

# Pacific Wren

*Troglodytes pacificus*

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: S5      USFWS:      BLM:

<b>Final Rank</b>		
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	-36
Action	-40 to 40	4
<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

Uncertain. Data from 2003 to 2015 in southeast Alaska indicate a slight, but non-significant, negative trend (Handel and Sauer 2017). Long-term data (1993-2015) are stable (Handel and Sauer 2017). No data are available for populations in southwest Alaska.

*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)*

-10

Uncertain, but >25,000 (PIF 2019).

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

-8

Year-round coastal resident from southeast Alaska to southwest Alaska, including Kodiak Island, the Alaska Peninsula, the western Aleutian Islands, and the Pribilof Islands (Toews and Irving 2012). Estimated range size is ~200,000 sq. km, calculated in GIS and based on range maps from ACCS (2017a).

<i>Population Concentration in Alaska (-10 to 10)</i>	-10
Does not concentrate (Toews and Irving 2012).	
<i>Reproductive Potential in Alaska</i>	
<u>Age of First Reproduction (-5 to 5)</u>	-5
Uncertain. Assumed to breed in their second year like other North American wren species, but data on the Pacific wren are unavailable (Toews and Irving 2012).	
<u>Number of Young (-5 to 5)</u>	1
Data are limited for Alaska, but average clutch sizes of 5.6 and 7 eggs have been reported (Toews and Irwin 2012). Some females on St. George Island laid two clutches in one season (Heath 1920) and multiple clutches have been reported elsewhere (Toews and Irwin 2012). Additional data are needed to determine how common it is for females to lay multiple broods in Alaska.	
<i>Ecological Specialization in Alaska</i>	
<u>Dietary (-5 to 5)</u>	-5
Eats invertebrates, especially insects, spiders, and amphipods (Toews and Irwin 2012). Diet appears to change seasonally with availability. Toews and Irwin (2012) considers this species as "opportunistic or weakly selective".	
<u>Habitat (-5 to 5)</u>	1
In Alaska, mainland populations are frequently associated with water (e.g. streams, lakes, bogs) and mature forests (K. Christie, ADF&G, pers. comm.), though they have been reported from a variety of forested habitats (Kessler and Kogut 1985; Cotter and Andres 2000a). Dead wood, cliff cavities, or understory cavities (e.g. under moss and roots) appear to be an important aspect of breeding habitat for mainland and island populations (Heath 1920; De Santo et al. 2003; Andres et al. 2004; Gibson and Byrd 2007; Toews and Irving 2012).	
<b>Biological Total:</b>	-36

**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 in Alaska (-10 to 10)</i>	2
Protected under the Migratory Bird Treaty Act (MBTA 1918).	
<i>Knowledge of Distribution and Habitat in Alaska (-10 to 10)</i>	-10
Distirbution and habitat associations described for mainland and island populations through multi-species bird surveys (e.g. Kessler and Kogut 1985; Dellasala et al. 1996; Andres et al. 2004; Gibson and Byrd 2007) and specific habitat studies (Waterhouse 1998; De Santo et al. 2003).	
<i>Knowledge of Population Trends in Alaska (-10 to 10)</i>	2
Monitored in parts of its range by the Breeding Bird Survey and the Alaska Landbird Monitoring Survey. These data allowed population trends to be assessed for this region (Handel and Sauer 2017). Very few data are available for southcentral and southwest Alaska, which is home to many endemic subspecies (but see Corcoran et al. 2014 for Kodiak Island).	
<i>Knowledge of Factors Limiting Populations in Alaska (-10 to 10)</i>	10
Little is known about the factors that limit populations of Pacific wrens in Alaska. Island subspecies may be especially vulnerable because of low genetic diversity, low connectivity to mainland populations, environmental stochasticity, and non-native mammalian predators (Croll et al. 2016; Pruett et al. 2017). Predators such as rats and foxes may influence nest site selection (Gibson and	

Byrd 2007). After rats were eradicated from Hawadax Island, the abundance of Pacific wrens increased slightly, though this difference was not statistically significant (Croll et al. 2016). Several studies have measured nest success in southeast Alaska (reviewed in Sperry et al. 2008). Nest success was generally high in all of these studies, though predation was an important mortality factor at some sites (De Santo et al. 2003).

Action Total: 4

**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>	Year-round
<b>Taxonomic Significance:</b>	Monotypic species
<b>% Global Range in Alaska:</b>	<10%
<b>% Global Population in Alaska:</b>	25-74%
<b>Peripheral:</b>	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
- 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.
- Croll, D. A., K. M. Newton, M. McKown, N. Holmes, J. C. Williams, ..., and B. R. Tershy. 2016. Passive recovery of an island bird community after rodent eradication. *Biological Invasions* 18(3):703-715. DOI: 10.1007/s10530-015-1042-9
- De Santo, T., M. Wilson, K. Bartecchi, and J. Weinstein. 2003. Variation in nest sites, nesting success, territory size, and frequency of polygyny in winter wrens in northern temperate coniferous forests. *The Wilson Bulletin* 115(1):29-37. DOI: 10.1676/01-129
- 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
- Gibson, D. D., and G. V. Byrd. 2007. *Birds of the Aleutian Islands, Alaska*. Nuttall Ornithological Club, Cambridge, MA, 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
- Heath, H. 1920. The nesting habits of the Alaska wren. *The Condor* 22(2):49-55. DOI: 10.2307/1362421
- Kessler, W. B., and T. E. Kogut. 1985. Habitat orientations of forest birds in southeastern Alaska. *Northwest Science* 59(1):58-65.
- 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.

Pruett, C. L., A. Ricono, C. Sperrin, and K. Winker. 2017. Island life and isolation: The population genetics of Pacific wrens on the North Pacific Rim. *The Condor* 119(1):131-142. DOI: 10.1650/CONDOR-16-183.1

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

Toews, D. P. L., and D. E. Irwin. 2012. Pacific Wren (*Troglodytes pacificus*), version 2.0. In Rodewald, P. G., ed. *The Birds of North America*. Cornell Lab of Ornithology, Ithaca, NY, USA. Available online: <https://birdsna.org/Species-Account/bna/species/pacwre1>

Waterhouse, F. L. 1998. Habitat of winter wrens in riparian and upland areas of coastal forests. MSc thesis, Simon Fraser University, Vancouver, BC, CAN.

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