

Short-eared Owl (*Asio flammeus*)**Species Status Statement.**Distribution

Short-eared owl is distributed across North America, Eurasia, South America, and many island chains including Hawaii (Wiggins et al. 2006, eBird 2019). In North America, this species is widespread across the northern U.S. and Canada during the breeding season. During the non-breeding season, individuals can be found across all of the U.S. and northern Mexico. Within Utah, individual short-eared owls may be found across the state, primarily in the non-breeding season, although breeding pairs may be found uncommonly in the north and western portions of the state (UDWR 2019).

Table 1. Utah counties currently occupied by this species.

Short-eared Owl	
BEAVER	SALT LAKE
BOX ELDER	SAN JUAN
CACHE	SEVIER
DAGGETT	SUMMIT
DAVIS	TOOELE
DUCHESNE	UINTAH
GARFIELD	UTAH
JUAB	WASATCH
MILLARD	WASHINGTON
PIUTE	WAYNE
RICH	WEBER

Abundance and Trends

Short-eared owl has an estimated global population size of 2.3 million, with a U.S. population of 330,000 (PIF 2019). There is no abundance estimate for Utah. Rosenberg et al. (2016, Table 1) report a global population decline of 65% from 1970 to 2014. PIF (2019) gives short-eared owl a High Regional Concern Score of 14 (medium) and lists the species as “CBSD – Common Birds in Steep Decline” (Rosenberg et al. 2016, PIF 2019).

Breeding Bird Survey (BBS) results for Western BBS Region show non-significant declines of -1.0% (95% CI: -3.3 to 1.0) per year from 1966 to 2015 and -1.8% (95% CI: -7.7 to 5.1) per year from 2005 to 2015, though results should be taken with caution due to low abundance (<1.0 birds/route; Sauer et al. 2017). Utah BBS results are mixed, but may also be unreliable due to low abundance and results so imprecise that a 5% per year change would go undetected over

the long-term (Sauer et al. 2017). Miller et al. (2018) report a decline in short-eared owl occupancy in Utah from 2016 to 2018.

Booms et al. (2014) examined BBS, Christmas Bird Counts (CBC), and other conservation assessments for North America and concluded that empirical evidence demonstrates a long-term, range-wide decline in short-eared owl populations since at least 1966.

Statement of Habitat Needs and Threats to the Species.

Habitat Needs

Short-eared owl habitat consists of open country that provides access to prey, typically voles, lemmings, and other cyclic small mammals (Wiggins et al. 2006, Booms et al. 2014). Prairie and coastal grasslands, tundra, shrub-steppe, wetlands, and agricultural fields all provide habitat (Wiggins et al. 2006, Booms et al. 2014, Miller et al. 2018). Individual short-eared owls have low site fidelity, presumably following prey availability, leading to a nomadic and irruptive nature (Wiggins et al. 2006, Booms et al. 2014).

Threats to the Species

Reliance on intact grasslands and an unpredictable food source make short-eared owl susceptible to population declines (Booms et al. 2014). Cheatgrass (*Bromus tectorum*) invasion, land use changes, and climate change may have detrimental effects on both of these requirements in the western portion of its range. Additionally, low site fidelity makes it difficult to monitor this species, and hence detect population declines that would lead to enacting conservation measures (Booms et al. 2014).

Table 2. Summary of a Utah threat assessment and prioritization completed in 2014. This assessment applies to the species' entire distribution within Utah. For species that also occur elsewhere, this assessment applies only to the portion of their distribution within Utah. The full threat assessment provides more information including lower-ranked threats, crucial data gaps, methods, and definitions (UDWR 2015; Salafsky et al. 2008).

Short-eared Owl
No Identified Threats - Data Gaps Only

Rationale for Designation.

Although Booms et al. (2014) demonstrate a long-term and range-wide decline of short-eared owl in North America, BBS and CBC are not necessarily adequate for surveying a species that is not very vocal, and is mostly active at twilight and after dark (Miller et al. 2018). In 2015, Intermountain Bird Observatory (IBO) developed the Western *Asio flammeus* Landscape Study

(WAFLS) in Idaho. IBO and partners expanded WAFLS to Utah in 2016, and to six additional states by 2018 (Miller et al. 2018). The greater spatial coverage of these surveys should improve abundance estimates for this nomadic species, by being able to detect if declines in some areas are just movements of this bird to other areas in a given year, and help to examine habitat requirements in more detail than previously described (Miller et al. 2018). Filling these data gaps will be critical for developing conservation and management plans for this species in Utah.

Economic Impacts of Sensitive Species Designation.

Sensitive species designation is intended to facilitate coordinated management of this species which is recommended to prevent Endangered Species Act (ESA) listing and lessen related economic impacts. In Utah, short-eared owl is largely dependent on private lands, where beneficial management actions can be incentivized using Farm Bill programs, and on federal rangelands, where habitat restoration actions that address wildfire and shrubland restoration are on-going and will likely garner collateral benefits. An ESA listing of short-eared owl would trigger extensive regulatory consultations statewide, and potentially require mitigation for a variety of development and land management projects intended to benefit diverse interests.

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