

## Sooty Fox Sparrow (chilcatensis)

Class: Aves  
Order: Passeriformes

*Passerella iliaca chilcatensis*

Note: This assessment refers to this subspecies only. A species level report, which refers to all associated subspecies, is also available.

**Review Status:** Peer-reviewed

**Version Date:** 28 March 2019

### Conservation Status

NatureServe: Agency:

G Rank: ADF&G:

IUCN:

Audubon AK:

S Rank: USFWS:

BLM:

Final Rank		
Conservation category: <b>V. Orange</b>		
unknown status and either high biological vulnerability or high action need		
<u>Category</u>	<u>Range</u>	<u>Score</u>
Status	-20 to 20	0
Biological	-50 to 50	-20
Action	-40 to 40	32
<b>Higher numerical scores denote greater concern</b>		

**Status** - variables measure the trend in a taxon's population status or distribution. Higher status scores denote taxa with known declining trends. Status scores range from -20 (increasing) to 20 (decreasing).

**Score**

*Population Trend in Alaska (-10 to 10)*

0

Unknown.

*Distribution Trend in Alaska (-10 to 10)*

0

Unknown.

Status Total: 0

**Biological** - variables measure aspects of a taxon's distribution, abundance and life history. Higher biological scores suggest greater vulnerability to extirpation. Biological scores range from -50 (least vulnerable) to 50 (most vulnerable).

**Score**

*Population Size in Alaska (-10 to 10)*

0

Unknown.

*Range Size in Alaska (-10 to 10)*

-2

Breeds in southeast Alaska on the mainland from Klukwan south to Stewart, B.C. (Webster 1983, Gibson and Withrow 2015). Breeding range approximately 23,000 sq. km (calculated in GoogleMaps). Overwinters in Oregon and California (Weckstein et al. 2002).

*Population Concentration in Alaska (-10 to 10)*

-10

No subspecies specific information, likely same as species: Does not concentrate during breeding

and is not known to gather in large flocks during migration (Weckstein et al. 2002).

*Reproductive Potential in Alaska*

Age of First Reproduction (-5 to 5) -5

No subspecies specific information, likely same as species: Unknown, but assumed to be <2 years (Johnson and Anderson 2004).

Number of Young (-5 to 5) 1

No subspecies specific information, likely same as species: Little information available, but clutch sizes of 3 to 4 eggs are commonly reported in Alaska (Willett 1920; Bailey 1927; Petersen et al. 1991; Rogers 1994) and elsewhere (Weckstein et al. 2002). Double-brooding was reported in Juneau by Rogers (1994), but this behavior has not been well-documented in Alaska. Double-brooding does occur on Mandarte Island in southern B.C. (Vistry et al. 2018).

*Ecological Specialization in Alaska*

Dietary (-5 to 5) -5

No subspecies specific information, likely same as species: Few data available for Alaska. Elsewhere in its range, fox sparrows are omnivorous and their diet changes with availability (reviewed in Weckstein et al. 2002). Consumes a variety of invertebrates (e.g. beetles, millipedes, spiders), seeds, and berries (Weckstein et al. 2002).

Habitat (-5 to 5) 1

No subspecies specific information, likely same as species: Throughout its range in Alaska, this species is most often found in low and tall shrub thickets (Isleib and Kessel 1973; Spindler and Kessel 1980; Gill et al. 1981; Kessler and Kogut 1985; Cotter and Andres 2000a; Van Hemert et al. 2006; Schmidt et al. 2013; Amundson et al. 2018), including edge habitat near rivers and other waterbodies (Kessel and Schaller 1960; Cotter and Andres 2000a). In interior Alaska, also reported in open deciduous or mixedwood forests with a thick shrub understory (Spindler and Kessel 1980; Cotter and Andres 2000a; Schmidt et al. 2013).

Biological Total: -20

**Action** - variables measure current state of knowledge or extent of conservation efforts directed toward a given taxon. Higher action scores denote greater information needs due of lack of knowledge or conservation action. Action scores range from -40 (lower needs) to 40 (greater needs).

**Score**

*Management Plans and Regulations in Alaska (-10 to 10)* 2

Protected under the Migratory Bird Treaty Act (MBTA 1918).

*Knowledge of Distribution and Habitat in Alaska (-10 to 10)* 10

Habitat association, distribution, and range limits poorly known (Weckstein et al. 2002).

*Knowledge of Population Trends in Alaska (-10 to 10)* 10

Not currently monitored.

*Knowledge of Factors Limiting Populations in Alaska (-10 to 10)* 10

Not many authors accept Webster's (1983) description of this as a true subspecies. No subspecies specific information, likely same as species: Very little is known about the factors that limit its population dynamics in Alaska or elsewhere. Potential factors include heavy snow on breeding grounds, inclement weather during migration or winter, nest predation, and competition (Johnson and Anderson 2004; Johnson et al. 2018c; Vistry et al. 2018), but few data exist to support or refute these suggestions. Analyses of long-term data (1995-2013) from Denali National Park found that fox sparrows have expanded their distribution to include both lower and higher elevation areas (Mizel et

al. 2016), which may account for the observed increased in fox sparrow abundance in the park (Schmidt et al. 2013; Mizel et al. 2016). Using a related dataset, Mizel et al. (2017) also noticed that there was less variation between individuals in the timing of arrival on breeding grounds. Additional research is needed to understand what is driving this pattern. One explanation proposed by the authors is that population increases may have intensified competition for breeding territories. Several papers have considered the evolution and genetics of fox sparrow species and subspecies (e.g. Burns and Zink 1990; Zink 1994; Zink and Weckstein 2003).

Action Total: 32

**Supplemental Information** - variables do not receive numerical scores. Instead, they are used to sort taxa to answer specific biological or management questions.

<b>Harvest:</b>	None or Prohibited
<b>Seasonal Occurrence:</b>	Breeding
<b>Taxonomic Significance:</b>	Subspecies
<b>% Global Range in Alaska:</b>	>10%
<b>% Global Population in Alaska:</b>	Endemic
<b>Peripheral:</b>	No

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