

MacGillivray's Warbler

Geothlypis tolmiei

Class: Aves

Order: Passeriformes

Review Status: Reviewed (general)

Version Date: 13 June 2022

Conservation Status

Table 1 Conservation status according to state, national, and international organizations and agencies.

Organization	Rank
NatureServe	G5/S4
ADF&G	Species of Greatest Conservation Need
IUCN	Least Concern

Final Rank

Conservation Category: **IV. Orange**

Unknown status and high biological vulnerability and action need

Table 2 ASRS categorical scores. Higher numerical scores denote greater concern.

Category	Range	Score
Status	-20 to 20	0
Biological	-50 to 50	-9
Action	-40 to 40	24

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).

Population Trend in Alaska (-10 to 10)

Trend estimates for Alaska using data from the Breeding Bird Survey (1993-2014) are highly uncertain(-3.6% change per year, 95% CI: -11.0, 3.2) and this species is considered "poorly monitored" (Sauer et al. 2017). We therefore rank this question as 0- Unknown.

Score: 0

Distribution Trend in Alaska (-10 to 10)

Unknown.

Score: 0

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).

Population Size in Alaska (-10 to 10)

PIF (2019) estimates the Alaska population to be 97,000. Statistical uncertainty, however, is very high (95% CI: 1,300-330,000) and mean estimates are somewhat at odds with descriptions of this bird as "rare" or "uncommon" in several parts of its relatively small range (Walsh 1993; Armstrong 2008; Heint and Piston 2009). Because estimates span three scoring categories, we rank this question as 0- Unknown.

Score: 0

Range Size in Alaska (-10 to 10)

Breeds on the mainland and some islands of Southeast Alaska e.g., Revillagigedo Island, Mitkof Island (Walsh 1993; Johnson et al. 2008b; Heint and Piston 2009; Pitocchelli 2013). Overwinters in southern Mexico and Central America. Size of breeding range is estimated at 86,000 sq. km, based on map from ACCS (2017a).

Score: -2

Population Concentration in Alaska (-10 to 10)

Does not concentrate.

Score: -10

Reproductive Potential in Alaska

Age of First Reproduction (-5 to 5)

Unknown.

Score: 0

Number of Young (-5 to 5)

Limited data available. Clutch sizes ranges from 2 to 6, with a mean of 4 (Pitocchelli 2013). Females lay a single clutch per year.

Score: 1

Ecological Specialization in Alaska

Dietary (-5 to 5)

Little data available. Feeds on insects from various orders including true bugs (Hemiptera), beetles (Coleoptera), bees, wasps, and ants (Hymenoptera), which it finds by gleaning on the ground and in trees and shrubs (Pitocchelli 2013). Because invertebrates are an ephemeral and potentially unpredictable food source (e.g. Nebel et al. 2010), we rank this question as B- Moderately adaptable with key requirements common.

Score: 1

Habitat (-5 to 5)

Found in shrub thickets and in mixedwood and deciduous forests with dense shrub understory (Armstrong 2008; Johnson et al. 2008b; Heint and Piston 2009). Often found at the edges of shrub habitat adjacent to wet meadows, freshwater and estuarine marshes, rivers, and clearcuts (Johnson et al. 2008b; Heint and Piston 2009). Considered a riparian dependent species, though this association may be more important in the southern edge of its breeding range (i.e., the American Southwest) where wet areas are scarce (Pitocchelli 2013). Nests are placed on the ground or very close to it within clumps of vegetation (Armstrong 2008; Pitocchelli 2013).

Score: 1

Biological Total: -9

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 to lack of knowledge or conservation action. Action scores range from -40 (lower needs) to 40 (greater needs).

Management Plans and Regulations in Alaska (-10 to 10)

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

Score: 2

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

Knowledge of distribution and habitat associations is very general and is based on only a handful of multi-species bird surveys where this species was detected (see citations in Habitat Specialization). Very little is known about this species' distribution on islands in Southeast Alaska. Observations outside of the breeding season and outside of its known range point to important gaps about this species' migration patterns and extent of its movements in Alaska (e.g., Isleib and Kessel 1973; Heint 2018).

Score: 10

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

Although this species is monitored in Alaska as part of the Breeding Bird Survey, it is considered "poorly monitored" and data are inadequate for detecting trends with a high level of confidence (Sauer et al. 2017).

Score: 2

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

Little is known about the ecology of this species and the factors that limit its population and distribution in Alaska. Possible limiting factors include environmental pollution and changes in shrub and riparian habitats from large herbivores (e.g., following the reintroduction of elk and moose), residential development, agriculture, and climate change (Pitocchelli 2013). Certain logging practices and other industrial developments may benefit this species by creating additional edge habitat and promoting the growth of shrubs and young forests with dense undergrowth (Pitocchelli 2013).

Score: 10

Action Total: 24

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%

Peripheral: No

References

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