# **Belted Kingfisher**

Megaceryle alcyon

Class: Aves

Order: Coraciiformes

Review Status: Peer-reviewed Version Date: 31 August 2020

### **Conservation Status**

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

Organization	Rank	
NatureServe	G5/S5	
ADF&G	Species of Greatest Conservation Need	
IUCN	Least Concern	
Audubon AK	Watch	

## **Final Rank**

Conservation Category: VII. Yellow

Low status and either high biological vulnerability or high action need

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

Category	Range	Score
Status	-20 to 20	-6
Biological	-50 to 50	-30
Action	-40 to 40	16

#### **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)

Long-term data (1993-2015) suggest stable trends within two of Alaska's Bird Conservation Regions: the Northwestern Interior Forest and the Northern Pacific Rainforest (Handel and Sauer 2017).

Score: -6

### Distribution Trend in Alaska (-10 to 10)

Unknown.

Score: 0

Status Total: -6

## **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 an Alaska population size of 220,000 (95% CI: 120,000-360,000).

Score: -10

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

During the breeding season, occurs throughout the state except for north of the Brooks Range (Kelly et al. 2020). Year-round range is more restricted: Belted Kingfisher occurs in Southeast and southcentral Alaska, and on the Aleutian Islands (Kelly et al. 2020). Estimated year-round range is 250,700 sq. km, based on range map from ACCS (2017a).

Score: -8

### Population Concentration in Alaska (-10 to 10)

Does not concentrate (Kelly et al. 2020).

Score: -10

## Reproductive Potential in Alaska

Age of First Reproduction (-5 to 5)

Unknown in Alaska. Elsewhere in North America, it produces at 1 year (Kelly et al. 2020).

Score: -5

Number of Young (-5 to 5)

Little data exist for Alaska. Elsewhere in North America, clutch size ranges from 5-8 eggs (Gabrielson and Lincoln 1959; Hamas 1975; Kelly et al. 2020).

Score: 1

## Ecological Specialization in Alaska

*Dietary (-5 to 5)* 

Consumes salt- and freshwater fish. Clear water and access to prey near the surface of the water are important for hunting success (Kelly et al. 2020). Other diet items include mollusks, crustaceans, small birds, and insects (Gabrielson and Lincoln 1959; Kelly et al. 2020).

Score: 1

#### Habitat (-5 to 5)

Excavates nesting burrow in fine soil, clay, sandy, or gravelly banks near lakes, streams, rivers, ponds, and tidewater edges (Gabrielson and Lincoln 1959; Petersen et al. 1991; Gibson and Byrd 2007; Armstrong 2008), usually near favorable fishing grounds (Gabrielson and Lincoln 1959; Kelly *et al.* 2020).

Score: 1

Biological Total: -30

### **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 habitat association and distribution is limited to general descriptions (Kessler and Kogut 1985; Petersen et al. 1991; Sauer et al. 2013).

Score: 2

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

Although monitored along Breeding Bird Survey routes, much of its range is not covered by these efforts. Within monitored areas, data are too limited to detect 10-year trends (Handel and Sauer 2017).

Score: 2

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

Little is known about the ecology of this species or the factors that limit its population dynamics in Alaska. Elsewhere in its range, populations may be limited by the availability of nest sites and by young-of-the-year mortality (Kelly et al. 2020).

Score: 10

**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: 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
- Armstrong, R. H. 2008. Guide to the birds of Alaska, 5th edition. Alaska Northwest Books, Anchorage, AK, USA.
- Gabrielson, I. N., and F. C. Lincoln. 1959. The Birds of Alaska. The Stackpole Company, Harrisburg, PA, USA.
- Gibson, D. D., and G. V. Byrd. 2007. Birds of the Aleutian Islands, Alaska. Nuttall Ornithological Club, Cambridge, MA, USA.
- Hamas, M. J. 1975. Ecological and physiological adaptations for breeding in the Belted Kingfisher (*Megaceryle alcyon*). PhD thesis, University of Minnesota, Minneapolis and St. Paul, MN, 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
- Kelly, J. F., E. S. Bridge, and M. J. Hamas. 2020. Belted Kingfisher (*Megaceryle alcyon*), version 1.0. In Poole, A. F., ed. Birds of the World. Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.belkin1.01
- 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.
- Petersen, M. R., D. N. Weir, and M. H. Dick. 1991. Birds of the Kilbuck and Ahklun Mountain region, Alaska. North American Fauna 76:1-158.
- Partners in Flight (PIF). 2019. Population Estimates Database, version 3.0. Available online: http://pif.birdconservancy.org/PopEstimates. Accessed 09-April-2019.
- Sauer, J. R., W. A. Link, J. E. Fallon, K. L. Pardieck, and D. J. Ziolkowski. 2013. The North American Breeding Bird Survey 1966–2011: Summary analysis and species accounts. North American Fauna 79:1–32. DOI: 10.3996/nafa.79.0001

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