

# Monte-Barrow News

Montebello/Barrow Islands marine and terrestrial reserves

Issue 4, December 2017

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## Points of interest

- Mice fly from the Montes to the Goldfields via chopper and plane.
- Find out why a pair of thongs never wash up on the same beach.
- Discover which marine creature can expel then regenerate its internal organs.

## Marine park update



**Above:** Pied oystercatcher. NB. it was not wearing a hat at the time!  
*Photo — Felicity Kelly/DBCA*

From 1 July 2017, the Department of Parks and Wildlife (DPaW) became the Department of Biodiversity, Conservation and Attractions (DBCA). Parks and Wildlife Service staff of the DBCA continue to manage the Montebello/Barrow Islands marine and terrestrial reserves.

Since the last edition of the Monte-Barrow News, a number of collaborative trips were undertaken, including biennial fish and coral monitoring, dedicated bird and marine mammal surveys, field station assessment/clean up and compliance patrols.

The department would like to wish everyone a safe and happy festive season, and looks forward to future successful management of these unique areas in 2018!

## Mala home, Djoongari fly and Spinifexbirds spread their wings...

Staff from DBCA's Science and Conservation Division and Pilbara Region, with assistance from Australian Wildlife Conservancy (AWC) personnel and volunteers, have been monitoring the abundance and condition of reintroduced populations of animals in the Montebello Islands. This work is important for future conservation translocations to Dirk Hartog Island in Shark Bay <https://www.sharkbay.org/restoration/dirk-hartog-island-return-1616/> and elsewhere. In October 2017 we trapped Shark Bay mice ('djoongari') on Northwest Island, and spotlight surveyed mala (rufous hare-wallabies) on Trimouille Island. The djoongari and mala were originally translocated to these islands in 1997/98, as part of the 'Montebello Renewal Project' and after nearly 20 years are so well established, they are now being considered as a source of founder animals for other translocations in WA and Australia. The work also included capturing and moving 46 djoongari by helicopter to Karratha, and then light plane for reintroduction into AWC's Mt Gibson Reserve in the Goldfields.

Whilst on site, the team also made the first observations of spinifexbirds on Northwest and Trimouille Islands. These birds were reintroduced to Hermite Island from Barrow Island in 2010/11, and have established well, gradually dispersing around the archipelago. These are the furthest records of the birds from the release site to date.

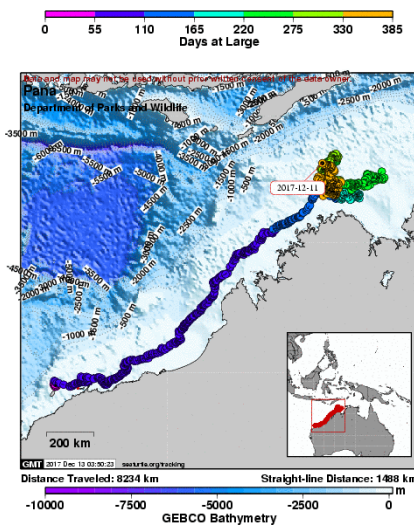


**Top:** Mala release. *Photo — Tali Moyle*  
**Middle:** Djoongari translocation. *Photo — Tali Moyle*  
**Bottom:** Spinifexbird. *Photo — Allan Burbidge/DBCA*

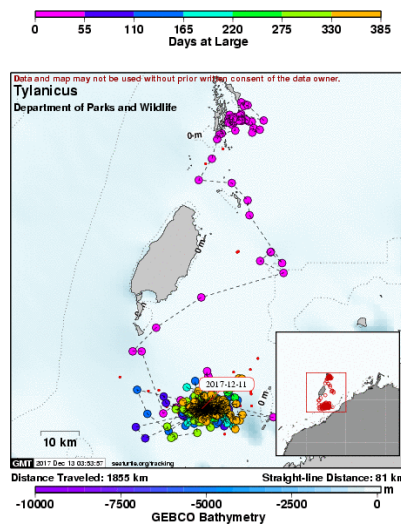


## Where are they now? Montes turtles 12 months on...

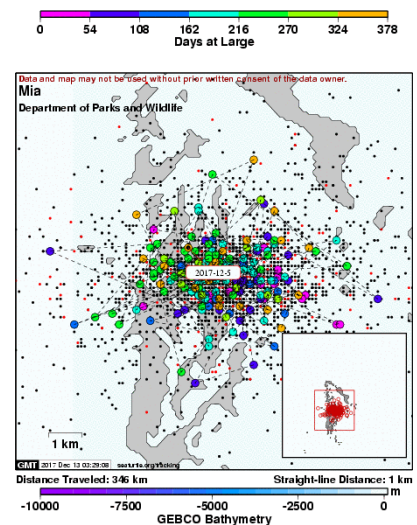
This time last year, satellite transmitters were attached to 23 turtles at the Montebello Islands Marine and Conservation Park. Tracking devices on eight turtles continue to transmit and are showing interesting results. After completing nesting for the season, three flatback turtles headed north to the Kimberley. ‘Flippers’ and ‘Kaylah’ are currently situated off 80 Mile Beach/Broome, whereas ‘Pana’ headed further north and is near Ashmore and Cartier Islands. Three of the four hawksbill turtles also travelled north; ‘Bubbles’ is off Port Hedland, ‘Oceana’ is near Broome and ‘Tom Price’ is between 80 Mile Beach and Broome. The other hawksbill turtle, ‘Tylanicus’ bucked the trend and was the only turtle to travel south – she is currently near the Great Sandy Islands. The only loggerhead turtle to have a satellite transmitter attached was a subadult named ‘Mia’ who has remained within the Montebello Islands Marine Park – this shows that Mia is resident to the area. On a sad note, a green turtle (now named ‘High and Dry’) perished on land after wandering inland across a two kilometre wide area of sand dunes. It is believed she overheated and perished. Her satellite transmitter continued to signal from her carcass until it was found by a member of the public and returned to Parks and Wildlife Service. To view the turtles’ movements visit [http://www.seaturtle.org/tracking/?project\\_id=1175](http://www.seaturtle.org/tracking/?project_id=1175)



**Above:** Pana the flatback turtle has travelled the furthest and is near Ashmore and Cartier Islands.



**Above:** Tylanicus the hawksbill turtle was the only one to head south to the Great Sandy Islands.



**Above:** Mia the subadult loggerhead turtle stayed at the Montebello Islands and lives there.

## “Aussie” dolphins of the Montebellos

Marine Science Program researchers teamed up with Pilbara Regional staff to survey the Montebello Islands Marine Park for the Australian humpback dolphin (*Sousa sahulensis*). This tropical species was only described in 2014 and is only known from northern Australia across to Papua New Guinea. The population size across the species range is unknown. It is a priority for State, Territory and Federal governments to understand population size, connectivity, distribution and habitat needs so they may be managed appropriately. The good news is that the species is known to occur in the Montebello Islands Marine Park, where sightings were recorded in February, March, May, June and July 2017. At least 22 individual dolphins have been identified, including a newborn calf in June. The next steps include building a catalogue of images of the dolphins’ dorsal fins, which researchers can use to identify individual dolphins. These catalogues are used to build up a sighting history of the presence of individual animals in an area, and with enough re-sightings the population size can be modelled. The department will also try to collect DNA samples to understand whether these dolphins are breeding with dolphins along the mainland coast (some 80km away), and are only seasonal visitors to the Montebello Islands. Alternatively, this population may live exclusively in the Montebello Islands Marine Park area. The more data we collect, the better we will understand this intriguing new species.



**Above:** Australian humpback dolphin (*Sousa sahulensis*). Image — Roger Swainston/ANIMA



**Above:** Humpback dolphin newborn calf in the Montebello Islands Marine Park. Photo — Holly Raudino/DFCA



## Trash and treasure on Barrow Island

We all agree that keeping our beaches clean is good for the environment and removing litter can help protect the health of our wildlife. On Barrow Island, there is a long history of local workers undertaking regular beach clean up activities in their own time. Much of the litter collected on the beaches of Barrow Island washes ashore from far flung places. Interesting finds have included a digital camera (which still worked!), handheld VHF radio handsets, the dashboard and steering wheel from a boat and a kayak. A large proportion of the litter collected includes water bottles and caps, other plastics, cigarette lighters, light globes and thongs. Why can you never find a pair of thongs on a single beach? It is believed that due to their asymmetrical shape, left and right thongs behave differently in the same current. So left thongs go in one direction, and right thongs in another.

On Barrow Island, beach cleaners can often come across items which may look like litter, but are actually maritime artefacts from a bygone era.

In the mid to late 1800s, Barrow Island was frequented by mariners as a place for careening vessels involved in the then lucrative pearling industry. It is believed that a number of small camps established on Barrow Island were occupied from time to time by Aboriginal and European Australian people. Evidence of their former occupation can still be found today. For example, pieces of old gin bottles from Holland, small medicine bottles, a clay pipe, copper sheathing and square nails, and iron fixings have all been found and are believed to have originated from ship wrecks or vessel repair activities during the 18<sup>th</sup> century.

While some of these items may look like litter at first glance, they are maritime artefacts and their heritage needs to be protected and conserved.

To prevent the innocent collection and disposal of items of heritage value, DBCA prepared a 'Trash or Treasure' info sheet which is distributed to people involved in beach clean ups to help them determine if a piece of glass is modern or potentially of historical significance. Keeping our beaches clean is important. Equally important is protecting our Aboriginal and maritime heritage. Cleaning our beaches with care is essential in order to not inadvertently throw away evidence of our historical past.

### Trash or Treasure?

Examples of modern rubbish (trash) and historical archaeological objects (treasure).

#### Trash








#### Treasure















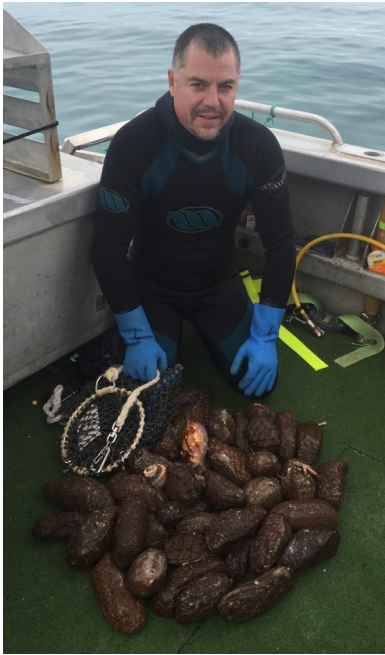

**Above:** DBCA staff conducting shorebird surveys on the mudflats of Willy Nilly Lagoon Sanctuary Zone.  
 Photo — Marissa Speirs/DBCA

## Birds galore on the Montes' shores

Department of Biodiversity, Conservation and Attractions staff participated in a six day field trip to the Montebello Islands Marine Park, where they surveyed shorebirds and seabirds. The aim of the surveys was to build on baseline information to improve the department's knowledge of these ecological assets, and ensure appropriate conservation and sustainable management of them into the future.

A total of 8779 birds were counted, including 31 different species of shorebirds, seabirds, marine raptors and waterbirds. Both resident and migratory shorebirds were observed – the migratory shorebirds were juveniles (1-3 year old) that were too young to migrate. Future counts at different times of the year are planned to gain information on adult migratory shorebirds that were at their summer breeding grounds in the northern hemisphere during the survey.





## Sea cucumbers — so good you can eat them

It might not be the most popular seafood, but the humble sea cucumber (beche-de-mer) is a highly sort after item in some cultures. They are commercially harvested along the Western Australian coastline including Barrow Island and the Montebello Islands.

Fisheries researchers from the Department of Primary Industries and Regional Development (DPIRD) are currently assessing the sea cucumber fishery at Barrow Island and the Montebello Islands against the sustainability criteria of the Marine Stewardship Council (MSC).

The MSC is an independent, non-for-profit organisation that works to ensure the sustainability of global fish stocks and the health of marine ecosystems. The program is expected to provide a range of benefits to WA, including enhanced community confidence in the sustainability of the State's fisheries and greater certainty among fish consumers that their seafood purchases are sustainably fished.

Sea cucumbers filter their food from the sand, eating fish scraps and detritus or plankton, depending on the species. When threatened they have the ability to expel part of their internal organs. This is only in extreme circumstances when they are very stressed, once the predator has been evaded they begin to regenerate those lost organs.

**Left:** DPIRD staff with Deepwater redfish (*Actinopyga echinites*). *Photo — DPIRD*

## Coral recruits provide an insight into growth and recovery

One of Western Australia's largest natural events, the annual mass coral spawning in the State's north west, takes place 7-10 nights after the March full moon. Once the corals have spawned and the eggs are fertilised, they develop into coral larvae over a week or so and settle on suitable reef habitat where they slowly grow into large colonies and begin the cycle all over again.

Department of Biodiversity, Conservation and Attractions' Marine Science Program and Pilbara Regional staff capture annual coral recruitment on coral reefs within the Montebello Islands Marine Park. The number of coral recruits, or weeks-old corals, is measured by deploying small terracotta tiles as artificial habitat at key coral locations across the marine park. This indicator is an important measure of ongoing coral reef growth and recovery and allows the department to narrow down areas that may be important for coral reef replenishment after disturbances. These surveys are especially important following the 2013 coral bleaching event that resulted in the depletion of coral abundance throughout the marine park.

With ongoing surveys, department scientists and managers can predict the likelihood of coral recovery, improving our understanding of the cycle of growth and decay in coral communities.



**Above:** DBCA staff carefully removing terracotta sediment tiles and photographing the coral larvae that have settled and grown on them. *Photo — DBCA*

Visit us online [exploreparks.dbca.wa.gov.au/park/montebello-islands](http://exploreparks.dbca.wa.gov.au/park/montebello-islands)

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