



Department of Biodiversity,
Conservation and Attractions



WIRRUWANA NEWS

UPDATES FROM DIRK HARTOG ISLAND

SPRING 2019

This fourth edition of Wirruwana News covers exciting new developments on Dirk Hartog Island as native wildlife rejoices in the absence of cats, and the success of recent fauna translocations becomes evident with wallaby scats and tracks to be found across the south of the island. We get ready to welcome two more former residents of Dirk Hartog Island who will be returned this coming Spring.

Shark Bay bandicoots – the Hobbit of Bernier and Dorre islands.



The Shark Bay bandicoot. Photo – Kelly Rayner

The Shark Bay bandicoot (*Perameles bougainville*) is a delicate looking creature with greyish brown fur on the head, back and flanks and pale fur underneath. Several thick stripes of light and dark fur on the flanks and rump are a defining feature for this species and contribute to their name. With a body length of only 20cm and weighing an average of only 230g (not much more than a block of dairy milk chocolate), Shark Bay bandicoots are truly the 'Hobbits' of the Peramelidae family (bandicoots and bilbys).

Their small size makes them difficult to spot in the wild and sightings are often limited to a glimpse as individuals pop up over the spinifex whilst springing through the vegetation. This behaviour in addition to their long ears, gives them a distinct pixie-like appearance. They are nocturnal and shelter

by day in grassy nests hidden in leaf-litter or under shrubs. As omnivores, they hunt and dig for invertebrates, seeds, roots and other small animals.

Thanks to the impact of feral cats and foxes, Shark Bay bandicoots (*Perameles bougainville*) disappeared from the mainland in the 1940's. Following extinction from across much of their former range, the Shark Bay bandicoot was confined to two remnant populations on the nature reserves of Bernier and Dorre islands in Shark Bay. A handful of other feral free populations have since been established including Australian Wildlife Conservancy's sanctuaries at Faure Island and Mt Gibson, as well as at Arid Recovery's wildlife reserve in South Australia. The isolation and feral free status of these remote locations and are now the only thing that stands between these unique 'Hobbits' of the bandicoot world and extinction.

This year, Shark Bay bandicoots will be translocated to Dirk Hartog Island. If the translocation is successful and our bandicoot pioneers thrive, this will create the largest single population of this species in existence helping to insure their future survival.



The Shark Bay bandicoot is the 'Hobbit' of the bandicoot world.

Vale AI - an untimely demise

On 14th May this year the inevitable first roadkill occurred on a track north of the management fence. With the success of the fauna translocations to date, comes a responsibility for all visitors to Dirk Hartog Island National Park to help look after the park and its inhabitants. Fortunately, we know enough about wallaby behaviour to give us some clues on how we can help. Wallabies are crepuscular which means they're more active and can often be found moving about at dawn and dusk as well as a few hours after dusk depending on the weather. We also know they love to use the island tracks as a quick and easy way to get from 'A' to 'B'. You can help look after these unique creatures simply by slowing down or avoiding driving at dawn, dusk and night-time.



Ode to AI

I'm AI the wallaby - love to travel
 I have a case of itchy feet
 Made a trip across the ocean
 Looking for new friends to meet
 Found a home on Wirruwana
 I hop along the tracks at night
 What's this light ahead that I see
 I wonder if it'll be friends with me.....
 If you find yourself driving
 on an island track at night
 Slow down at dawn and dusk for wildlife
 Or you might just get a fright
 Marsupials they don't know road rules
 There are no zebra crossings round
 Watch out for wallabies in the headlights
 Or they'll be heaven bound.

Celebration of Life

After years of intensive trapping, baiting and monitoring, feral cats were at last declared eradicated from Dirk Hartog Island in October 2018. The island is a huge 620 square kilometres in size, and as such represents a "world first" being the largest island in the world to be freed of cats. Techniques used to achieve this result can be utilised by other projects to help achieve similar success.

As a result, it's now becoming easier to spot some of the more elusive native animals on the island. Along with translocated hare-wallabies, two locals on Dirk Hartog Island that are rejoicing in the newfound freedom that comes from the absence of feral cats and goats are the local native animals, the sandy inland mouse (*Pseudomys hermannsburgensis*) and the ash-grey mouse (*Pseudomys albocinerus*). For these animals, the cat eradication means a higher survival of offspring and the increasing vegetation resulting from the elimination of goats and sheep provides both habitat and food from plants like spinifex, the seed of which makes good food for these native herbivores.

Not overly shy, these locals are more than happy to join you in camp so be careful where you tread and keep your food in sealed containers rather than cardboard boxes. Although numbers of the two native mice are on the increase, very few feral house mice (*Mus musculus*) are to be found; so, you would be hard pressed to find one unless you're camping around areas of human habitation.

Whilst there are still predators on the island – the difference is that these remaining predators are native animals. The balance is slowly being restored. Given the increasing numbers of native fauna on the island, the future is looking rosy for those native



Ash-grey mouse



Sandy inland mouse. Photo – S. Wright

predators including Gould's monitor lizards as well as birds of prey such as ospreys, owls, kestrels and sea eagles.

So, enjoy this amazing display of local wildlife while you can, as their numbers will eventually be kept in check by increasing native predators. The last species who will call Dirk Hartog Island home and be translocated to the island as part of *Return to 1616* project will be the native quoll or chuditch. These beautiful brown and white spotted marsupials will fill an important carnivore niche and will most definitely be up for a meal or two of tasty native mice helping to bring balance to the ecosystem.



House mouse

Dibblers - new kids on the block



Dibbler young being reared at the zoo are given a variety of foods in preparation for their new life including native flowers for nectar. Photo – Perth Zoo

With the recent successful introductions on Dirk Hartog Island of both the rufous and banded hare-wallabies, you might well be wondering – who's next? Well for many years now Perth Zoo's Native Species Breeding Program has been breeding dibblers (*Parantechinus apicalis*). This year, dibblers were brought to the Zoo from islands off Jurien Bay by Dr Tony Friend for a breeding program that aims to produce offspring exclusively for Dirk Hartog Island. These offspring will soon become Dirk Hartog Island's "newest kids on the block" in Spring later this year.

Once widespread across our state, records show dibblers previously occurred from Shark Bay in the north all the way to the Eyre Peninsula in South Australia. They're now only found in a few populations on the south coast of WA and on two small islands in Jurien Bay. The survival of mainland populations relies heavily on ongoing 1080 baiting to reduce predator numbers and so dibblers can only be truly safe from feral cats and foxes when they live on islands. Officially free from cats, Dirk Hartog Island is the perfect island escape for dibblers.

Although only able to breed once a year in Autumn, dibblers are capable of making the most of the opportunity by producing up to eight young in a season. This means that in the right conditions, they can breed up quickly from a small "founder"

population. Right on cue at Perth Zoo this year, breeding commenced in March with eight "happy couples".

Thus far the breeding program has produced 28 babies from four females most of whom will make the journey north to their new island abode in early October. As dibblers are able to breed for up to three years, those that missed the breeding season this year are likely to be much more settled in their new home at Perth Zoo and will hopefully produce offspring next year.

Dibblers may look extremely cute and furry but don't be fooled. They are also small marsupial carnivores and ferocious hunters to boot. Unless you're an insect however, you don't have much to worry about. To help their captive bred dibblers develop good hunting skills, Zoo staff feed them live insects including mealworms, crickets, moths, cockroaches and termites that they have to hunt through leaf litter and branches to catch. Some insects are hidden inside banksia cones and gum nuts to hone the dabbler's skills in working out how to extract food from nooks and crannies. They also like to lick the nectar from grevillea and banksia blossoms.

Although they're kept in close quarters in glass tanks, dibblers particularly love the exercise spinning wheels that they're given to encourage them to build up their fitness for the big day when they'll be released to help repopulate Dirk Hartog Island.



Perth Zoo's Supervisor Zoology - Native Species Breeding Program, Cathy Lambert examines a dabbler whilst on a field trip. Photo – Perth Zoo

Ranger Report

Denham Parks and Wildlife district office welcomes Suze Gerovich and Ryan Hicks as the new Edel Land contract rangers who began work in early July. Along with other duties, Edel Land rangers are also the "gateway" to Dirk Hartog Island providing advice and information to visitors before their visit to the island.

Ryan who hails from Geraldton visited Edel Land several years ago and has wanted to come back ever since. He has a strong mechanical background which is always handy in a remote location and his love of fishing, camping and four-wheel driving means he'll be a perfect fit for Edel Land. Suze has a degree in marine science from Murdoch University and will no doubt be pursuing her environmental interests in the new position.

Operating in a remote location can be challenging however being both practical and resourceful as well as possessing a passion for the natural environment, Ryan and Suze are well up to the job, excited about joining the team and looking forward to being part of the local community.



New contract rangers Ryan Hicks and Suze Gerovich are looking forward their new position at Edel Land.



Fauna team Dr Colleen Sims, Sean Garretson, Aline Gibson, Dr Saul Cowen and Kelly Rayner head out to wrangle a particularly wily hare-wallaby. Inset – DBCA Technical Officer Kelly Rayner releasing a hare-wallaby after removing its collar.

Hare-wallabies – the next generation

In the spring of 2018 both rufous and banded hare-wallabies were successfully translocated to Dirk Hartog Island. In order to keep tabs on their whereabouts and survival, some of the wallabies were given radio-collars and tracked to see how they were faring in their new home and what habitat they preferred; a time-consuming process indeed.

After 12 weeks of this monitoring program, the *Return to 1616* fauna reintroduction team departed the island in December and things suddenly became much quieter for our hare-wallaby pioneers. Over the summer and autumn, radio tracking continued at intervals by plane which told the fauna team that the collared wallabies were still alive and had settled down into their favourite areas, except for several ‘Harry Houdini’ escape artists who had managed to shed their collars.

But exactly how well were our newest inhabitants doing in their new home? To answer this question, the team returned at the end of May this year to catch their radio collared wallabies, check on their health and condition and remove their collars. Despite their initially trusting nature when first captured, the hare-wallabies have learned very quickly to avoid people. Even after being left to their own devices for 6 months, they were unenthusiastic about being caught, weighed, having their pouches checked and their abdominal fat squeezed.

To recapture these collared wallabies, our ever-tenacious fauna team used spotlights and hand-nets for the challenging business of stalking them through thick vegetation at night. Together our experienced wallaby wranglers caught most of the hare-wallabies with only two managing to evade the team.

Given their agility in evading capture however, it was decided this was a fair sign that they were in good health.

The more cooperative (or less sneaky!) hare-wallabies that were caught were all in good condition with some almost bordering on being overweight. All the female wallabies either had joeys in their pouches, young at-foot or had recently weaned a baby, holding promise for the future.

The ‘icing on the cake’ for the team however, was capturing a completely unknown female rufous hare-wallaby with bonus joey in her pouch. As it’s likely that she is the offspring of an animal released in the 2017 translocations, her joey represents the second generation of wallabies on Dirk Hartog Island, a very encouraging development.



On rare occasions, a female wallaby can eject her pouch young when captured. Here a baby is gently and deftly reinserted into the mother’s pouch by Dr Colleen Sims before being safely released.

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Contributions to this biannual newsletter from outside the *Return to 1616* project are welcome.

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