Bank Swallow Class: Aves

Riparia riparia

Review Status: Peer-reviewed **Version Date:** 29 January 2018

Conservation Status

NatureServe: Agency:

G Rank: G5 ADF&G: Species of Greatest Conservation Need IUCN: Least Concern Audubon AK: Red

Order: Passeriformes

S Rank: S5B USFWS: BLM: Watch

Final Rank				
Conservation category: II. Red high status and either high biological vulnerability or high action need				
9	Category	Range	Score	
;	Status	-20 to 20	16	
· ·	Biological	-50 to 50	-32	
	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		
Population Trend in Alaska (-10 to 10)			
Data from the Breeding Bird Survey in Alaska indicate significant, long-term declines from 1993-2015 (Handel and Sauer 2017). Data are inadequate for detecting 10-year trends. The Bank Swallow has experienced similar, long-term declines across its North American range (COSEWIC 2013c; Handel and Sauer 2017).	7		
Distribution Trend in Alaska (-10 to 10)	6		
Suspected to be decreasing; boreal wetlands and lakes in Alaska are shrinking and drying out due to climate change (Handel and Sauer 2017 and references therein).			
Status To	tal: 16		
Biological - variables measure aspects of a taxon's distribution, abundance and life history. Higher biological scores suggesting greater vulnerability to extirpation. Biological scores range from -50 (least vulnerable) to 50 (most vulnerable).			
Population Size in Alaska (-10 to 10)	-10		
>25,000. PIF (2019) estimates a population size of 1.2 million individuals, although this estimate is highly uncertain (95% CI: 560,000-2,100,000).			
Range Size in Alaska (-10 to 10)	-10		
Breeds primarily from central Alaska south to Kodiak Island and west to the Alaska Peninsula and the eastern Aleutians (Kessel and Gibson 1978). Rare in southeastern Alaska (Kessel and Gibson			

1978). Overwintering distribution is unknown for Alaskan populations, but studies on other populations in Canada and in the contiguous U.S. suggest that Bank Swallows in Alaska overwinter in South America, Central America, or Mexico (COSEWIC 2013c; Garrison and Turner 2020). Breeding range is estimated to cover ~984,830 sq. km, calculated in GIS and based on range map from ACCS (2017a).

Population Concentration in Alaska (-10 to 10)

-10

Highly colonial. Colonies may consist of up to 1,500 nesting pairs (Garrison and Turner 2020). Given estimated population size and range, we assume that there are >250 colonies/sites in Alaska.

Reproductive Potential in Alaska

Age of First Reproduction (-5 to 5)

-5

Females attain sexual maturity within their first year (Garrison and Turner 2020).

Number of Young (-5 to 5)

1

Average clutch size is usually between 4 to 5 eggs (Garrison and Turner 2020). Near Eielson Air Force Base in interior Alaska, mean clutch size was 4.09 eggs (SD = 0.78, n=242; Hickman 1979). Once they attain sexual maturity, females breed annually and lay a single clutch per summer; they can lay a replacement clutch if the first one is lost early in the season (Garrison and Turner 2020).

Ecological Specialization in Alaska

<u>Dietary (-5 to 5)</u>

- 1

Little information available for Alaska. Based on studies elsewhere, diet consists almost exclusively of flying insects, including Hymenoptera, Diptera, and Coleoptera (Garrison and Turner 2020). 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.

Habitat (-5 to 5)

1

Nests in colonies on alluvial soil on cliffs, bluffs, or on cut-banks along rivers (Johnson et al. 2008b; Garrison and Turner 2020). In Europe, Bank Swallows preferentially excavate nests in sand with fine- or medium-sized grains (Heneberg 2001; Lind et al. 2002). Nest sites can be highly unstable from one year to the next and are prone to disturbance e.g. flooding, erosion (Garrison and Turner 2020). Forages near colonies in a variety of open habitats such as salt marshes, wetlands, and grasslands (COSEWIC 2013c; Saldanha 2016).

Biological Total: -32

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)

2

Some knowledge of distribution and broad habitat associations captured mostly by multi-species surveys (Bailey 1974; Gibson and MacDonald 1975; Spindler and Kessel 1980; Johnson et al. 2008b; Savage and Johnson 2013; Handel and Sauer 2017). Species-specific studies have been conducted in interior Alaska near Fairbanks (Hickman 1979). No knowledge of migration routes or wintering distribution.

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

2

Monitored by the Breeding Bird Survey and the Alaska Landbird Monitoring Survey across part of its range. Data are adequate for assessing long-term (20-year) trends only (Handel and Sauer 2017).

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

10

Little is known about the factors that limit bank swallow populations or the reasons behind their decline in Alaska or elsewhere in North America. Potential factors include: 1) decline in the availability of flying insects, 2) loss of habitat on breeding grounds from human activities e.g. agricultural intensification, flood and erosion control, and 3) changes in climate or extreme weather events leading to decreased survival or reproductive success (Nebel et al. 2010; COSEWIC 2013c; Garrison and Turner 2020).

Action Total: 16

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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