



Dry season dreaming

Snubfin census on Yawuru sea country

On the lookout for a lesser known dolphin with a roundish fin and no beak, DBCA and Nyamba Buru Yawuru rangers, scientists and volunteers covered 604 kilometres over three days, spending a total of 49 hours on the water searching for and photographing dolphins.

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Have you ever sat on the red shoreline of Yawuru Nagulagun / Roebuck Bay Marine Park in Broome, gazing past the mangroves at the alluring aquamarine coloured water, and spotted a distant fin or round face breaking the sea surface? The idyllic scenery commonly associated with the Kimberley region of Western Australia is also home to the enigmatic Australian snubfin dolphin (*Orcaella heinsohni*).

This peculiar looking dolphin lacks the beak typical of most dolphin species and gets its common name from the small roundish fin on its back. Native to Australia, the snubfin dolphin was only formally described as a species in 2005. Although a surprise to western science, the snubfin was no secret to the Yawuru people who have lived and managed the sea country it calls home, alongside turtles and dugongs, for thousands of years.

Turtles (*Gurlibil*) and dugongs (*Nganarr*) have high cultural value to the Yawuru people and continue to be harvested for customary purposes. However, snubfins have never been hunted. Despite this fact, there are concerns that the species is declining across its range. This has attracted international concern and the snubfin dolphin is now listed on the IUCN redlist as 'vulnerable'.

Fortuitously, the largest known population of approximately 130 snubfins can be found in the Yawuru Nagulagun / Roebuck Bay Marine Park. Creation of the marine park in 2016 was good news for snubfins as commercial gill netting ceased and the other remaining pressures from interactions with humans such as disturbance, boat strike or entanglements



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Top The volunteers begin the census.

Below A curious snubfin investigates the boat.

Above left A snubfin dolphin spyhops while socialising with other snubfins.

Photos – Kevin Smith

Above On the lookout.

Right Briefing volunteers on Dolphin Big Day Out.

Photos – DBCA



with recreational fishing gear are now being jointly managed by the Nyamba Buru Yawuru (NBY) and Department of Biodiversity, Conservation and Attractions (DBCA).

These organisations are partnering to study the condition of the population by monitoring trends in its size over time and dolphin distribution across the bay.

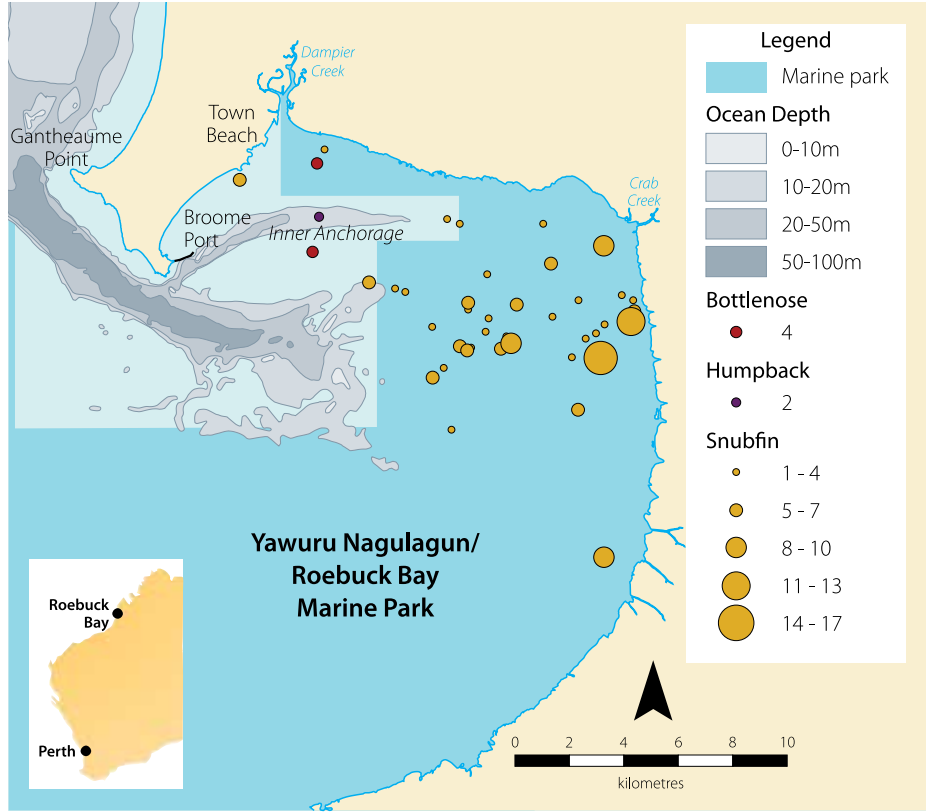
SEARCHING FOR SNUBFINS

Understanding the snubfin population in the marine park has become a real group effort with a rapid census method trialled in April 2019 that involved DBCA staff, NBY country managers, local tour operators

(Absolute Ocean Charters and Broome Whale Watching) and *Dolphin Watch* volunteers taking to the water to record dolphin sightings over a three-day period.

A cyclone brewing off the coast almost cancelled the census but instead brought ideal, calm conditions, perfect for spotting dolphins and other marine life. Boats manned by DBCA scientists and rangers, and NBY rangers, covered 604 kilometres over three days, spending a total of 49 hours on the water searching for and photographing dolphins.

Volunteers joined the census on the last day, 6 April, for Broome's inaugural 'Dolphin Big Day Out'.



Top Nyamba Buru Yawuru rangers and DBCA staff ready to survey for snubfins in ideal weather conditions.

Above Heading out of Roebuck Bay.

Right Grunge was identified by the damage to her fin.
Photos – DBCA

Inset *FinBook Roebuck Bay* helps to identify dolphins by their fins.



Dolphins can be individually identified by the dorsal fins on their backs and the many marks, nicks and notches they get over their lifetime. Most snubfin dorsal fins photographed in the census were marked, making the dolphins recognisable and suitable to be included in the dolphin catalogue.

These marks come from sharks, boat strikes, entanglement with fishing gear and from social interactions with one another. If individuals can be recognised using these marks (they do not change over time), then their life history can be tracked – an important tool when monitoring long-lived species like marine mammals.

The collective effort of the census recorded 96 individual snubfins, including 10 calves, in Roebuck Bay over the three-day period. Of the 96 individuals identified, about one third had been seen in previous surveys. One individual known to the community as ‘Grunge’ was first sighted and named on 8 May 2007 and has been seen repeatedly over the ensuing 12 years, most recently during this census, with a new calf.

IN GOOD COMPANY

The snubfin dolphin was the most common species sighted but Indo-Pacific bottlenose (*Tursiops aduncus*) and other

dolphins were also sighted in low numbers during the census. All bottlenose dolphins seen had been identified during previous surveys.

Excitingly, the *Dolphin Watch* volunteers on the tour boats recorded a sighting of Australian humpback dolphins (*Sousa sahulensis*), a mother and calf, making a valuable contribution to the census. This is a great example of how trained *Dolphin Watch* volunteers can contribute valuable sightings and information to monitoring programs by using the *Dolphin Watch* app (see ‘Dolphin Watch’, *LANDSCOPE* Autumn 2019).



Do it yourself

If you would like to become a *Dolphin Watch* volunteer check out the River Guardians website (riverguardians.com) and subscribe to receive the quarterly e-newsletter so that you can join upcoming training workshops and events. If you find yourself holidaying in Broome, have a coffee on town beach and you may be lucky enough to spot a snubfin dolphin passing by too.



The sightings recorded by volunteers, accompanied with high resolution dorsal fin photos, continue to complement surveys by scientists and country managers. For Roebuck Bay, it is important to continue to record the presence of all three species to ensure the target of species diversity within the marine park is maintained.

When the tide is right, Crab Creek is a fishing spot favoured by locals as it is abundant with fish. What the dolphins are feeding on is also of interest to scientists and managers, so that fish stocks can be managed in a way that dolphins and humans can both enjoy the food on offer.

JOB WELL DONE

The census trial proved to be a huge success and demonstrates that a rapid population survey with high intensity effort over a few days produced a high count of snubfins. This monitoring approach suits a discrete and highly resident animal population.

DBCA and NBY joint managers of the marine park intend to repeat the census regularly to ensure that any changes to the dolphin population can be detected and managed. The 'Dolphin Big Day Out' is a great example of how the community can work together with DBCA and NBY, as the local custodians of the area, to ensure the future survival of the snubfins.

Not only does this help empower the locals and engender a greater sense of ownership, it increases the monitoring capacity in the Yawuru Nagulagun / Roebuck Bay Marine Park and helps build a more complete picture of the dolphin population, so they can be protected and enjoyed for generations to come.

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LANDSCOPE would like to acknowledge photographer and longstanding Parks and Wildlife Service volunteer, Kevin Smith who sadly passed away this year. Kevin, who became known as the turtle whisperer, was a humble, kind and passionate man who put a generous amount of time and effort into environmental projects including; the Broome Seagrass Monitoring project and was volunteer coordinator of the Cable Beach Community Turtle Monitoring group and Dolphin Watch.

Above Snubfin dolphins at Roebuck Bay.

Photo – Patty Tse/Alamy

Above right Snubfin dolphins near Broome.

Photo – Kevin Smith

Right Roebuck Bay.

Photo – David Bettini

