Conservation Matters

Shark Bay bandicoot's island escape

Springtime last year saw the first reintroduction of the Shark Bay bandicoot to Dirk Hartog Island National Park as part of the *Return to 1616* Ecological Restoration Project. The *Return to 1616* project aims to restore 11 of the island's original native animal inhabitants and two additional hare-wallaby species in need of conservation protection. The fauna team spent many nights working to catch an amazing total of 72 Shark Bay bandicoots on Bernier and Dorre Islands. These lucky bandicoots received an all-expenses paid, one-way trip to Dirk Hartog Island, joining previously released rufous and banded hare-wallabies.

Left Young Shark Bay bandicoot.
Photo - Tiarne Duselli

Above Shark Bay bandicoot inspecting his new home on Dirk Hartog Island National Park.
Photo - Kelly Rayner

The bandicoots were released in the Herald Bay area in early September where there is abundant vegetation. But would our intrepid travellers settle into their new home? Radio-tracking immediately after their release gave good feedback that the 'coots' were doing well in their new island abode. When later caught to remove their radio collars, all bandicoots were found to be in very good health and weight gains suggested they were clearly making the most of plentiful insects available in Spring.

When the fauna team returned to check on the bandicoots in November, however, a mystery unfolded. Although bandicoot footprints and diggings were found everywhere, virtually no bandicoots were caught in traps, only native mice. Far too well fed on insects, it seemed the bandicoots couldn't be tempted into traps with food. Native mice on the other hand were only too happy to enter traps in return for a snack of peanut butter and rolled oats. Flourishing in the good conditions on the island, native mice were getting to the traps first and excluding bandicoots.

Undeterred, the fauna team returned to the island in March this year with a new trapping plan to specifically target bandicoots. While plenty of native mice were still caught, ten bandicoots were recaptured, all of whom had put on weight. One of them proved to be as good an explorer as Dirk Hartog himself, having travelled four kilometres from his original release site. The bandicoots were doing so well in fact, that many of the adult females had pouch young. The best surprise of all was finding a brand-new bandicoot that had been born on the island!

All of this bodes well for the next chapter in the restoration of Dirk Hartog Island National Park.

Above Shark Bay bandicoot wearing a radio collar. *Photo – Kelly Rayner*

The Shark Bay Marine Park gets a check up

Whilst we're all keeping a close eye on our health in the current COVID 19 pandemic, DBCA is doing the same by giving the Shark Bay Marine Park its own health check-up. This has become increasingly important in the face of steadily increasing sea water temperatures and extreme heat waves caused by climate change.

As a result of rising ocean temperatures, seagrass communities which dominate so much of the marine habitats in Shark Bay have suffered a decline in recent years. Seagrasses are a flowering plant like the wattle bush in your front yard. In the same way that bush provides a home for birds and insects, seagrasses provide critical habitat for an enormous amount of marine life including fish, shellfish, crustaceans, sea snakes and dugongs all of which contribute to Shark Bay's World Heritage status. Shark Bay has over 4,000 square kilometres of seagrasses and without them, our marine park would be a very different place.

Above Marine Park Coordinator, Luke Skinner and research scientist Simone Strydom readying a BRUV for its underwater survey. *Photo - Ankje Frouws*

With this in mind, DBCA science teams from Denham and Perth got together in March for ten days to give the marine parks their biennial check-up. The team focussed mainly on the health of seagrass, coral and fish habitats.

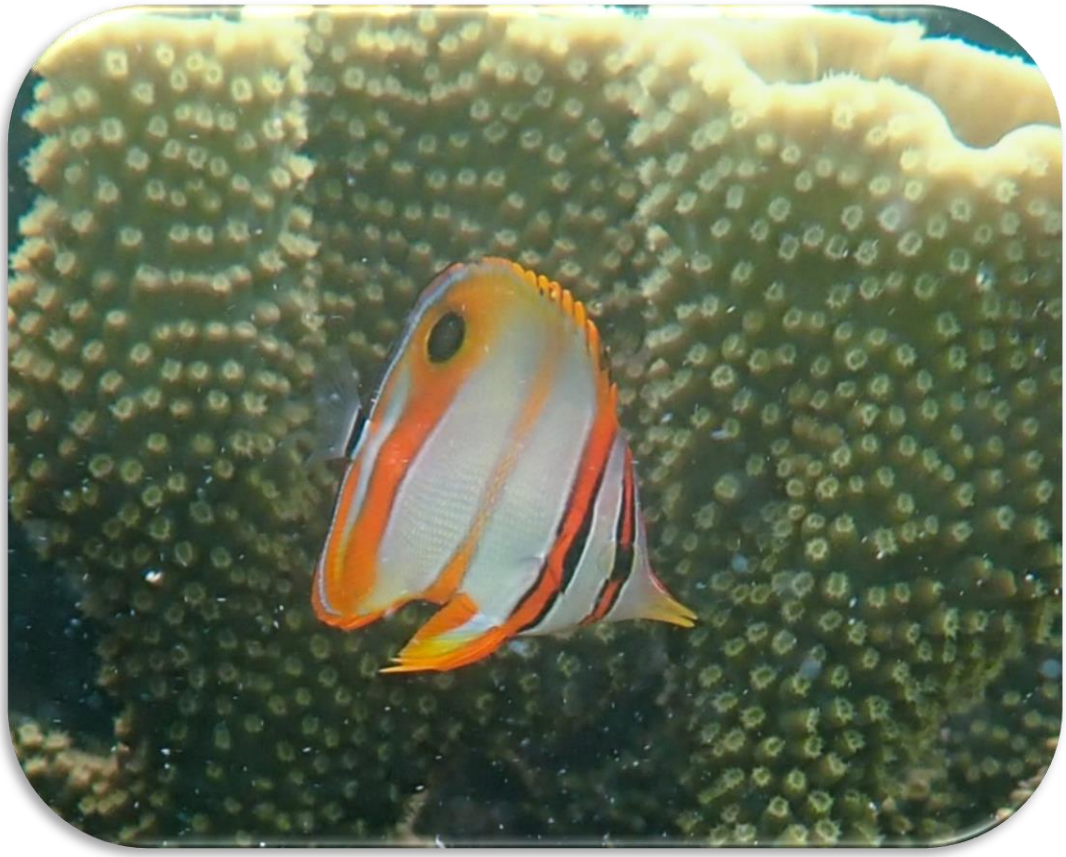
To monitor the health of coral and seagrass, the team spent many hours on diving surveys. The more hitech BRUVS or baited remote underwater video stations were used to census fish populations.

BRUVS are a modern, marine version of Candid Camera's classic practical joke where pedestrians are filmed while trying to pick up a coin glued to the footpath. In the same way, BRUVS video any passing fish attracted to bait in a bag. Not as many laughs as the TV series – but the results are just as interesting. When the cameras are lifted from the water, they hold the secret life of underwater Shark Bay captured on film.

Left Research scientist Simone Strydom getting bait ready for the BRUVS.
Photo - Ankje Frouws

All of this hard-earned information gives a snapshot of our marine environment's health in 2020 and the data collected during the survey will now be compared with previous years, to give scientists an idea of how the marine park is faring.

Above Underwater surveys are critical to understanding how rising ocean temperatures affect our seagrass meadows. *Photo - Claire Ross*



Left Seagrass and coral provide critical habitat to a wide range of species including this butterfly fish.
Photo - Ankje Frouws

Newsletter

Keep up to date on the Dirk Hartog Island National Park *Return to 1616* Ecological Restoration Project with the latest edition of Wirruwana News out in March 2020. You can pick up your copy from: 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 would love to have contributions from anyone involved in activities on the island. If you have an experience, memory or photograph of Dirk Hartog Island to share, please contact Wendy on 9964 0901 or wendy.payne@dbca.wa.gov.au.