Least tern and piping plover nesting at sand pits in Nebraska

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Abstract

Endangered Least Terns (*Sterna antillarum*) and threatened Piping Plovers (*Charadrius melodus*) nest at commercial sand and gravel mining operations (sand pits) along the Platte River system in Nebraska. Sandbar habitat has been disappearing since the early 1900's along the Platte River system, but numbers of sand pits have increased. We hypothesized that birds would more fully utilize sand pits where suitable sandbar habitat was limited. We inventoried sand pits and censused terns and plovers on both habitats along the Loup River, part of the North Loup River, and most of the Platte River during 1988-1991. Using aircraft, we also quantified features of suitable sand pits present on the central Platte in 1988 and lower Platte in 1990, and related features to abundance and presence of birds. We found 225 sand pits of which 78 were suitable and 187 were unsuitable for nesting. Along the central Platte, where sandbar habitat is severely degraded, birds nested at 81% of the suitable sand pits (N = 32) at least once during 1988-1991, and most birds (61-94%) nested on sand pits. Along the lower Platte, where both sandbar and sand pit habitat are plentiful, birds nested at 60% of the suitable sand pits (N = 35) at least once during 1988-1991, and most birds (60-86%) nested on sandbars. Numbers of terns and plovers were more weakly correlated with features of sand pits on the central Platte than on the lower Platte. Least Terns and Piping Plovers seem to use more of the suitable sand pit habitat on the central Platte than on the lower Platte. Sand pits probably have influenced the birds' distribution by providing alternative nesting habitat along rivers where suitable sandbars are rare or absent.

Keywords

Research Article, S*terna Antillarum*, *Charadrius Melodus*, Manmade Habitat, Sandbar, Sand Pit, Endangered Species, Threatened Species, Habitat Loss