

Harbor Seal

Harbor Seal

Phoca vitulina



Protection Status

MMPA PROTECTED

Throughout Its Range

Quick Facts

WEIGHT	24 pounds (birth) to 180 to 285 pounds (adult)
LENGTH	About 5 to 6 feet
LIFESPAN	About 25 to 30 years
THREATS	Entanglement, Illegal feeding and harassment, Habitat degradation and loss, Chemical contaminants, Oil spills and energy exploration, Vessel collisions, Disturbance, Disease
REGION	Alaska, New England/Mid-Atlantic, Southeast, West Coast

About the Species



Harbor seals in Chatham MA - Photo: NOAA Fisheries

Harbor seals are one of the most common marine mammals along the U.S. West and East Coasts. They are commonly seen resting on rocks and beaches along the coast and on floating ice in glacial fjords with their head and rear flippers elevated in a “banana-like” position.

State-financed bounty hunters once hunted harbor seals in Alaska, Washington, Oregon, Massachusetts, and Maine because they were considered competitors of fishermen. This hunting program ended in 1960.

Harbor seals, like all marine mammals, are protected under the [Marine Mammal Protection Act](#).

Population Status

In the United States, NOAA Fisheries has identified 16 stocks of harbor seals. Twelve of these stocks are in Alaska, and the other 4 are the California, Oregon-Washington coastal, Washington inland waters, and the western North Atlantic stocks. In Alaska, there are the Aleutian Islands, Pribilof Islands, Bristol Bay, North Kodiak, South Kodiak, Prince William Sound, Cook Inlet/Shelikof Strait, Glacier Bay/Icy Strait, Lynn Canal/Stephens Passage, Sitka/Chatham Strait, Dixon/Cape Decision, and Clarence Strait stocks. The Bristol Bay stock in Alaska includes a small population of [freshwater harbor seals that live in Iliamna lake](#), located in Southcentral Alaska.

Each stock has experienced different population trends over the past 30 years. Along the West Coast, stocks are stable or unknown and the population in New England appears to be stable. Individual breeding and molting colonies can number in the thousands in some of these areas. While most of the 12 harbor seal stocks in Alaska are stable or increasing over the past 8 years, seals in the Aleutian Islands, Glacier Bay, and Icy Strait regions have likely declined. There is a small but apparently stable population of less than 500 harbor seals in the Pribilof Islands.

[Learn more about our estimates for population size in our stock assessment reports >](#)

Appearance

Harbor seals are part of the true seal family. All true seals have short forelimbs, or flippers. They also lack external ear flaps and instead have a small hole (opening to the ear canal) on either side of their head.

Harbor seals weigh up to 285 pounds and measure up to 6 feet in length. Males are slightly larger than females, and seals in Alaska and the Pacific Ocean are generally larger than those found in the Atlantic Ocean.

Harbor seals have short, dog-like snouts. The color of each seal's fur varies but there are two basic patterns: light tan, silver, or blue-gray with dark speckling or spots, and a dark background with light rings. Harbor seals molt (shed hair) in the mid to late summer for 1-2 months, spending more time out of the water.

Behavior and Diet

Harbor seals haul out (rest) on rocks, reefs, beaches, and drifting glacial ice when they are not traveling and/or foraging at sea. They haul out to regulate their body temperature, molt, interact with other seals, give birth, and nurse their pups. These seals also haul out in groups to avoid predators and spend less time being watchful for predators than those that haul out alone.

Harbor seal pelvic bones are fused, preventing them from moving their hind flippers under their pelvis to walk on land like sea lions. Instead, they move by undulating in a caterpillar-like motion. This behavior does not mean they are injured.

Harbor seal pups can swim at birth. They can also dive for up to 2 minutes when they are only 2 to 3 days old and by the end of their first month of life embark on journeys of over 100 miles from their natal area. Mother harbor seals sometimes raise their pups in nurseries—groups of mothers and their young—that help protect the seals from predators.

The harbor seal's diet consists mainly of fish, shellfish, and crustaceans. Harbor seals complete both shallow and deep dives while hunting, depending on the availability of prey. They can sleep underwater and come up for air once every 30 minutes.

Where They Live

Harbor seals live in temperate coastal habitats along the northern coasts of North America, Europe, and Asia. They occur on the U.S. East and West coasts. On the East Coast, harbor seals are found from the Canadian Arctic to the Mid-Atlantic. Harbor seals are found all along the West Coast of North America, from Baja California, Mexico to the Bering Sea. They have long been considered non-migratory and typically stay within 15 to 31 miles of their natal area, but tracking data have shown they sometimes travel 62 to 486 miles from their tagging location, often to exploit seasonally available food or give birth to pups.

World map providing approximate representation of the harbor seal range

Lifespan & Reproduction

Harbor seals reach sexual maturity between 3 and 7 years old. While females usually give birth during the spring and summer, the pupping season varies by location. Along the West Coast, pups are born earlier in the south than in the north. The only exception is harbor seals in the inland waters of Washington, which are born 2 months later than seals along the outer coast of Washington.

Harbor seals mate in the water. Females are pregnant for about 10 months. Pups weigh about 24 pounds at birth and are ready to swim within minutes. They nurse for 4 to 6 weeks on milk that is 50 percent fat. Like adults, seal pups haul out to rest and regulate their body temperature. Adult females forage during lactation.

Threats

Entanglement

Harbor seals can become entangled in fishing gear and other types of marine debris, either swimming off with the gear attached or becoming anchored. They can become entangled in many different fishing gear types, including gillnets, trawls, purse seines, or weirs. Once entangled, seals

may drown if they cannot reach the surface to breathe, or they may drag attached gear for long distances as they swim, ultimately resulting in fatigue, compromised feeding ability, or serious injury, all of which may lead to reduced reproductive success and even death.

Illegal Feeding and Harassment

Illegal feeding of harbor seals can lead to many problems including habituation, aggression, negative impacts to fisheries, entanglement, injury, and death. Harassment, including repeated exposure to vessel traffic and other disturbance, can degrade important nursery, molting, and haul out areas for harbor seals. Increased vessel traffic can also cause altered behavior, increased energetic expenditures, and increased exposure to stress. For example, in Alaska, vessel traffic can displace seals from ice floes, putting pups at risk from increased time spent in cold water and separation from their mothers.

[Learn more about the Alaska harbor seal approach guidelines in glacial fjords \(PDF, 2 pages\) >](#)

Habitat Degradation

Harbor seals are susceptible to habitat loss and degradation. Physical barriers, which may include shoreline and offshore structures for development (e.g., for oil and gas, dredging, pile driving), can limit access to important migration, breeding, feeding, molting, or pupping areas. Oil and gas development, commercial and recreational development (including resort development), and increased vessel traffic may displace seals or their prey that would normally use those areas.

Chemical Contaminants

Contaminants enter ocean waters from many sources, including oil and gas development, wastewater discharges, agricultural and urban runoff, and other industrial processes. Once in the environment, these substances move up the food chain and accumulate in top predators such as harbor seals. These chemicals do not degrade. Harbor seals accumulate contaminants, which threaten their immune and reproductive systems, in their blubber, blood, and organs (for example, liver or brain). These chemicals can be passed on to their pups during pregnancy and in milk.

Vessel Collisions

Inadvertent vessel collisions can injure or kill harbor seals. Harbor seals are vulnerable to vessel collisions throughout their range, but the risk is much higher in some coastal areas with heavy vessel traffic.

Scientific Classification

Kingdom	Animalia
Phylum	Chordata
Class	Mammalia
Order	Carnivora

Family	Phocidae
Genus	<i>Phoca</i>
Species	<i>vitulina</i>

Last updated by NOAA Fisheries on 04/19/2022

What We Do

Conservation & Management

NOAA Fisheries is committed to the protection of harbor seals. Targeted management actions taken to secure protections for these seals include:

- Reducing contaminants
- Minimizing human interactions and associated injury and mortality through various public outreach efforts
- Reducing vessel collisions and disturbance through educational materials
- Overseeing marine mammal health and stranding response
- [Working with Alaska Native Organizations](#) to conserve and promote the sustained health of harbor seals to ensure that they remain a viable subsistence resource
- Implementing oil spill response plans in the event of a spill

[Learn more about our conservation efforts >](#)

Science

Our research projects have discovered new aspects of harbor seal biology, behavior, and ecology and have helped us better understand the challenges that all harbor seals face. Our work includes:

- Satellite tracking
- Sampling for health and condition
- Observational studies
- Stock assessments
- Monitoring population abundance and distribution

[Learn about Seal Ecology and Assessment Research in the Northwest Atlantic >](#)

[Learn more about our research >](#)

How You Can Help

Report Marine Life in Distress

Report a sick, injured, entangled, stranded, or dead animal to make sure professional responders and scientists know about it and can take appropriate action. Numerous organizations around the country are trained and ready to respond. Never approach or try to save an injured or entangled animal yourself—it can be dangerous to both the animal and you.

[Learn who you should contact when you encounter a stranded or injured marine animal >](#)

Report a Violation

Call the NOAA Fisheries Enforcement Hotline at **(800) 853-1964** to report a federal marine resource violation. This hotline is available 24 hours a day, 7 days a week for anyone in the United States.

You may also contact your closest [NOAA Office of Law Enforcement field office](#) during regular business hours.

Keep Your Distance

Be responsible when viewing marine life in the wild. Observe all seals and sea lions from a safe distance of at least 50 yards and limit your time spent observing to 30 minutes or less.

[Learn more about our marine life viewing guidelines >](#)

Management Overview

Harbor seals are protected under the [Marine Mammal Protection Act](#). In the United States, NOAA Fisheries works to protect all populations of harbor seals.

Conservation Efforts

NOAA Fisheries is committed to the protection of harbor seals. Targeted management actions taken to secure protections for these seals include:

Reducing Contaminants

Harbor seals are vulnerable to chemical contaminants because they are near the top of the food chain. [NOAA's Damage Assessment, Remediation, and Restoration Program](#), which cleans up existing contamination, has several active projects in the Pacific Northwest and California.

Educating the Public

Some harbor seals haul out in public areas. Together with the West Coast Marine Mammal Stranding Network, we have developed programs to educate the public about how to “Share the Shore” with harbor seals, as well as prohibitions against capturing, harming, or harassing them.

[Lanugo Harbor Seal Pups Frequently Asked Questions \(PDF, 2 pages\) >](#)

[Share the Shore: Harbor Seals on the West Coast >](#)

[Share the Shore with Seals in New England/Mid-Atlantic >](#)

[Sharing Seal Space by the Seashore](#) 

Implementing Oil Spill Response Plans in the Event of a Spill

Harbor seals are at risk of harm in the event of an oil spill. To reduce the risk of a spill, Washington’s Department of Ecology created the [Spill Prevention, Preparedness, and Response Program](#). To minimize the effect of a potential spill on harbor seals more broadly, NOAA developed the [Marine Mammal Oil Spill Response Guidelines](#).

Overseeing Marine Mammal Health and Stranding Response

We work with volunteer networks in all coastal states to respond to marine mammal strandings including all pinnipeds. When stranded animals are found alive, NOAA Fisheries and our partners assess the animal’s health and determine the best course of action. When stranded animals are found dead, our scientists work to understand and investigate the cause of death. Although the cause often remains unknown, scientists can sometimes attribute strandings to disease, harmful algal blooms, vessel strikes, fishing gear entanglements, pollution exposure, and underwater noise. Some strandings can serve as indicators of ocean health, giving insight into larger environmental issues that may also have implications for human health and welfare.

[Learn more about the Marine Mammal Health and Stranding Response Program >](#)

Marine Mammal Unusual Mortality Events

There is an [ongoing Harbor Seal Unusual Mortality Event](#) (UME) on the East Coast, and the species has experienced unusual mortality events [in the past](#). Under the [Marine Mammal Protection Act](#), an unusual mortality event (UME) is defined as "a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands immediate response." To understand the health of marine mammal populations, scientists study unusual mortality events.

[Get information on active and past UMEs >](#)

[Get an overview of marine mammal UMEs >](#)

Reducing Vessel Disturbance and Strikes

The most effective way to reduce vessel disturbance is for vessels to stay away from seals. If this is not possible, the second-best option is for vessels to follow voluntary approach guidelines. Both have the added benefit of also reducing risk of vessel strikes.

In Alaska, for example, we have issued voluntary approach guidelines to reduce the disturbance of harbor seals in glacial fjords. Tidewater glacier areas provide essential habitat for harbor seals, especially when nursing pups and molting. Scientific research indicated that previous marine mammal approach measures (voluntary guidelines to avoid approaching within 100 yards) were not adequately protecting harbor seals from disturbance in Alaska's glacial fjords. Because glaciers in Alaska are experiencing unprecedented rates of ice loss, harbor seals are already coping with reduced ice cover at some tidewater glaciers, which makes them more sensitive to other impacts.

For these reasons, NOAA developed the [Alaska Harbor Seal Approach Guidelines in Glacial Fjords](#). The guidelines suggest that all vessels (from kayaks to cruise ships) should:

- Strive to maintain 500 yards from seals without compromising safe navigation
- Make an approach plan to avoid surprising seals
- Be equally as cautious to reduce disturbance when departing the fjord as arriving
- Minimize wake, avoid abrupt changes in course or engine pitch, and avoid loud noises (such as collisions with ice) near seals
- Try to avoid traveling through thick ice, as the absence of seals on the ice does not mean the area is not being used
- Time visits when feasible to minimize overlap with the peak numbers of seals hauled out midday and minimize the chances of disturbance

[Alaska Harbor Seal Approach Guidelines in Glacial Fjords brochure](#) >

[Frequent Questions: Alaska Harbor Seal Approach Guidelines in Glacial Fjords](#) >

Providing Sustainable Harbor Seal Subsistence

As the primary consumptive users of Alaska harbor seals, Alaska Natives are committed to a long-term, sustainable harvest of harbor seals for food and handicrafts. Their long history of self-regulation coupled with a rich oral tradition and day-to-day contact with Alaska harbor seals gives them special insights into and knowledge of this important marine mammal. There are currently two Alaska Native Organizations/tribes that hold harbor seal co-management agreements with NOAA Fisheries under Section 119 of the MMPA, the [Aleut Marine Mammal Commission](#) and the [Aleut Community of St. Paul Island](#). Additionally, the Traditional Council of St. George works collaboratively with the Aleut Community of St. Paul Island and NOAA Fisheries to conduct harbor seal surveys to better understand the size and distribution of the Pribilof Islands harbor seal stock.

[Learn more about the subsistence harvest of harbor seals in Alaska](#) >

Key Actions and Documents

[90-day Finding on a Petition to List Pacific Harbor Seals](#)

90-day finding on a petition to list the Pacific harbor seals (*Phoca vitulina richardii*) in Iliamna Lake as threatened or endangered under the Endangered Species Act (ESA) and to designate critical habitat. NOAA Fisheries found that the...

- [90-Day Finding \(86 FR 34229, 06/29/2021\)](#)
- [2020 Center for Biological Diversity Petition to List Iliamna Lake Seal \(PDF, 7...](#)
- [2016 Status Review and Determination](#)
- [Harbor Seals in Iliamna Lake Information and Research](#)
- [Harbor Seals Species Profile](#)

Notice

, [Alaska](#)

PUBLISHED

June 29, 2021

[Notice of Proposed and/or Continuing Information Collections - Federal Register Notices](#)

The Department of Commerce, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as...

- [Registration as an Agent or Tanner \(85 FR 25402, 05/01/2020\)](#)

Notice

, [Alaska](#)

PUBLISHED

May 1, 2020

[Determination on Whether To List the Harbor Seals in Iliamna Lake, Alaska as a Threatened or Endangered Species](#)

NOAA Fisheries completed a review of the status of eastern North Pacific harbor seals (*Phoca vitulina richardii*) in Iliamna Lake, Alaska, in response to a petition to list these seals as threatened or endangered under the Endangered Species Act. Based...

- [Not Warranted Notice \(81 FR 81074, 11/17/2016\)](#)
- [Notice of Extension of Public Comment Period \(78 FR 34309, 06/07/2013\)](#)
- [90-Day Finding and Solicitation of Public Comments \(78 FR 29098, 05/17/2013\)](#)

- [2020 90-Day Finding and 2020 Center for Biological Diversity Petition](#)
- [Harbor Seals in Iliamna Lake Information and Research](#)
- [2012 Center for Biological Diversity Petition to List Iliamna Lake Seal \(PDF, 8... !\[\]\(5b5f54d676d0a35b03e6f778221a069b_img.jpg\)](#)
- [Scientific Evaluation of the Distinctness of Harbor Seals in Iliamna Lake](#)

Notice

, [Alaska](#)

PUBLISHED

November 17, 2016

[Cook Inlet and Kodiak Marine Mammal Disaster Response Guidelines](#)

NOAA Fisheries, in an effort to increase preparedness for wildlife response under the Oil Pollution Act of 1990, has drafted guidelines for marine mammal response in disaster situations in Cook Inlet and Kodiak, Alaska entitled "Cook Inlet and Kodiak...

- [Notice of Availability \(84 FR 24102, 05/24/2019\)](#)
- [Final Cook Inlet & Kodiak Marine Mammal Disaster Response Guidelines and Append...](#)
- [Alaska Marine Mammal Stranding Network](#)

Notice

, [Alaska](#)

PUBLISHED

May 24, 2019

1 2 [Last »](#)

»

Last updated by NOAA Fisheries on 04/19/2022

Science Overview

NOAA Fisheries conducts various research activities on the biology, behavior, and ecology of harbor seals. The results of this research are used to inform management decisions for this species.

A harbor seal with a satellite tag swims in Alaska. Credit: NOAA Alaska Fisheries Science Center/Josh London

Satellite Tracking

In the Aleutian Islands of Alaska and western North Atlantic, NOAA Fisheries scientists and their collaborators track location data from satellite tags deployed on harbor seals to determine their movement and distribution, as well as their diving and haul-out behavior.

[Learn more about the movement and dive behavior of harbor seals in the Aleutian Islands >](#)

Observational Studies

In Washington, NOAA Fisheries conducts observational studies to understand the life history and population dynamics of harbor seals in Puget Sound. Our scientists have continually monitored this population since 1993.

Stock Assessments

Assessing the status of the harbor seal stock allows managers to determine if they are meeting conservation goals under the Marine Mammal Protection Act. Our scientists collect information on population size, trends, and human-caused mortality and present these data in [annual stock assessment reports](#).

Monitoring Population Abundance and Distribution

Scientists observe harbor seals to record their numbers and distribution. By comparing numbers collected over multiple years, scientists can look for trends—i.e., whether the population is

increasing, decreasing, or remaining stable during a given period.

Harbor Seal Research

[Learn more about Harbor Seal research in Alaska >](#)

[Learn more about seal ecology and assessment research in the Northwest Atlantic >](#)

Last updated by NOAA Fisheries on 04/19/2022

Documents

DOCUMENT

[Copper River Delta Carcass Surveys - Final Reports](#)

Biologists conducted survey flights of the shifting sand shoals of the Copper River Delta to search...

[Alaska](#)

DOCUMENT

[Cook Inlet & Kodiak Marine Mammal Disaster Response Guidelines and Appendices](#)

Cook Inlet and Kodiak Marine Mammal Disaster Response Guidelines (CIKMMDRG) address disaster...

[Alaska](#)

DOCUMENT

[Scientific Evaluation of the Distinctness of Harbor Seals \(*Phoca vitulina*\) in Iliamna Lake](#)

This document is a review of relevant background information about harbor seal biology and...

[Alaska](#)

DOCUMENT

[Incidental Takes and Interactions of Marine Mammals and Birds in Districts 6, 7 and 8 of the Southeast Alaska Salmon Drift Gillnet Fishery, 2012 and 2013](#)

Marine Mammal Observer Program observations of the Southeast Alaska salmon drift gillnet fishery.

[Alaska](#)

[More Documents >](#)

Data & Maps

MAP

Harbor Seals Pupping Timeframes Along the West Coast

[West Coast](#)

DATA

Alaska Harbor Seal Data Sets

The Alaska Fisheries Science Center's harbor seal data sets are available on the NOAA Fisheries...

[Alaska](#)

MAP

Fine Scale Structure of Harbor Seals in Alaska

[Alaska](#)

[More Data >](#)

[More Maps >](#)

Research

Frequent Questions—Washington Seal Stranding Event

NOAA Fisheries and partners from Washington Department of Fish and Wildlife and Port Townsend Marine Science Center have documented the first cases of avian influenza in seals stranding in Washington state.

[West Coast](#)

Sounds In the Ocean: Mammals

Listen to exemplar sound clips of marine mammal sounds, taken from passive acoustic recorders. We have compiled these sounds to provide examples of the variety and breadth of animal sounds.

[New England/Mid-Atlantic](#)

Meet the Residents of Woods Hole Science Aquarium

Meet some of our Science Aquarium's most fascinating and charismatic animals. Learn about each of them through fun facts, videos, and printable coloring pages.

[New England/Mid-Atlantic](#)

Lanugo Harbor Seal Pups

Frequently Asked Questions, Washington State

[West Coast](#)

[More Research >](#)

Outreach & Education

EDUCATIONAL MATERIALS

Keep the Sea Entanglement Free!

Entangled Marine Mammal Brochure explaining how to responsibly stow or dispose of packing bands,...

[Alaska](#)

[More Outreach and Education Materials >](#)

Last updated by NOAA Fisheries on 04/19/2022

Harbor Porpoise

Harbor Porpoise

Phocoena phocoena



Protection Status

MMPA PROTECTED

Throughout Its Range

CITES APPENDIX II

Throughout Its Range

Quick Facts

WEIGHT	135 to 170 pounds
LENGTH	5 to 5.5 feet
LIFESPAN	About 24 years
THREATS	Entanglement, Ocean noise
REGION	Alaska, New England/Mid-Atlantic, Southeast, West Coast

About the Species

The harbor porpoise is a shy animal, most often seen in groups of two or three. They prefer coastal areas and are most commonly found in bays, estuaries, harbors, and fjords. Because they prefer



Harbor porpoise in the Gulf of Maine. Credit: NOAA Fisheries/Northeast Fisheries Science Center.

coastal habitats, harbor porpoises are particularly vulnerable to gillnets and fishing traps, pollution, and other types of human disturbance, such as underwater noise.

Harbor porpoises in the United States are not endangered or threatened. Like all marine mammals, they are protected under the [Marine Mammal Protection Act](#).

NOAA Fisheries helps conserve the harbor porpoise through collaborative management, integrated science, partnerships, and outreach. Our scientists use a variety of innovative techniques to study, protect, and rescue harbor porpoises in [distress](#) (e.g., disentanglement and stranding response). Our work helps reduce harmful effects of human activities such as fisheries interactions, noise, and pollution, through effective management actions based on sound science, public input, and public outreach.

Population Status

NOAA Fisheries estimates population size for each stock of harbor porpoises in its [stock assessment reports](#). A stock is a group of animals that occupy the same area and interbreed. Population trends for many of the U.S. stocks are unknown.

Appearance

Harbor porpoises have a small, robust body with a short, blunt beak and a medium-sized triangular dorsal fin. Their back is dark gray fading to lighter intermediate shades of gray on their sides. Their belly and throat are white, with a dark gray chin patch. Females are slightly larger than males.

Behavior and Diet

Harbor porpoises mainly eat schooling fish, like herring and mackerel. Occasionally, they will eat squid and octopus.

They are most often seen singly, in pairs, or in groups of up to 10, although there are reports of aggregations of up to 200 harbor porpoises. Most seasonal movements appear to be inshore-offshore and may be influenced by prey availability or the presence of ice-free waters.

Unlike most other porpoises, they do not approach boats to bow ride and can be very shy, avoiding surfacing near boats. When surfacing for air, they do not splash. They roll from beak to fluke and arch their backs.

Where They Live

Harbor porpoises live in northern temperate and subarctic, and arctic coastal and offshore waters. They are commonly found in bays, estuaries, harbors, and fjords less than 650 feet deep. In the North Atlantic, they range from West Greenland to Cape Hatteras, North Carolina (but do not enter Hudson Bay), and from the Barents Sea to West Africa. In the North Pacific, they are found from Japan north to the Chukchi Sea and from Point Conception off Central, California North to the Beaufort Sea.

World map providing approximate representation of the Harbor porpoise's range.

Lifespan & Reproduction

Females reach sexual maturity at 3 to 4 years and may give birth every year for several years in a row. Gestation lasts for 10 to 11 months and lactation lasts for 8 to 12 months.

Little is known of their reproductive biology. Most mating occurs in summer and most births occur between May and July.

Threats

Entanglement

One of the main threats to harbor porpoises is getting caught in fishing gear. They can become entangled or captured in commercial fishing gear such as gillnets, trawls, and herring weirs.

Ocean Noise

Underwater noise pollution interrupts the normal behavior of harbor porpoises and interferes with their communication.

Scientific Classification

Kingdom	Animalia
Phylum	Chordata
Class	Mammalia
Order	Cetacea
Family	Phocoenidae
Genus	<i>Phocoena</i>
Species	<i>phocoena</i>

Last updated by NOAA Fisheries on 09/15/2022

What We Do

Conservation & Management

NOAA Fisheries is committed to protecting harbor porpoises. Actions taken to protect harbor porpoises include:

- Managing permits and authorizations for incidental take under the MMPA to ensure they have a negligible impact on harbor porpoise stocks
- Observing fisheries to determine whether interactions with harbor porpoises are occurring, and if so, at what magnitude
- Developing oil spill response plans in the event of a spill
- Educating the public about harbor porpoises and the threats they face
- Monitoring population abundance and distribution

[Learn more about our conservation efforts >](#)

Science

Our research projects have helped us better understand harbor porpoises and the challenges they face. This research is especially important in rebuilding endangered populations. Our work includes:

- Aerial surveys
- Passive acoustic monitoring
- Genetic research to define stock structure
- Environmental DNA research
- Stock assessments

[Learn more about our research >](#)

How You Can Help

Keep Your Distance

Be responsible when viewing marine life in the wild. Observe all dolphins and porpoises from a safe distance of at least 50 yards and limit your time spent observing to 30 minutes or less.

[Learn more about our marine life viewing guidelines >](#)

Report Marine Life in Distress

Report a sick, injured, entangled, stranded, or dead animal to make sure professional responders and scientists know about it and can take appropriate action. Numerous organizations around the country are trained and ready to respond. Never approach or try to save an injured or entangled animal yourself—it can be dangerous to both the animal and you.

[Learn who you should contact when you encounter a stranded or injured marine animal >](#)

Report a Violation

Call the NOAA Fisheries Enforcement Hotline at **(800) 853-1964** to report a federal marine resource violation. This hotline is available 24 hours a day, 7 days a week for anyone in the United States.

You may also contact your closest [NOAA Office of Law Enforcement field office](#) during regular business hours.

Management Overview

Like all marine mammals, the harbor porpoise is protected under the [Marine Mammal Protection Act](#). NOAA Fisheries is working to conserve this species to ensure populations remain stable.

A surfing harbor porpoise. Credit: ©Cindy R. Elliser, Pacific Mammal Research

Conservation Efforts

Reducing Interactions with Fishing Gear

Bycatch in fishing gear is a leading cause of harbor porpoise deaths and injuries. To reduce deaths and serious injuries of harbor porpoises from gillnet fisheries, NOAA Fisheries implemented the [Harbor Porpoise Take Reduction Team](#).

Representatives from NOAA, the fishing industry, regional fishery management councils, state and federal resource management agencies, the scientific community, and conservation organizations worked together to develop a plan to reduce harbor porpoise bycatch. The plan includes regulations,

such as seasonal gillnet restrictions, closures, and the use of acoustic deterrent devices called [pingers](#). The group that developed the [Harbor Porpoise Take Reduction Plan](#) continues to meet to monitor the progress of the take reduction plans in achieving the MMPA long-term goal of reducing harbor porpoise bycatch to a zero mortality and serious injury rate.

[Learn more about bycatch and fisheries interactions >](#)

Addressing Ocean Noise

Sound pollution threatens harbor porpoise populations by interrupting their normal behavior and driving them away from areas important to their survival. Increasing evidence suggests that exposure to intense underwater sound in some settings may cause some porpoises to strand and ultimately die. NOAA Fisheries is investigating all aspects of acoustic communication and hearing in marine animals. In 2018, we revised [technical guidance for assessing the effects of anthropogenic sound on marine mammal hearing](#).

[Learn more about ocean noise >](#)

Overseeing Marine Mammal Health and Stranding Response

We work with volunteer networks in all coastal states to respond to marine mammal strandings including all dolphins and porpoises. When stranded animals are found alive, NOAA Fisheries and our partners assess the animal's health and determine the best course of action. When stranded animals are found dead, our scientists work to understand and investigate the cause of death. Although the cause often remains unknown, scientists can sometimes attribute strandings to disease, harmful algal blooms, vessel strikes, fishing gear entanglements, pollution exposure, and underwater noise. Some strandings can serve as indicators of ocean health, giving insight into larger environmental issues that may also have implications for human health and welfare.

[Learn more about the Marine Mammal Health and Stranding Response Program >](#)

Marine Mammal Unusual Mortality Events

Harbor porpoise have been part of a declared unusual mortality event [in the past](#). Under the [Marine Mammal Protection Act](#), an unusual mortality event is defined as "a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands immediate response." To understand the health of marine mammal populations, scientists study unusual mortality events.

[Get information on active and past UMEs >](#)

[Get an overview of marine mammal UMEs >](#)

Regulatory History

Harbor porpoises are protected under the Marine Mammal Protection Act of 1972, as amended.

Key Actions and Documents

Actions & Documents

Incidental Take

[Findings on Petition to List Harbor Porpoise in the Baltic Sea under the ESA](#)

We, NOAA Fisheries, announced a 12-month finding on a petition to list the harbor porpoise (*Phocoena phocoena*) in the Baltic Sea as an endangered or threatened distinct population segment (DPS) under the Endangered Species Act of 1973, as amended. We...

➤ [12-month Finding \(80 FR 15557\)](#)

➤ [90-day Finding \(79 FR 9880\)](#)

Notice

, [Foreign](#)

PUBLISHED

March 24, 2015

[Harbor Porpoise Take Reduction Plan Regulations](#)

NOAA Fisheries developed regulations implementing the Harbor Porpoise Take Reduction Plan to address the increased incidental mortality and serious injury of the Gulf of Maine/Bay of Fundy stock of harbor porpoises (*Phocoena phocoena*) in gillnet...

➤ [1998 Take Reduction Plan \(Final Rule\)](#)

➤ [2010 Amended Take Reduction Plan \(Final Rule\)](#)

➤ [2013 Amended Take Reduction Plan \(Final Rule\)](#)

➤ [Harbor Porpoise Take Reduction Plan](#)

Final Rule

, [New England/Mid-Atlantic](#)

EFFECTIVE

October 4, 2013

[ESA Listing Determination for Gulf of Maine/Bay of Fundy stock of Harbor Porpoise](#)

NOAA Fisheries has completed a status review of the Gulf of Maine/Bay of Fundy (GOM/BOF) stock of harbor porpoise (*Phocoena phocoena*). Based on analysis of the best scientific and commercial data available, as required by the Endangered Species Act (ESA)...

➤ [Status Review and Listing Determination \(66 FR 53195\)](#)

[➤ Draft Status Review \(66 FR 40176\)](#)

[➤ 1999 Status Review \(64 FR 465\)](#)

Notice

, [New England/Mid-Atlantic](#)

PUBLISHED

October 19, 2001

Last updated by NOAA Fisheries on 09/15/2022

Science Overview

NOAA Fisheries conducts research on harbor porpoise biology, behavior, and ecology. This research informs management decisions and enhances conservation efforts.

Stock Assessments

Determining the number of harbor porpoises in each population—and whether a population is increasing or decreasing over time—helps resource managers assess the success of conservation measures and helps to identify populations at risk. Our scientists collect and present these data in [annual stock assessment reports](#).

Aerial Surveys

Scientists use small aircraft to observe and record harbor porpoise numbers and distribution. Under the MMPA, NOAA's Southwest Fisheries Science Center conducts population estimates every 2 to 5 years to monitor the health, status, and trends of the population in its region. By comparing numbers collected over multiple years, scientists can spot trends, for instance, whether the population is increasing, decreasing, or remaining stable.

[Learn more about aerial surveys of harbor porpoises ➤](#)

Harbor porpoises seen in aerial survey. Credit: NOAA Fisheries/Peter Duley

Genetic Research

We have used DNA markers to study population structure among harbor porpoises living off the coasts of Alaska, California, Oregon, and Washington. NOAA scientists are studying this genetic evidence to determine whether different groups of harbor porpoises are functionally independent, or reproductively isolated, from one another.

Results of the study indicated that there is limited dispersal among groups. These results, along with data on harbor porpoise distribution and abundance, were used to redefine the management units used for assessing status. There are now six management units of harbor porpoise recognized off the coasts of California, Oregon, and Washington. In Alaska, genetic data are currently being generated to investigate the genetic relatedness of populations. Additional research is being

Harbor porpoise. Credit: NOAA Fisheries

conducted in various regions to help us better understand the population structure and movement patterns of harbor porpoises.

Harbor Porpoises in Alaska

Our research on the population structure, abundance, distribution, and diet of harbor porpoises provides information crucial for understanding this species in Alaska.

[Harbor porpoise research in Alaska >](#)

Last updated by NOAA Fisheries on 09/15/2022

Documents

DOCUMENT

[Copper River Delta Carcass Surveys - Final Reports](#)

Biologists conducted survey flights of the shifting sand shoals of the Copper River Delta to search...

[Alaska](#)

DOCUMENT

[Alaska Region Marine Mammal Annual Stranding Reports](#)

Annual summary reports of strandings of cetaceans (whales) and pinnipeds (seals and sea lions) that...

[Alaska](#)

DOCUMENT

[Incidental Takes and Interactions of Marine Mammals and Birds in Districts 6, 7 and 8 of the Southeast Alaska Salmon Drift Gillnet Fishery, 2012 and 2013](#)

Marine Mammal Observer Program observations of the Southeast Alaska salmon drift gillnet fishery.

[Alaska](#)

DOCUMENT

[2013 Alaska Marine Mammal Observer Program Observer Manual](#)

Southeast Alaska salmon drift gillnet fishery observer manual for 2013.

[Alaska](#)

[More Documents >](#)

Data & Maps

MAP

[Waters off New Jersey Management Area](#)

New England/Mid-Atlantic

MAP

[Stellwagen Bank Management Area](#)

New England/Mid-Atlantic

MAP

[Southern New England Management Area](#)

New England/Mid-Atlantic

MAP

[Southern Mid-Atlantic Management Area](#)

New England/Mid-Atlantic

[More Data >](#)

[More Maps >](#)

Research

[Sounds In the Ocean: Mammals](#)

Listen to exemplar sound clips of marine mammal sounds, taken from passive acoustic recorders. We have compiled these sounds to provide examples of the variety and breadth of animal sounds.

[New England/Mid-Atlantic](#)

California Current Marine Mammal Assessment Program

The California Current Marine Mammal Assessment Program conducts research on population assessment for species inhabiting waters off the U.S. West Coast, and on improving assessment methodology for application throughout the U.S. and internationally. We...

[West Coast](#)

Harbor Porpoise Take Reduction Team Members

The Harbor Porpoise Take Reduction Team helped us develop a Take Reduction Plan that was published in December 1998 as a final rule. The Plan described in the final rule was intended to be an evolving plan that changed as scientists learned more about...

[New England/Mid-Atlantic](#)

Harbor Porpoise Research in Alaska

A Pod of Harbor Porpoise. Harbor porpoise often live in shallow, nearshore areas where they are vulnerable to nets, noise, and habitat alteration from human activities like fishing, shipping, and construction. We assess harbor porpoise...

[Alaska](#)

[More Research >](#)

Last updated by NOAA Fisheries on 09/15/2022

Common Bottlenose Dolphin

Common Bottlenose Dolphin

Tursiops truncatus



Protection Status

MMPA PROTECTED

Throughout Its Range

MMPA DEPLETED

Western North Atlantic Northern Florida Coastal stock

Western North Atlantic Central Florida Coastal stock

Western North Atlantic Northern Migratory Coastal stock

Western North Atlantic South Carolina-Georgia Coastal stock

Western North Atlantic Southern Migratory Coastal stock

CITES APPENDIX II

Throughout Its Range

SPAW ANNEX II

Throughout the Wider Caribbean Region

Quick Facts

WEIGHT	300 to 1,400 pounds
LENGTH	6 to 13 feet
LIFESPAN	40 to 60 years
THREATS	Biotoxins, Chemical contaminants, Disease, Fisheries entanglements and gear ingestion, Habitat alteration, Illegal feeding and harassment, Ocean noise, Oil spills and energy exploration, Vessel strikes
REGION	New England/Mid-Atlantic, Pacific Islands, Southeast, West Coast

About the Species



Common Bottlenose Dolphin. Credit: NOAA Fisheries

Common bottlenose dolphins (referred to hereafter simply as bottlenose dolphins) are found throughout the world in both offshore and coastal waters, including harbors, bays, gulfs, and estuaries of temperate and tropical waters (estuaries are the areas where rivers meet the sea). They are one of the most well-studied marine mammals in the wild. In addition, they are easy to view in

the wild because they live close to shore and are distributed throughout coastal and estuarine waters. But this puts bottlenose dolphins at increased risk of human-related injuries and death. They are a highly intelligent species and use sound both for communication and to hunt for food.

Bottlenose dolphins in the United States are not endangered or threatened under the Endangered Species Act (ESA), but they are protected under the [Marine Mammal Protection Act](#) (MMPA). They are vulnerable to many stressors and threats including disease, biotoxins, pollution, habitat alteration including freshwater incursions, vessel strikes, human feeding of and activities causing harassment, interactions with commercial and recreational fishing, energy exploration and oil spills, and other types of human disturbance, such as underwater noise.

NOAA Fisheries helps conserve bottlenose dolphins through collaborative management, integrated science, partnerships, and outreach. Our scientists use a variety of innovative techniques to study, protect, and [rescue bottlenose dolphins in distress](#) (e.g., disentanglement response and strandings). We facilitate collaborative approaches to better understand and reduce harmful effects of human activities on bottlenose dolphins and their habitat based on sound science, conservation, public input, and public outreach.

Population Status

Like all marine mammals, bottlenose dolphins are protected under the MMPA. NOAA Fisheries estimates population size for each population of bottlenose dolphins in U.S. waters in [stock assessment reports](#). In all, 61 stocks of common bottlenose dolphins have been identified in U.S. waters. Population trends for many of the U.S. stocks are unknown. Five stocks along the Atlantic Coast are considered [depleted under the MMPA](#).

Appearance

Common bottlenose dolphins get their name from their short, thick snout (or rostrum). They are generally gray in color. They can range from light gray to almost black on top near their dorsal fin and light gray to almost white on their belly. Bottlenose dolphins living in nearshore coastal waters are often smaller and lighter in color than those living offshore.

Behavior and Diet

Bottlenose dolphins may travel alone or in groups, and the groups often break apart and reform. Their travel is characterized by persistent movement in a consistent direction. Resting is often characterized by tight group formations, slow movement, and intervals of methodical breathing.

Social behavior includes breeding, playing, aggression, and gentle body contact, such as rubbing. Calves maintain what is called “baby position” while swimming. In this position, the calf has easy access to nursing and may gain benefits by reducing drag from swimming in it’s mom’s slip stream. When in baby position, the mom surfaces first, and the calf surfaces slightly after and just behind and to the side of its mother.

Bottlenose dolphins can thrive in many environments and feed on a variety of prey, such as fish, squid, and crustaceans (e.g., crabs and shrimp). They use different techniques to pursue and capture prey, searching for food individually or cooperatively. For example, they work together to herd fish into groups and then take turns charging through the school of fish to feed. They may also trap schools of fish against sand bars and seawalls for an easy meal. They also [use passive listening and/or high frequency echolocation to locate prey.](#)

Instead of using their teeth to chew, dolphins grip fish with their teeth, then swallow the fish whole—head first—so the spines of the fish don't catch in their throats.

Where They Live

Bottlenose dolphins are found in temperate and tropical waters around the world. They inhabit a wide variety of habitats, including harbors, bays, gulfs, and estuaries, as well as nearshore coastal waters, deeper waters over the continental shelf, and even far offshore in the open ocean. In the United States, bottlenose dolphins are found along the West Coast off California, Oregon, and Washington, in the Hawaiian islands along the East Coast from Massachusetts to Florida, throughout the Gulf of Mexico, and in the Caribbean.

World map providing approximate representation of the common bottlenose dolphin's range.

Lifespan & Reproduction

Bottlenose dolphins can live at least 40 years, with some females outliving males at 60 years or more. They generally begin to reproduce when they are between 5 and 15 years old, with the exact age varying by population. Female bottlenose dolphins can reach sexual maturity before males. Females are pregnant for about 12 months and give birth, on average, every 3 to 6 years. Once

calves are born, they nurse for 20 months or so and generally stay with their mothers for 3 to 6 years. Females as old as 45 have given birth.

Threats

Bottlenose dolphins are exposed to a variety of [human-caused and natural threats and stressors](#). Some of the most pressing threats are discussed below.

Interactions with Fishing Gear

One of the main threats to bottlenose dolphins is getting caught in fishing gear. Dolphins can become entangled or captured in commercial fishing gear such as gillnets, seines, trawls, trap pots, and longlines.

In addition to interactions with commercial fisheries, dolphins may become entangled in or ingest rod-and-reel gear used by recreational anglers or for-hire fishing vessels, such as charter boats and headboats, which can lead to serious injury or mortality. This problem is increasing, especially in the southeast United States and is largely the result of dolphins taking the bait and the catch directly from fishing gear, eating discarded fish, or being fed fish (illegally) by humans, causing them to associate anglers with food. In addition, fishermen sometimes become frustrated when dolphins take their catch and can retaliate with violence towards dolphins.

Habitat Destruction and Degradation

Common bottlenose dolphins living near shore are also susceptible to habitat destruction and degradation by contaminants and oil spills. For example, in areas with high levels of polychlorinated biphenyls (PCBs) dolphin immune systems can be negatively affected. Dolphins in areas affected by the 2010 *Deepwater Horizon* oil spill were found to have [compromised immune systems and decreased reproductive success](#) (PDF, 685 pages). In addition to chemical contamination, physical habitat alteration due to shoreline development and infrastructure projects, freshwater diversions, and increased boat traffic is also of concern.

Biotoxins

Several common bottlenose unusual mortality events (UMEs) have occurred in recent years, linked to harmful algal blooms (HABs), such as red tide. Several [HABs \(or several HAB-related die-offs\) have been confirmed](#) along the coast of Florida and others were suspected elsewhere in the Gulf of Mexico. Dolphins can be exposed to HAB toxins through the air or by eating contaminated prey. Biotoxin exposure can lead to both acute and more chronic health issues for dolphins.

Illegal Harassment and Feeding Activities

Bottlenose dolphins are easy to view in the wild, but this also puts them at increased risk of human-related injuries and death. Feeding and attempting to feed dolphins is not only illegal under the implementing regulations of the MMPA but is harmful because it changes their behaviors and reduces their wariness of people and vessels. They learn to associate humans with food and change their natural hunting practices by begging for handouts and taking bait/catch directly off

fishing gear. Dolphins, including calves, also learn these unnatural and risky feeding strategies from each other. Dolphins are then more vulnerable to vessel strikes and to fishing gear entanglements and ingestion. They also may fall victim to extreme retaliatory acts, such as shooting, by frustrated boaters and fishermen.

Dolphins may also be disturbed or harassed by the presence of humans and watercraft. Harassment is illegal under the MMPA and occurs when “any act of pursuit, torment, or annoyance has the potential to injure the animal or disrupt its behaviors.” The implementing regulations of the MMPA further prohibit “the negligent or intentional operation of an aircraft or vessel, or the doing of any other negligent act which results in disturbing or molesting a marine mammal.” Any human-caused change to a dolphin’s behavior may constitute disturbance or harassment. Certain critical survival behaviors are particularly vulnerable, and disturbance may lead to injuries or death. Long-term negative effects may include compromised health, reduced reproductive success, and displacement from or avoidance of important habitats.

Scientific Classification

Kingdom	Animalia
Phylum	Chordata
Class	Mammalia
Order	Cetartiodactyla
Family	Delphinidae
Genus	<i>Tursiops</i>
Species	<i>truncatus</i>

Last updated by NOAA Fisheries on 09/25/2024

What We Do

Conservation & Management

All bottlenose dolphins are protected under the [Marine Mammal Protection Act](#). Some specific stocks in need of additional protections are [designated as depleted or strategic](#). Our work supports the protection and conservation of bottlenose dolphins by:

- Reducing interactions with commercial and recreational fishing gear
- Minimizing harassment and illegal feeding
- Responding to dead, injured, or entangled dolphins
- Encouraging responsible viewing of wild dolphins
- Minimizing the effects of vessel disturbance, noise, and other types of human impacts

[Learn more about our conservation efforts >](#)

Science

NOAA Fisheries conducts research on the biology, behavior, and ecology of bottlenose dolphins to better inform management and policy. Examples include:

- Undertaking stock assessments to determine the status of populations and/or sub-populations
- Investigating unusual mortality events and strandings
- Examining population structure, abundance, and dynamics using a variety of research techniques including photo-identification and genetics
- Conducting natural resource damage assessments

[Learn more about our research >](#)

How You Can Help

Prevent Rod-and-Reel Interactions

Serious and sometimes fatal dolphin injuries are on the rise from interactions with rod-and-reel fishing gear and boats. Here are some tips to prevent injuries to dolphins:

Never feed or attempt to feed wild dolphins or throw trash in the water.

Reuse or share leftover bait.

Reel in your line if dolphins are near.

Change locations if dolphins show interest in bait or catch.

[Learn how to prevent injuries to dolphins when you are fishing >](#)

Keep Your Distance

Be responsible when viewing marine life in the wild. Observe all dolphins and porpoises from a safe distance of at least 50 yards and limit your time spent observing to 30 minutes or less.

[Learn more about our marine life viewing guidelines >](#)

Don't Feed Wild Dolphins

Dolphins fed by humans lose their natural wariness and learn to associate people with food, causing them to beg for handouts and take bait and catch directly from fishing gear. This puts them at risk from vessel strikes and becoming entangled in or ingesting fishing gear. Dolphins may teach these behaviors to their young, thereby putting them at risk.

[More on protecting wild dolphins and admiring them from a distance >](#)

Report a Violation

Call the NOAA Fisheries Enforcement Hotline at **(800) 853-1964** to report a federal marine resource violation. This hotline is available 24 hours a day, 7 days a week for anyone in the United States.

You may also contact your closest [NOAA Office of Law Enforcement field office](#) during regular business hours.

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Management Overview

Bottlenose dolphins are protected under the [Marine Mammal Protection Act \(MMPA\)](#). Five stocks in coastal waters of the western North Atlantic are designated [as depleted under the MMPA](#). Forty-six stocks in the Gulf of Mexico and western North Atlantic are also [listed as strategic under the MMPA](#). To learn which stocks are designated as depleted and strategic, review the [stock assessment reports for the common bottlenose dolphin](#).

Although bottlenose dolphins live along the coast throughout the United States, our conservation and management work primarily focuses on the Gulf of Mexico and the Atlantic. Many stocks in these areas are listed as depleted and strategic and are exposed to numerous threats.

Pair of bottlenose dolphins. Credit: NOAA Pacific Islands Fisheries Science Center/Lisa Morse

Conservation Efforts

Reducing Interactions with Fishing Gear

Bycatch in fishing gear is a leading cause of common bottlenose dolphin deaths and injuries. To reduce deaths and serious injuries of bottlenose dolphins from certain commercial fisheries in the western North Atlantic, NOAA Fisheries implemented the [Bottlenose Dolphin Take Reduction Plan](#). Representatives from NOAA Fisheries, the fishing industry, regional fishery management councils, state and federal resource management agencies, the scientific community, and conservation organizations worked together to develop the plan. The plan includes gillnet regulations, such as seasonal gillnet restrictions, gear proximity requirements, and gear length restrictions. It also requires the use of modified pound net leaders for offshore Virginia pound nets in specified waters of the lower mainstem Chesapeake Bay and coastal state waters.

[Learn more about bycatch and fisheries interactions >](#)

Reducing Rod-and-Reel Interactions

Interactions between dolphins and rod-and-reel fishing gear used by recreational anglers are increasing. Dolphins can be injured or killed by entanglement in or ingestion of the gear or may fall victim to retaliation from frustrated boaters and fishermen. NOAA Fisheries is working to better understand and characterize the frequency, geographic extent, and magnitude of these interactions. We are also working with researchers to identify and evaluate ways to safely and effectively reduce the potential for these interactions.

Minimizing Harassment and Illegal Feeding

As human interactions with wild dolphins increase, so does the risk of disturbing or injuring these animals. NOAA Fisheries provides guidance on how to safely and responsibly view dolphins, including the following initiatives:

- › [Protect Dolphins Campaign](#)
- › [Don't Feed Wild Dolphins](#) 
- › [Dolphin SMART program](#)

[Learn more about the rules regarding feeding and harassing marine mammals in the wild](#) ›

Addressing Ocean Noise

Sound pollution threatens dolphin populations by interrupting their normal behavior and driving them away from areas important to their survival. Increasing evidence suggests that exposure to intense underwater sound in some settings may cause some marine mammals to strand and ultimately die.

NOAA Fisheries is investigating all aspects of acoustic communication and hearing in marine animals, as well as the effects of sound on dolphin behavior and hearing. In 2018, we issued [updated marine mammal acoustic technical guidance](#) for assessing the effects of anthropogenic sound on marine mammal hearing.

[Learn more about ocean noise](#) ›

Overseeing Marine Mammal Health and Stranding Response

We work with volunteer networks in all coastal states to respond to marine mammal strandings including all dolphins and porpoises. When stranded animals are found alive, NOAA Fisheries and our partners assess the animal's health and determine the best course of action. When stranded animals are found dead, our scientists work to understand and investigate the cause of death. Although the cause often remains unknown, scientists can sometimes attribute strandings to disease, harmful algal blooms, vessel strikes, fishing gear entanglements, pollution exposure, and underwater noise. Some strandings can serve as indicators of ocean health, giving insight into larger environmental issues that may also have implications for human health and welfare.

[Learn more about the Marine Mammal Health and Stranding Response Program](#) ›

Marine Mammal Unusual Mortality Events

There is an [ongoing Bottlenose dolphin unusual mortality event](#) (UME), and the species has experienced unusual mortality events [in the past](#). Under the [Marine Mammal Protection Act](#), a UME is defined as “a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands immediate response.” To understand the health of marine mammal populations, scientists study unusual mortality events.

[Get information on active and past UMEs >](#)

[Get an overview of marine mammal UMEs >](#)

Implementing the Dolphin-Safe/Tuna Tracking and Verification Program

Dolphins, like other marine mammals, [may become bycatch in fisheries](#). Some species of tuna are known to aggregate beneath schools of certain dolphin stocks. In some parts of the world, this close association led to the fishing practice of encircling a dolphin school to capture the tuna concentrated below, to the detriment of the dolphins, which often get entangled in the net. The Dolphin Protection Consumer Information Act established a national tuna tracking program to ensure that tuna imported into the United States meets certain requirements to ensure the safety of dolphins during tuna fishing operations.

[Learn more about the Dolphin-Safe/Tuna Tracking and Verification Program >](#)

Key Actions and Documents

Incidental Take

[Incidental Take Authorization: Washington Department of Transportation's Seattle Slip 3 Vehicle Transfer Span Project off of Seattle, Washington](#)

Incidental Take Authorization: Washington Department of Transportation's Seattle Slip 3 Vehicle Transfer Span Project off of Seattle, Washington

[> Notice of Final IHA](#)

[> Notice of Proposed IHA](#)

Notice

, [West Coast](#)

EFFECTIVE

09/12/2024

[Incidental Take Authorization: Lamont-Doherty Earth Observatory Marine Geophysical Survey of the Chain Transform Fault in the Equatorial Atlantic](#)

Incidental Take Authorization: Lamont-Doherty Earth Observatory Marine Geophysical Survey of the Chain Transform Fault in the Equatorial Atlantic Ocean

- [➤ Notice of Issued IHA](#)
- [➤ Notice of Proposed IHA](#)

Notice
, [International](#)
EFFECTIVE
09/27/2024

[Incidental Take Authorization: Orsted Wind Power North America, LLC's Site Characterization Surveys off Delaware](#)

Incidental Take Authorization: Orsted Wind Power North America, LLC's Site Characterization Surveys off Delaware

- [➤ Notice of Final IHA](#)
- [➤ Notice of Proposed IHA](#)

Notice
, [New England/Mid-Atlantic](#)
EFFECTIVE
08/01/2024

[Incidental Take Authorization: Lamont-Doherty Earth Observatory's Marine Geophysical Survey of the Reykjanes Ridge in the North Atlantic Ocean](#)

Incidental Take Authorization: Lamont-Doherty Earth Observatory's Marine Geophysical Survey of the Reykjanes Ridge in the North Atlantic Ocean

- [➤ Notice of Final IHA](#)
- [➤ Notice of Proposed IHA](#)

Notice
, [International](#)
EFFECTIVE
06/27/2024

Science Overview

NOAA Fisheries is committed to understanding the impacts of human activities on the biology and behavior of bottlenose dolphins. From population dynamics to the detection and monitoring of unusual mortality events, we are undertaking a range of studies to further our understanding of these animals.

Although bottlenose dolphins live off the coast throughout the United States, our research primarily focuses on stocks in the Gulf of Mexico and the Atlantic.

Bottlenose dolphin group with two calves. Credit: NOAA Northeast Fisheries Science Center/Allison Henry

Long-Term Studies of Estuarine Dolphins

Observational studies using photo-identification and other techniques play a key role in helping NOAA Fisheries understand the behavior and population dynamics of estuarine bottlenose dolphins and the threats they face. For example, [The Sarasota Dolphin Research Program](#)  is the longest-running observational study of wild marine mammals in the world. Scientists have been collecting observational and photographic data from bottlenose dolphins in Sarasota Bay, Florida, continually for more than 50 years. Researchers from a range of fields—physiology, ecology, behavior, acoustics, genetics, and population dynamics—have used a variety of research methods to greatly increase our understanding of wild dolphin populations. With this information, we can better understand how to conserve and protect these marine mammals.

Damage Assessments

Understanding the effects of incidents such as oil spills is critical to predicting their long-term effect on wild dolphin populations. For example, in response to the *Deepwater Horizon* oil spill, NOAA and our local, state, and federal partners started the Barataria Bay, Louisiana, dolphin study in 2010 as part of the [Natural Resource Damage Assessment](#). A team of scientists reported a high rate of reproductive failure, among other things, in dolphins exposed to oil from the *Deepwater Horizon* spill, having monitored dolphins in Barataria Bay for 5 years. These insights provide a greater understanding of the challenges that wild dolphins face in Barataria Bay and elsewhere in the Gulf of Mexico and throughout the United States.

Acoustic Science

Our research also is focused on acoustics—the physics of the properties of sound. We study the basic acoustic behavior of cetaceans and fish, mapping the acoustic environment and finding better ways to find cetaceans using acoustic technologies.

[Learn more about acoustics science >](#)

Shipboard Studies

NOAA Fisheries conducts research cruises to collect information on bottlenose dolphins' habitat preferences, feeding ecology, and distribution. Cruises help us estimate the abundance of the dolphins in coastal and offshore waters. Genetic sampling is used to study population structure and better understand the boundaries between different populations. Information from this research can then be used in management actions to protect these animals.

Stock Assessments

Determining the size of bottlenose dolphin populations helps resource managers determine the success of our conservation measures. NOAA Fisheries scientists collect population information from various sources and present the data in an [annual stock assessment report](#).

As resources allow, NOAA Fisheries is also working with collaborators to update stock assessment reports for bays, sounds, and estuaries (BSEs) in the Gulf of Mexico and the Atlantic. In the past 5 years, abundance studies were performed in several BSEs throughout the Gulf of Mexico, including those in Texas, Louisiana, Mississippi, and Florida.

Last updated by NOAA Fisheries on 09/25/2024

Documents

DOCUMENT

[Photo-identification capture-mark-recapture techniques for estimating abundance of bay, sound and estuary populations of Bottlenose dolphins along the U.S. East Coast and Gulf of Mexico, a workshop report](#)

The workshop sought to develop agreed upon best practices for fieldwork, photo processing and...

[Southeast](#)

DOCUMENT

[Report to Congress: Interactions between Bottlenose Dolphins and Sharks and Commercial, For-Hire, and Private Recreational Fisheries in the Gulf of Mexico and South Atlantic](#)

Report to Congress on interactions between bottlenose dolphins and sharks and fisheries in the Gulf...

New England/Mid-Atlantic, [Southeast](#)

DOCUMENT

[Predicting the effects of low salinity associated with the Mid-Barataria Sediment Diversion project on resident common bottlenose dolphins \(*Tursiops truncatus*\) in Barataria Bay, Louisiana](#)

Describes the development and application of the model that projects the impacts of exposure to low...

[Southeast](#)

DOCUMENT

[An Updated Literature Review Examining the Impacts of Tourism on Marine Mammals over the Last Fifteen Years \(2000-2015\) to Inform Research and Management Programs](#)

In 2000, Samuels et al. provided a comprehensive review of the scientific literature available at...

[Southeast](#)

[More Documents >](#)

Data & Maps

MAP

[2019 Bottlenose Dolphin Northern Gulf of Mexico Unusual Mortality Event Dead Animal Locations](#)

[Southeast](#)

MAP

Bottlenose Dolphin Take Reduction Plan Map & GIS Data for New Jersey, Delaware and Maryland

New England/Mid-Atlantic, [Southeast](#)

MAP

Bottlenose Dolphin Take Reduction Plan Map & GIS Data for Northern and Southern Virginia

New England/Mid-Atlantic, [Southeast](#)

MAP

Bottlenose Dolphin Take Reduction Plan Map & GIS Data for Northern North Carolina

New England/Mid-Atlantic, [Southeast](#)

[More Data >](#)

[More Maps >](#)

Research

PEER-REVIEWED RESEARCH

Common Bottlenose Dolphin Ecotypes of the Western North Atlantic Revisited

Research proposing the recognition of a distinct species of coastal bottlenose dolphin.

New England/Mid-Atlantic, [Southeast](#)

PEER-REVIEWED RESEARCH

Common bottlenose dolphin (*Tursiops truncatus*) abundance and distribution patterns in St Andrew Bay, Florida, USA

The goals of this study were to conduct photographic-identification surveys during 2015 and 2016 to...

Southeast

PEER-REVIEWED RESEARCH

Population Consequences of the Deepwater Horizon Oil Spill on Pelagic Cetaceans

We quantified population consequences for pelagic cetaceans, including sperm whales, beaked whales,...

Southeast

PEER-REVIEWED RESEARCH

Survival, Density and Abundance of Common Bottlenose Dolphins in Barataria Bay (USA) Following the Deepwater Horizon Oil Spill

We conducted boat-based photo-identification surveys for common bottlenose dolphins Tursiops...

Southeast

More Research >

Last updated by NOAA Fisheries on 09/25/2024