Fox Sparrow

Passerella iliaca

Class: Aves
Order: Passeriformes

Conservation Status

Heritage	*Agency*		
G Rank: G5	USFWS/NOAA:	BLM:	AA:
S Rank: S5B,S3N	SOA: Species of Greatest Conservation Need	USFS:	IUCN: Least Concern

Final Rank

Conservation category: **VIII. Yellow**

VIII = low status and either high biological vulnerability or high action need

Category	Range	Score
Status:	-20 to 20	-6
Biological:	-50 to 50	-38
Action:	-40 to 40	16

Higher numerical scores denote greater concern

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 (-10 to 10) -6

BBS data shows a significant increase of 2.9% annually in Alaska between 1980 and 2007 (P=0.00, n=95, c=3). BBS data in the Continental US and Canada demonstrated an insignificant decline of -0.8% annually between 1980 and 2007 (P=0.33, n=243, c=1; Matsuoka and Pardieck 2009). Declines have been reported in Central Alaska (Kessel and Gibson 1994).

Distribution Trend (-10 to 10) 0

Unknown

Status Total: -6

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 (-10 to 10) -10

6.5 million (Rich et al. 2004).

Range Size (-10 to 10) -10

Iliaca breeds from northern and western Alaska south to southern interior Alaska (AOU 1998). Unalaschcensis breeds on the eastern Aleutians, Shamagin and Semidi Islands, the Alaska Peninsula, southcoastal Alaska, and SE Alaska (AOU 1998). Unalaschcensis rarely winters in Southeast Alaska. There are also records from Nunivak, Pribilof Islands, St. Lawrence Island, and Point Barrow in Alaska (Rising 1996, Garrett et al. 2000). Wintering range not as important to population in Alaska, so breeding range used for estimate.

Population Concentration (-10 to 10) -10

Does not concentrate.

Reproductive Potential

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

No information, but likely <2 years (Matsuoka, USFWS, personal communication).

Number of Young (-5 to 5) 1

Mean clutch size in Juneau 4.11 eggs (Rogers 1994).

Ecological Specialization

Dietary (-5 to 5) -5

During breeding season, feeds on arthropods, including insects, spiders, and mollusks. Also feeds on seeds, fruit, and plant matter (Linsdale 1928, Grinnell et al. 1930, Austin 1932).

Habitat (-5 to 5) 1

In Alaska, Iliaca inhabits alder and willow thickets in spruce forest, often in white spruce (Austin 1968a). Unalascensis occurs from beaches to timberline, preferring willow and blackberry thickets, and lush and brushy riparian vegetation (Linsdale 1928, Williamson and Peyton 1962, Austin 1968a).

Biological Total: -38

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 Needs (-10 to 10) 2

Managed and protected under the Migratory Bird Treaty Act.

Monitoring Needs (-10 to 10) 2

BBS data provides a significant trend, but BBS does not extend far enough north to cover statewide trend (Dunn et al. 2005).

Research Needs (-10 to 10) 10

Unknown (Matsuoka, USFWS, personal communication).

Survey Needs (-10 to 10) 2

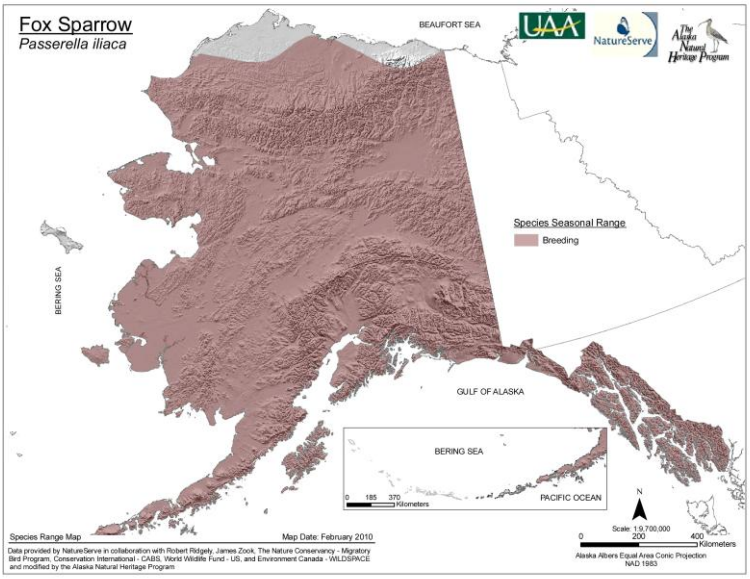
Distribution captured within a portion of their range by CBC (National Audubon Society 2002), BBS (USGS 2006), and most of their range by ALMS (USGS 2008a). Habitat associations studied in Southeast Alaska (Gibson and MacDonald 1975, Kessler 1979, Kessler and Kogut 1985), the interior (Spindler and Kessel 1980, Benson 1999, ABO 2000, Hannah et al. 2003), and detected during broad-scale montane and alpine nesting shorebird inventories implemented in 2001 in the Arctic and the southwest networks (Tibbitts et al. 2006, Ruthrauff et al. 2007).

Action Total: 16

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

Harvest:	None or Prohibited
Seasonal Occurrence:	Year-round
Taxonomic Significance:	Monotypic genus
% Global Range in Alaska:	>10%
% Global Population in Alaska:	>25%
Peripheral:	No

Range Map



References

Alaska Bird Observatory (ABO). 2000. National Park Service 2000 Passerine Report. Available online at http://www.alaskabird.org/ABOResearch/ABODenaliNPS2000.html (Accessed online 6/3/2008).

American Ornithologists' Union (AOU). 1998. Check-list of North American birds. Seventh edition. American Ornithologists' Union, Washington, D.C. 829 pp.

Austin, O. L. Jr. 1932. The birds of Newfoundland and Labrador. Mem. Nuttall Ornithol. Club no. 7.

Austin, O. L. Jr. 1968a. Fox Sparrow (various subspecies). Pp. 1392-1395, 1414-1434 in Life histories of North American cardinals, grosbeaks, buntings, towhees, finches, sparrows, and their allies (O. L. Austin, Jr. ed.) U. S. Nat. Mus. Bull. 237. Pt. 3.

Benson, A. 1999. Distribution of landbirds among habitats on the Tanana Flats and Yukon Maneuver Area Fort Wainwright, Alaska 1998. Prepared for USFWS, Region 7, Anchorage, AK.

Dunn, E. H., B. L. Altman, J. Bart, C. J. Beardsmore, H. Berlanga, P. J. Blancher, G. S. Butcher, D. W. Demarest, R. Dettmers, W. C. Hunter, E. E. Inigo-Elias, A. O. Panjabi. D. N. Pashely, C .J. Ralph, T. D. Rich, K. V. Rosenberg, C. M. Rustay, J. M. Rut

Garrett, K. L., J. L. Dunn, and R. Righter. 2000. Call notes and winter distribution in the Fox Sparrow complex. Birding 32:412-417.

Gibson, D. D. and S. O. MacDonald. 1975. Bird species and habitat inventory, mainland Southeast Alaska, summer 1974. Univ. Alaska Museum report to U.S. Forest Service, no. 01-248. 72 pp.

Grinnell, J., J. Dixon, and J. M. Linsdale. 1930. Vertebrate natural history of a section of northern California through the Lassen Peak region. University of Calif. Publ. Zool. 35:1-594.

Hall, E. R. 1981. The Mammals of North America, Vols. I & II. John Wiley & Sons, New York, New York. 1181 pp.

Hannah, K. C., A. R. Ajmi, and T. R. Walker. 2003. Distribution and abundance of landbirds in the Tanana Valley State Forest, Alaska 2002-2003. Alaska Bird Observatory, Fairbanks, AK.

Kessel, B. and D. D. Gibson. 1994. A century of avifaunal change in Alaska. Studies in Avian Biology 15:4-13.

Kessler, W. B. 1979. Bird population responses to clearcutting in the Tongass National Forest of Southeast Alaska. U.S.D.A. Forest Service, Tongass National Forest, Ketchikan, AK. Alaska Region report No. 71.

Kessler, W. B. and T. E. Kogut. 1985. Habitat orientations of forest birds in southeastern Alaska. Northwest Science 59:58-65.

Linsdale, J. M. 1928. Variation in the Fox Sparrow (Passerella iliaca) with reference to natural history and osteology. University of California Publ. Zool. 30:251-392.

Matsuoka, USFWS, personal communication

Matsuoka, S. and K. Paredieck. 2009. 2009 update on the North American Breeding Bird Survey, Alaska. USGS Patuxent Wildlife Research Center, Laurel, MD.

Migratory Bird Treaty Act (MBTA) of July 3, 1918, Ch. 128, 40 Stat. 755 (1918) (current version at 16 U.S.C. §§ 703-712).

National Audubon Society. 2002. The Christmas Bird Count Historical Results [Online]. Available http://www.audubon.org/bird/cbc [01/08]

NatureServe. 2007b. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available http://www.natureserve.org/explorer.

Rich, T. D., C. J. Beardmore, H. Berlanga, P. J. Blancher, M. S. W. Bradstreet, G. S. Butcher, D. W. Demarest, E. H. Dunn, W. C. Hunter, E. E. Inigo-Elias, J. A. Kennedy, A. M. Martell, A. O. Panjabi, D. N. Pashley, K. V. Rosenberg, C. M. Rustay, J. S. We

Rising, J. D. 1996. A guide to the identification and natural history of the sparrows of the United States and Canada. Academic Press, San Diego, CA.

Rogers, C. M. 1994. Avian nest success, brood parasitism and edge-independent reproduction in an Alaskan wetland. Journal Field Ornithology 65:433-586.

Ruthrauff, D., L. Tibbitts, B. Gill, and C. Handel. 2007. Inventory of montane-nesting birds in Katmai and Lake Clark National Parks and Preserves. Unpublished final report for National Park Service. USGS, Alaska Science Center, Anchorage, AK.

Spindler, M. A. and B. A. Kessel. 1980. Avian populations and habitat use in interior Alaska taiga. Syesis 13:61-104.

Tibbitts, T. L., D. R. Ruthrauff, R. E. Gill, Jr., and C. M. Handel. 2006. Inventory of montane-nesting birds in the Arctic Network of National Parks, Alaska. Arctic Network Inventory and Monitoring Program, USDI National Park Service. NPS/AKARCN/NRTR-200

U.S. Geological Survey (USGS). 2006. North American Breeding Bird Survey Internet data set. Patuxent Wildlife Research Center. 18 December 2006 (http://www.pwrc.usgs.gov/bbs/retrieval/)

U.S. Geological Survey (USGS). 2008a. Alaska Off-road Breeding Bird Survey: Database of Bird Distribution (ALMS). Available online at http://www.absc.usgs.gov/research/bpif/OBS/database/index.html. (Accessed 5/15/2008).

Williamson, F. L., and L. J. Peyton. 1962. Faunal relationships of birds in the Illiamna Lake area, Alaska. Biol. Pap. University of Alaska 5:56-58.

Version date: 12/21/2012

Report authors: K. Walton, T. Gotthardt, and T. Fields
Alaska Natural Heritage Program
University of Alaska Anchorage
Anchorage, AK 99501

For details on the development of the ASRS and criteria, please see: Gotthardt, T. A., K. M. Walton, and T. L. Fields. 2012. Setting Conservation Priorities for Alaska's Wildlife Action Plan. Alaska Natural Heritage Program, University of Alaska Anchorage, AK.