

Red-breasted Sapsucker*Sphyrapicus ruber*

Class: Aves

Order: Piciformes

Conservation Status

NatureServe: Agency:

G Rank: G5

BLM:

IUCN: Least Concern

Audubon AK:

S Rank: S5B

USFWS:

ADF&G: Species of Greatest Conservation Need

| Final Rank | | |
|--|--------------|--------------|
| Conservation category: IX. Blue | | |
| IX = low status and low biological vulnerability and action need | | |
| <u>Category</u> | <u>Range</u> | <u>Score</u> |
| Status: | -20 to 20 | -10 |
| Biological: | -50 to 50 | -19 |
| Action: | -40 to 40 | -8 |
| 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 |
|---|--------------|
| <i>Population Trend (-10 to 10)</i> | -10 |
| Both short-term (2003-2015) and long-term (1993-2015) trends point to an increasing population in Alaska (Handel and Sauer 2017). | |
| <i>Distribution Trend (-10 to 10)</i> | 0 |
| Unknown. | |
| Status Total: | -10 |

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 |
|--|--------------|
| <i>Population Size (-10 to 10)</i> | -10 |
| Uncertain, but >25,000. PIF (2019) estimates population size in Alaska at 860,000 birds (95% CI: 400,000 to 1.5 million). | |
| <i>Range Size (-10 to 10)</i> | -2 |
| Breeds on islands and mainland of southeast Alaska (Willett 1928; Dellasala et al. 1996; Armstrong 2008; Walters et al. 2014). Causal in southcentral and southcoastal Alaska (Armstrong 2008; MacIntosh 2009). While some individuals may remain on breeding grounds year-round, most of the population overwinters further south (Willett 1928; Walters et al. 2014; G. Baluss, USFS, pers. comm.) and we therefore consider this species as occurring in Alaska only during the breeding season. Estimated range size is 42,000 sq. km, based on range map from ACCS (2017a). | |
| <i>Population Concentration (-10 to 10)</i> | -10 |
| Does not concentrate. | |
| <i>Reproductive Potential</i> | |
| <u>Age of First Reproduction (-5 to 5)</u> | -4 |

Unknown. Suspected to be one year like the red-naped sapsucker (*Sphyrapicus nuchalis*), but some individuals may not breed until they are 2 years old (Walters et al. 2014). We rank this question as 0.5 * D + 0.5 * C.

Number of Young (-5 to 5) 1

Females lay one clutch per year, usually containing 4 or 5 eggs (Walters et al. 2014). A replacement clutch may be laid if the first one fails (Walters et al. 2014).

Ecological Specialization

Dietary (-5 to 5) 1

Consumes tree sap, bark, and cambium, as well as invertebrates, seeds, and berries (Andres 1999b; Walters et al. 2014).

Habitat (-5 to 5) 5

Typically associated with coniferous, old-growth forest stands and edges (Dellasala et al. 1996; Cotter and Andres 2000a; Wagner 2011). Although they may forage in a variety of forest habitats, including logged forests (Kissling and Garton 2008; Mahon et al. 2008; USFS 2008), the presence of large-diameter, soft or rotting trees is required for nesting (Kissling and Garton 2008; USFS 2008). Nest cavities are usually excavated in dead or dying trees (Joy 2000; Wagner 2011), though live softwood may be used in some areas (Mahon et al. 2008).

Biological Total: -19

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 (-10 to 10) 2

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

Knowledge of Distribution and Habitat (-10 to 10) -10

Distribution is well-known through multi-species bird surveys (e.g. BBS and ALMS; Cotter and Andres 2000a; Andres et al. 2004). Habitat associations, including nest site selection, have been described (Suring 1988 qtd. in Wagner 2011; Dellasala et al. 1996; Kissling and Garton 2008; Wagner 2011).

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

Survey data are adequate to detect trends across this species' breeding range in Alaska (Handel and Sauer 2017).

Knowledge of Factors Limiting Populations (-10 to 10) 2

Given this species' specific habitat associations, the availability of suitable nesting habitat likely limits its populations. Indeed, the red-breasted sapsucker requires habitat features that are specific to mature forests (USFS 2008; Wagner 2011; see Habitat section) and is sensitive to loss and fragmentation of old-growth forests (Dellasala et al. 1996; Andres 1999b; Kissling and Garton 2008; USFS 2008). Data on the closely related red-naped sapsucker have documented high nest success and high adult survival rates (Martin 1995; Walters and Miller 2001; Sadoti and Vierling 2010). Fewer data are available for *S. rubrus*, but Willson and Gende (2000) found that at least one fledgling hatched (100% nest success) for all 31 nests that they monitored; this rate was the highest of all species included in their study.

Action Total: -8

Supplemental Information - variables do not receive numerical scores. Instead, they that 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. 1999b. Landbird conservation plan for Alaska biogeographic regions. Version 1.0. Boreal Partners in Flight Working Group. U.S. Fish and Wildlife Service, Anchorage, AK, USA.

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

Armstrong, R. H. 2008. Guide to the birds of Alaska, 5th edition. Alaska Northwest Books, Anchorage, AK, USA.

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 C

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

Joy, J. B. 2000. Characteristics of nest cavities and nest trees of the red-breasted sapsucker in coastal montane forests. *Journal of Field Ornithology* 71(3):525–530. DOI: 10.1648/0273-8570-71.3.525

Kissling, M. L., and E. O. Garton. 2008. Forested buffer strips and breeding bird communities in southeast Alaska. *Journal of Wildlife Management* 72(3):674-681.

MacIntosh, R., ed. 2009. Kodiak National Wildlife Refuge and the Kodiak Archipelago birds. Unpublished report, U.S. Fish and Wildlife Service, Kodiak National Wildlife Refuge, Kodiak, AK, USA. Available online: https://www.fws.gov/uploadedFiles/Region_7/N

Mahon, C. L., J. D. Steventon, and K. Martin. 2008. Cavity and bark nesting bird response to partial cutting in Northern conifer forests. *Forest Ecology and Management* 256(12):2145–2153. DOI: 10.1016/j.foreco.2008.08.005

Martin, T. E. 1995. Avian life history evolution in relation to nest sites, nest predation, and food. *Ecological Monographs* 65(1):101–127. DOI: 10.2307/2937160

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

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

Sadoti, G., and K. T. Vierling. 2010. Nonideal habitat selection by a North American cavity excavator: Pecking up the wrong tree? *Canadian Journal of Zoology* 88(6):527–535. DOI: 10.1139/Z10-025

U.S. Forest Service (USFS). 2008. Tongass land and resource management plan. Final Environmental Impact Statement. Record of Decision R10-MB-603a, U.S. Forest Service Alaska Region, Anchorage, AK, USA.

Wagner, M. A. 2011. Habitat selection by red-breasted sapsucker (*Sphyrapicus ruber*) in southeast Alaska old-growth forest. MSc thesis, Humboldt State University, Arcata, CA, USA.

Walters, E. L., and E. H. Miller. 2001. Predation on nesting woodpeckers in British Columbia. *Canadian Field-Naturalist* 115(3):413–419.

Walters, E. L., E. H. Miller, and P. E. Lowther. 2014. Red-breasted Sapsucker (*Sphyrapicus ruber*), version 2.0. In Poole, A. F., ed. *The Birds of North America*. Cornell Lab of Ornithology, Ithaca, NY, USA.

Willett, G. 1928. Notes on some birds of southeastern Alaska. *The Auk* 45(4):445–449. DOI: 10.2307/4075631

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

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