's and the South-western Sandplain Worm Lizard. They are elongated, have scales and are egg-laying with a clutch of two eggs. The larger species are active above the ground, feeding on reptiles, while the smaller species are found below litter and the ground surface and feed on arthropods.

### Skinks

Bobtails are known to be much darker in colour and also smaller than the mainland species; they give birth to live young.

The West Coast Ctenotus (*Ctenotus fallens*) has well-developed limbs, feet and toes, and was proven to be the most commonly trapped species during the 5 year project. It lives in burrows.

The Two-toed Mulch Skink (*Hemiergis quadrilineata*) has two fingers and two toes. It has quite a long tail and is often thought to be a small snake as it wriggles along following disturbance. It favours a moist area and may be found beneath leaf litter, rocks, logs and rubbish. It measures 25mm to 28mm SVL and bears 2 to 5 live young

The common, shiny West Coast Pale-flecked Morethia (*Morethia lineoocellata*) inhabits coastal dunes and limestone outcrops. It has large eyes with immovable eye-lids, has five fingers and toes and lays up to 5 eggs in a clutch. During breeding the male displays a brilliant reddish flush on the lower lip and throat.

The South-western Cool Skink has well-developed limbs with five digits. The breeding male may have a reddish-tinged lower lip and throat becoming more intense during breeding. Up to 7 eggs are laid and it is found in dense vegetation and beneath logs and litter in moist areas. It has a SVL of 7cm and total length of 19cm.

The King Skink (*Egernia kingii*) is a large, stout skink of total length of 55cm and SVL of 25cm. It lives in limestone outcrops feeding on insects, small lizards, vegetation and sea-bird eggs. Its body colouring can be brown through a range of colours to black; juveniles are marked with yellow or white dashes and spots. It bears live young.

The South West Crevice Egernia (*Egernia napoleonis*) was recorded up to the 1960s but not on the main island during this survey. However, 2 were located on a tiny islet at Parakeet Bay.

# Reptiles of Rottnest Island ...continued

The Bold Striped Four-toed Lerista (*Lerista christinae*) is a terrestrial-burrowing lizard with minute ear openings and a varying number of digits. It is an egg layer but was last recorded in the 1980s and not found during the 2002/2007 survey.

Perth Lined Lerista (*Lerista lineata*) is locally restricted and was found on both Rottnest and Garden Islands in a 1986 study - none were located in the 2002/2007 survey. It is a very small creature with a SVL of 5.5mm and total length of 9cm.

The West-coast Four-toed Lerista (*Lerista elegans*) is a 'sand-swimmer' of SVL 4.3cm and total length of 9cm. Its body colour is greyish to olive-brown but it has a copper-coloured tail which is brightest in juveniles. It is an egg-layer and feeds on tiny invertebrates.

The very slender and almost limbless West Coast Worm Lerista (*Lerista praepedita*) has a 12cm total length and a SVL of 6.5cm. It is an egg layer and swims in sand preferring coastal dunes and banksia/eucalypt woodlands. It is pale olive-grey to pale silver-brown in colour with a blackish-brown line from neck to tail tip.

The large, robust Line-spotted Robust Lerista (*Lerista lineopunctulata*) inhabits the sand dunes sheltering in the upper layers of loose soil beneath leaf litter; it swims through the sand. It has a SVL of 10.3cm and a total length of 20cm. It has forelimbs, represented by two clawless stumps, but the small hind limbs bear two clawed digits. It may be pale grey to greyish-brown with longitudinal markings from neck to the tail.

The moderately stout Southern Blind Snake (*Ramphotyphlops australis*) of total length of 42cm is an egg-layer. It is a purplish-grey or brown or it is pink and resembles a large worm but has a tiny flicking, forked tongue.

The Rottnest Dugite (*Pseudonaja affinis exilis*) is a species that is doing well and may be increasing in numbers although it is currently gazetted as *vulnerable* as an endemic island species. It is smaller than the mainland species and also darker in colour.

## SUMMARY

17 of the 19 species were recorded in the 5 year survey. The South West Crevice Skink was not found on the island mainland but 2 were trapped on an islet in Parakeet Bay. Most species are surviving well however two are on the 'threatened' list.



Above: Rottneft Dugite (*Pseudonaja affinis exilis*). Notice the darker colouring.

Right: West Coast Pale Flecked Morethia (*Morethia lineocellata*) showing the red throat of the male during the breeding season.



Photographs courtesy Brad Maryan

## A SOUVENIR FOR RAY by Zinnia Atkins

The Annual Show at one time was the climax of the year,  
But with changing days & changing ways, the end's in sight we fear,  
So to save it from extinction we must cove form far and near,  
And give the Public something new at which to poke and peer.

It takes too much time and trouble to enter stock, I hear,  
So the Grand Parade is chiefly tractors shifting into gear.  
Although horses in the Ring events may sometimes plunge and rear,  
Yet the Permanent attraction is the Kiosk serving beer.

There are those who think that Naturalists are something rather queer,  
And choose to leave the 'A' L.' out and give a smirking leer,  
But sometimes there are who having started put to mock & jeer,  
Now recognise the urgency and lend a ready ear.

The hall for the exhibits ten days earlier was drear,  
And how best to make the use of space was very far from clear,  
But Dawn came up from Nunyle, and a Ray of brightest cheer,  
From the banksia groves of Clackline, armed with woomera and spear,  
And a Hastie-made collection was displayed without a tear,  
To the general satisfaction. How about the next time?

“Composed by Mrs. Atkins. – ‘Inspired’ by the Toodyay Naturalist Club exhibition in the local Toodyay Agricultural Show 12th October. 1968.”

Copied by Beth Frayne from a transcription made by Ray Paynter of Zinnia Atkins' poem. Zinnia was the wife of the Rev. Paul Atkins, the Anglican Clergyman at St. Stephen's Church, Toodyay, 1964-1971.

10th September 2012



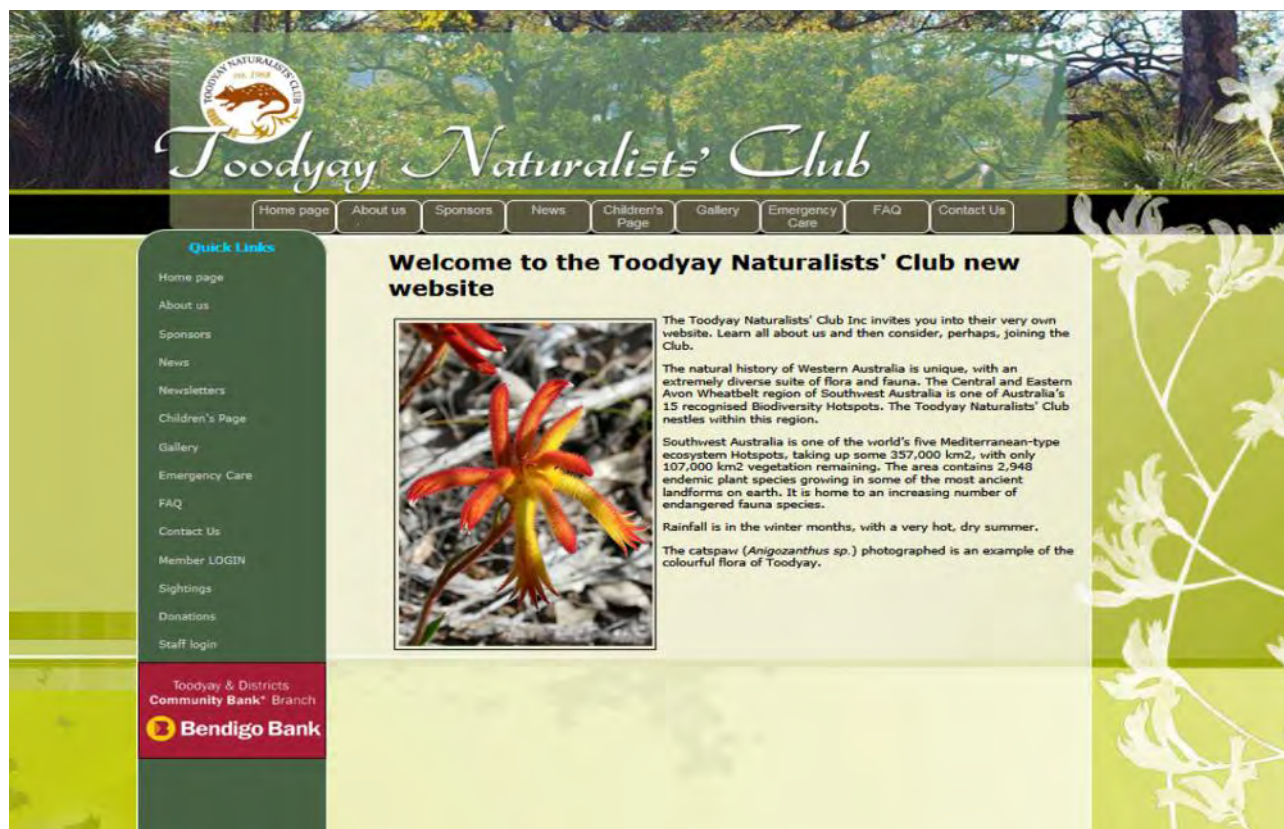
Left: A male Common Large Huntsman, *Isopeda leishmanni* which is mostly found in crevices and behind peeling bark on trees. Big adults of this species would sometimes bother the WA Museums geckos up at Konnongorring.

The identification by John Dell was confirmed Julianne Waldock, Technical Officer, Arachnids and Myriapods, Department of Terrestrial Invertebrates at the Western Australian Museum

The WA Local Government Association has an on-line petition to introduce a (drink) **container deposit scheme** into WA (with a 10 cent deposit on cans and bottles, similar to South Australia). The petition can be signed by visiting <http://cash4containers.org.au/action/support-wa-cash-containers-scheme>



# OUR NEW WEBSITE



During 2010 and 2011, the Toodyay Naturalists Club (TNC) resolved to build a website. There was some expertise within the Club to do this, but some of the features that we would like were beyond the skills of the Club. The decision was made to have it built professionally.

In April 2012, a quote was received from Webs Creative Studios (WCS) for the design, development and on-going management of a Website for the TNC. Funding assistance was requested from the Toodyay and Districts Financial Services - Bendigo Bank® for this project.

In May, the Toodyay and Districts Financial Services - Bendigo Bank® agreed to provide funding of \$1,500 for the development of the TNC website. The TNC is indebted to the Toodyay and Districts Financial Services - Bendigo Bank® for their great on-going support, particularly for our website development.

A considerable discount was provided by WCS for this development, and the TNC are proud of their new 'shopfront'. The site has been designed in collaboration with the TNC right from start to finish. The service provided has been exceptional, and during the development quite a bit of 'twigging' was required to make sure it fitted our ongoing needs. Both Guido Verschoor and Grant Scobie (from WCS) were extremely accommodating in making the changes TNC requested, and in November 2012 the TNC took control of the new site.

Control and updating of the site has been handed over to the TNC Secretary, Wayne Clarke, who is able to access it through a computer programme on his own computer. Adding news, photographs (to the Gallery), Newsletters and other data still requires some skills, and the appropriate programme.

Some of the features and links of the site are as follows: News Newsletters Sponsors Gallery (of photographs) Emergency Care (for wildlife) Frequently Asked Questions (FAQ) Children's Page (under development) Sightings (for the public to report) Member LOGIN (with a special sightings section) Donations (under development)

The most exciting feature of the site is the ability for members - and the public - to record their sightings. Once verified (by the TNC Observations Officer), the sighting is entered into a database that the public can see.

A snapshot of the Home Page appears above



## Join us in making a difference ...

This year, change your thinking from 'someone else will do it' to 'I can do that'! Like us, you can take action on litter today and leave your road or the reserve you have just walked in a better place than you found it.

We're local residents that can't stand litter. We made the decision that rather than let it get us down we would pick it up.

We have joined the **Keep Australia Beautiful (KAB) Adopt-a-Spot program** and have pledged to keep Toodyay litter free.

We can't do it all on our own; but together we can make the area free of litter and restore the natural beauty of Toodyay. We can all remove the litter that ends up on our road verges; clean up after our dogs and pick up litter we see whilst out walking.

It's a fact that litter attracts more litter - rather than complaining about the thoughtless actions of others, if we want a litter free Toodyay we have to become part of the solution.

If you want to join us in looking after our Shire, or have a favourite spot you would like to look after, contact KAB and they will supply you with some free bags, gloves and tools to help you. If that's not your thing but you're sick of litter, just make an effort to pick it up when you see it.

Thanks for helping.

p.s. If you think one person's actions won't make a difference, take a look at the photos opposite.



Just **one** piece of litter removed from the environment  
can make a big difference.



**Take a step and get involved, contact us:**  
[adoptaspot@dec.wa.gov.au](mailto:adoptaspot@dec.wa.gov.au) or 6467 5122



# Photographic highlights



Left: Grey Shrike-thrush by Dawn Fitzgerald



Left: Richard's Pipit by Viv Street



Above: Conospermum densiflorum Morangup Reserve by Sandy McKay (A close-up photograph of the flower on the front cover is also from Sandy)



Above: Calvatia cyanthiformis (Brain fungus) by Beth Frayne



## SEPTEMBER VISIT TO KOOLYANOBING ... cont from page 3

The areas visited are extremely dusty and dust significantly affects the transpiration of plants. The 'haul roads' at the mine sites are watered twenty four hours per day seven days each week resulting in minimal impact on the roadside plants. The water used on the roads is drained from the mines and is saline. The salt forms a crust on the road surface which is an added bonus of consolidation; the spray from the water truck is controlled to two out of the four outlets, preventing the road-side plants from receiving saline spray.

Eradication of feral animals around the vast area is an on-going problem with a reintroduction of *Myxomys* to control rabbits in the district; the wild dog and fox problem is controlled by shooters and cats are baited.

It was very interesting to learn of the significant problem the mining company is experiencing with cattle visiting from a neighbouring pastoral station. The animals climb the extremely steep inclines to feed on the delicious greenery in the revegetated areas.

At the first of the two meetings for the year held in March a new 'haul' road was surveyed which was destined to run through a beautiful area known as 'Pigeon Rocks'. Several members of the CRG voiced an objection to the proposed route. It was extremely pleasing to note at the September meeting that the planned 'haul road' has been re-designed to totally avoid the beautiful, historic area of 'Pigeon Rocks'!

Desraé Clarke

*Right: View of the coach and CRG Members inspecting some of the rehabilitated areas of the mine. Photo taken through the lush new revegetation area.*



*Photo: Greg Warburton, TNC*

## CAN THAT MAN CLIMB !



*Left: Simo (Simon Cherryman) climbing a large wandoo with relevant ease, to inspect the nest of a bird of prey, during the WWF - Wheatbelt NRM Bioblitz at Korrelocking. For more details visit the Wheatbelt Biodiversity Blog at: <http://wheatbeltbiodiversity.blogspot.com.au/>*



# ENVIRONMENT MATTERS

## 2012 Toodyay Agricultural Show display

The Agricultural Show 'Environment Matters' marquee was a great drawcard. The White-tailed Black Cockatoo, 'Harmony', (Land for Wildlife), Hailey and Jonathon, 'Miss Hiss', had reptiles including the Tiger Snake, Dugite, Gwardar, the Southern Carpet Python and the much smaller Stimson's Python, Bobtail, Blue-tongue Skink and the larger King's Skink on display (Armadale Reptile Centre). Tiny bush babies in the care of Robyn and Brian, Michalie, Sacha, who give a 24/7 commitment, are Wildcare volunteers. Also displayed were Wheatbelt Natural Resource Management, Tree and Understorey Group, Toodyay Naturalists' Club, Toodyay Friends of the River and Toodyay Tidy Towns.

Bethan Lloyd had plants divided into water-wise, fire-retardant and bird-attractant plants. The arid plant, Eremophila, has an amazing resilience to our hot weather and is a great favourite of small birds; the succulent plant, pink 'pig face', is a known fire retardant.

Desraé Clarke



Above: Environment Matters on show, 2012

Right: Brushtail baby by Jo Hart

Below: Combined TNC/TFOR annual break-up

Below right: Foster Dad Don enjoying a nurse



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