

WIRRUWANA NEWS

UPDATES FROM DIRK HARTOG ISLAND NATIONAL PARK

AUTUMN 2021

Good summer rains have drenched Dirk Hartog Island with life giving moisture and as winter approaches, the need for weed management is vital. The *Return to 1616* Ecological Restoration Project on Dirk Hartog Island National Park is joined by a team to help out. Good news on dibblers in this issue and lots of 'behind the scenes' work is being done to safeguard greater stick-nest rats on their upcoming, one-way, all expenses paid, trip to the island.

Caught on candid camera

Over the past year and a half, 57 dibblers bred at Perth Zoo have been reintroduced to Dirk Hartog Island by the Department of Biodiversity, Conservation and Attractions (DBCA). Dibblers are listed as Endangered on the national threatened species list and are the fourth species to be translocated as part of the *Return to 1616* Ecological Restoration Project.

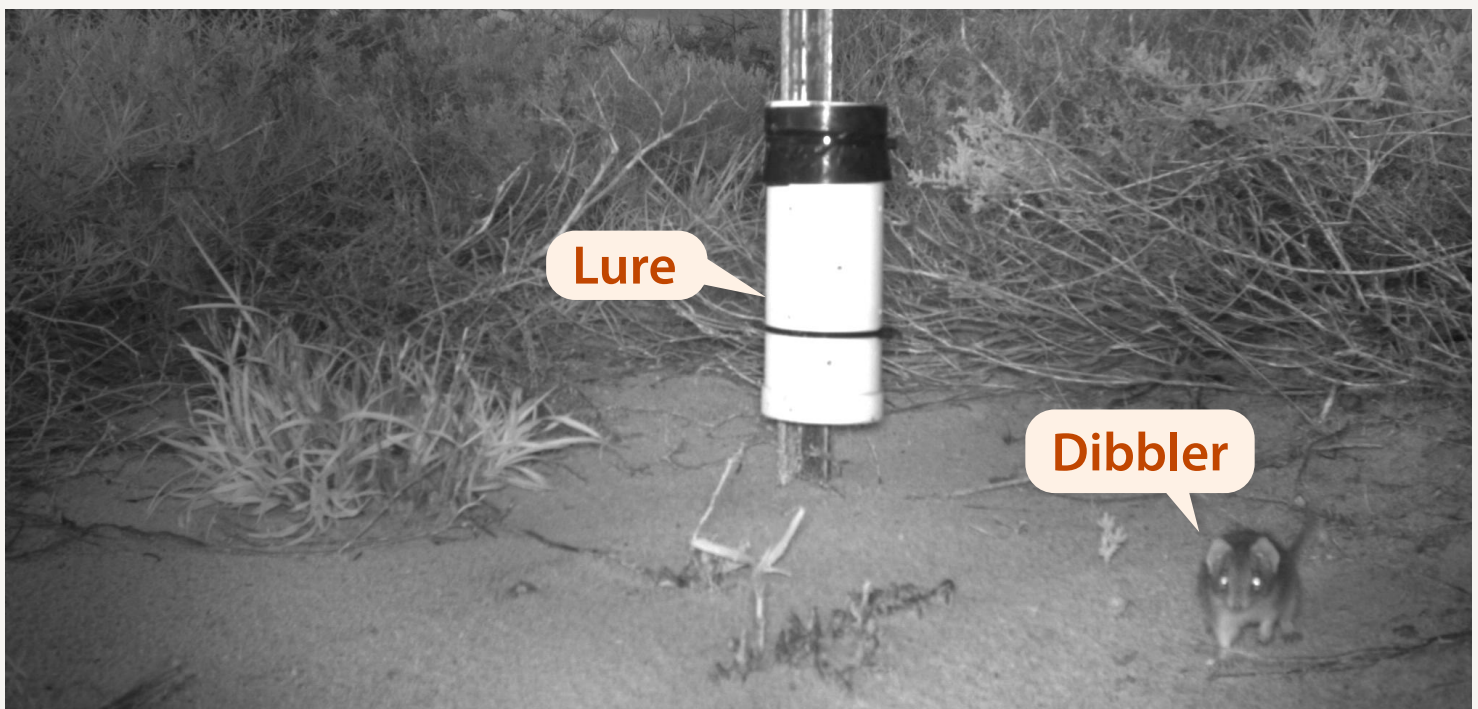
Keeping track of small numbers of these tiny carnivores is challenging, and the installation of motion sensing cameras has proven valuable. Can you see the dabbler in the bottom right of the photo below? It has been attracted to a lure that contains a bait specially formulated to attract small animals.

This photo was captured near their release site nearly nine months after their release and caused great excitement amongst the DBCA team as it was the first remote camera image of dibblers to be found since their reintroduction.

More translocations are planned in the future in order to boost population numbers, so stay tuned for more dabbler news!



Above Dabbler. Photo – Jan Barrie



Global Gypsy donation

Over the past few years, tour operator Global Gypsy Tours has been involved with science safaris to Dirk Hartog Island National Park. Their 'gypsy' clients have been involved over recent years with a range of island conservation activities including assisting the DBCA scientists in their program to monitor small vertebrate animals such as native mice, skinks and geckoes. Global Gypsy Tours directors Jeremy Perks and Jan Barrie say their clients love being able to conserve WA's precious wildlife.

But their commitment to conservation doesn't stop there. The Global Gypsies recently donated \$1000 worth of equipment to Perth Zoo to assist with the dibbler breeding program for the *Return to 1616* ecological restoration project.

Dibblers are currently being bred at Perth Zoo and scheduled to make their one-way flight to Dirk Hartog Island National Park later this year, to join dibblers previously bred at Perth Zoo and reintroduced in 2019 and 2020.



Above Global Gypsy directors Jeremy Perks and Jan Barrie present Cathy Lambert, Perth Zoo's Supervisor Zoology, Native Species Breeding Program with equipment worth \$1000. Photo – Leanne Dryburgh (Perth Zoo)

Space Invaders

Dirk Hartog Island National Park in spring can be beautiful, but good rainfall in 2020 produced an above average and stunning wildflower season. Good rainfall however, is a double-edged sword. It also supports weeds.

Native animals in the national park are dependent on native plants for their food and shelter. Over the last 150 years, weeds have become established and spread on the island. They are the ultimate "space invaders", threatening the ecosystem by proliferating out of all proportion and leaving no room for native plants.

In 2012 a baseline weed survey was conducted on the island. From this study, weed species were identified and prioritised to help create a strategy for managing weeds. You've heard the saying "one year's seed is seven year's weeds"? Well for the long-lived seed of lupins, it's twenty years. Ignore them for just one year and you'll have weeds for another 20. These are the sorts of weeds that need to be prioritised.

Nine of the most important weeds were singled out as a top priority. Of these, six were targeted for eradication and include lupins, Japanese pepper, wild radish, castor oil, couch and ruby dock. Two weeds, ice plant and false sow thistle, were marked for ongoing control in designated 'weed management areas'.

But management of existing weeds is one thing, detecting and preventing the introduction of new weed species is another extremely important part of the war on weeds. Sites that receive a lot of visitors such as campsites and 'day use' areas are at high risk of weedy invaders that can "hitch a ride" on cars, in clothing and camping equipment. These are designated 'weed surveillance areas' and monitored regularly for new weeds.

Given the abundance of weeds, and the size of the island, this is a huge job and in 2020, Shark Bay's local Malgana Land and Sea Rangers with coordinator Sean McNair joined the battle to protect the island. They teamed up with DBCA's Brad Lyons from Denham and staff members from Swan Coastal District

who made the journey to share their weed management knowledge. Together the team worked on removing weeds such as castor oil plants and lupins, as well as spraying and monitoring for new weeds that may be introduced such as golden crownbeard (*Verbesina encelioides*). This highly invasive weed has become common in other areas and is now in Denham.

To safeguard the flora and fauna of Dirk Hartog Island National Park, the Malgana Ranger team plans to continue weed management into the future in partnership with DBCA. Weed management can be a hard job and to be successful it needs the coordinated efforts of DBCA, Malgana Rangers and all island visitors. Support the weed busting team and follow the island protection brochure information when preparing for your next island adventure.



Above Malgana ranger Richard Cross on his way to Dirk Hartog Island national park to manage weeds with DBCA staff members Mitch Borgogno and Josh Lasscock. Photo – Alex Dodd.



Scan the QR code above to find the island protection brochure to prevent bringing any 'space invaders' on your next island holiday.



Above Lupin seed can last 20 years in the soil! Photo – Alex Dodd



Above Radio collars are in fashion this season. A radio collar trial is currently determining the best fit for greater stick-nest rats to ensure the success of their relocation to the park. Photo – Colleen Sims

Tricky stickies

Greater stick-nest rats or “stickies” are a native rodent that was once widespread across south and western arid Australia. As their name suggests, stickies have a predilection for building houses out of sticks for shelter from predators and the environment. Although there were originally two species of stick-nest rats, only the greater stick-nest rat has survived and as a result of introduced animals such as feral cats and grazing animals, their continued existence is tenuous at best. They persist only on offshore islands or fenced enclosures on the mainland.

Dirk Hartog Island National Park is large and free of feral predators and offers a lifeline for these unique native rats providing the perfect opportunity to significantly increase their numbers.

Their reintroduction is planned for May and there is a mountain of “behind the scenes” work currently being undertaken to support their journey and ensure its success.

To allow scientists to monitor their progress in their new environment some of the newly introduced ‘stickies’ need to wear radio collars for a period of time. Unlike buying “off the

rack” clothing in your local shopping centre, fitting a collar to a sticky is tricky business. Collars need to be specially designed and tested in a safe environment. A snug fitting collar is important to the welfare of the animals and can make a huge difference to how well collars stay in place and provide the vital information on how well they’re adjusting to their new home.

The collar trial began with an upgrade to enclosures at the Peron Homestead late last year. The newly renovated “sticky suite” was provided with all they could want, including a deep sandy floor and lots of sticks and vegetation of various sizes. A pair of “Adam and Eve” stickies were then caught and transported from Salutation island to the stick-nest rat homestead “Hilton”. Impressed with their new abode, both were soon rearranging their furniture (sticks) to begin the job of building a new nest.

To ensure the stickies are kept in the very best of health over this radio collar trial period, they must be tended seven days a week, rain, hail or shine for months. Twice daily ‘room service’ provides them with fresh food consisting of browsing plants, seeds, fruits and vegetables as well as shelter and nest building material. Old food and droppings are cleaned out daily. This is a labour of love that has been welcomed by Parks and Wildlife staff in Denham to help ensure their island relocation is successful.

Once the radio collar trial is complete, our “Adam and Eve” will join other recruits from Salutation Island in late May for their island escape. They’ll be accompanied by piles of sticks and woody debris or ‘proto-nests’ to build their new homes to ensure they have the best start in their new life on Dirk Hartog Island National Park.



Above Greater stick-nest rats will be reintroduced to Dirk Hartog Island National Park in May this year. Photo – Colleen Sims

A sign of things to come?

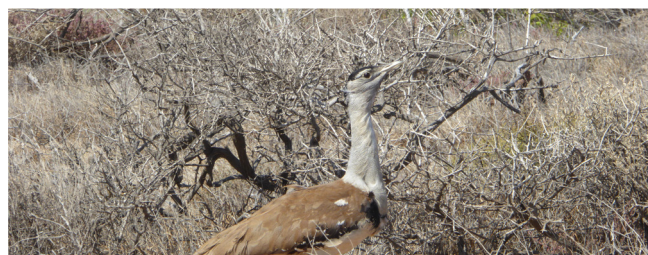


Above What! Feral cats are gone? A bush stone curlew poses for a photograph. Photo – Gavan Mullan.

This bush stone-curlew (*Burhinus grallarius*) seemed in a mood for a photo shoot and its sighting was an early Christmas present for DBCA staff last December on Dirk Hartog Island National Park. Scattered records of bush stone-curlews on the island date back about 100 years and although this is only a single occurrence, more and more sightings of ground dwelling birds are being noticed by DBCA staff and anecdotal evidence is mounting to suggest their numbers are on the rise.

Populations of bush stone-curlews on the mainland continue to decline and their distribution has continued to shrink. Whilst there were no systematic bird surveys prior to the introduction of feral cats on Dirk Hartog Island, there is evidence to suggest that bird species nesting on or near to the ground are harmed by feral cats. The national park provides them with the perfect feral predator free environment and the vegetation regrowth following removal of goats and sheep has provided more habitat, shelter and food.

There are many factors that can contribute to increased sightings of ground dwelling birds, such as the flourishing vegetation that follows good rainfall, so it's still early days. However, increasing sightings of ground dwelling birds are an exciting change and may be a sign of their recovery as a result of the *Return to 1616* Ecological Restoration Project.



Above Sightings of ground dwelling birds like this Australian bustard are on the rise. Photo – Paul Robb

Contributors and photos: Principal Research Scientist Dr Allan H. Burbidge, *Return to 1616* Research Scientists, Dr Saul Cowen, Dr Colleen Sims, Parks and Visitor Services Coordinator Gavan Mullan, Malgana Land and Sea Management Coordinator Sean McNear, Conservation Coordinator Kim Branch, Global Gypsy Tours director Jan Barrie, Editors Dr Karl Brennan, Wendy Payne.

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*