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## Seabirds: Feathered Ocean Mariners

**These birds are especially well-adapted for life on water.**

Earth is a water-covered planet and all its oceans are home to seabirds. Terns, pelicans, skimmers, puffins, albatrosses, petrels, and other seabirds all depend on the ocean for food. They spend most of their lives on water, some only coming to land to lay eggs and raise chicks.

Seabirds come in different sizes and shapes, but all are especially equipped for oceanic life. The wings and feet of many do double duty as fins and paddles. Waterproof feathers and special organs that allow them to drink salt water are adaptations to spending months far from land and fresh water. Just turn the page to find out more about this amazing group of birds.

## adaptations

### AMAZING SEABIRD FACTS



- Brown Pelicans dive headfirst into the water from as high as 65 feet.



- Black Skimmers get their name from the way they hunt—flying just above the water with the lower, longer part of the bill skimming the water to feel for fish.

- Arctic Terns have the longest migration of any animal and can live more than 30 years. In its lifetime one Arctic Tern might fly the equivalent of three flights to the moon.



- The Common Murre looks like a penguin. Like a penguin, it uses its flipper-like wings to “fly” underwater as it chases fish.



# Who's Fishing Where?

Just because all seabirds eat from the ocean doesn't mean they all feed on the same thing, or get their food in the same way. Take a look.

Black Skimmer

Look at the birds hunting in the picture below. Use the descriptions of how the four different seabirds hunt to figure out who is who. Then label each seabird with its correct name.

#### TERNS

go after small fish just under the surface. In an instant, they go from hovering to diving down and grabbing fish.

#### GANNETS

plunge headfirst into deep water to catch fish. They fold back their wings to cut through the water like a torpedo.

#### PUFFINS

hunt down fish by swimming after them underwater. Their wings pump like paddles to propel them forward.

#### PETRELS

mostly eat little things like krill and small squid. They hover just above the water and when food is spotted, they dip their heads down to catch it.





Atlantic Puffins

## A Seabird Success Story

### How did dedicated scientists bring puffins back to Eastern Egg Rock?



Steve Kress bands a puffin chick. It was more than 45 years ago when seabird scientist Steve Kress had a wild idea. He wanted Atlantic Puffins to once again nest in large numbers on islands off of Maine's coast. Long ago, almost all of these colorful seabirds were hunted out. Kress's idea was based on the fact that puffins return to their birthplace colonies to breed. So in 1973 he began moving Atlantic Puffin chicks from Newfoundland, Canada, to an island off the Maine coast called Eastern Egg Rock. That year he relocated six chicks. His team made little burrows for the chicks and fed them fish for about a month. The scientists attached ID bands to the birds' legs. They repeated this procedure with more chicks in the following years. Each year when the youngsters paddled off to the sea, Kress wondered if he'd ever see them again. Puffins don't return home until they're ready to breed around age four or five. It was going to be a long wait.

Every summer as Kress and his team raised and released more chicks on Eastern Egg Rock, they also populated the island with wooden puffin decoys to make it look like a lot of puffins were already there. One day in 1977 the first puffin raised on Eastern Egg Rock arrived back as a young adult! Each year after, more young puffins returned and spent summers on Eastern Egg Rock. And finally in 1981, Steve saw an adult Atlantic Puffin flying into the island with a beak-load of fish. That could mean only one thing: A chick had hatched! For the first time in more than 100 years, somewhere on the island in an underground burrow, a puffin chick was waiting to be fed. Now, more than 175 pairs of Atlantic Puffins are nesting on Eastern Egg Rock.



Puffin decoy

## The Importance of Being Alaska



Melanie Smith

Alaska is gigantic, with more than 47,000 miles of coastline. Alaska's fish-filled waters and plentiful coastal nesting areas host a dizzying variety of seabirds—some 75 million of them. Of all the seabirds that breed in the U.S., 85 percent or more do so in and around Alaska.

Melanie Smith understands Alaska's importance more than most. "I've been a birder my whole life," says the Audubon scientist. Melanie has seen firsthand how important Alaska's waters are to seabirds. She spent three weeks on an icebreaker ship off the coast of Alaska. While onboard she kept count of all the birds and marine mammals she saw during the 5,000-mile voyage. Melanie used the collected information to map out important areas for seabirds and other wildlife. That way we can be sure to protect these important Alaskan habitats.



### SEABIRD NESTING COLONIES

Most seabirds nest in groups called colonies, where there may be as few as a dozen or as many as a few million birds. Different species need different kinds of nesting habitat. Pelicans and puffins usually nest on grassy, shrubby, or rocky islands or cliffs. Terns and skimmers choose open sandy or rocky areas with little vegetation, including beaches. Beach-nesting birds face particular challenges, since they often share their nesting habitat with people. Their nests, called "scrapes," are just scratched out shallow places in the sand lined with a few bits of shell. Not only are the nests and eggs hard to see, but the chicks also blend in with the sandy background. That's why it's so important for people and their pets to keep clear of nesting colonies. Any disturbance puts the eggs and chicks at risk.



## Seabirds in Trouble

### Seabirds are the most threatened group of birds on Earth.

Many seabirds migrate over marathon distances, traveling thousands of miles between ocean areas rich with food and their nesting colonies on land. They navigate the world's seas, crisscrossing the borders and boundaries of nations and hemispheres. As a group, they are very much at risk, largely as a result of commercial fishing practices that snare them on hooks and in nets, as well as from climate change, pollution, habitat loss, and direct disturbance by humans. Protecting them is an international—and urgent—effort. There's plenty we can do to help that cause wherever they are and wherever we are, and lots of people are on the case.

in the field

## get involved



### WHAT CAN YOU DO?

Anything that harms the ocean is a threat to seabirds. Here's how families everywhere can help, even ones who live far from the ocean.

Climate change is causing polar ice to melt fast, and that causes sea levels to rise. As a result, some seabirds may find their nesting grounds under water. Rising ocean temperatures can make it difficult for seabirds to find food for their nestlings close enough to their nesting colonies. Climate change is connected to our use of fossil fuels for energy.

**Saving energy** helps all living things, including seabirds... and us!

Trash in rivers far inland as well as on beaches can eventually end up in the ocean. **Removing trash** from creeks, riverbanks, and beaches protects the habitat for seabirds, other wildlife, and people, too.



A chick-a-boom returns a chick to a rooftop.

## An Uplifting Story

As beaches get more crowded with people, pets, and wild predators, and as nesting habitat has disappeared, some beach-nesting seabirds have turned to a new nesting habitat: gravel-covered rooftops. These rooftops are a lot like beaches. They are flat, open, and covered in loose gravel in which to make a scrape—the word for the scooped out places where beach-nesting birds lay their eggs. Among the seabirds that are nesting on rooftops are Least Terns, Black Skimmers, Gull-billed Terns, and Roseate Terns.

Rooftop-nesting has its advantages, but it also has one big disadvantage: Chicks wander to the edge and fall off. Audubon staff and volunteers have come up with a great solution. They call their contraption the “chick-a-boom,” and they use it to safely return fallen chicks to the rooftop. The illustration shows how it works.

During nesting season, volunteers walk around buildings to look for chicks that have fallen. They also work with building owners during the non-breeding season to help them “chick-proof” their rooftops by installing low fencing around the edge of the roof.

## Saving Seabirds from Fishing Gear

### People who fish can do a good deed for seabirds.

Discarded fishing line is a serious threat to seabirds and other creatures that live in or near water. Most fishing line is made from plastic. When it's left in the environment, birds and other creatures can become entangled. The line may get tangled on birds' bodies so they can't fly, or it cuts into the body, cutting off circulation of blood and causing deep wounds that can lead to death. Some birds get caught when they take the bait on a fisher's line. The fisher often then cuts the line, leaving the hook and fishing line attached to the bird. Discarded or abandoned plastic fishing nets are also a danger.

Many communities are spreading the word about the dangers of leaving fishing line and nets where they can harm wildlife. Programs in Florida, California, and many other states distribute special bins around fishing areas for collecting fishing line for recycling. An international organization called Net-Works helps some countries gather plastic nets and sell them to a company that recycles them into carpet tiles. Many coastal communities have “Don’t cut the line” campaigns to inform fishers about how to prevent harm to birds that get hooked. For more information about threats to seabirds and some of the smart ways people are working to protect them, go to: [nc.audubon.org/news/how-help-bird-caught-fishing-line](http://nc.audubon.org/news/how-help-bird-caught-fishing-line)



Check out more specific actions for protecting seabirds, other birds and wildlife, and Planet Earth, here at [audubonadventures.org/TakeAction.htm](http://audubonadventures.org/TakeAction.htm)

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