

present at two new sites in Ohio along Lake Huron.

At the time of this writing, 2003 was shaping up to match the success rate of the prior year, with 45 nesting pairs accounted for so far, Dingledine said. There are still a few remote islands in the Great Lakes that need to be checked for nesting plovers. An additional pair nested the summer of 2003 near Luddington. Dingledine added that the weather the spring of 2003 has been very conducive to reproductive success for the plovers. "While it was a cool spring, the season lacked the extremes of temperature and weather that are detrimental to nesting and rearing young Piping Plovers," Dingledine said.

Critical habitat

Critical habitat designation for Piping Plovers at Illinois Beach State Park and Indiana Dunes essentially creates expansion room for young Piping Plovers, but there is no sure-fire way to attract breeding pairs to a given area, other than maintaining appropriate habitat and controlling disturbance, Dingledine said.

The USFWS noted in its filing in the Federal Register, May 7, 2001, that the "primary constituent elements required to sustain the Great Lakes breeding population of the Piping Plover are found on Great Lakes islands and mainland shoreline that support open, sparsely vegetated sandy habitats, such as sand spits or sand beaches, that are associated with wide, unforested systems of dunes and inter-dune wetlands. In order for habitat to be physically and biologically suitable for Piping Plovers, it must have a total shoreline length of at least 0.2 km (0.12 mi) of gently sloping, sparsely vegetated (less than 50 percent herbaceous and low woody cover) sand beach with a total beach area of at least 2 hectares (5 acres) and a low level of distur-

bance from human activities and domestic animals."

The critical habitat designation was given to currently unoccupied areas that historical records show were once used by breeding plovers and to areas lacking historical breeding occurrences that have most of the primary constituent elements listed above. The USFWS revised its Piping Plover Recovery Plan to include all of the currently unoccupied sites as critical habitat in response to public comments.

In Illinois, just one area was designated as critical habitat for the Piping Plover. About six miles of Lake Michigan shoreline stretching from 17th Street in Illinois Beach State Park (IBSP) and Nature Preserve south to the northern breakwater in Waukegan Harbor in Lake County were designated as critical for the plover. Some of the six miles of beach is already off-limits to park visitors in order to protect the fragile dune habitat for other endangered species, such as the Karner Blue Butterfly.

Ironically, the chance discovery of asbestos in the southern portion of IBSP, both at the shoreline and at inland spots within the park's nature preserve area in 2003 means that even biologists and birders with access permits to conduct bird surveys aren't getting in, leaving the site even less disturbed. Even Joel Greenberg, the official Piping Plover monitor for Illinois, hasn't been able to get onto the beach at the south end of IBSP to check whether any of these small, subtle, sand-colored shorebirds have stopped to refuel and rest during the summer of 2003.

Nearly five miles of shoreline in the Indiana Dunes National Lakeshore and Indiana Dunes State Park in Porter County were also designated, stretching from the Port of Indiana eastward to Kemil Road in Beverly Shores. Twenty-three areas

in Michigan and six areas in Wisconsin also received the critical habitat designation.

The critical habitat designation only limits destructive federal activities on federally owned lands, although states that receive federal money for some conservation activities are also bound by the designation, said Reagan of USFWS. State and privately owned lands are not regulated by the critical habitat designation, but biologists said such designation often persuades land owners to behave responsibly to limit disturbance of nesting birds.

Approved Habitat Conservation Plans were excluded from critical habitat by the Fish & Wildlife Service on the grounds that landowners already provide adequate protection and will consult with USFWS about changes to habitat management practices. Magic Carpet Woods Association in Leelanau County, Mich., has developed a habitat management plan that protects Piping Plovers nesting near this private development. This is the only approved Habitat Conservation Plan for Piping Plovers in the Great Lakes Region. The USFWS will work with landowners to develop more HCPs within the Great Lakes breeding area.

Highly sensitive

The Piping Plover forages on small insects and invertebrates at the water's edge and nest in pebbled areas within the grassy fore dunes of fresh and salt water beaches. The birds are very sensitive to disturbance from humans and dogs and will abandon their well-camouflaged nest or chicks if stressed. The nest – a shallow scrape in the sand – is very hard to spot, and eggs are often inadvertently crushed under foot, by pets and by vehicles.

USFWS also noted in its Federal Register filing that Piping Plovers' intolerance for disturbance increas-