

Golden-crowned Kinglet

Regulus satrapa

Class: Aves
Order: Passeriformes

Conservation Status

NatureServe: Agency:

G Rank: G5 BLM: IUCN: Least Concern Audubon AK:
S Rank: S4S5 USFWS: ADF&G: Species of Greatest Conservation Need

Final Rank		
Conservation category: V. Orange		
V = 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	-25
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
<i>Population Trend (-10 to 10)</i>	0
Unknown. Short-term (2003-2015) data are unavailable for interior Alaska (Handel and Sauer 2017). Short-term data for southeast Alaska vary depending on survey type: off-road surveys indicate a declining trend, while trends from the Breeding Bird Survey (BBS) are stable (Handel and Sauer 2017). Long-term data (1993-2015) indicate a positive trend for interior Alaska and a stable trend for Southeast (Handel and Sauer 2017). We rank this question as Unknown given different trends between regions and survey types.	
<i>Distribution Trend (-10 to 10)</i>	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
<i>Population Size (-10 to 10)</i>	-10
>25,000. PIF (2019) estimate a population of 13 million birds in Alaska (95% CI: 5.9 million to 25 million).	
<i>Range Size (-10 to 10)</i>	-8
Two subspecies described for Alaska. <i>Regulus satrapa apache</i> is found from the Alaska Peninsula east to Kodiak Island, the Kenai Peninsula, and southcentral Alaska (Swanson et al. 2012; Gibson and Withrow 2015). Rare in central Alaska north to Fairbanks and Denali National Park (Benson et al. 2000; Phillips et al. 2017). <i>R. s. olivaceus</i> occurs in southeast Alaska (Gibson and Withrow 2015). Both subspecies reside in Alaska year-round. Combined range is ~260,000 sq. km calculated in GIS and based on range maps 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>	0
Unknown.	
<u>Number of Young (-5 to 5)</u>	1
5 to 10 eggs per clutch (Gabrielson and Lincoln 1959; Swanson et al. 2012). Elsewhere in North America, females typically lay two clutches per year (Swanson et al. 2012); however, it is unknown whether two clutches are also produced at the northern edge of its range. We tentatively rank this question as C- 3 to 9 eggs.	
<i>Ecological Specialization</i>	
<u>Dietary (-5 to 5)</u>	1
Few data available for Alaska. Elsewhere in its range, consumes a variety of small invertebrates such as spiders, beetles, ants, and caterpillars (Swanson et al. 2012). Forages by gleaning prey from leaves and bark (Swanson et al. 2012). Because invertebrates are an ephemeral and potentially unpredictable food source, we rank this question as B- Moderately adaptable with key requirements common.	
<u>Habitat (-5 to 5)</u>	1
In southeast Alaska, associated with coniferous and conifer-dominated forests from a range of elevations (Cotter and Andres 2000a; Andres et al. 2004; Heint and Piston 2009). Common in old-growth forests (Kessler and Kogut 1985; Dellasalla et al. 1996), though scientists have also recorded high abundances in younger forest stands (Kessler and Kogut 1985; Andres et al. 2004; Kissling and Garton 2008). On the Kenai Peninsula, largely restricted to coniferous forests, though some individuals were detected in tall shrub and riparian habitats (Van Hemert et al. 2006). Nests are constructed on branches of spruce trees (Matsuoka and Handel 2007; Swanson et al. 2012).	
Biological Total:	-25

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**

<i>Management Plans and Regulations (-10 to 10)</i>	2
Managed and protected under the Migratory Bird Treaty Act.	
<i>Knowledge of Distribution and Habitat (-10 to 10)</i>	2
Broad habitat associations and distribution have been described for the core of its range in southeast Alaska (see references in Habitat section). Additional data are needed on habitat and distribution elsewhere in Alaska, where this species is irregularly detected (Isleib and Kessel 1973; Van Hemert et al. 2006; Ruthrauff et al. 2007; Phillips et al. 2017). Subspecies boundaries are not well-known.	
<i>Knowledge of Population Trends (-10 to 10)</i>	2
Data vary between region and survey type and are inadequate for detecting statewide trends (Handel and Sauer 2017).	
<i>Knowledge of Factors Limiting Populations (-10 to 10)</i>	10
Very little is known about the ecology of this species in Alaska. Severe winters may cause high mortalities and local population crashes (Corcoran et al. 2014), but few data are available. Additional data are also needed to determine the impacts of logging and spruce bark beetle infestations on habitat availability (Lance and Howell 2000; Collins et al. 2001; Kissling and Garton 2008; Swanson et al. 2012). Information on reproductive and survival rates are unknown.	
Action Total:	16

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:	Year-round
Taxonomic Significance:	Monotypic species
% Global Range in Alaska:	<10%
% Global Population in Alaska:	<25%
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
- Benson, A. M., T. H. Pogson, and T. J. Doyle. 2000. Updated geographic distribution of eight passerine species in central Alaska. *Western Birds* 31:100–105.
- Collins, W. B., D. Williams, and T. Trapp. 2001. Spruce beetle effects on wildlife, 1 July 1997-30 June 2001. Federal aid in wildlife restoration research final performance report, grants W-27-1 through W-27-4, study 1.53, Division of Wildlife Conservatio
- Corcoran, R., C. Trussell, and R. MacIntosh. 2014. Monitoring Avian Productivity and Survivorship on Kodiak Island, Alaska, 2010-2014. Refuge report 2014.7, Kodiak National Wildlife Refuge, U.S. Fish and Wildlife Service, Kodiak, 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
- Gabrielson, I. N., and F. C. Lincoln. 1959. *The Birds of Alaska*. The Stackpole Company, Harrisburg, PA, USA.
- Gibson, D. D., and J. J. Withrow. 2015. Inventory of the species and subspecies of Alaska birds, second edition. *Western Birds* 46(2):94–185.
- 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
- Heinl, S. C., and A. W. Piston. 2009. Birds of the Ketchikan area, southeast Alaska. *Western Birds* 40(2):54–144.
- Isleib, M. E., and B. Kessel. 1973. Birds of the north Gulf Coast- Prince William Sound region, Alaska. *Biological Papers of the University of Alaska* no. 14. University of Alaska Fairbanks, AK, USA.
- Kessler, W. B., and T. E. Kogut. 1985. Habitat orientations of forest birds in southeastern Alaska. *Northwest Science* 59(1):58-65.
- 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.
- 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.
- Matsuoka, S. M., and C. M. Handel. 2007. Nesting ecology of boreal forest birds following a massive outbreak of spruce beetles. *Journal of Wildlife Management* 71(1):51–63. DOI: 10.2193/2005-460

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

Phillips, L. M., C. L. McIntyre, J. D. Mizel, E. J. Williams, and G. M. Colligan. 2017. Monitoring passerine birds in the Central Alaska Network. Report NPS/CAKN/NRRS—2017/1478, National Park Service, Fort Collins, CO, USA.

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

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, U

Swanson, D. L., J. L. Ingold, and R. Galati. 2012. Golden-crowned Kinglet (*Regulus satrapa*), version 2.0. In Poole, A. F., ed. *The Birds of North America*. Cornell Lab of Ornithology, Ithaca, NY, USA. DOI: 10.2173/bna.301

Van Hemert, C., C. M. Handel, M. N. Cady, and J. Terenzi. 2006. Summer inventory of landbirds in Kenai Fjords National Park. Final report NPS/AKRSWAN/NRTR-2006/04, U.S. Geological Survey, Alaska Science Center, Anchorage, AK, USA.

Review status: Peer-reviewed

Version date: 19 May 2019

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