

NOAA's National marine Fisheries Service (NMFS) is dedicated to protecting and preserving the nation's living marine resources through research, fisheries management, enforcement, and habitat conservation. NMFS is the lead agency responsible for the stewardship of the nation's offshore living marine resources and their habitat. NMFS manages, conserves, and protects fish, whales, dolphins, sea turtles, and other ocean creatures. NMFS works within the Magnuson-Stevens Act, the Marine Mammal Protection Act (MMPA), and the Endangered Species Act (ESA) to fulfill its mission of promoting healthy ecosystems.

NMFS' Northeast Regional Office's Protected Resources Division (PRD) implements the MMMPA and the ESA. The marine mammal program is dedicated to protecting whales, dolphins, porpoises, and seals from harm caused by human activities. The program carries out the mandates of the MMPA to conserve healthy populations and to rebuild (or "recover") marine mammal populations that are strategic. The endangered species program is dedicated to the protection and recovery of threatened or endangered marine species, including sea turtles, salmon, and sturgeon. This program carries out the mandates of the ESA to prevent the extinction of marine species. The following briefly describes several key PRD programs.

ATLANTIC LARGE WHALE DISENTANGLEMENT NETWORK (ALWDN)

Entanglement of marine mammals in fishing gear and marine debris is a significant problem along the eastern seaboard of the United States. Every case is assessed and responded to by trained responders up and down the coast that make up the ALWDN. The responders further document, monitor, satellite tag, and disentangle the animal. If you come across a sick, injured, or entangled whale you should contact the USCG on Marine Channel 16. Do not get in the water or try to disentangle the animal. It is extremely dangerous and should only be conducted by trained personnel. For more information, visit: www.nero.noaa.gov/prot_res/stranding/lwd.

NMFS NORTHEAST REGION MARINE MAMMAL STRANDING PROGRAM

Marine mammals sometimes come ashore sick, injured, or dead. In some cases, live stranded marine animals can be rescued, rehabilitated, and returned to the wild. If you encounter a stranded, injured, or entangled marine mammal or sea turtle call NMFS Northeast Region Stranding Hotline at (978) 281-9351. Do not touch the animal, push it back into the water, or attempt to disentangle. Doing so can cause further injury. Monitor the animal quietly from a distance and wait for members of the Northeast Region Stranding Network so they can provide the best possible care of the animal. For further information, visit the stranding web page at: www.nero.noaa.gov/prot_res/stranding.

ATLANTIC LARGE WHALE TAKE REDUCTION TEAM/PLAN (ALWTRP)

ALWTRP regulations are designed to reduce the injury and mortality of right, humpback, and fin whales in gillnet and trap/pot fisheries from Maine through Florida. The ALWTRP includes gear modification and marking requirements (e.g. sinking groundline, weak links, gillnet anchoring, buoy line marking); gear handling and deployment requirements; and time/area closures. For more information visit the ALWTRP web page at www.nero.noaa.gov/whaletrp/.

HARBOR PORPOISE TAKE REDUCTION TEAM/PLAN (HPTRP)

HPTRP regulations are designed to reduce the injury and mortality of the Gulf of Maine/Bay of Fundy stock of harbor porpoises in Northeast sink gillnet and Mid-Atlantic gillnet fisheries from Maine through North Carolina. In December 2007, NMFS reconvened the HPTRP team to consider a number of further modifications to the HPTRP to address recent increases in harbor porpoise mortalities in the New England and Mid-Atlantic regions. For more information, visit www.nero.noaa.gov/prot_res/porptrp/.

ATLANTIC TRAWL GEAR TAKE REDUCTION TEAM (ATGTRT)

NMFS convened a take reduction team in 2006 to reduce the injury and mortality of pilot whales, common dolphins, & Atlantic white-sided dolphins due to interactions with several Atlantic trawl fisheries. For more information, visit www.nero.noaa.gov/prot_res/atgtrp/.

BOTTLENOSE DOLPHIN TAKE REDUCTION TEAM/PLAN (BDTRP)

In 2001, NMFS convened a take reduction team to address the injury & mortality of the western North Atlantic bottlenose dolphin stock incidental to nine Category I and II fisheries from New Jersey through Florida's east coast. For more information, visit www.nmfs.noaa.gov/pr/interactions/trt/bdtrp.htm.

PELAGIC LONGLINE TAKE REDUCTION TEAM/PLAN (PLTRP)

In 2006, NMFS convened a take reduction team to address the serious injury and mortality of short-finned and long-finned pilot whales and Risso's dolphins in the mid-Atlantic portion of the Atlantic pelagic longline fishery. For more information, visit: www.nmfs.noaa.gov/pr/interactions/trt/pl-trt.htm.

COMMON VISIBLE BEHAVIORS AND TERMS



BLOW—a visible exhale at the surface; also called a *spout*. A right whale's blow is shown.



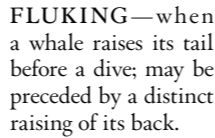
TAIL THROW—like a tail slap but flinging the tail and flukes sideways.



FEEDING BEHAVIORS—baleen whales use the water's surface as a barrier against which they chase prey. In *skim feeding* (right) whales forage at the surface with mouths open to catch invertebrates (krill, amphipods, copepods).



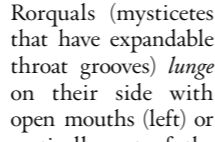
Rorquals (mysticetes that have expandable throat grooves) *lunge* on their side with open mouths (left) or vertically out of the water through patches of prey. A *vertical lunge* (below) may be mistaken for a *breach*; notice that water is expelled from the mouth. Humpback whales often entrap prey using "bubble nets" and may engage in *social foraging* with several whales lunging together.



TAIL SLAP—slapping flukes deliberately on the surface.



TAIL LOB—lobbing the flukes in the air without deliberate slapping.



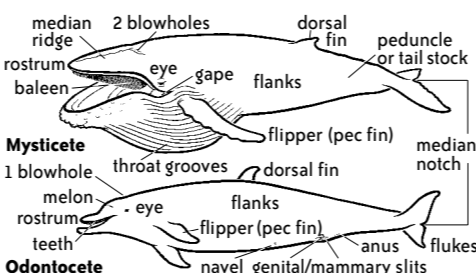
SPY HOP—raising the head vertically above the surface and exposing the eyes for taking a look around.



CALLOSITIES—yellowish, raised, roughened patches of tissue on a right whale's head.



THERMOREGULATING—when seals hold up one or more flippers in the air to cool off and regulate body temperature.



BREACH—jumping above the surface, often rotating and landing on the whale's back, side, or forward. A short forward breach is called a *chin-slap*.



HEADRISE—raising the rostrum vertically out of the water, but short of exposing the eyes.



PEC SLAP—a whale on its side or back, hitting the surface with one or both pectoral fins.



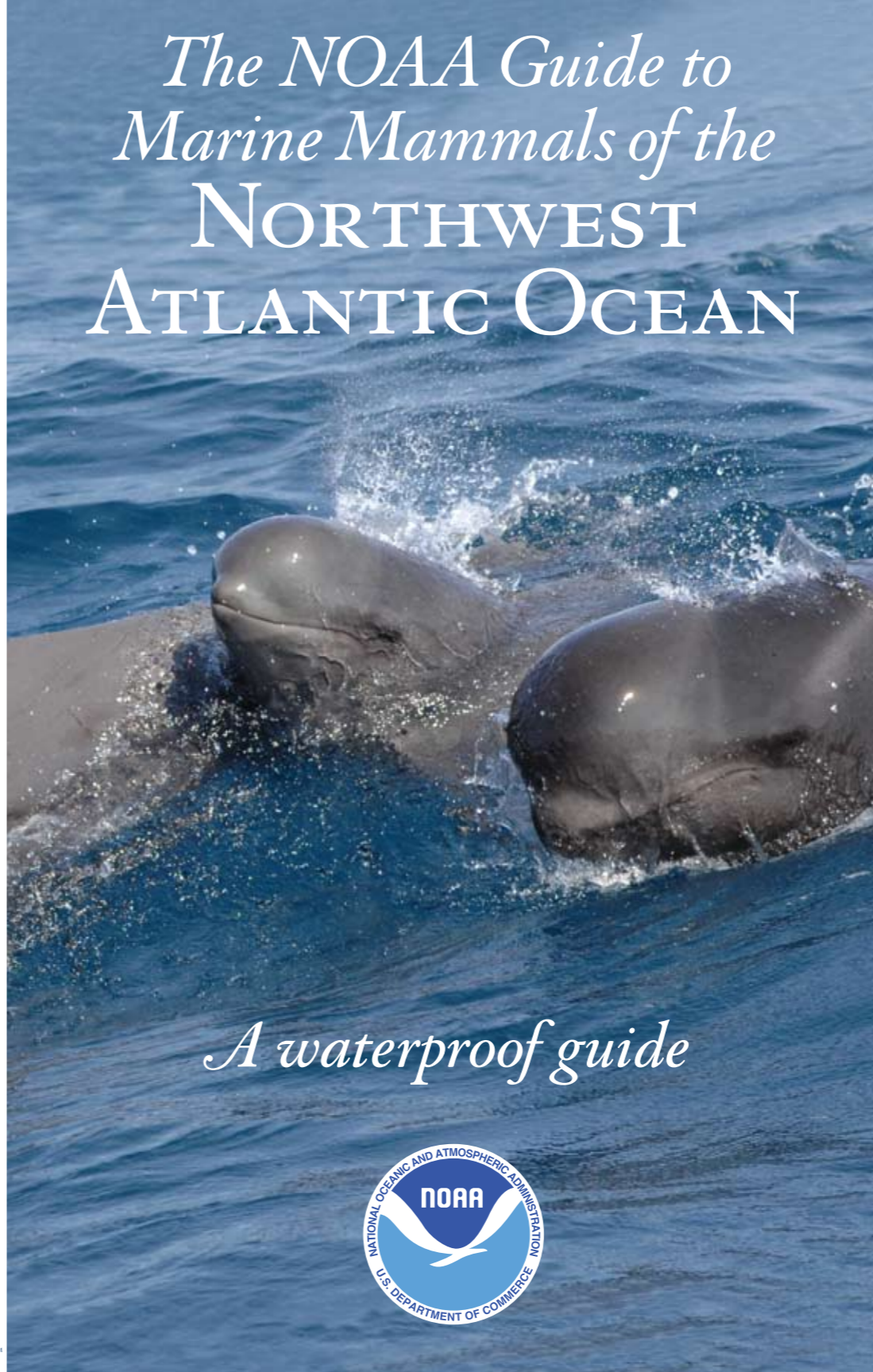
HAUL OUT—rocks and beaches where seals come ashore to rest or moult. **ROOKERY**—a haul out where birthing/mating occurs.

About this guide ...

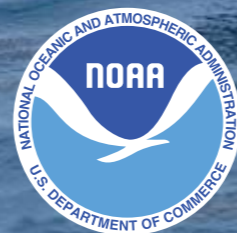
Published by A Higher Porpoise Design Group © 2009. Concept, design, and images by Pieter Folkens. Additional photography by Ari Friedlaender, Duke University (front panel pilot whales); Ed Lyman (callosities, skim feeding); ORES/Ursula Tschertner (chin slap, vertical lunge); Allied Whale (head rise). This guide is printed on a synthetic film made from a 100% recyclable, environmentally inert material containing no forest products. It is waterproof, durable, UV resistant, and does not emit problematic vapors common with laminated items.



The NOAA Guide to Marine Mammals of the Northwest Atlantic Ocean



A waterproof guide



THIS GUIDE DEPICTS all of the extant (living) marine mammals known in North Atlantic waters of North America and the Caribbean. The area encompasses several marine environments from the warm subtropics to cold water associated with sea ice and from the shallow continental shelf to deep canyons and the open ocean. Various marine mammals have adapted specialized characteristics to survive and prosper in each of these environments. For example, a thick layer of fat (blubber) insulates whales in Arctic waters. Specialized blood and blood vessels make it possible for sperm and beaked whales to dive thousands of feet to catch squid. Highly developed echolocation enables spotted dolphins to find fish hidden in sand on the sea floor.

Some marine mammals—particularly baleen whales—migrate from productive cold water feeding areas in high latitudes to warm sub-tropical and tropical habitats better suited for birthing calves. The southward migration begins in late autumn. Northward migrations begin in early spring. Humpback whales make an annual trek from the Caribbean to feeding grounds in the Gulf of Maine, Canada, Greenland, Iceland, and Norway. Northern right whales calve off the coast of Florida and Georgia and return to the Gulf of Maine in spring and the Bay of Fundy and Nova Scotia by late summer.

Marine mammals congregate where upwelling occurs. Upwelling is a natural phenomenon in which cold, nutrient-rich water from the depths is brought to the surface by a combination of Earth's rotation, prevailing winds, ocean currents, and seafloor topography. This cold soup fertilizes phytoplankton (small marine plant life) in the sunlight and begins the great ocean food chain, which feeds zooplankton (small marine animal life), which feeds schooling fish and squid, and so on, attracting a wide variety of marine life. Similarly, the confluence of currents such as the cold Labrador Current meeting the warm Gulf Stream over Georges Bank create ideal environments for a marine food web. Many marine mammals return annually to these places of high productivity. Stellwagen Bank, the Bay of Fundy, Brown's Bank off Nova Scotia, the Grand Banks off Newfoundland and Labrador are just a few of many such feeding grounds in the western North Atlantic.

The Diversity of Marine Mammals

Living marine mammals are classified into three orders: Carnivora (sea otters, polar bears, pinnipeds), Sirenia (sea cows), and Cetacea in two sub-orders: Mysticeti (baleen whales) and Odontoceti (toothed whales, dolphins, porpoises). Most marine mammal families are represented in the Atlantic. The species covered here include eight pinnipeds, seven beaked whales, a porpoise, twenty-one ocean dolphins, eight baleen whales, all three sperm whales, beluga, narwhal, two manatees, and the polar bear. Three species once common in the North Atlantic were forced into extinction due to over exploitation. The Caribbean monk seal was last seen in the 1950s. The last sea mink was taken in 1894. Atlantic gray whales, once present on both sides of the Atlantic, disappeared in the early 19th century. However, with the trend towards a warmer climate, the Pacific gray whale may very well emigrate over the north and back into the Atlantic.

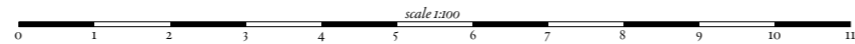
Pinnipeds are a discrete group of marine mammals comprised of three families in Carnivora: sea lions and fur seals (otariids), true seals (phocids) and walrus (odobenids). "Pinniped" derives from the Latin for "wing-foot," and refers to the modified limbs, or flippers. Atlantic phocids are diverse and numerous. Walrus are restricted to the Arctic. Sea lions do not occur naturally in the North Atlantic.

Sirenia, the order of extant marine herbivores, includes manatees and the dugong. They are distantly related to elephants.

Understanding distribution, migrations, and habitats will help one to identify species accurately. Refer to the Habitat Key inside to narrow possibilities in a particular area. The most difficult whales to identify correctly are the beaked whales (genus *Mesoplodon*). They are also rarely seen at sea. Sightings and strandings of these animals are important to science.



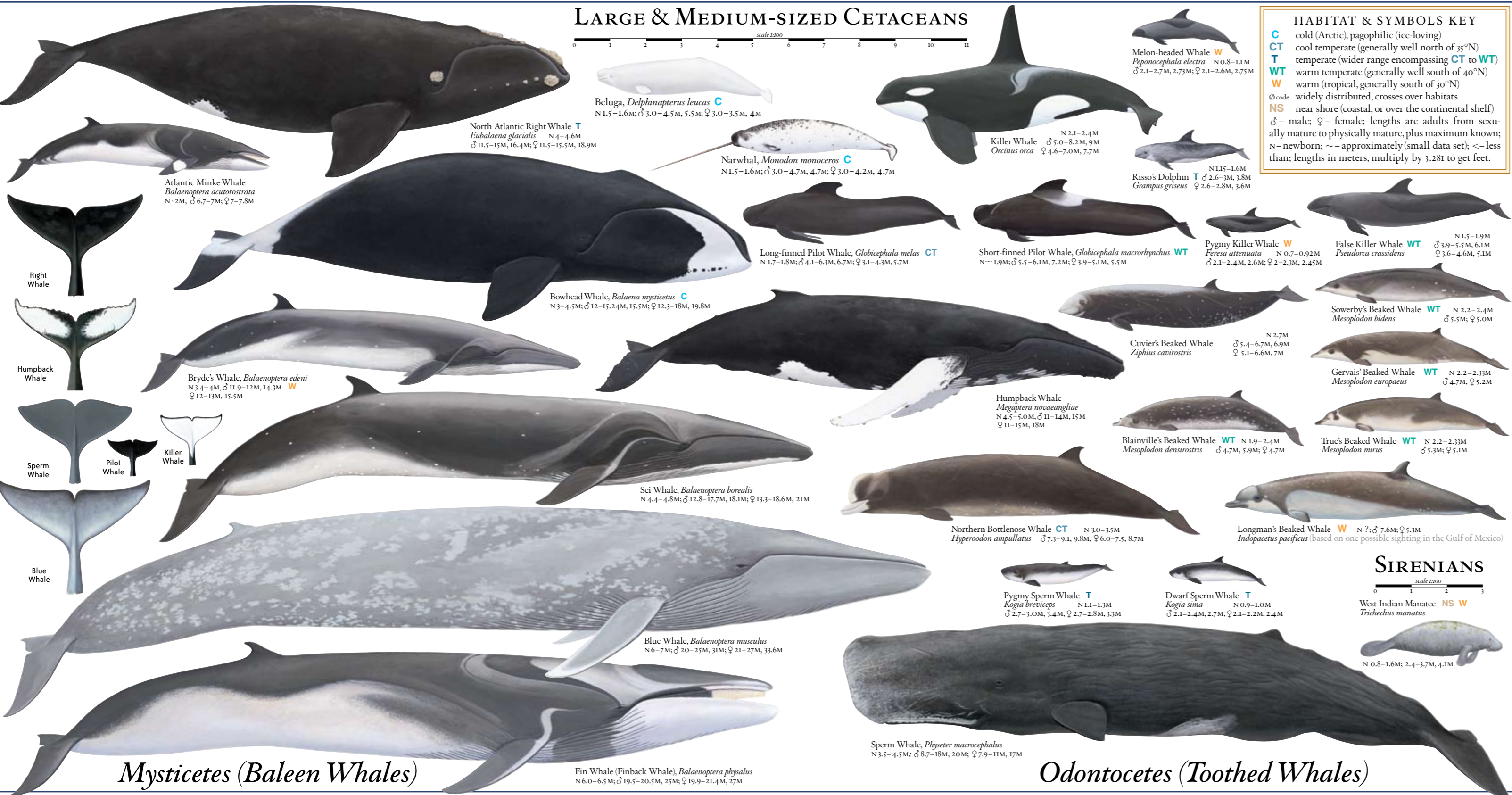
LARGE & MEDIUM-SIZED CETACEANS



HABITAT & SYMBOLS KEY

C cold (Arctic), pagophilic (ice-loving)
CT cool temperate (generally well north of 35°N)
T temperate (wider range encompassing CT to WT)
WT warm temperate (generally well south of 40°N)
W warm (tropical, generally south of 30°N)

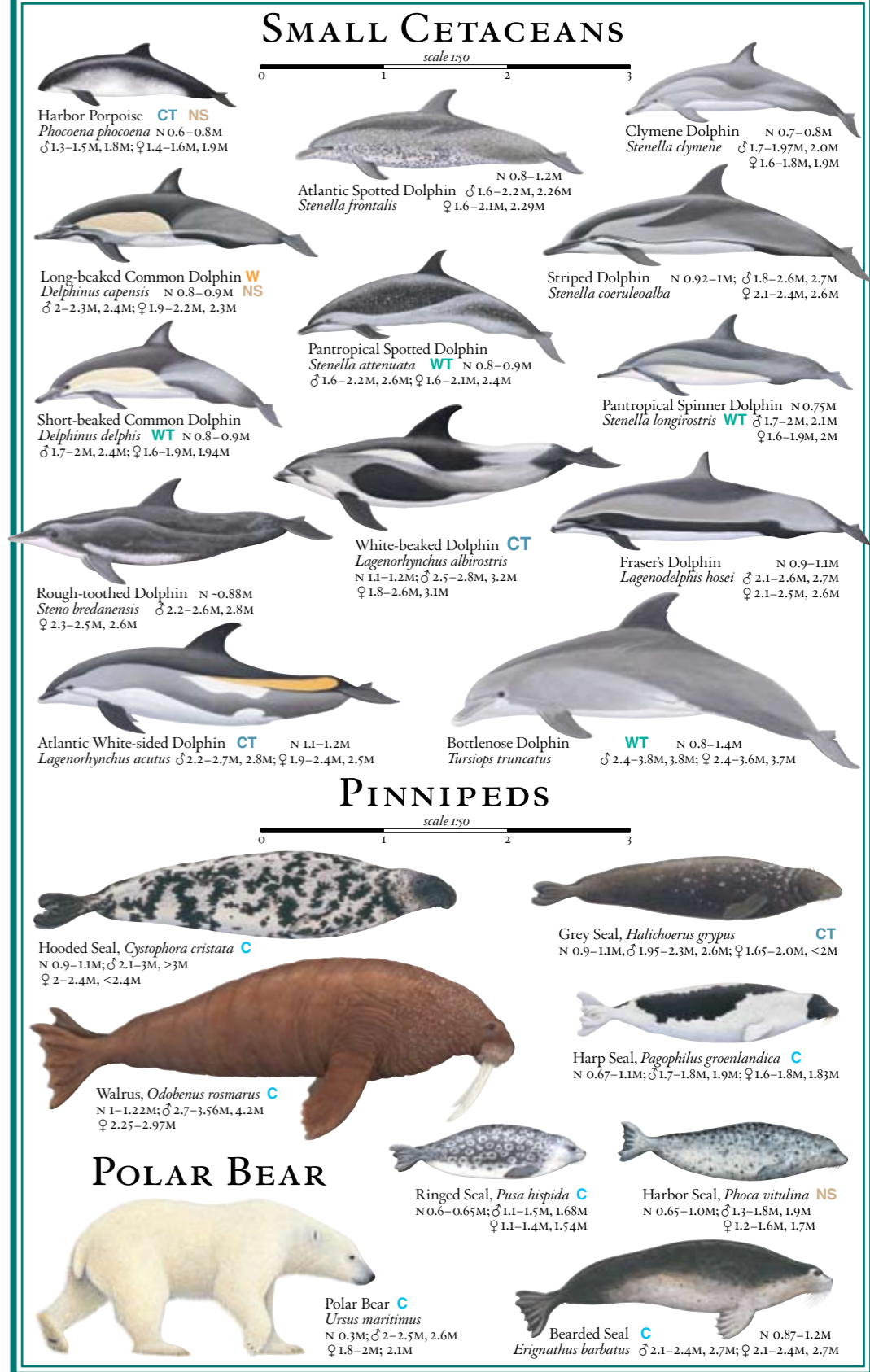
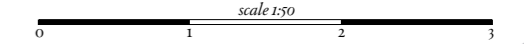
code widely distributed, crosses over habitats
NS near shore (coastal, or over the continental shelf)
♂ - male; **♀** - female; lengths are adults from sexually mature to physically mature, plus maximum known; N - newborn; ~ - approximately (small data set); < - less than; lengths in meters, multiply by 3.281 to get feet.



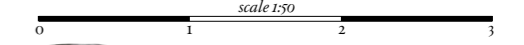
Mysticetes (Baleen Whales)

Odontocetes (Toothed Whales)

SMALL CETACEANS



PINNIPEDS



POLAR BEAR