

Piping plover breeding affected by

2005 storms

**I**t was a very good year for Harry Potter, Mariah Carey and the Chicago White Sox. But 2005 wasn't so good for piping plovers.

The federally threatened birds had their worst breeding season since they were first listed under the Endangered Species Act in 1987.

"They are producing about one chick per pair and the number scientists have determined they need for the population to be stable is 1.24 per pair," observes Andrea Jones, director of Massachusetts Audubon's Coastal Waterbird Program. "What we're hoping for is that this is just a blip in the map and that populations will all recover. But before the populations all recover we have to be very vigilant."

While no couple will produce 1.24 chicks, it works out to five chicks for every four pairs.

"Once you're below that, the population is not able to maintain itself," Jones says. "This is what we've seen the past three to four years."

The Audubon Society doesn't monitor every plover nest in the state; many are on federal land, and the state will come up with the final number. But, based on preliminary data from 91 sites and 228 nests, each pair produced 1.07 chicks.

"We monitor about 50 percent of the state's plover population," Jones says. "We also do terns and oyster-catchers."

Statewide, the number of nesting pairs fell from 490 to about 475. But it wasn't the lower number of birds that produced the drop-off.

"The main reason this was a bad year was the spring storms," Jones said. "They arrived when the birds were laying eggs. They dumped sand on the beach and washed away nests. The protective fencing we put up was washed away and so were all the eggs."

Piping plovers are resilient, but unfortunately so was the bad weather.

"It was two late May nor'easters," recalls Ellen Jedrey, the waterbird program's assistant director. Jedrey is based at the Long Pasture Sanctuary in Osterville. "The beaches that were most affected were the ones facing north and east," she says.

"Just after they laid a second clutch of eggs we had a second nor'easter so they lost the eggs again," Jones explains. "The South Shore was hit bad, so was Sandwich and parts of Martha's



**The Massachusetts Audubon Society, which monitors about 50 percent of the piping plover nests in the state, found that the endangered species produced an average of only one chick per pair last year, the lowest in 20 years.**

Staff photo by Merrily Lunsford

Vineyard and Nantucket. The south-facing beaches didn't do as badly. The birds ended up nesting three or four times."

That's a lot of work for the plover pairs and when they finally hatched to chicks, it was beach season.

"It was much later in the season when more people were coming to the beach, and dogs, etc. Normally, the chicks hatch by the Fourth of July," Jones notes. "This year the whole nesting season was mixed up and they reared very few young."

### Keeping watch on Cape Cod

Jones coordinates all the plover surveillance from the Audubon Sanctuary in Marshfield.

"We monitor sites from Plum Island to Cape Cod, to Nantucket and Martha's Vineyard," Jedrey says. "We cover the entire coastline of Sandwich, Dennis and Chatham and we have sites in Barnstable, Yarmouth, Provincetown, Wellfleet and other towns."

The program has 25 interns and more than 50 volunteers involved in keeping an eye on plovers. The watchers go out daily, unless it's raining or too hot, from April to late August.

"The nests are difficult to find," Jedrey says. "Once we find them, we put up fencing and also put up signs. We watch the nest for another month and after hatching, we watch the chicks

for 26 days, until they can fly."

When the chick can fly it's listed as "fledged."

### South Beach largest population

Sampson's Island in Osterville had the most successful nesting as 18 pairs of plovers produced 38 chicks (2.11 per pair). The worst fledging rates were on north- and east-facing beaches, such as in Plymouth where 22 pairs reared only three chicks.

Capewide, 228 pairs fledged 245 chicks.

"The number of chicks produced has been decreasing but because they are long lived birds, you probably won't see it show up in the population for another few years," Jedrey says.

Plovers can live from eight to 14 years.

South Beach in Chatham has the largest piping plover population, and 37 pairs produced 49 chicks there despite shifting sands that opened the beach to predators.

"Foxes are becoming a large problem," Jones says. "They're attracted to beaches. Perhaps they're pushed out of other areas. The birds are there, especially terns. Skunks are also a problem; they're attracted by trash. Some places have coyotes but foxes are one of the biggest problems."

"On a local scale it's been predation by coyotes, foxes, gulls, skunks, crows, you name it,"

# BY THE NUMBERS

Audubon Area	Total # of plover pairs	# of chicks fledged
Buzzards Bay	25	31
Sandwich	29	20
Mashpee	3	0
Falmouth	0	0
Barnstable	33	61
Yarmouth	7	3
Dennis	6	5
Brewster	2	4
Harwich	3	4
Chatham	43	57
Eastham	2	4
Wellfleet	2	4
Truro	6	10
Martha's Vineyard	24	23
Nantucket	2	6
Plymouth	22	3
South Shore	19	10
All sites combined	228	245

Jedrey says. "All of the predators out there do quite a number on birds."

While piping plovers are relatively widespread, Massachusetts is plover central.

"They range from Newfoundland to North Carolina, but Massachusetts is the most important state," declares Jones. "One-third of the Atlantic population is here. Plum Island [in Ipswich] is important; they're all along the coast on sandy barrier beaches."

The Atlantic Coast tally is around 1,600 pairs. There's also a small Great Lakes group.

Overall, the federal listing has been good for the birds.

"The numbers have gone up fourfold. When we started, there were 120 pairs in the state; now there are around 500, and the terns have gone up also," Jones says.

Things could be a lot worse.

"I am still optimistic," Jones reflects. "A lot of people are working hard to protect these birds and to protect their coastal habitats. I'm more upbeat than I would be in other parts of the country, where fewer people are involved in shorebird protection."

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