

WIRRUWANA NEWS

UPDATES FROM DIRK HARTOG ISLAND NATIONAL PARK

AUTUMN 2020

This fifth edition of Wirruwana News covers the exciting new chapter in the ten-year saga of Dirk Hartog Island National Park's *Return to 1616* Ecological Restoration Project with two new native animals being restored to the island. Enter the humble dibbler (*Parantechinus apicalis*) and the smallest of all bandicoots – the Shark Bay bandicoot (*Perameles bougainville*).

Going where no Jurien Bay dibbler has gone before

October 7th 2019 saw another exciting “first” on Dirk Hartog Island National Park with the release of the long awaited dibblers (*Parantechinus apicalis*).

Once widespread around coastal WA from Shark Bay south and across to Esperance, dibblers now only exist in a few island and mainland populations. Dirk Hartog Island is large, free from feral predators and has vegetation that is rapidly regrowing after feral goat and sheep removal. This makes it the perfect “island escape” for our dibbler ambassadors and represents a golden opportunity to help safeguard this unique carnivorous marsupial.

This first wave of island immigrants consisted of 26 dibblers. Parents of these dibblers originated from islands off Jurien Bay before being paired up at Perth Zoo to produce enough offspring to begin the restoration process on Dirk Hartog Island.

Born in May, the young dibblers were weaned in late September in preparation for the world outside their leaf litter lined glass tanks. Their first-class trip to the island was a massive organisational feat. First came their last free meal in captivity before each dibbler was assigned the luxurious travel accommodation of individual aluminium boxes (Elliot traps) lined with a comfortable layer of shredded paper. Whisked to Jandakot airport at midday, they caught a specially chartered, air-conditioned flight to Denham before boarding a helicopter for the last leg of their journey. A scant 6 hours after leaving Perth Zoo and 800km later, the dibblers arrived at their new home.

Although the island is free of feral predators, dibblers are still at risk from native birds of prey so their release site had been carefully chosen for the abundance of the aptly named umbrella bush (*Acacia ligulata*). This wattle provides both ample protection from overhead predators and a thick layer of leaf litter underneath that is rich in insects for our hungry pioneers.



Principal Research Scientist Dr Tony Friend releases a dibbler with Sanchia Wardle and Ruby Ball.
Photo – Kieran Wardle

A volley of enthusiastic assistants were on hand to help open the travelling boxes when our dibblers arrived. With front row seats, helpers enjoyed the rare privilege of watching dibblers put on a good show of rustling through the leaf litter and hunting for insects before scampering off into the scrub.

Some of the dibblers were fitted with miniature radio-collars but proved wily enough to remove them early on. Despite this, some valuable information on survival and dispersal was gained with one male travelling a whopping 1.7km in only two nights! He was clearly glad to be out of his glass tank.

Although Elliott traps and camera traps will be used to monitor dibblers, with the island's large size, it may be some time before the population increases to a point where individuals are regularly caught. Further releases and breeding amongst the island dibblers will increase the chances of finding dibblers in future.



Loggerhead female heads back to the ocean after a hard night's work. Photo – Khayla Wordsworth/DBCA

Turtle Tagging Time

As the annual breeding migration of loggerhead turtles (*Caretta caretta*) to Dirk Hartog Island National Park got underway this year, so too began the twin migration of volunteers to help with WA's longest running project to study them. Getting up close and personal with a truly unique marine turtle is a fabulous opportunity for volunteers who come from near and far to join in.

Loggerhead turtles are the second largest marine turtle in the world and the vast majority of WA's loggerheads nest in Shark Bay. Dirk Hartog Island has WA's highest density and population of nesting turtles, is thankfully free of feral animals and has very little human disturbance which makes it a critically important site for their survival.

Between 1000 – 1200 turtles nest on Dirk Hartog Island in breeding season each year between November and April. For three weeks each January, volunteers work all night, walking along the beaches and rocky shores of Dirk Hartog Island to locate the turtles. Turtles are tagged so they can be identified when they return to the beach and volunteers collect information which can be used to gain a better understanding of turtle ecology. As the volunteers labour to collect information each night, female turtles perform the herculean task of heaving their heavy bodies up the beach to dig a hole and lay between 50 and 100 eggs. Each day volunteers count the drag marks to help estimate population numbers.

The loggerhead turtle is the most endangered turtle nesting in Australia and they are vulnerable the world over as a result of many threats including loss of nesting areas, nest predation, plastic pollution, disorientation from coastal lighting and being caught by long lines and trawling nets. But with a few simple measures, we can all help.

Along with crustaceans and molluscs, turtles eat jellyfish. Unfortunately, plastics floating in the ocean including bait bags

and shopping bags can look a lot like jellyfish. When eaten by turtles, it has dire consequences and plastic ingestion is a major contributor to turtle deaths each year. So hang onto your plastic when it's windy and try to reduce or eliminate your plastic use altogether when you're out and about boating or camping.

Pets aren't permitted in the national park and for good reason. Dogs can interfere with hatchlings and disturb females laying eggs so leave the pets behind when heading out.

Artificial light can cause female turtles to abandon the nest when laying eggs and interfere with hatchlings ability to navigate so if you see a turtle on the beach, turn off the torch and the flash on your camera.

Volunteer work is hard but rewarding and volunteer positions are limited. If you have a high level of fitness and would like to "put your hat in the ring" to help out in future years, you can request to be included on the volunteer register. Email enquiries to: sharkbayenquiries@dbca.wa.gov.au



Volunteer David Lergessner records the vital statistics of a Loggerhead turtle. Photo – Khayla Wordsworth/DBCA

Gypsies on the Move!

In October 2019, a tour group called the Global Gypsies journeyed to Dirk Hartog Island, some 403 years after the eponymous explorer Dirk Hartog left behind his famous pewter plate. With exploration of a different kind in mind, these Global Gypsy 'voluntourists' were in search of a 'hands on' science safari to assist Parks and Wildlife Service scientists with the Dirk Hartog Island National Park Ecological Restoration Project – *Return to 1616*.

Contributing to a long-term, vertebrate animal monitoring program, expedition members helped to set up pitfall traps and then assisted with trapping, recording and release of a range of animals including dragons, geckoes and native mice. This program has been running for 13 years and was set up to study the changes in vertebrate animal numbers before and after the removal of feral animals on the island and the translocation of native animals.

As a change of pace, the gypsies also conducted two beach cleanup sessions, one at Surf Point and one at Mystery Beach.

It wasn't all hard work though as 'voluntourists' were on a roster system to ensure they still had plenty of time for beach-combing, swimming, snorkeling, kayaking, fishing, bird watching, astronomy, photography, four-wheel driving, relaxing and just having fun.

For the gypsies, it was an all-round great way to holiday in WA while helping to conserve our precious native wildlife. In addition, the Global Gypsy tours are a gift that keeps on giving as part proceeds are donated back to the Parks and Wildlife Service to assist with future conservation efforts.

Below left: Knob-tailed gecko (*Nephurus levis occidentalis*). **Photo –** Global Gypsies. **Below:** Processing of captured animals and recording of details. **Photo –** Bryan Mitchell



Ranger Report

DBCA Rangers continue regular patrols on Dirk Hartog Island National Park to foster awareness of environmental and World Heritage values, maintain facilities and follow-up with compliance matters. Shark Bay District staff recently welcomed new National Park Ranger Paul Robb, who brings a wealth of conservation experience to the position and will be working across Dirk Hartog Island and several other national parks in the district.

A bit of a trail blazer, Paul was the first ranger to be appointed to the remote Karara Rangeland Park based at Thundelarra. Situated 300km east of Geraldton, Paul has been in this position for the last three years, so he's no stranger to remote conditions.

Prior to Karara, Paul worked as a ranger south of Jurien Bay – along the coastal strip that includes Nambung National Park and Wedge Island settlement. Paul's professional experience includes feral animal and declared weed control. He has already brought these talents to bear in Shark Bay some years ago, having been one of the shooting team that helped eradicate goats from Dirk Hartog Island National Park.

Paul is a committed environmental practitioner and is enjoying the opportunity to be part of the local community in Shark Bay.

In other ranger news, visitor feedback has been positive regarding the new toilet built at Withnell Point camp site. Modelled on the same design as toilets constructed at Urchin Point and West Point, the toilet includes a raised mesh floor (no sweeping!) and a shower recess for portable showers.



New National Park Ranger Paul Robb on Dirk Hartog Island.

Hare-wallabies to bandicoots – moving right along!

With the coming of spring 2019, the *Return to 1616* fauna team travelled back to Dirk Hartog Island National Park in anticipation of another season of ecosystem restoration work.

Of the 13 species to be translocated over the life of the project, the newly established populations of banded and rufous hare-wallabies are doing well. With the full quota of banded hare-wallabies being reached in 2019, that left only a few more “top up” rufous hare-wallabies to make the journey to Dirk Hartog Island this year. A total of 50 made the move from nearby Bernier and Dorre Islands, bringing the total number of translocated rufous hare-wallabies to 112 over the past three years. These kangaroo “Mini-Me’s” are very highly strung and the team needed to be extremely careful to minimise stress to these animals including organising fast first-class helicopter transport for the island hop. The extra attention paid off though as the hare-wallabies were all well, healthy and ready to go when released into their new home.

With successful hare-wallaby translocations, the fauna team turned their attentions to the Shark Bay bandicoots (*Perameles bougainville*).

Working at night with hand-nets and spotlights, the capture team had remarkable success resulting in a total of 70 ‘coots’ in only a few weeks from Bernier and Dorre Islands. Bernier Island was by far the trickier proposition as it harbours a disease called Bandicoot Papillomatosis Carcinomatosis Virus 1 (BPCV1) and the team had to be extremely vigilant to select only healthy animals. Sadly, any bandicoots showing any symptoms of the disease such as lesions or warts were rejected and missed out on their all-expenses-paid one-way trip to Dirk Hartog Island.

The bandicoots were released in the Herald Bay area in early September where there is abundant vegetation. They clearly settled in very well as within 12 hours of the first bandicoot release, their tracks and diggings were to be found everywhere! Twelve of the bandicoots were given radio-collars and tracked for 4 to 7 weeks. While some remained very loyal to their release sites, others were quite clearly natural

explorers, venturing as far as 4km. When finally caught for collar removal, all bandicoots were found to be in very good health. Some maintained their weight, but most had put on weight including one animal that gained a whopping 20% of its body weight. That’s equivalent to a 65kg person tipping the scales at 78kg after a month-long binge! Clearly the glut of spring insects went down very well. Even more exciting was the discovery of two females carrying “DHI next generation” pouch young.

The good news was that by November, there was an extraordinary abundance of bandicoot tracks and diggings to be found that clearly indicated a thriving population. The bad news was they were obviously far too well-fed on insects, and none could be tempted into a trap for a delicious meal of peanut butter and oats. Undeterred, the fauna team will be back in March with some new tricks up their sleeve, which promises exciting times ahead!



Above: Shark Bay bandicoot being released into its new home.

Below: DBCA staff member Jeff Brooker was delighted to discover so many bandicoot tracks



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

The *Return to 1616* project is funded by the Gorgon Barrow Island Net Conservation Benefits Fund.



Scan this QR code to keep up to date with what’s happening with the Dirk Hartog Island National Park Ecological Restoration Project – *Return to 1616*