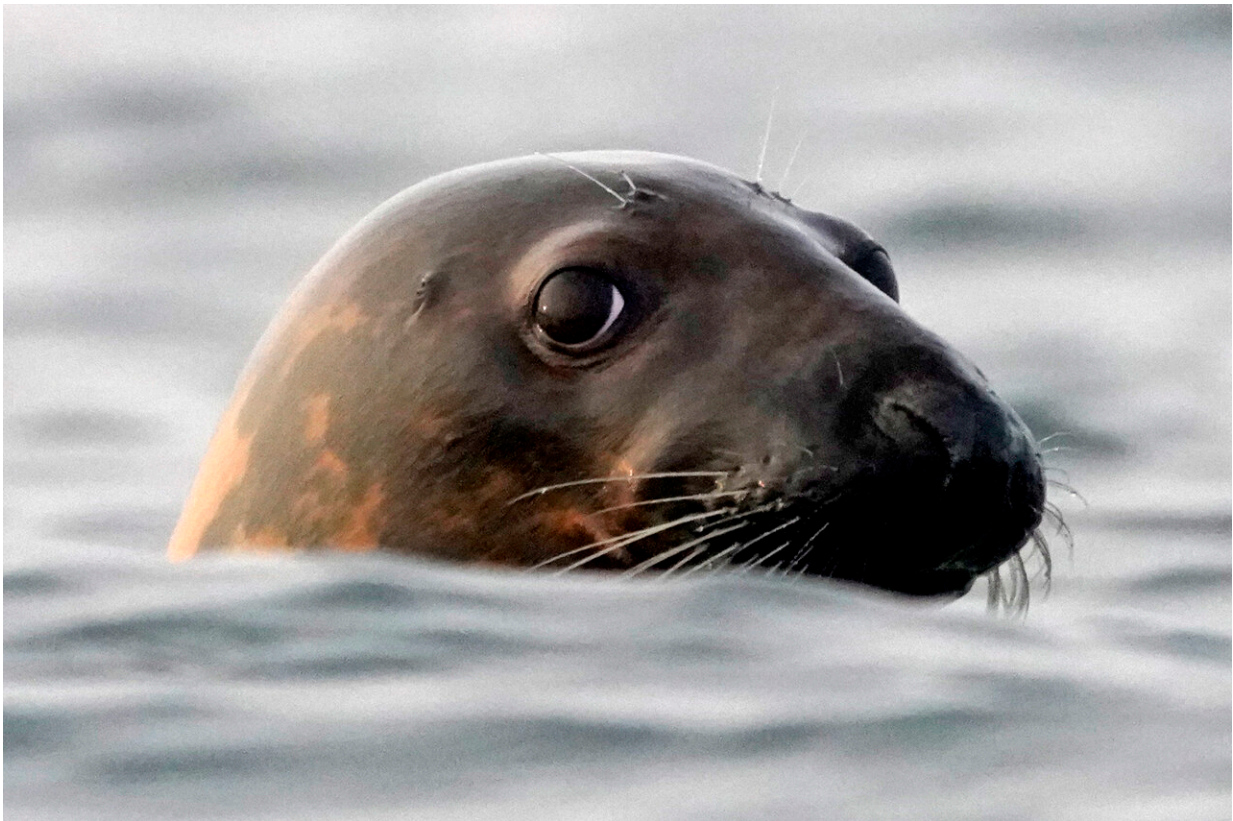


Bird flu is causing thousands of seal deaths. Scientists aren't sure how to slow it down

March 22 2024, by Patrick Whittle



A gray seal swims in Casco Bay, off Portland, Maine, in this Sept. 15, 2020 file photo. Seal die-offs from the bird flu have been detected everywhere from New England to Chile. Credit: AP Photo/Robert F. Bukaty, files

Avian influenza is killing tens of thousands of seals and sea lions in

different corners of the world, disrupting ecosystems and flummoxing scientists who don't see a clear way to slow the devastating virus.

The worldwide bird flu outbreak that began in 2020 has led to the deaths of millions of domesticated birds and spread to wildlife all over the globe. This virus isn't thought to be a major threat to humans, but its spread in farming operations and wild ecosystems has caused widespread economic turmoil and environmental disruptions.

Seals and [sea lions](#), in places as far apart as Maine and Chile, appear to be especially vulnerable to the disease, scientists said. The virus has been detected in seals on the east and west coasts of the U.S., leading to deaths of more than 300 seals in New England and a handful more in Puget Sound in Washington. The situation is even more dire in South America, [where more than 20,000 sea lions](#) have died in Chile and Peru and thousands of elephant seals have died in Argentina.

The virus can be controlled in domesticated animals, but it can spread unchecked in wildlife and marine mammals such as South America's seals that lacked prior exposure to it have suffered devastating consequences, said Marcela Uhart, director of the Latin America program at the Karen C. Drayer Wildlife Health Center at the University of California, Davis.



A baby harbor seal rest of Eastern Egg Rock off the coast of Maine in this July 9, 2007 file photo. Seal die-offs from the bird flu have been detected everywhere from New England to Chile. Credit: AP Photo/Robert F. Bukaty, file

"Once the virus is in wildlife, it spreads like wildfire, as long as there are susceptible animals and species," Uhart said. "Movement of animals spreads the virus to new areas."

Scientists are still researching how the seals have contracted bird flu, but it is most likely from contact with infected seabirds, Uhart said. High mortality has affected South American marine mammals consistently since the virus arrived late in 2022, and birds in Peru and Chile have died by the hundreds of thousands from the virus since then, she noted.

The virus is still spreading and was detected in mainland Antarctica for the first time in February.

The deaths of seals and sea lions disrupts ecosystems where the marine mammals serve as key predators near the top of the food chain. Seals help keep the ocean in balance by preventing overpopulation of the fish species they feed on.



Dead elephant seals line the beach at Punta Delgada, Chubut, Argentina, on Oct. 10, 2023. Bird flu has killed tens of thousands of seals and sea lions around the world and scientists aren't sure how to stop it. Credit: Ralph Vanstreels/UC Davis via AP

Many species affected, such as South American sea lions and Southern [elephant seals](#), have relatively stable populations, but scientists worry about the possibility of the virus jumping to more jeopardized animals. Scientists have said bird flu might have played a role in the deaths of hundreds of endangered Caspian seals in Russia last year.

"The loss of wildlife at the current scale presents an unprecedented risk of wildlife population collapse, creating an ecological crisis," the World Organisation for Animal Health, an intergovernmental organization, said in a statement.

In New England, scientists with the Cummings School of Veterinary Medicine at Tufts University found an outbreak of bird flu that killed more than 330 harbor and gray seals along the North Atlantic coast in 2022 turned out to be worse than initially thought. It's possible the seals contracted the virus from gulls by coming into contact with sick gulls' excrement or by preying on an infected bird, [the scientists reported](#).



Dead elephant seals line the beach at Punta Delgada, Chubut, Argentina, on Oct. 10, 2023. Bird flu has killed tens of thousands of seals and sea lions around the world and scientists aren't sure how to stop it. Credit: Ralph Vanstreels/UC Davis via AP

The U.S. government determined the seal die-off was an "unusual mortality event" attributable to bird flu. The National Oceanic and Atmospheric Administration has declared the event is over, but concerns remain about a possible repeat.

"Marine mammals are still pretty unique in the scale of the outbreaks that are occurring," said Wendy Puryear, an author of the Tufts study.

"One of the connections is there is a lot of virus that circulates in coastal birds. A lot of opportunities for those wild birds to host the virus and pass it on to marine mammals."

Some scientists and environmental advocates say there could be a link between the outbreaks and climate change and warming oceans. Warmer sea temperatures off northern Chile decrease the population of forage fish, and that makes sea lions weaker and more susceptible to disease, said Liesbeth van der Meer, director of the environmental group Oceana in Chile.



A gray seal surveys it's surroundings on a ledge off the coast of Camden, Maine, in this April 25, 2011 file photo. Scientists are working to understand how to deal with the dangers to the seal population caused by bird flu. Credit: AP Photo/Robert F. Bukaty, files

Scientists and environmentalists are hopeful vaccinating poultry will help lessen the spread of the disease, van der Meer said, adding that it's also important for people to avoid potentially infected animals in the wild.

"Authorities have carried out campaigns about the disease, strongly recommending to stay away from seabirds or marine mammals with symptoms or found dead in the coastal areas," van der Meer said.

Even seals in aquariums are not considered completely safe from bird flu. The New England Aquarium, where outdoor harbor seal exhibits delight thousands of visitors every year, has taken strict sanitation precautions to prevent transmission of the virus to its animals, said Melissa Joblon, the Boston aquarium's director of animal health.

Staff aren't allowed to bring backyard poultry products to the aquarium, and an awning protects the seal exhibit from birds that could carry the virus, she said.



A young harbor seals rests on a small island in Casco Bay, off Portland, Maine, in this Sept. 16, 2020 file photo. Avian influenza is killing tens of thousands of seals and sea lions in different corners of the world, disrupting ecosystems and challenging scientists who don't see a clear way to slow the devastating virus. Credit: AP Photo/Robert F. Bukaty, files

"We do know that it's a risk for the animals that reside here," said Joblon, adding that none of the aquarium's seals have been infected.

The deaths of marine mammals are even more concerning because of mutations of the avian virus, [according to a paper](#) in the journal *Nature Communications* last fall. The mutations "warrant further examination and highlight an urgent need for active local surveillance to manage outbreaks and limit spillover into other species, including humans," the

study stated.

[Another study](#), published in the journal *Emerging Infectious Diseases* in February, found the bird flu virus has adapted to spread between birds and mammals. Researchers found nearly identical samples of the virus in dead sea lions, a dead seal and a dead seabird. They said the finding is significant because it confirms a multispecies outbreak that can affect marine mammals and birds.



Dead sea lions are seen on an Atlantic Patagonian beach near Viedma, Río Negro province, Argentina, in this Aug. 28, 2023, file photo. Bird flu is killing sea mammals from New England to Chili. Credit: AP Photo/Juan Macri, files



Harbor seals keep watch from a small island off Portland, Maine, in this July 30, 2020 file photo. The problem of bird flu jumping from birds to marine mammals, such as seals, is worse than initially thought, scientists say. Credit: AP Photo/Robert F. Bukaty, file

More seal deaths could disrupt critical ecosystems around the world, said Lynda Doughty, executive director of Marine Mammals of Maine, a marine mammal rescue organization that responded to seals with [bird flu](#) during the New England outbreak.

"You need this happy ecosystem. If we're taking out some important species, what is the trickle down effect of that? That's the million dollar question," Doughty said.

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