es as the nesting season progresses, necessitating strict controls during the nest selection period, laying and incubation on activities such as walking pets off leash, loud noise, off-road vehicle use or significantly increased human activity near the nest.

Most Great Lakes beaches are subject to intense recreational use, subjecting Piping Plovers to unacceptable stress levels. Human presence and attendant trash from picnics also attracts predators, such as raccoons, skunks, fox, gulls and opossums, which readily raid nests for eggs. The young are precocial, meaning that they can run and feed themselves within a few hours of hatching, but these tiny fluff balls are very vulnerable to predation until they can fly.

"Virtually every nest has to be baby-sitted to keep humans and dogs away. These are the key factors of disturbance to nesting plovers. If we can keep people and dogs away from the nest during incubation, it really increases the chance of success," said Mike DeCapita, wildlife biologist, who is based at the USFWS office in Lansing, Mich.

"But we don't have an effective way to keep predators at bay once the babies are hatched. They have so many predators - fox, coyote, raccoon - which would we try to defend them from? It's very rare that we know what happens to a chick when it disappears. We can't protect them once they start moving," DeCapita said. Biologists know exactly how many adults and babies they start out with within the Great population each year, DeCapita said. Adults are trapped on the nest with a special device and banded. Eggs are carefully counted and monitored. Chicks are caught with a net and banded when they are about two weeks old.

Because Piping Plover nests are so carefully monitored, biologists

are able to retrieve eggs that hatch later than other siblings in a brood. Quite often, three of four eggs will hatch together and once the young are mobile, the parents have to take off after them, abandoning the last egg. Biologists hatch the egg and raise the young in captivity, band it and release the offspring, with good success. In fact, said De-Capita, one of the pair of Piping Plovers nesting near Green Bay was a captive-raised bird.



Piping Plover, 24 June 2003. Popham Beach State Park, Phippsburg, Maine. Photo by Geoffrey Williamson.

The Piping Plover Recovery Plan is being updated now to incorporate new scientific data and to split the Great Lakes and Northern Plains populations for the purpose of management for species recovery, said Reagan of the Fort Snelling office of USFWS. A final version of the Great Lakes Plan is expected in fiscal year 2003. The Recovery Plan essentially sets goals, delineates habitat that should be protected and suggests guidelines for habitat management and monitoring and surveying work, she said.

The Illinois birder's chances of seeing a nesting Piping Plover in the state are slim to none, unless you conduct shorebird monitoring. Beaches where they nest will be closed until after the young are independent – in mid July or so. Hopefully, even more beach closures will be necessary soon across the region.

Migratory stopovers

However, in response to public comments, the USFWS did improve a birder's chance of seeing a migrant Piping Plover by designating as critical habitat beaches used in migration, but that are not suitable for nesting. The USFWS said that "areas used by plovers on migratory routes are likely very important for survival to the next breeding season. Extraordinarily little is known, however, about important stop-over sites and habitat needs of the Piping Plover during migration. Because so little is known about where essential migratory spots are located, we did not designate migratory habitat in this rule."

According to a May 2001 filing in the Federal Register, the USFWS will add important migration spots to the critical habitat designation as they are discovered. Education is the single most important element in the continued survival of the Piping Plover. The more people understand and appreciate the Piping Plover, the more likely they will be to stay off protected beaches and to keep their children and dogs from disturbing migrating, roosting and nesting plovers.

Plover ambassadors educate the public about Piping Plovers in some Michigan towns lucky enough to host nesting birds. Harmful human-bird interactions are down as a result and the population numbers are rising.

Citizen scientists, like Al Stokie, who monitors shorebirds on Illinois' northernmost Lake Michigan beaches, contribute to the body of knowledge about Piping Plover migration patterns. In fact, DeCapita of USFWS said the missing link in the puzzle of the Great Lakes' Piping Plovers is where exactly they winter. "We need more observations and data on where our birds go. It is a huge coastline from North Carolina around to