

# Hermanus Whale Festival Canned, Counting Continues

By

[FINSA reporter](#)

-

23 September 2020

Southern right whales are generally slow swimming. They can reach a maximum length of 15-17 metres and can weigh 50 – 60 tons. They have broad black tails and squarish flippers.

**The Hermanus Whale Festival usually takes place during the last weekend of September every year, but this year it has been cancelled. No prizes for guessing why: the COVID-19 pandemic. However, the annual aerial survey of southern right whales will soon get underway. The results will no doubt provide some interesting insights into this species.**

It's a blow for the town which for the past 29 years of the festival's existence, has enjoyed the influx of about 100 000 visitors bringing much needed income into the area. It is the first time the event has been cancelled. Hermanus Whale Festival is an annual celebration of the return of the southern right whales from their feeding grounds in Antarctica. Southern right whales frequent the South African waters from June to December to mate and to give birth to their offspring.

It is a tribute to the legacy left to the town by 'Wendy the Whale', whose story is about man's ability to live in harmony with nature, as well as people's ability to come together as communities valuing the environment. All events and activities during the whale festival are focused to create awareness on how to protect the whales and other marine wildlife sharing coastal waters.

## **Aerial survey**

The Whale Unit of the University of Pretoria's Mammal Research Institute (MRI) will be conducting an aerial survey of southern right whales from 28 September through to mid-October.

This is the 41st annual southern right whale photo-identification aerial survey, making this one of the longest running datasets on any marine mammal worldwide.

The survey is flown annually between Nature's Valley and Muizenberg at an altitude of about 300m and within 1km of shore using an Airbus H120B helicopter. Aerial flights are usually only carried out when there is adequate survey / weather conditions during the day.

During the survey, all encountered whale species will be recorded, but special focus will be given to encounters of southern right whales.

As such, all southern right whale females with calves, as well as all individuals with distinctive brindle colouration or markings, will be photographed in order to allow individual identification.

Vertical images will be taken of both the heads and the backs of the animals. This will allow recognition of the pattern formed by the wart-like callosities on their heads, and in some cases of the white and grey pigmentation patterns on their backs.

Photography of each group usually takes less than five minutes, during which time the helicopter decreases in altitude to hover some 150-200m above the whales.

Once sufficient photographs are obtained, the helicopter returns to the 300m altitude to continue searching for whales. In areas of high whale densities, the aircraft may move directly from group to group at the lower altitude.

### **Analysis**

After the survey, the collected photographs and associated data are analysed. The best images of each individual is selected from each encounter and compared to all other selected images from the 2020 survey.

They are also compared to the Whale Unit's catalogue of identification photographs of just over 2300 recognisable adults from the previous 40 annual surveys.

Sorting of images is initially done using a computer-assisted image recognition system, followed by final matching of the whales by eye.

These analyses allow for sighting histories of known individuals to be compiled and a subsequent investigation of individual movement and distribution patterns as well as the reproductive / calving histories of females.

These data are then used to further investigate the vital parameters of the population.

This includes abundance estimation, population growth rate, survival, calving intervals, and age at first parturition (age at when a female has her first calf). This allows researchers to accurately model the population demographic parameters over the long term.

### **Low count**

Unfortunately, this year the numbers of southern right whales appears to be very low again. A preliminary count survey conducted at the end of August indicated the presence of 71 females with calves and 11 unaccompanied adults, leading to a total of 153 southern right whales, between Hermanus and Witsand.

This is about half of what was seen last year around the same time, and likely to become the second lowest count in over 30 years.

Current information from other breeding grounds, including Australia and Brazil, also indicate a dramatic decreased presence of southern right whales this year.

Sightings of southern right whales in their breeding grounds haven't been normal in the past decade. In South Africa, sightings of females with calves decreased dramatically in 2015, 2016 and 2017, increased to above normal levels in 2018 before dropping again substantially in 2019.

Sightings of unaccompanied adults (males and non-calving females) have decreased drastically in 2010 and have not yet returned to normal levels. This suggests that only pregnant females, which are about to give birth, complete their migration to the South Africa coast to increase their calf's survival chances, whereas the others are not undertaking their migration to the full extent.

### **Decreased calving success**

Additionally, data continues to show a decreased calving success, with females giving birth to a calf every 4 to 5 years instead of every 3 years.

Successful calving in southern right whales relies on having an adequate body condition (blubber thickness or "fatness"), which is directly influenced by their feeding "success". Because of this, it is hypothesised that a decreased availability of food in the southern right whale feeding grounds in the Southern Ocean lies at the heart of these changes.

### **Changes to feeding**

And indeed, new results of ongoing work show that the South African southern right whale population has drastically changed their feeding locations in the past two decades. This suggests that their previously productive feeding grounds have changed over time.

Considering the vast oceanic range of the southern right whale feeding grounds, recent findings point toward large-scale ecosystem changes in the Southern Ocean.

The observed limited migratory behaviour and decreased calving success of southern right whales further indicate that these changes in feeding behaviour may be an attempt to keep up with a changing ocean. And that they may in fact not be sufficient for the whales to obtain an adequate body condition which will ensure their calving success.

In this regard, further investigation of the whales' nutritional condition using overhead drone images and analysis of blubber stress hormone levels will be carried out. These results should be available at the end of this year.

Since receiving international protection in 1935, the three breeding populations (in coastal waters of Australia, Argentina and South Africa) have been increasing at about 6.5% per annum. Currently, the regional (southern African) abundance is estimated just over 6000 individuals, with a global population size of just under 15000 individuals.

