Researchers track the sub-Antarctic journey of two Australian pygmy blue whales

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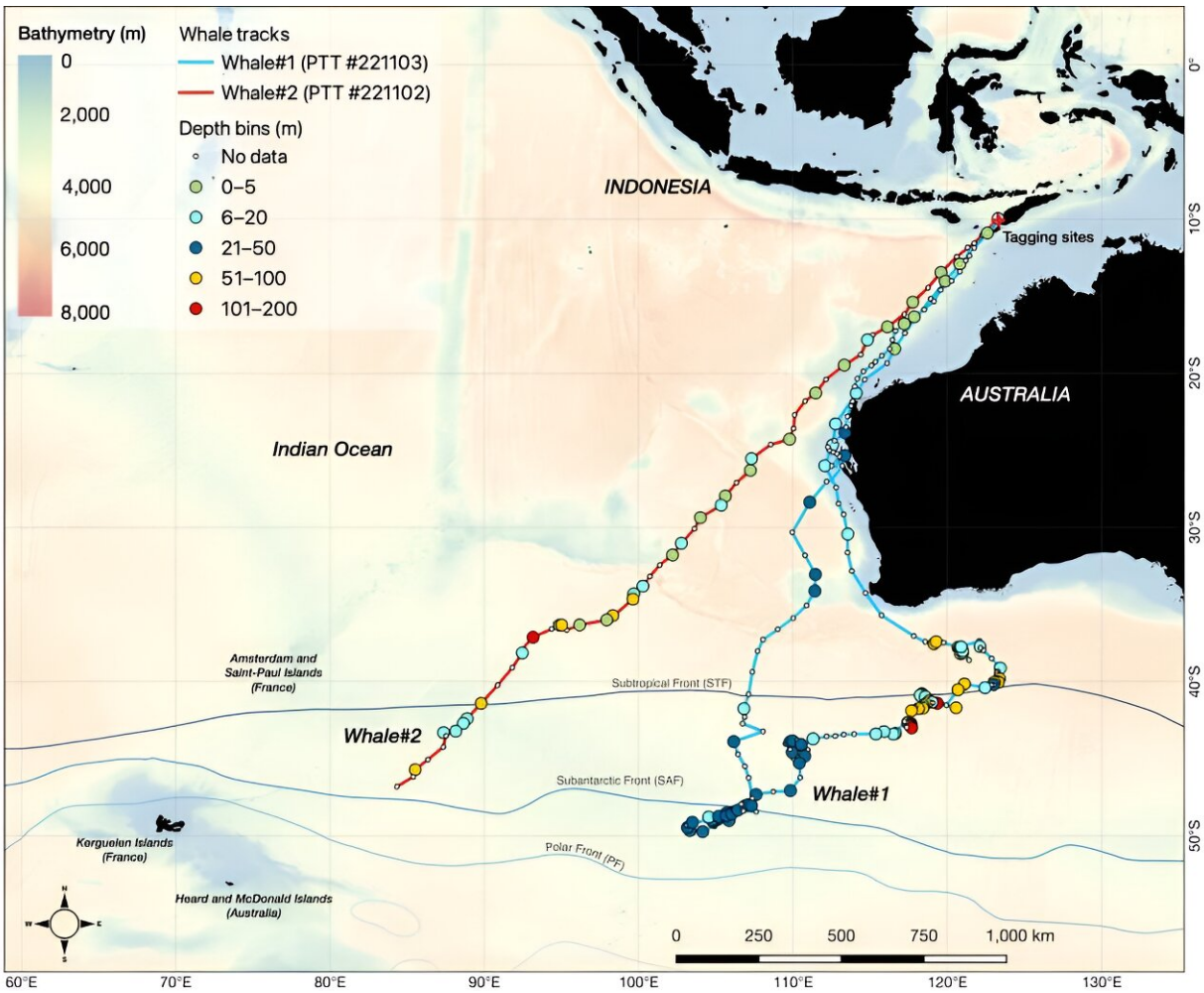

A map showing the journey of the two pygmy blue whales tracked by the research team. Credit: Edy Setyawan

An epic journey spanning thousands of kilometers from Indonesia deep into sub-Antarctic waters by two Australian pygmy blue whales has been tracked by researchers for the first time, confirming a long-held hypothesis about the travel habits of the sub-species.

Lead researcher and James Cook University Earth and Environmental Sciences Lecturer Dr. Putu Mustika and her team tracked two adult whales from the Savu Sea off the coast of the Indonesian city of Kupang into sub-Antarctic waters, starting in November 2021.

After 59 days, one whale was last tracked 500 km northeast of the Kerguelen Plateau, about 2000 km north of Antarctica.

"Our paper presents the first confirmation that this pygmy blue whale population travels beyond the southern waters of Australia towards the Kerguelen Plateau region," she said.

"We can't say for certain that the whale actually reached the Kerguelen Plateau, but that is the direction it was traveling in when the transmitter stopped."

A second pygmy blue whale was tracked for 193 days, making a 13,600 km round trip passing through the Savu Sea, Western Australia's North West Cape, Shark Bay and just south of the Great Australian Bight between the Subtropical Front and the Subantarctic Front.

The findings, published August 15 in *Marine Mammal Science*, shed new light on previous recorded journeys of the Australian population of pygmy blue whales, which showed the mammals limiting their migratory patterns between the waters of the Savu, Timor and Banda seas, the eastern Indian Ocean and the Great Australian Bight.

While acoustic data published by another group of researchers in 2010

and 2013 recorded what were believed to be the calls of pygmy blue whales off the Crozet Islands and New Amsterdam Island in the sub-Antarctic zone, the new data represents the first time two whales have been physically confirmed in the area—through the use of satellite trackers.

Dr. Mustika said she suspected the whales were most likely looking for food in the sub-Antarctic zone, given humpback whales from Western Australia are known to do the same.

"An increasing number of studies have continued to highlight the marine connectivity between Indonesia and Australia given several marine megafauna, including the pygmy blue whale, are using the waters of both countries during their migrations," Dr. Mustika said.

"For Indonesia, these pygmy blue whales travel through a busy marine transportation lane west of Kupang, which necessitates conservation strategies such as regular monitoring and 'go-slow' zones.

"For Australia, these animals travel through offshore gas mining locations in Western Australia, and discussions between the government and the mining industry are required to protect this species from any adverse impacts."

Dr. Mustika said she hoped to track more blue pygmy whales in the future to gain a better understanding of how far into the sub-Antarctic zone they potentially travel.

The study involved researchers from JCU, Reef Check Indonesia, Cetacean Sirenian Indonesia, Elasmobranch Institute Indonesia, Muhammadiyah University Kupang, and the National Marine Conservation Area Agency.

More information: Putu Liza Kusuma Mustika et al, The first record of the southbound movements of satellite-tagged pygmy blue whales (B. m. brevicauda) from Savu Sea (Indonesia) to the subantarctic waters, *Marine Mammal Science* (2024). DOI: 10.1111/mms.13167

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