Extreme measures help plovers survive

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Yes Virginia, beach closures to protect piping plovers do seem to work.

Take note of the accompanying chart of Massachusetts' plover population over the past 20 years. From a start of 139 pairs in 1986 the population hit a peak of 538 in 2002.

"One of the keys for plover recovery progress has been dealing with all the important factors that limit the population, including human recreational impact and degradation and loss of habitat," says senior zoologist Scott Melvin of the Massachusetts Division of Fish and Wildlife. "We've been able to quadruple the population in less than 20 years in a habitat so intensely used by people, and they still are using it."

That increase was spurred by a boost in successful fledges over the 1.25 per pair mark necessary to maintain the population. A fledge is a chick 25 days old or able to fly. The number of fledglings hit a high of 2.03 per pair in 1992 and the ensuing years saw a huge jump in nesting pairs. But the number of fledges fell to a low of 1.07 per pair last summer.

Vehicle traffic isn't the major factor in raising plover chicks successfully. Predation by animals and the weather can really wallop plover populations. But people, unlike skunks and storms, can be easily managed.

"The number of piping plovers has been increasing since we began protecting habitat," notes Ellen Jedrey of Mass Audubon's Coastal Waterbird Program. "Habitat loss and degradation is the number one reason for the decline. So when I see fencing up to protect the plover, I'm seeing beach also being protected."

Piping plovers are only one rare shorebird.

"They certainly are an indicator of a healthy coastal ecosystem if they're out there," Jedrey says. "I see it as an umbrella way to protect much more than just one species. It's a way to protect the barrier beach system, which is very unique."

Taste in real estate has changed

While the Coastal Waterbird Program isn't involved in any beach closures (the town or governing body handles that), they monitor nests on 80 different beaches in Southeastern Massachusetts, the largest being South Beach in Chatham where approximately 50 pairs have settled this year.

"That's pretty amazing," Jedrey notes. "It will change year to year. With the overwash at Pochet Island [in Orleans] for example, when a storm comes through, that creates a new habitat for piping plovers and least terns. It's really dynamic so they shift their nesting."

Unlike other ground-nesting birds, piping plovers don't look to secrete the nest away.

"They want nice open sand and areas scoured of vegetation," says Jedrey. "If you're flying over Cape Cod and find new overwash created, I would make an assumption that you'd have piping plovers and least terns there."

The big blows this past winter have re-landscaped plovertown. Plovers prefer areas that give them access to open ocean and bay feeding - which means barrier beaches.

"The bays have a lot of insects, amphipods, zooplankton that the plovers are after.

They eat small insects, crustaceans, anything little," Jedrey explains.

Interactions with beach traffic

Plover chicks are particularly susceptible to nasty interactions with beach traffic.

"When the chicks see something scary [like a beach buggy], their first instinct is to run to the lowest elevation and squawk," says Jedrey. "Unfortunately, that often means tire ruts. In the past, we've had a number of instances of chicks running into the ruts and being run over. We're really just protecting what's there."

There are other approaches, rather than total closures.

"We could make sure piping plovers are out of the way, like on Duxbury Beach, they have a very intensive monitoring system," Jedrey says. "They have monitors out there to babysit all day long and they make sure all vehicles are actually stopped when the chicks want to cross the road. They hire high school students all season long. It definitely can make a difference."

Both Melvin and Jedrey expect the number of nesting plovers in the state to drop in the future, due to the low fledgling levels of recent years.

"I would predict a population below 475 because of poor productivity last year," Melvin says. "That was a combination of a variety of things but mostly a big nest loss to two storm events in May and an increased loss to predation."

Weather also plays a key part. Nests might be washed away and plovers will re-nest up to four times. Ideally, they lay four eggs each time so a 1.07 fledgling rate means three out of four eggs aren't making it.

It has been a very stormy spring on Cape Cod but the plover nests seem to have weathered it well.

"It's too soon to tell but I'm cautiously optimistic," Melvin said. "We didn't see any significant loss as of yet."

The Massachusetts numbers are part of the total picture. On the Atlantic Coast there were 790 pairs in 1986. In 2003, that number was 1,676. That's good but not quite where it needs to be.

"The East Coast is what's driving the recovery - the objective is around a population of 2,000 pairs with some additional factors. That's from North Carolina to Newfoundland," Melvin says.

The federal government is seeking a broad recovery.

"They've divided the coast into four different regions, they don't want to put all our eggs in one basket," Melvin notes.

While New England and New Jersey-New York (317 in 1991, 530 in 2003) have done well, Canadian numbers are flat.

"We think they need to have higher rates of productivity to sustain the population," Melvin says. "It may have to do with migrating longer distances."

Before there's any change in the plover's official status, they'll have to add about 350 breeding pairs. And that'll happen out of state, not in Massachusetts.

As far as this summer goes, the plovers began laying eggs in April and if the nest is washed away or damaged will keeping laying as late as July. Chicks usually take 25 to 30 days to fledge after hatching and can be finished as early as July 4, but that won't happen this year. August and September fledglings may not gain enough weight to make the flight south to the Caribbean.