

Fin whale populations rebound in Antarctic feeding grounds

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A fin whale in the Southern Ocean. Credit: Alfred-Wegener-Institut / AWI Ocean Acoustics Group

Southern fin whales have been documented feeding in large numbers in ancestral feeding grounds in Antarctica for the first time since hunting

was restricted in 1976. The paper, published in *Scientific Reports*, includes the first video documentation of large groups of fin whales feeding near Elephant Island, Antarctica. The authors suggest that the recovery of fin whale populations could restore marine ecosystem nutrients and support the recovery of other marine organisms.

Southern [fin whales](#) (*Balaenoptera physalus quoyi*) are a subspecies of fin whale—the second largest whale species after the [blue whale](#)—that inhabits the Southern Hemisphere. They were extensively hunted during the nineteenth century, particularly around specific feeding grounds in Antarctica. By the time fin whale hunting was banned in 1976, it is estimated that more than 700,000 individuals had been killed and they were rarely seen in their traditional feeding regions.

Helena Herr and colleagues collected data on fin whale abundance in the Antarctic using a helicopter survey and video recordings during two expeditions in April 2018 and March 2019. The authors estimated fin whale abundance based on all sightings of individuals and groups along 3,251 kilometer search tracks. They recorded 100 groups of fin whale with group sizes ranging from one to four individuals, and eight unusually large groups of up to 150 whales which appeared to be actively feeding. Previous observed instances of fin whales feeding have involved a maximum of thirteen individuals.

The authors modeled fin whale population densities in the Antarctic, and predict a [population](#) of 7,909 fin whales for the total survey area, with a density 0.09 individuals per kilometer squared—high compared to fin whale populations in other areas of the world such as southern California (around 0.003 whales per square kilometer). The authors report a noticeable hotspot of fin whales around Elephant Island with a predicted abundance of 3,618 individuals, or 0.21 whales per kilometer squared.

The authors suggest that recovering fin whale populations could enrich

the marine ecosystem of the Antarctic through nutrient recycling from whale feeding and excrement (known as the "whale pump"), and, in turn, support increasing growth of phytoplankton and greater krill populations.

More information: Helena Herr, Return of large fin whale feeding aggregations to historical whaling grounds in the Southern Ocean, *Scientific Reports* (2022). DOI: [10.1038/s41598-022-13798-7](https://doi.org/10.1038/s41598-022-13798-7).
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