

CONSERVATION OF PIPING PLOVERS IN THE U.S. ALKALI LAKES CORE AREA ^{TWS}

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The northern Great Plains population of piping plovers has been listed as Threatened in the U.S. and Endangered in Canada since 1985. The current population decline and poor prognosis is thought to be due to inadequate reproductive success stemming from significant alteration of the prairie landscape and predator community during the last century. Planted trees, increased woody cover, rockpiles, junkpiles, and abandoned buildings now offer denning, nesting, and roosting habitat for a variety of egg and chick predators that were once uncommon on northern prairies, e.g. great-horned owl, striped skunk, raccoon, American crow. Also, in many areas, once extensive native grasslands are now reduced to small remnants that may be more efficiently searched by predators. About two-thirds of the U.S. Great Plains population breeds annually on our eight county study area, which extends from northwest North Dakota through northeast Montana. Over the past decade, we have documented size, distribution, habitat selection, and vital rates for this population. We have also identified and implemented a rigorous predator exclusion program that has boosted piping plover reproductive rates into the range necessary to stabilize the population decline. Currently we are evaluating landscape influences on plover productivity to determine whether habitat preservation and restoration, e.g. removal of unnatural landscape features that may house predators or facilitate predation, can contribute measurably to piping plover recovery.