

## International Programs

# Caribbean Netherlands Joining Sister Sanctuary Program

In September 2015, the Caribbean Netherlands established the Yarari Marine Mammal Sanctuary, encompassing the territorial waters as well as the Exclusive Economic Zone surrounding the islands of Saba and Bonaire. Stellwagen Bank National Marine Sanctuary (SBNMS) and the Caribbean Netherlands have worked under a sister sanctuary Letter of Agreement since 2011, and formal plans for a Sister Sanctuary Memorandum of Agreement (MOA) are expected in 2016.

The Caribbean Netherlands is the fifth nation member of UNEP's Caribbean Environment Programme to become part of the Marine Mammal Protected Areas Network (MaMPAN). With the addition of Yarari, the multi-sanctuary, science-based North Atlantic Humpback Whale Sister Sanctuary Program (NAHW-SSP) has increased protection for humpbacks from 2,180 sq. km to 699,456 km<sup>2</sup> total area of sanctuaries combined over the past ten years.

Tail fluke photos from Saba, gathered through SBNMS's CARIB Tails citizen science project are analyzed and matched within the North Atlantic Humpback Whale Catalog, which is maintained by Allied Whale at the College of the Atlantic, Maine USA. These contributions already offer new perspectives about the timing and movement patterns of humpback whales from the southeastern Caribbean.

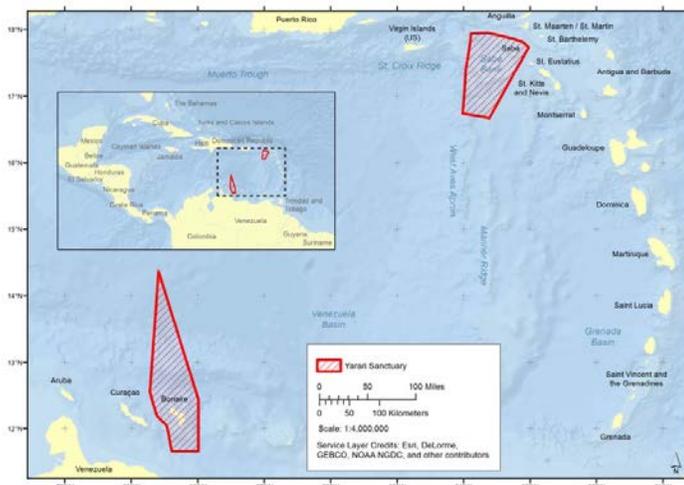


Yarari is a Taino Indian word meaning 'a fine place.' The Yarari sanctuary, containing critical habitat for marine mammals, is of particular importance for the conservation of marine mammals and provides support for humpback whale breeding, calving, feeding, resting, and migration behaviors.

The objective of Yarari is to provide a refuge for the protection and conservation of marine mammals and sharks and their habitats from negative impacts of human activities, whether direct or indirect, actual or potential.

Yarari was created consistent with the objectives of the United Nations' Convention for the Protection and Development of the Marine Environment of the Wider Caribbean (the Cartagena Convention) and its Protocol on Specially Protected Areas for Wildlife (SPAW), and its Marine Mammal Action Plan (MMAP) for the Caribbean region, which recognizes the importance of protecting critical humpback whale habitats and migratory corridors.

The North Atlantic Humpback Whale SSP will help improve knowledge about humpbacks in the Atlantic and the threats they face from both natural and man-made changes to their environment. NOAA anticipates the relationship will be crucial to the long-term conservation of the endangered humpback whale population, as well as to the development of future cooperative agreements with other countries.



Map showing the Yarari Marine Mammal and Shark Sanctuary, in the waters surrounding the islands of Saba and Bonaire.

# Multiple Sightings

The first humpback whale identified from Yarari MMS (Saba Bank) in 2014 via the Sister Sanctuary Program's CARIB Tails citizen science project.



*Photographer: Jimmy Van Rijn (Saba Marine Park)*

The most recent Yarari MMS (Saba Bank) fluke submitted. This individual was first seen on Silver Bank (off the Dominican Republic) in 1980 and again on Silver Bank in 2004. The individual is at least 36 years old.



*Photographer: Leslie Ravel (Yarari MMS)*

## Making Matches

After decades observing whales in the Gulf of Maine, the northwestern Atlantic and the Caribbean, scientists have been able to identify a number of individual humpback whales as they migrate north and south. But whales visiting the eastern Caribbean remain somewhat of a mystery.

Yarari has contributed three fluke photographs under a new international citizen science humpback whale tracking and identification project called CARIB Tails, launched by Stellwagen Bank National Marine Sanctuary and its sister sanctuary partners. Sailors and yachters are the key contributors, especially in the remote and under-surveyed areas of the Eastern Caribbean.

In coordination with the United Nations' Caribbean Environment Programme and SPAW's Regional Activity Center, CARIB Tails is a collaboration between the North Atlantic Humpback Whale Sister Sanctuary Program (NAHW-SSP) partners — a network of marine mammal sanctuaries (MaMPAN) that protects the North Atlantic population of humpback whales in the U.S., the French Antilles, Bermuda, the Dominican Republic and the Caribbean Netherlands.

For more information: [www.caribtails.org](http://www.caribtails.org)

## Photo-Identification

Humpback whales have patterns of black and white pigmentation and scars on the underside of their tails that are unique to each whale, just as fingerprints are to humans.

For scientific purposes, humpback whales sighted in the North Atlantic are assigned a catalog number in the North Atlantic Humpback Whale Catalog (NAHWC) maintained by the College of the Atlantic in Bar Harbor, Maine U.S.A. The NAHWC is one of the longest and most detailed data sets for baleen whales in the world.

Photographs in the catalog (n=9,000), including date and location, allow scientists and naturalists to identify and monitor individual animals and gather valuable information about migration patterns, population sizes, health, sexual maturity and behavior patterns.