Black Oystercatcher

Haematopus bachmani

Class: Aves
Order: Charadriiformes

Review Status: Peer-reviewed **Version Date:** 08 April 2019

Conservation Status

NatureServe:	*Agency:*		
G Rank: G5	ADF&G: Species of Greatest Conservation Need	IUCN:	Audubon AK:
S Rank: S2S3B,S2	USFWS: Bird of Conservation Concern	BLM:	

Final Rank

Conservation category: **V. Orange**

unknown status and either high biological vulnerability or high action need

Category	Range	Score
Status	-20 to 20	0
Biological	-50 to 50	11
Action	-40 to 40	-4

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) 0

Suspected stable (ASG 2019; Cushing et al. 2018), but data are limited and do not encompass this species' entire range. We therefore rank this question as Unknown.

Distribution Trend in Alaska (-10 to 10) 0

Unknown. Habitat is dynamic and subject to change as a result of geomorphic and glacial processes. For example, numbers expanded on Middleton Island after the 1964 earthquake (Gill et al. 2004).

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) -2

Uncertain. The global population is estimated at 11,000 individuals, of which 45%-70% breed in Alaska (ASG 2019). We therefore estimated that there are between 3,001 and 10,000 individuals in Alaska.

Range Size in Alaska (-10 to 10) 4

Rarely found more than 100 m from the shoreline (B. Robinson, USGS, pers. comm.). Ranges from coastlines of southeast and southcentral Alaska north to Bristol Bay and west to the western Aleutian Islands (Andres and Falxa 1995; Tessler et al. 2014b). Also present on Kodiak Island and Middleton

Island. Some individuals migrate to British Columbia for the winter, while others remain on Kodiak Island and in southeast Alaska (Johnson et al. 2010; Tessler et al. 2014b). Wintering range is most restricted and is estimated to be between 1,000 and 10,000 sq. km.

Population Concentration in Alaska (-10 to 10) 0

Does not concentrate during the breeding season (Andres and Falxa 1995). In the winter, concentrates in flocks that range in size from ten to several hundred individuals, but wintering concentration sites are largely unknown (Isleib and Kessel 1973; Tessler et al. 2007; Johnson et al. 2010; Tessler et al. 2014b). There are likely fewer than 25 sites that support large concentrations of oystercatchers, but some individuals may stay in smaller groups scattered across their wintering range. Until additional information on wintering distribution becomes available, we rank this question as Unknown.

Reproductive Potential in Alaska

Age of First Reproduction (-5 to 5) 1

Unknown for Alaska. In California, first breeds at 5 years of age (Andres and Falxa 1995).

Number of Young (-5 to 5) 2

Clutch size typically ranges from 1 to 3 eggs (Tessler et al. 2014b). Typically lays one clutch per year, but can lay a replacement clutch if the first one fails (Andres and Falxa 1995). Average clutch size in Alaska ranges from 2.0 to 2.8 eggs (Andres and Falxa 1995; Table 1 in Gill et al. 2004; Arimitsu et al. 2007; Tessler et al. 2014b). Because clutch sizes span two categories, we rank this question as 0.5 * B + 0.5 * C.

Ecological Specialization in Alaska

Dietary (-5 to 5) 1

Feeds exclusively on intertidal invertebrates, especially mussels and limpets (Andres and Falxa 1995; Carney 2013; Coletti et al. 2018). To a lesser extent, consumes snails, chitons, crustaceans, barnacles, marine worms, and sea urchins (Andres and Falxa 1995; Tessler et al. 2007; Carney 2013; Tessler et al. 2014b; Robinson et al. 2018).

Habitat (-5 to 5) 5

Depends entirely on intertidal, coarse-sediment habitats with abundant food resources and suitable nesting habitat (Andres and Falxa 1995; Tessler et al. 2014b). Forages on a variety of coarse sediments including rocks, gravels, and mixed sand-gravel, often on exposed shorelines (Andres and Falxa 1995; Andres 1998; Gibson and Byrd 2007; Tessler et al. 2014b). Nests on rock, gravel, or shell beaches in a depression above the high tide line (Isleib and Kessel 1973; Gibson and Byrd 2007; Tessler et al. 2014b). Tends to avoid steep slopes and shrub or forested shorelines (Andres 1998; Gill et al. 2004; Tessler et al. 2014b). During the winter, flocks concentrate in similar habitats that are ice-free and have high densities of mussels (Tessler et al. 2014b). Specificity of habitat preferences and vulnerability to predators during nesting likely limits distribution and population size (Andres 1998; Tessler et al. 2014b).

Biological Total: 11

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) -10

Protected under the Migratory Bird Treaty Act (MBTA 1918). Open for subsistence harvest at certain times of the year except in southeast Alaska, where harvest is closed year-round (AMBCC 2018).

Knowledge of Distribution and Habitat in Alaska (-10 to 10) 2

Habitat and distribution have been well-studied year-round in southeast and southcentral Alaska, both through multi-species surveys (e.g. Isleib and Kessel 1973; Arimitsu et al. 2007; Cushing et al. 2018), and specific studies (Andres 1998; Gill et al. 2004; Johnson et al. 2010; reviewed in Tessler et al. 2014b). Distribution is less understood in the western portion of their range. Migration patterns and wintering locations have been studied (Johnson et al. 2010), but patterns of winter residency are unclear and areas supporting high concentrations of oystercatchers in the winter are largely unknown (Andres and Falxa 1995; Johnson et al. 2010).

Knowledge of Population Trends in Alaska (-10 to 10) 2

Statewide population trends are not available. Monitored locally in Prince William Sound, Kachemak Bay, and as part of the Southwest Alaska Inventory & Monitoring Network (Cushing et al. 2018; Coletti et al. 2018; https://www.nps.gov/im/swan/bloy.htm). Also detected during Christmas Bird Counts (Andres et al. 2012a), but sample size is limited.

Knowledge of Factors Limiting Populations in Alaska (-10 to 10) 2

Black oystercatchers are completely reliant on a narrow portion of shoreline habitat throughout their life cycle, making them highly susceptible to localized threats and habitat degradation or loss stemming from human development (Andres and Christensen 2009). Studies indicate that high-quality habitat must have a high abundance of mussels and must be free of predators and major disturbances, as these factors affect population densities and nest survival (Byrd et al. 1997b; Kurle et al. 2008; Tessler et al. 2014b and references therein; Coletti et al. 2018). Resilient to some forms of disturbance and appeared to have recovered from the 1989 Exxon Valdez oil spill (Andres 1997; Morse et al. 2006; Tessler et al. 2014b). Oystercatcher densities have been correlated with mussel abundance in Kenai Fjord and Katmai National Parks (Coletti et al. 2018); mussel abundance might also be the ultimate mechanism behind the relationship between oystercatcher densities and water temperature found by Hipfner and Elner (2013) in British Columbia. Additional data will help elucidate the role of mussel abundance on populations. Predators and flooding are the main causes of nest failures (Morse et al. 2006; Spiegel et al. 2012; Robinson and Phillips 2013; Stark et al. 2015). Additional data are needed to determine effects of environmental contaminants (Tessler et al. 2014b; Saalfeld et al. 2016) and harvest rates (Naves et al. 2019).

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.

Harvest:	Unknown
Seasonal Occurrence:	Year-round
Taxonomic Significance:	Monotypic species
% Global Range in Alaska:	>10%
% Global Population in Alaska:	25-74%
Peripheral:	No

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