Swainson's Thrush

Catharus ustulatus

Class: Aves
Order: Passeriformes

Review Status: Peer-reviewed **Version Date:** 15 December 2017

Conservation Status

NatureServe:	*Agency:*		
G Rank: G5	ADF&G: Species of Greatest Conservation Need	IUCN: Least Concern	Audubon AK:
S Rank: S5B	USFWS:	BLM:	

Final Rank

Conservation category: **IX. Blue**

low status and low biological vulnerability and action need

Category	Range	Score
Status	-20 to 20	-6
Biological	-50 to 50	-39
Action	-40 to 40	0

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 in Alaska (-10 to 10) -6

Data from 2003 to 2015 reveal a significant, increasing trend in Northwest Interior and a stable trend in Southeast Alaska (Handel and Sauer 2017). Long-term data (1993-2015) indicate stable trends for both regions (Handel and Sauer 2017).

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

Uncertain, but >25,000 (Handel et al. 2009; PIF 2019).

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

Breeds throughout central Alaska from the southern Brooks Range to the Chugach Mountains (Mack and Yong 2000). Limited distribution south of the Chugach. Along the western coast, does not occur past treeline (Mack and Yong 2000). Estimated breeding range is ~842,000 sq. km, calculated in GIS and based on range map from ACCS (2017a).

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

Does not concentrate. Breeds in pairs. Solitary during the non-breeding season (Mack and Yong 2000).

Reproductive Potential in Alaska

Age of First Reproduction (-5 to 5) 0

Unknown. Assumed to start breeding in its second year, but data are unavailable (Mack and Yong 2000).

Number of Young (-5 to 5) 1

Typically 4 eggs per clutch with only one brood per year (Rogers 1994; Mack and Yong 2000).

Ecological Specialization in Alaska

Dietary (-5 to 5) -5

Omnivorous. Eats berries, insects, and spiders (Mack and Yong 2000). The proportion of animal versus vegetable matter in the diet changes seasonally (Mack and Yong 2000).

Habitat (-5 to 5) -5

Common in a range of forested habitats and stand ages (Gibson and MacDonald 1975; Quinlan 1978; Spindler and Kessel 1980; Cotter and Andres 2000a). In central Alaska, it has been reported from a variety of covered habitat types including coniferous, deciduous, and mixedwood forests, and shrub thickets (Spindler and Kessel 1980; Cotter and Andres 2000a), and in both upland and lowland habitats (Spindler and Kessel 1980; Handel et al. 2009). In southern Alaska, it has been detected in coniferous and deciduous forests and in both mature and successional forests (Gibson and MacDonald 1975; Kessler and Kogut 1985; DellaSala et al. 1996; Andres et al. 2004).

Biological Total: -39

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

Swainson's Thrush is often one of the most common species detected in forested habitats. As such, its distribution and habitat associations have been captured during multi-species bird surveys throughout most of its Alaskan range (see references in Habitat Specialization section; Matsuoka et al. 2001; Tibbitts et al. 2006; Ruthrauff et al. 2007; McIntyre et al. 2015). Additional research is needed to understand migration patterns and factors that may influence habitat use and nest site selection (e.g. interspecific competition; Spindler and Kessel 1980; Willson and Gende 2000).

Knowledge of Population Trends in Alaska (-10 to 10) -2

Monitored by the Breeding Bird Survey and the Alaska Landbird Monitoring Survey in northwestern interior and southeast Alaska. Data are adequate for assessing population trends (Handel and Sauer 2017) and surveys capture a large portion of this species' range.

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

Factors limiting this population in Alaska are unknown. Neither abundance nor daily survival rates appear to be affected by habitat fragmentation from logging practices (DellaSala et al. 1996; Lance and Howell 2000; Sperry et al. 2008). However, in the case of abundance, the effects of forest clearing on detection probability may confound results (Lance and Howell 2000) and should be taken

into account in future studies. The presence of an understory may be an important nesting requirement (Willson and Gende 2000; Matsuoka et al. 2001). Additional research is needed to determine the effects of climate change on population dynamics. Increased shrubification in interior Alaska may be contributing to population increases and range expansions (Mizel et al. 2016; Handel and Sauer 2017). Mean arrival date on breeding grounds in Denali National Park appears to have remained stable from 1995 to 2015, but certain individuals may be capable of adapting to changing spring conditions (Mizel et al. 2017). Lastly, the role of parasites on individual fitness and population dynamics is also unknown, but Deviche et al. (2001) found a very high prevalance (>80%) of blood parasites in Swainson's Thrush compared to other songbirds.

Action Total: 0

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

Harvest:	None or Prohibited
Seasonal Occurrence:	Breeding
Taxonomic Significance:	Monotypic species
% Global Range in Alaska:	>10%
% Global Population in Alaska:	25-74%
Peripheral:	No

References

Alaska Center for Conservation Science (ACCS). 2017a. Wildlife Data Portal. University of Alaska Anchorage. Available online: http://aknhp.uaa.alaska.edu/apps/wildlife

Andres, B. A., M. J. Stotts, and J. M. Stotts. 2004. Breeding birds of Research Natural Areas in southeastern Alaska. Northwestern Naturalist 85(3):95–103. DOI: 10.1898/1051-1733(2005)085[0095:BBORNA]2.0.CO;2

Cotter, P. A., and B. A. Andres. 2000a. Breeding bird habitat associations on the Alaska breeding bird survey. Information and Technology Report USGS/BRD/ITR- 2000-0010, Biological Resource Division, U.S. Geological Survey, Springfield, VA, USA.

Dellasala, D. A., J. C. Hagar, K. A. Engel, W. C. McComb, R. L. Fairbanks, and E. G. Campbell. 1996. Effects of silvicultural modifications of temperate rainforest on breeding and wintering bird communities, Prince of Wales Island, Southeast Alaska. The Condor 98(4):706–721. DOI: 10.2307/1369853

Deviche, P., E. C. Greiner, and X. Manteca. 2001. Interspecific variability of prevalence in blood parasites of adult passerine birds during the breeding season in Alaska. Journal of Wildlife Diseases 37(1):28-35. DOI: 10.7589/0090-3558-37.1.28

Gibson, D. D., and S. O. MacDonald. 1975. Bird species and habitat inventory, mainland Southeast Alaska, summer 1974. Contract Report 01-248 prepared for the U.S. Forest Service. University of Alaska Museum, Fairbanks, AK, USA.

Handel, C. M. and Sauer, J. R. 2017. Combined analysis of roadside and off-road breeding bird survey data to assess population change in Alaska. The Condor 119(3):557-575. DOI: 10.1650/CONDOR-17-67.1

Handel, C. M., S. A. Swanson, D. A. Nigro, and S. M. Matsuoka. 2009. Estimation of avian population sizes and species richness across a boreal landscape in Alaska. Wilson Journal of Ornithology 121(3):528–547.

Kessler, W. B., and T. E. Kogut. 1985. Habitat orientations of forest birds in southeastern Alaska. Northwest Science 59(1):58-65.

Lance, E. W., and S. Howell. 2000. Survey of songbirds during a spruce beetle (Dendroctonus rufipennis) outbreak on the Kenai Peninsula, Alaska. Northwestern Naturalist 81(1):1-10. DOI: 10.2307/3536893.

Mack, D. E., and W. Yong. 2000. Swainson's Thrush (Catharus ustulatus), version 2.0. In Rodewald, P. G. ed. The Birds of North America. Cornell Lab of Ornithology, Ithaca, NY, USA. DOI:10.2173/bna.540

Matsuoka, S. M., C. M. Handel, and D. R. Ruthrauff. 2001. Densities of breeding birds and changes in vegetation in an Alaskan boreal forest following a massive disturbance by spruce beetles. Canadian Journal of Zoology 79(9):1678–1690. DOI: 10.1139/cjz-79-9-1678

Migratory Bird Treaty Act (MBTA). 1918. U.S. Code Title 16 §§ 703-712 Migratory Bird Treaty Act.

McIntyre, C. L., J. Schmidt, M. Roed, J. C. Reppert, and M. D. Paulson. 2015. Monitoring passerine birds in the Central Alaska Monitoring Network: 2013 - 2014 annual progress report for the Central Alaska Vital Signs Monitoring Program. Natural Resource Data Series NPS/CAKN/NRDS—2015/964, National Park Service, Fort Collins, CO, USA.

Mizel, J. D., J. H. Schmidt, C. L. Mcintyre, and C. A. Roland. 2016. Rapidly shifting elevational distributions of passerine species parallel vegetation change in the subarctic. Ecosphere 7(3):e01264. DOI: 10.1002/ecs2.1264

Mizel, J. D., J. H. Schmidt, C. L. McIntyre, and M. S. Lindberg. 2017. Subarctic-breeding passerines exhibit phenological resilience to extreme spring conditions. Ecosphere 8(2):e01680. DOI: 10.1002/ecs2.1680

Partners in Flight (PIF). 2019. Population Estimates Database, version 3.0. Available online: http://pif.birdconservancy.org/PopEstimates. Accessed 09-April-2019.

Quinlan, S. E. 1978. Bird communities and white spruce succession on the Kenai Peninsula, Alaska. Unpublished report. U.S. Department of Agriculture Forest Service, Chugach National Forest, Seward, AK, USA.

Rogers, C. M. 1994. Avian nest success, brood parasitism and edge-independent reproduction in an Alaskan wetland. Journal of Field Ornithology 65(4):433–440.

Ruthrauff, D. R., T. L. Tibbitts, R. E. Gill, and C. M. Handel. 2007. Inventory of montane-nesting birds in Katmai and Lake Clark National Parks and Preserves. Report NPS/AKRSWAN/NRTR-2007/02, U.S. Geological Survey Alaska Science Center, Anchorage, AK, USA.

Sperry, D. M., M. Kissling, and T. L. George. 2008. Avian nest survival in coastal forested buffer strips on Prince of Wales Island, Alaska. The Condor 110(4):740-746. DOI: 10.1525/cond.2008.8601

Spindler, M. A., and B. Kessel. 1980. Avian populations and habitat use in interior Alaska taiga. Final report, University of Alaska Museum, Fairbanks, AK, USA.

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. Report NPS/AKARCN/NRTR-2006/02/, Arctic Network Inventory and Monitoring Program, National Park Service, Alaska Region, Fairbanks, AK, USA.

Willson, M. F., and S. M. Gende. 2000. Nesting success of forest birds in Southeast Alaska and adjacent Canada. The Condor 102:314–325.

Alaska Center for Conservation Science
Alaska Natural Heritage Program
University of Alaska Anchorage
Anchorage, AK