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Recovering Fur Seal Population Threatened by El Nino

Seals were nearly hunted out of existence on California's Farallon Islands, and now their remarkable comeback is challenged by warm waters.

By **Nadia Drake**, National Geographic

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SAN FRANCISCO—Nearly 30 miles west of the Golden Gate Bridge, a growing population of feisty, fish-loving northern fur seals is waddling around the craggy Farallon Islands. After all but vanishing from these granite shores by the mid-1800s, the seals have been returning in ever-increasing numbers—just in time to take a hit from a strong, brewing El Niño.

Scientists expect the challenging ocean conditions offshore will affect multiple species, and say the situation is a preview of

what could come if warming trends continue.

“Northern fur seals are dramatically affected by El Niños,” says Tony Orr, a wildlife biologist with NOAA’s Alaska Fisheries Science Center. Yet he’s optimistic that the population will rebound.

“Their numbers do get smacked down, and it takes a while, but they gradually recover.”

Ups and Downs

Since 2013, the fur seal population in the Farallon National Wildlife Refuge has doubled from 666 to more than 1,200, Ryan Berger of Point Blue Conservation Science reported last Tuesday at a conference of the Society for Marine Mammalogy.

“It’s a huge increase,” Berger says.

Berger and his colleagues have been studying the fur seals on the chain’s West End Island since 1996, when the first pup was born there in more than a century. Biologists working on the island count the number of adults and pups annually, aided by aerial surveys conducted with the U.S. Fish and Wildlife Service.

In the early 1800s, the Farallons hosted more than 100,000 northern fur seals. But over a period of 40 years, hunters with their sights set on the seals’ dense, coveted coats robbed the islands of their flippers inhabitants, reducing the population to basically zero.

In recent years, the seals have started to find their way back

to these wind-whipped rocks from breeding grounds in southern California and Alaska, and it looks like some will stay put.

The news isn't all good, though. Only 665 pups were born this year, just nine more than the 2014 total of 656. That's not entirely unexpected in El Niño years, when warm ocean waters make food scarce for mothers and just-weaned pups; in fact, surveys suggest young fur seals often don't survive at all. Orr says he and his colleagues have never spotted any tagged pups born during the last extreme El Niño winter, in 1997–1998.

“None of them have ever been seen. Ever. That's crazy,” says Orr. “Their population just crashes during El Niños.”

Not Just Fur Seals

This year's El Niño is amplifying a problem that has been slowly percolating off the West Coast and affecting more than just the fur seals. Other species have been starving, such as sea lions, whose pups began stranding on California's beaches in record numbers in early 2013.

Scientists eventually traced the source of the problem to disappearing sardine populations that may be shifting because of a warm water blob in the northern Pacific Ocean.

This year, sea lion pups on the islands off southern California had the lowest weights ever recorded, and their terrible condition portends another year of mass strandings.

“The reality is that we may have a very busy season, and we

are anticipating large numbers of animals coming ashore,” says Justin Viezbicke, stranding coordinator at the National Marine Fisheries Service.

One-Two Punch

Now, the effects of the warm water are finally reaching fur seals. This year, more than 150 have washed up along California beaches, most within the past six weeks and many weighing just a smidge more than 10 pounds.

“They’re half of normal weight,” says Shawn Johnson of the Marine Mammal Center in Sausalito, where the pups are being nursed back to health. “That’s extremely small. You can hold them in your hands...and they will try to bite you.”

It’s not clear why fur seal strandings have lagged behind the sea lions, though scientists suspect it could have to do with the sizes of the populations and where nursing mothers go to look for fish.

Most of the stranded pups are probably coming from a growing colony on San Miguel Island. There, fall surveys revealed that the three-month-old pups weighed just a few pounds more than they did at birth—not nearly big enough to tackle life in the ocean. Now, as the tiny furballs make their way north in search of food, many are simply becoming shark bait or finding themselves on the beach.

While the fur seal population is expected to recover from a

tough winter, it's unclear how far the reverberations from the one-two punch of the blob and El Niño will spread through the ecosystem.

One thing is clear, though: these warm ocean waters can be considered a preview of things to come.

“It’s almost a test bed for what we might be seeing in the future,” says NOAA’s Elliott Hazen. “The ecosystem here is used to experiencing changes, but if warming is happening ... all those things are going to happen more frequently in future conditions than now.”

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