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What Will It Cost to Save Piping Plovers?

Introduction:

Piping plovers are migratory shore birds that breed in North America in the summer and go to the Caribbean in the winter. Plovers breed in three distinct groups: one along the Atlantic Coast, one in the Great Lakes region, and one in the Great Plains. All three were listed under the Endangered Species Act in 1985. Since 1991 the Atlantic and Great Lakes groups have stabilized, but the Great Plains population has continued to decline. Recovery efforts have been poorly coordinated, with government agencies and volunteers doing their best with limited funds and no real plans. Michael Larson, a scientist who studies piping plovers, systematically evaluated methods of nest protection, thus giving us an idea of the most effective way of protecting birds on the breeding grounds, and how much it may cost.

ER: Dr. Larson, what is your training?

ML: I received a Master's Degree in wildlife ecology in 1995 at Michigan State University studying ruffed grouse populations. From there I moved down to Columbia, Missouri, to pursue my Ph.D. in fisheries and wildlife with Mark Ryan. His group has been studying piping plovers for the last nineteen years. I came to the University of Missouri to model piping plover population dynamics and also the economic aspects of the recovery

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process. I'm now a postdoctoral fellow in the same department.

ER: Can you tell us a little bit about piping plovers and where they live?

ML: Piping plovers are small migratory shorebirds, and they breed in three distinct populations in North America. There is a population that breeds along the Atlantic coast from North Carolina into Canada; there is a much smaller population that breeds in the Great Lakes; then there's a third population breeding in the Great Plains of North America from about Nebraska up through the southern half of the prairie provinces of Canada, mainly Saskatchewan and Manitoba.

ER: When do they fly north?

ML: Plovers arrive on the breeding grounds from mid-April through the beginning of May, depending on the site; and at any given site they show up at about the same time every year. Plovers start their nests in May. The plovers are monogamous within breeding seasons; the male and female pair bond is established once the birds arrive on the breeding grounds. Then the pairs form and defend a nesting territory. They nest semi-colonially, so plover territories bunch up and there might be parts of the breeding site that aren't used at all.

They lay a clutch of four eggs generally. The male and female alternate incubation responsibilities, usually about once every half an hour or hour. And the incubation period is about twenty-eight days, so most hatching is around late May or into the first two weeks of June. If a pair has a clutch they're incubating and a predator destroys it and there's enough time left in the breeding season, they will re-nest. But once they get a clutch to hatch, they won't re-nest after that.

ER: So they can make some more eggs if they lose the first batch.

ML: Yes. Re-nesting, or that second nesting attempt after a destruction or predation event, is fairly routine actually. I think they've observed up to four or five nesting attempts within the same breeding season. And oftentimes within that breeding season the pair

