

Christmas Conservation Matters

Monitoring *Return to 1616* animals - Finding Clues in Poo!

With the ongoing success of the Dirk Hartog Island National Park *Return to 1616* Ecological Restoration Project, one of the biggest challenges for the fauna team is keeping tabs on all of the new arrivals as they establish and breed in their new island abode. Four of the 13 species have now been established on the island including banded hare-wallabies, rufous hare-wallabies, dibblers and Shark Bay bandicoots and all of them need to be monitored as they settle in and begin breeding.



When you consider that they all have their own little behavioural foibles, however, keeping track of their 'comings and goings' across a huge island is an enormous task. Traditional methods of radiotracking animals with radio collars has used successfully for many years, but this can be time consuming, labour intensive and costly.

So, it's a case of working smarter not harder and a new 'bag of tricks' is required! Fortunately, innovative new techniques are being developed that might help.

Above Although radiotracking has been useful to monitor animals, new methods are now available. *Photo – Marika – Maxwell.*

Revolutionary GPS (Global Positioning System) technology is now being trialled to help save time and give more information. Just like Tom Toms in cars that use satellites to help with navigation, GPS tags can be used to locate the island's new inhabitants. With drone technology currently being trialled, it's possible to download information on the whereabouts of up to 100 animals at one time.



Right Research scientist Dr Saul Cowen using drone technology to track Shark Bay bandicoots.

More recently, the team have been working on a more innovative approach using DNA.....from poo! Every time a wallaby leaves behind some poo (or scats to give the more scientific term), they also leave behind cells containing DNA. The DNA in these cells can be used, in the best forensic “whodunnit” tradition, to work out which animal it belonged to. An estimation of population size can be made simply by collecting scat samples within a given area.

Our intrepid science team have been on Dirk Hartog Island these past few weeks collecting samples to trial this new technique. Results of this method so far suggest a promising new, low-cost, easy and efficient tool in the monitoring tool-kit.

Right Scats from hare-wallabies can be used to ‘keep tabs on’ island inhabitants. *Photo – Saul Cowen.*



Newsletter



Keep up to date with the Dirk Hartog Island National Park *Return to 1616* Ecological Restoration Project with Wirruwana News.

You can pick up your Spring 2020 copy from:

- the Denham Parks and Wildlife Office,
- on the Sharkbay.org website: <https://www.sharkbay.org/news>, or
- follow this link to subscribe and automatically receive the newsletter twice a year: www.dpaw.wa.gov.au/news/newsletters.

We’d love to hear from anyone involved in activities on the island. If you have an experience of Dirk Hartog Island National Park to share please contact Wendy on 9964 0901 or wendy.payne@dbca.wa.gov.au.

To celebrate another successful year of ecological restoration on Dirk Hartog Island National Park, have some fun with our Return to 1616 Christmas colour in.

Merry Christmas Dirk Hartog Island National Park

Return to 1616

Colour me in!



Name: _____



Department of Biodiversity,
Conservation and Attractions



www.sharkbay.org/restoration

Gorgon Barrow Island
Net Conservation Benefits Fund
www.gorgon-ncb.org.au

School holiday fun!

Keep the kids entertained whilst learning about the *Return to 1616* animals this Christmas holidays.
Visit www.sharkbay.org for some fun activities for the kids on our new school holiday activities page.

Download, print out and play our new Return to 1616 Wild Challenge card game

Dibbler
Parantechinus apicalis



ENDANGERED
EN

Average size (cm)	14
Lifespan (years)	3
Average weight (kg)	80
Speed	6
No. of young	8
Cute ones	9
Rarity	9

FUN FACT!
Dibblers were believed to have gone extinct since a pair were last fully traced in 1957.

The dibbler is a small, nocturnal, carnivorous marsupial. It has distinctive white rings around the eyes and a tapering hairy

Woylie
Bettongia penicillata agilis



CRITICALLY
ENDANGERED
CR

Average size (cm)	30
Lifespan (years)	8
Average weight (kg)	1300
Speed	9
Number of young	7
Cute ones	5
Rarity	9

FUN FACT!
Woylies use their tails to carry nesting material.

The woylie (also called a brush-tailed bettong) is a small, nocturnal marsupial that feeds by digging through the roots.

Print and colour in our *Return to 1616* animals



Scan this QR code to find the School
Holiday Activities page on Sharkbay.org

Community Survey 2020

Thanks to all who participated in the *Return to 1616* online community survey this year. Your thoughts and feedback are important to the project and will be of assistance in the future.

Photo competition 2021

To celebrate the *Return to 1616* project's contribution to the plants and animal biodiversity in the Shark Bay World Heritage area, we'll be running a photo competition in 2021 for the Denham community. Native plants, wildflowers, animals, animal tracks and signs are all eligible so get your cameras ready! More information in the New Year.



Merry Christmas

from

Denham Parks and Wildlife and *Return to 1616*!!