Population Increase of Humpbacks is Tracked After Whaling Pressure

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After a near two-decade absence, the East Coast Humpback Whale Survey was recently concluded in the iSimangaliso Wetland Park, whose ocean component forms one of only 49 UNESCO Marine World Heritage Sites globally.

iSimangaliso's whale season is from June to December annually, when migrating humpback whales are funnelled close inshore by the coastal orientation as they head northwards towards their breeding grounds in Mozambique and again back south to the feeding grounds later in the season.

In a collaborative effort between several organisations, including conservation authorities, conservation NGOs and South African universities, the survey of the population status of migrating humpback whales was spearheaded by WILDOCEANS, a new marine and coastal conservation programme of the WILDTRUST, under a research permit granted by the iSimangaliso Authority.

Dr Jennifer Olbers, a Marine Ecologist working with iSimangaliso's conservation partner Ezemvelo KZN Wildlife, said: "Over the past decade, it has been presumed the humpback whale population is increasing as the number of reported mortalities have increased. However, threats to these whale populations are accelerating."

The dunes at Cape Vidal in iSimangaliso's Eastern Shores section provide an ideal vantage point to undertake these shore-based migration surveys. Wildlife ACT, a conservation NGO which specialises in professional endangered and priority species monitoring and undertakes terrestrial monitoring for the iSimangaliso Authority, stationed monitoring teams on two towers located on top of these dunes to undertake the full time and consistent monitoring required over a two month period.

The monitoring focused on gaining an estimate of overall numbers and group sizes, understanding daily densities of migrating whales as well as gathering data on migration speed and bearing and distance off shore. Results from this project will allow scientists and conservationists to expand on current knowledge of the east coast humpback whale migration and therefore estimate any changes in the population.

"Whales communicate using low-frequency acoustic signals which allow interaction over large distances. Noise in the ocean including from large ships or offshore mining activities can overlap with these acoustic signals used by humpback whales, and have been reported to induce habitat displacement, behavioural changes and alterations in their acoustic signals. The protected iSimangaliso coastline offers an important area in which ocean noise from anthropogenic sources is reduced because shipping lanes are further from the coastline and offshore mining is prohibited, making it an ideal location for such a monitoring survey," said Olbers.

Commercial whaling practiced off the northern KwaZulu-Natal coastline between 1908 and 1979, decimated populations of whales in these waters. The protection of humpback whales in 1963 marks one of the great South African marine conservation success stories with numbers steadily increasing over this time. The survey forms part of a long term, shore-based migration survey of humpback whales which was designed and initiated in 1988 by Prof Ken Findlay (now Cape Peninsula University of Technology – CPUT) and Dr Peter Best (University of Pretoria's Mammal Research Institute) to track the population increase of humpback whales as they recovered from commercial whaling pressure.

"The recovery of Southern Hemisphere humpback whales from severe whaling pressures last century when

some 210 000 animals were whaled, must rate as one of the world's great conservation recoveries. Populations that migrate on the KZN coast each year were whaled in the Antarctic, on their migration and in their Mozambican breeding grounds. Their current recovery at some ten percent per annum is really heartening to see," commented Findlay.

"This long-term dataset is vital in tracking the South African east coast humpback population and provides a unique tool for monitoring the effects of potential impacts such as boat-based whale watching, shipping, pollution, climate change, fisheries, and oil and gas exploration," said Chris Wilkinson, Technical Manager at the Mammal Research Institute at the University of Pretoria.

"Considering its dependency on the Southern Ocean as a feeding ground, this species also forms an excellent model to study the effect of these environmental variabilities on the larger Southern Ocean ecosystem. Ultimately this will allow for accurate legislation and mitigation to ensure a sustainable use of our natural resources."

Wildlife ACT director Chris Kelly said: "Wildlife ACT has a long history of monitoring priority wildlife in northern KwaZulu-Natal, and we are excited to be able to work with this iconic species and be part of evaluating and reporting on their performance and future outlook. As with all wildlife, we need to have a strong understanding of what populations are doing in order to effectively conserve them."

"It is important that we remain in touch with this recovery as there are a number of other threats to our oceans and marine life. Collaborative surveys such as this provide the opportunity to understand these successes, but also inform the future management of our oceans and ensure that we do not again enter a stage where the populations of these magnificent animals are threatened."