

# Puffins: Team hopes to research population trends

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our own way, but we need to make people aware of what's going on first."

## Identifying the problem

There are about 2.4 million puffins who breed in North America. While the Haystack Rock colony has stabilized the past few years in the low 100s, the population has been steadily declining for the past 20 years, said Shawn Stephensen, a wildlife biologist with the Oregon Coast National Wildlife Refuge Complex.

Twenty years ago, 5,000 of the birds were nesting on the Oregon Coast. Now it is just a few hundred, he said.

Stephensen has been monitoring puffins at Haystack Rock for the past six years. The way he does this is by observing the number of burrows puffins use to nest in, which between 2010 to 2016 dropped from 368 to 99, according to his study — a significant drop from the 612 counted in 1988.

It's still too early to estimate this year's population, Stephensen said, but the initial counts have not been high.

While he said formal research has yet to be conducted as to why the population is declining, he and other researchers believe it is due to a food shortage.

Because of various factors such as rising ocean temperature and acidification, smaller fish like herring are either becoming less plentiful or swimming deeper in the water to where puffins can no longer



Colin Murphey/The Daily Astorian

Members of the public recently took a tour around Haystack Rock as part of an educational effort by personnel with a group dedicated to preserving the habitat of nesting seabirds such as puffins.

dive to retrieve them, he said. Even if there are other fish available, puffins could still be malnourished from eating less nutritious fish.

"They are a great indicator species of climate change. If they can't find food, what else is changing?" Stephensen said.

## 'A warning'

Roy Lowe is a retired project leader for the Oregon Coast National Wildlife Refuge Complex, which is part of the U.S. Fish and Wildlife Service, and spent much of his career conducting coastal surveys of seabirds like puffins.

He said while the decline is

most notable in easily accessible places like Haystack Rock, there are nesting sites that have been hit even harder. Finley Rock by Oceanside in 1979 recorded almost 4,000 puffins. Today, he said, there are fewer nested there than at Haystack Rock.

"If puffins aren't able to live in natural environment, it should be a warning," Lowe said. "Birds evolve over millions of years, and if they can't make a go of it in their environment something is seriously wrong."

For years, seabird biologists have had the goal to add the tufted puffin to the fed-

eral endangered species list. Two years ago, the Washington Department of Fish and Wildlife voted to put the puffin on the endangered species list, and Oregon has it listed as a sensitive species.

This led Stephensen and other scientists from the Pacific Seabird Group to form a special technical committee dedicated to devoting time and dollars to researching why these birds are disappearing.

The team hopes to research population trends, genetic studies, wintering patterns and detailed food analysis — all types of data not being collected about puffins in



Colin Murphey/The Daily Astorian

Bird-watchers at Cannon Beach were recently afforded the opportunity to take a guided tour around Haystack Rock with experts on the habitat of nesting seabirds and the perils certain populations face.



Colin Murphey/The Daily Astorian

A nesting seabird can be seen through a scope used by personnel with the Haystack Rock Awareness Program to monitor the population of puffins and other species that use the iconic place in Cannon Beach as a nesting ground.

the region.

There is a list of criteria a species must meet before being considered endangered. He said doing more expansive research will hopefully help qualify the puffin as a candidate.

They will seek funding

through the U.S. Fish and Wildlife Service, but might have to look at grants to continue the expanded projects, he said.

"We'll probably find it's not just one issue," Stephensen said. "It will be many issues, whether it be ocean acidity, human disturbance, lack of fish, what have you."

But a place to start is by funding volunteer groups like the Haystack Rock Awareness Project, Stephensen said, which state and national entities rely on heavily to help preserve and record local seabird populations.

For Underwood, he hopes to work with Keyser to fund research projects like the ones proposed in the Pacific Seabird Group through the sale of his sweatshirts.

"Hopefully we'll have to order some more sweatshirts," Underwood said.

# Elk: 'I can't believe it's up to us to come up with a plan'

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human safety reached a head this month when an elk cow protecting its calf charged a bicyclist in Gearhart, days after menacing beachgoers, children and dogs. The elk was tranquilized and brought to safety by police, firefighters and officials from the Department of Fish and Wildlife. The elk calf was also tranquilized and reunited with its mother at God's Valley in Tillamook State Forest.

The incident stirred public sentiment and led to a call to action.

"You can tell from the last two weeks of elk incidents, someone is going to get killed," Goodling said. "There are plenty of people pushing strollers. If a bicycle spooks that herd and it goes around the corner, there's no stopping them. I've seen them jump over a 6-foot concrete fence one after the other."

Bangild said the Gearhart herd has at least "doubled or tripled" in the six years he has been here. "That's way too many for a small town," he said.

"I used to take my son down to the estuary for walks, but now I am much more cau-



Jeff Ter Har/For The Daily Astorian

A herd of elk look both ways before crossing a street in Gearhart in 2014. While some Gearhart residents love them, managers of the Gearhart Golf Links want them removed.

tious. You are stuck out there."

## Transport urged

Bangild, Earl and Goodling each said they don't want to kill elk — hunting is prohibited in Gearhart — only to move them out of the city to reserves like God's Valley or Circle Creek.

"We are not seeking to eliminate the entire herd, but at least get the herd down to where it is safe for the town residents," Goodling said.

But transport has its limits, Dave Nuzum, acting wild-

life biologist of the Department of Fish and Wildlife, said Tuesday.

Nuzum has been coming to Gearhart for several years, meeting with city leadership, the public and golf interests.

In 2014, the city asked the department to come up with a cost estimate for the transport of 75 percent of the herd.

The total cost for trapping was estimated at \$14,000 for a one-month effort, which could bring in "an optimistic number of 50," more likely 30, Nuzum said.

One day of darting, which would tranquilize the elk, is \$1,472 per animal. Fewer than 10 elk could be darted and transported per day.

## A 'suite' of responses

A public workshop and subsequent meetings with the department identified "a suite" of responses, including hazing, fencing and exclusion.

"Transplanting was part of that," Nuzum said.

What complicates matters is the dichotomy of interests between those who want

to get rid of the elk and "an even more greater number of people who love the elk," he said. "They don't want anything done."

Trap and transplant, as suggested by the golf course officials, is a popular suggestion, he said, but of limited value.

"Population control through trap and removal has been widely shown not to work for any species causing trouble anywhere, whether it's Canada geese, urban deer, whatever," Nuzum said. "And of all the methods discussed, it is by far the most expensive."

Elk are baited, usually using alfalfa hay, before being trapped in a flat-paneled corral. The traps are remote-triggered and the panels then drop a canvas covering so the animals don't get spooked by anyone walking by.

It would be impossible to remove all the elk, Nuzum said. A realistic number might be 30 before trapping becomes ineffective.

"Thirty elk is not going to make that much of a dent in the population," he said. "If you were able to remove a higher percentage, they breed. You would be back in the same boat in a very short amount of time."

And in a city like Gearhart, where elk occupy an almost mythic role, residents may tamper with traps.

"Inevitably your traps are going to get vandalized by folks who are opposed to it," Nuzum said. "Somebody always has to mess with them."

## 'Stalag 17'

Fencing is the only "100 percent sure way" of keeping elk out of any area, he said, whether a dairy pasture, orchard or a golf course. "The downside of that is aesthetically, you don't want the place to look like Stalag 17."

There are a number of ways to make fencing more attractive, but exclusion has consequences, he added. "Say you were to put up an impenetrable fence around the golf course — problem solved. Well, there are still elk going around town."

Nuzum's response may not satisfy Bangild, Earl or Goodling, who say they have been down this path before.

"I can't believe it's up to us to come up with a plan," Bangild said. "We're trying to run a golf course. I spend more hours than I ever thought I would coming up with a solution."

# Eclipse: 'We have people coming from Australia, Belgium'

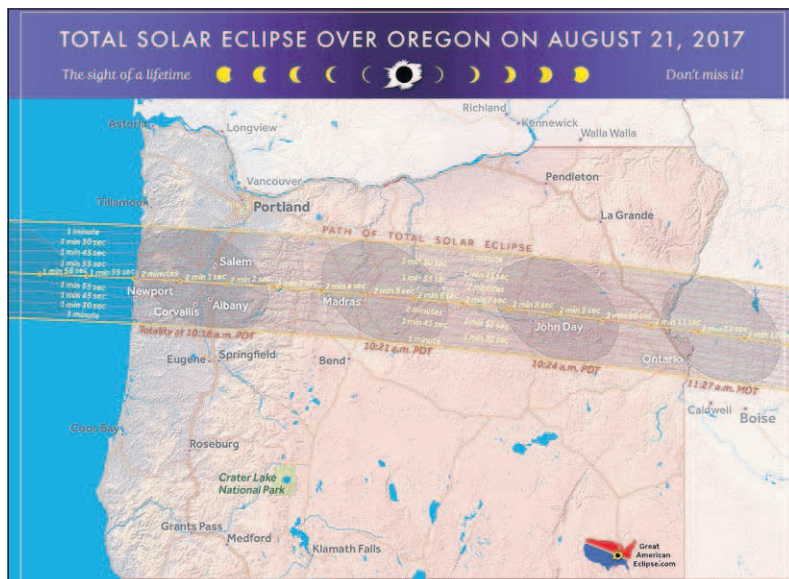
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"It's a life experience," Jerit said during an interview at his company's office in the Memphis suburb of Bartlett. "When that 2 minutes is over, or however long you've got, the question that you really want to hear is, 'When is the next one?'"

## Path of totality

His company is one of many businesses — hotels, campgrounds and stores — taking advantage of the total solar eclipse — when the moon passes between Earth and the sun. The moon's shadow will fall in a diagonal ribbon across the U.S., from Oregon to South Carolina. The rest of the U.S. will experience a partial eclipse, along with Canada, Central America and a bit of South America.

Cities and towns along the path of totality — where there will be about 2 1/2 minutes of darkness — are gearing up for the crowds. St. Joseph, Missouri, population 76,000, is in a prime location and officials are bracing for tens of thousands of eclipse watchers to descend on the city, said Beth Conway, spokeswoman for the St. Joseph Convention & Visitors Bureau.



Wikimedia Commons

The path of totality over Oregon for the upcoming solar eclipse Aug. 21.

The city's restaurants, gas stations and stores are preparing for the onslaught — the city's largest arts and music festival with the nickname "Total Eclipse of the Arts" is scheduled on the weekend leading up to the eclipse on Monday, Aug. 21.

"This is essentially our Super Bowl," Conway said. "If we see

anywhere near the amount of people that they're telling us, it will probably be the biggest event in our history."

The city has gotten into the act as well, selling eclipse glasses, posters and blue and yellow T-shirts decorated with a drawing of the city's skyline and an iconic railroad bridge, and with the slogan "Right in

the Middle of it All."

Conway said a benefactor donated 100,000 safety glasses designed for the city and proceeds are going to local museums and charities.

Sales have been "amazing, phenomenal," she said. "It's just blown our minds."

## Eye protection

At the Tennessee factory, a constant whirring sound fills the factory as large sheets of paper are fed into machines. One cuts out the eyeholes in the preprinted frames, another inserts the protective film lenses. Then the glasses are punched out of the sheets and packaged.

About 50,000 glasses can roll off the assembly line per hour, Jerit said. Paper glasses cost about 20 to 25 cents to make, and they are sold to distributors for about 45 cents, but prices vary depending on order size. They're sold retail for about \$2. The plastic versions are about \$15.

Staring at the sun during an eclipse — or anytime — can cause eye damage. The only safe way is to protect your eyes with special filters in glasses or other devices. NASA lists four companies, includ-

ing American Paper Optics, whose glasses meet international standards.

"It's eye protection for enjoyment," said Jerit, whose main business is making 3-D glasses.

Besides retail outlets, the company sells the glasses to cities, universities and space-related entities like NASA and the Adventure Science Center in Nashville. Some are custom-designed, like the ones for St. Jude Children's Research Hospital which are decorated with children's drawings. Under the wacky category: glasses to make the wearer look like an astronaut, space cowboy or a green alien.

Green Acres farm near Casper, Wyoming, is one of the many farms and parks welcoming eclipse watchers. The farm, which normally features a corn maze and other children's activities, has been turned into a campground with 300 campsites in prime eclipse viewing territory.

"We have people coming from Australia, Belgium, several from Canada. I have a guy from England coming that's seen 17 eclipses," said manager Dwain Romsa. "We're a little more remote than some areas. It takes more effort to travel here."