Common Goldeneye

Bucephala clangula

Class: Aves
Order: Anseriformes

Conservation Status

Heritage	*Agency*		
G Rank: G5	USFWS/NOAA:	BLM:	AA:
S Rank: S4N,S5B	SOA:	USFS:	IUCN: Least Concern

Final Rank

Conservation category: **V. Orange**

V = unknown status and either high biological vulnerability or high action need

Category	Range	Score
Status:	-20 to 20	0
Biological:	-50 to 50	-34
Action:	-40 to 40	8

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 (-10 to 10) 0

Trends from aerial surveys difficult to interpret because they do not distinguish between 2 species of Goldeneyes. North American trend is stable (Wetlands International 2002). Alaska and United States breeding bird surveys have important deficiencies, so no reliable trend information is available (USGS 2006).

Distribution Trend (-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 (-10 to 10) -10

Surveys often group both Common and Barrow's Goldeneye together, making it difficult to estimate the population of only one species. The Alaska- Yukon waterfowl population breeding survey estimated 73,300 Goldeneyes (10 year mean, did not separate species). Various other localized surveys do not separate the 2 species of Goldeneyes. In southeast Alaska, winter surveys of Goldeneyes estimated 121,917 birds of both species along the shoreline (Hodges et al. 2002). In the Yukon and Kuskokwim River valleys the population was estimated around 90,000 (Gabrielson 1956 and Lincoln 1956 in Sea Duck Joint Venture 2003).

Range Size (-10 to 10) -8

Winter range is most restricted in Alaska and includes the land and marine waters of Southeast Alaska and the marine waters through southcentral to the Aleutian Islands. Area in ArcMap is 225,726 kilometers squared. Breeds throughout central Alaska (Eadie et al. 1995).

Population Concentration (-10 to 10) -10

In winter, typically in pairs or small groups (4-40 birds), although large roosting concentration can form. In summer, females are observed individually and males are observed in small scattered groups (Eadie et al. 1995).

Reproductive Potential

Age of First Reproduction (-5 to 5) -3

Males and females do not start breeding until age 2 or older (Eadie et al. 1995).

Number of Young (-5 to 5) 1

Average clutch size ranges from 7.4 to 10.3 eggs; however, if you take into account brood parasitism, true clutch size is probably between 6 and 9 eggs (Eadie et al. 1995).

Ecological Specialization

Dietary (-5 to 5) -5

When inland during the summer, feeds on aquatic insects, crustaceans, and aquatic plants. Along coastal wintering grounds, feeds on crustaceans, mollusks, small fishes, and plant material (NatureServe 2007b). Important crustaceans include: crabs, amphipods, shrimp, isopods, and barnacles. Insects include caddisfly larvae, water boatmen, Odonata nymphs (dragonfly and damselfly), mayfly nymphs, and beetles. Vegetation consumed includes seeds of pondweeds and bulrush. Fish are predominantly Gasterosteidae, Cottidae, Cyprinidae, Poeciliidae, and parr and salmon eggs (Eadie et al. 1995).

Habitat (-5 to 5) 1

Breeding habitat primarily wetlands, lakes, and rivers bordered by forests. Prefers lakes with clear water, good visibility, and relatively low or simple shoreline configurations that lack significant emergent or submerged vegetation. Nests in cavities of live or dead trees of many species. Infrequently nests in rock cavities. Does not appear to have a preference of forest type, will use both coniferous and deciduous. Winter habitat is primarily marine waters, including shallow coastal bays, estuaries, and harbors, wherever food is available. Forages over sandy, gravel, rocky, or boulder substrates in relatively shallow water (Eadie et al. 1995).

Biological Total: -34

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 Needs (-10 to 10) 2

Protected by the Migratory Bird Treaty Act (MBTA 1918). Sport hunting and subsistence harvest is allowed (ADFG 2010a, USFWS 2010).

Monitoring Needs (-10 to 10) 2

Many waterfowl surveys that are done annually do not separate the 2 species of Goldeneye's from each other, making it difficult to detect a trend for the Common Goldeneye (King and Brackney 1997, Mallek and Groves 2009).

Research Needs (-10 to 10) 2

Most important limiting factor probably nest-cavity availability, particularly in recently logged areas. Changes in breeding or wintering habitat quality may regulate regional populations. In breeding areas, habitat quality can be reduced by a decrease in suitable cavity producing trees, often due to forestry practices. On wintering grounds, habitat quality can be reduced by river channelization, increased sediment load, loss of coastal and interior wetlands, and increased pollutant exposure from industrial effluent discharge sites. The role of hunting in regulation of populations is largely unknown (Eadie et al. 1995).

Survey Needs (-10 to 10) 2

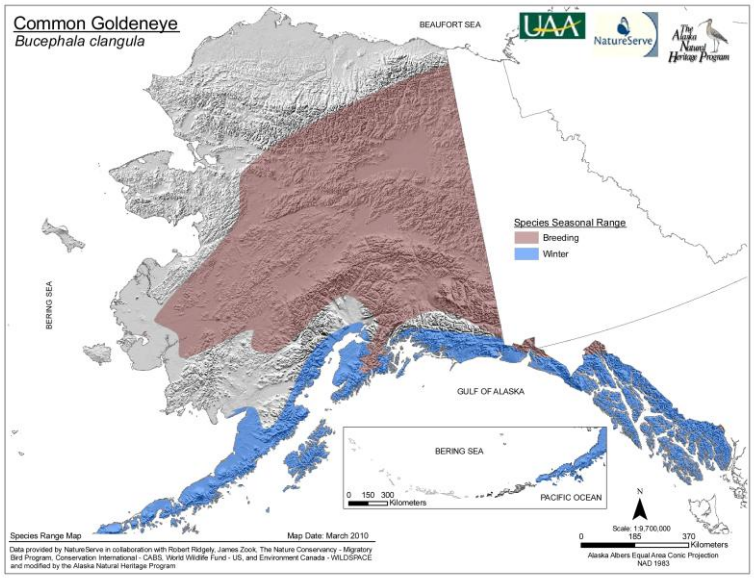
Distribution of Goldeneyes (not to species level) well surveyed in Southeast Alaska as part of a waterbird survey that covered 25,000 km of shoreline in the winter and summer. In the summer, very few Goldeneyes were observed, but were abundant and widespread in the winter throughout most shoreline areas of Southeast Alaska (Hodges et al. 2002). Range moderately well understood from statewide waterfowl survey that includes 12 strata of varying locations and habitat types throughout the state (Mallek and Groves 2009). Aerial surveys lack the ability to separate the 2 species of Goldeneyes (Hodges et al. 2002, Mallek and Groves 2009, King and Brackney 1997), surveys of each species would provide higher quality information about range.

Action Total: 8

Supplemental Information - variables do not receive numerical scores. Instead, they that are used to sort taxa to answer specific biological or managerial questions.

Harvest:	Substantial, regulations
Seasonal Occurrence:	Year-round
Taxonomic Significance:	Monotypic species
% Global Range in Alaska:	<10%
% Global Population in Alaska:	<25%
Peripheral:	No

Range Map



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For details on the development of the ASRS and criteria, please see: Gotthardt, T. A., K. M. Walton, and T. L. Fields. 2012. Setting Conservation Priorities for Alaska's Wildlife Action Plan. Alaska Natural Heritage Program, University of Alaska Anchorage, AK.