

Short-eared Owl, *Asio flammeus*

Status: State: Endangered (breeding population only)

Federal: a Migratory Nongame Bird of Management Concern (in the Northeast)

Identification

The short-eared owl is a medium-sized owl typically seen flying--with moth-like wingbeats-- low over open marshes or fields. The wings of the short-eared owl are long and have rounded tips and the head, from a distance, appears stubby. In flight, white underwings contrast with dark wingtips and dark commas at the wrists.

The owl's body is tawny, with dark brown streaking. The upperparts are also tawny, with dark brown and white mottling. The tawny-colored flight feathers are bisected by dark brown bars and tips. A dark patch at the base of the primaries is visible on both the upperwing and underwing. The face is buff-colored or white, with areas of black surrounding the eyes. The rounded facial disk is bordered by tiny white feathers. The buff-colored tail is bisected by dark brown bars. The legs and feet are cloaked with small, tawny feathers. The talons and bill are black. The iris is yellow. Sexes are similar in appearance. The call of the short-eared owl is a raspy, repeated wak-wak-wak bark.



Photo by Dave Menke, courtesy US FWS

Habitat

In New Jersey, short-eared owls inhabit coastal tidal and brackish marshes, inland fields, pastures, and grasslands. Within coastal marshes, short-eared owls typically roost, forage, or nest in the drier portions of the marsh that do not experience regular tidal inundation. These marshes may contain salt-hay grass (*Spartina patens*), spike grass (*Distichlis* spp.), black rush (*Juncus gerardi*), marsh elder (*Iva frutescens*), or phragmites (*Phragmites communis*). Infrequently, short-eared owls forage over saltmarsh cordgrass (*Spartina alterniflora*) or phragmites marshes, although vast areas of low marsh or thick stands of phragmites do not offer high quality habitat for these owls. Large acreages of coastal high marsh adjacent to undisturbed upland fields serve as prime habitat for short-eared owls. Short-eared owls and northern harriers occupy similar habitats and, due to the crepuscular (dawn and dusk) and sometimes diurnal (daytime) nature of short-eared owls, the two species can be active at the same time.

Short-eared owls roost, forage, and nest at inland open areas, such as fallow fields, hay fields, grasslands, airports, and sedge meadows. Sensitive to human activity, short-eared owls require large tracts of undisturbed open areas. Territory size for

breeding short-eared owls in southern Manitoba ranged from 73.9 to 121.4 hectares (182.6 to 300 acres), while territories for owls breeding in coastal Massachusetts ranged from 25 to 126 hectares (62 to 311 acres) (Clark 1975, Holt 1992, Holt and Leasure 1993).

Short-eared owls occupy similar habitats throughout the annual cycle. They form winter roosts on the ground within open areas. Wintering roosts of short-eared owls, occasionally in the company of long-eared owls (*Asio otus*), have also been documented in conifers such as yew (*Taxus spp.*), Austrian pine (*Pinus nigra*), and juniper (*Juniperus communis*), particularly during periods of heavy snow cover. Wintering short-eared owls may concentrate at landfills where rodents are abundant.

Status and Conservation

Short-eared owls historically bred along the Atlantic and Delaware Bay coasts of New Jersey. During the early 1920s, numerous nests were documented in salt hay marshes in Elizabeth. In addition, large concentrations of short-eared owls occurred in New Jersey during the winter months, as evidenced by the Princeton roost of 1878-79 that contained nearly 200 owls. Although shooting and egg collecting initially may have caused reductions in historic populations, habitat loss subsequently played a greater role in the specie's decline. The filling of coastal marshes following World War II greatly reduced habitat for these owls. By the 1950s, the short-eared owl had declined as a breeding species in much of the Northeast, including New Jersey.

Due to habitat loss and severe population declines in the state, the short-eared owl was listed as a threatened species in New Jersey in 1979. Short-eared owls were last confirmed nesting in the state in 1979, with only a handful of sightings during the breeding season during the early 1980s. As a result, the status of the short-eared owl in New Jersey was changed from threatened to endangered in 1984. The New Jersey Natural Heritage Program considers the short-eared owl to be, “demonstrably secure globally,” yet, “no extant occurrences are known in New Jersey” (Office of Natural Lands Management 1998).

Due to population declines, the National Audubon Society included the short-eared owl on its Blue List of Imperiled Species from 1976 to 1986, the final year of the list. The U.S. Fish and Wildlife Service designated the short-eared owl a Migratory Nongame Bird of Management Concern in the Northeast in 1992. Christmas Bird Counts revealed a significant decline in wintering owls survey-wide from 1959 to 1988 (Sauer et al. 1996). Similarly, the Breeding Bird Survey detected a significant annual decline in short-eared owl populations survey-wide from 1966 to 1999 (Sauer et al. 2001). In New Jersey, nesting was suspected in 1989 and birds were observed during the breeding season throughout the late 1980s and early 1990s, although nesting was not confirmed. Field studies targeted specifically for this species (Dunne and Gustafson 1984) and surveys conducted by New Jersey Breeding Bird Atlas participants (Walsh et al. 1999) indicate that the short-eared owl remains an extremely rare and possibly extirpated breeding species in the state. These owls have declined throughout the northeastern United States and consequently are listed as endangered in Massachusetts and Pennsylvania, threatened in Connecticut, and of special concern in New York and Maryland.