

CARIB Tails

Humpback Whale Migrations

Stellwagen Bank and Silver Bank — Endpoints in a 3,000-Mile Annual Round Trip

In 1976, during the first year of commercial whale watching on Stellwagen Bank, a large, easily identifiable humpback with a scarred dorsal fin was sighted and named. The individual was Salt, and she has become an annual summer visitor to the area. Whale watchers keep an eye out for this massive creature, and she doesn't disappoint, reappearing regularly, often with a calf in tow (13 that we know of as of 2016). A few years after that first sighting, when whale researchers began a photo identification program at Silver Bank in the waters off the Dominican Republic, they saw a familiar sight. It was Salt. She offered the first proof-positive of the migratory path of this 45-foot, 40-ton global commuter.

This link between northern feeding grounds and breeding/calving grounds in the Caribbean Sea was again confirmed in 1992 and 1993 when scientists from seven countries worked together to conduct a unique study of North Atlantic humpback whales across their entire ocean range. The project was called the Years of the North Atlantic Humpbacks (YoNAH). Using photo-identification and biopsy sampling, YoNAH provided a detailed picture of the abundance, population structure and migratory movements of the endangered North Atlantic humpback whale.

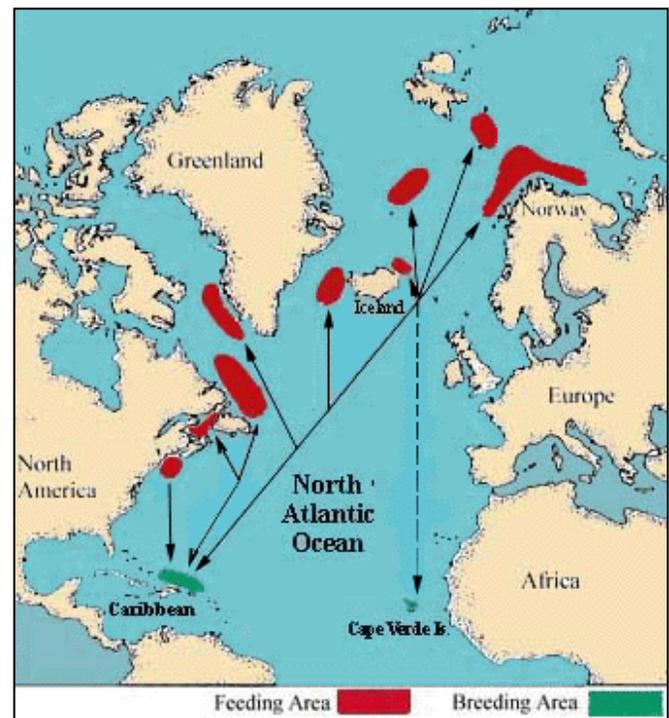
The study delineated five distinct feeding aggregations: Gulf of Maine, eastern Canada (Gulf of St. Lawrence, Labrador and Newfoundland), western Greenland, Iceland and Norway.

In 2004 and 2005, another international study called More North Atlantic Humpbacks (MoNAH) focused on photographing and sampling humpback whales in the Gulf of Maine and on Silver Bank off the Dominican Republic to provide updated information on this population. Scientists are able to conclude that humpbacks are generally loyal to their northern feeding grounds, yet mix with other groups of humpback whales on their tropical breeding grounds. Mixing genes from different populations is believed, among other things, to contribute to the resilience of humpback whales.

At the end of the mating and calving season, humpbacks return to their respective feeding grounds with the newborns following their mothers.



Calves learn the route to their mothers' feeding ground on the spring northbound migration and undertake the same 1,500-mile trip back every winter. Stellwagen Bank National Marine Sanctuary may be an especially favored stopping-off place for new mothers who stock up on quantities of fat-rich sand lance. These small, pencil-thin, schooling fish also offer a relatively easy target for the just-weaned calves.





A humpback mother and her calf swim in the clear waters of the Caribbean Sea.

Photo courtesy of Deborah Glockner-Ferrai

Studies indicate that humpbacks' most populous breeding and calving area is along the north coast of the Dominican Republic (Greater Antilles). However, their range extends throughout the Lesser Antilles chain as far as Trinidad and Tobago, and Venezuela. The Stellwagen Bank sanctuary is working with its counterparts throughout the Wider Caribbean Region to coordinate education, outreach and research programs, and is establishing similar sister sanctuary relationships with other Caribbean nations where humpback whales spend their winters.

Migration is not always without incident. There is a natural hazard of orca attacks, primarily on humpback calves. Not all attacks are lethal. Almost 15 percent of the humpback whales from the Stellwagen Bank National Marine Sanctuary have orca tooth marks on their tail flukes.

Migrating from the tropics to colder waters, humpback whales pass a gauntlet of threats, especially in the western Atlantic Ocean. Major ports line the coastline, with heavy ship traffic passing in an east-west direction over the north-south whale path. The Caribbean and western Atlantic are also heavily fished. Fixed gear, nets and traps anchored or placed on the seafloor become an ever-present danger to a feeding or migrating whale.

A humpback's flippers frame the distant shipwreck of the freighter, Polyxani, on Silver Bank in the Marine Mammal Sanctuary of the Dominican Republic.



Photo courtesy of Jooke Robbins, CCS.



Map of western North Atlantic humpback whale migratory range.