

SPECIES PROFILE

Black Guillemot

Cepphus grylle

Federal Listing: Not listed

State Listing: Not listed

Global Rank: G5

State Rank: S3

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ELEMENT 1: DISTRIBUTION AND HABITAT

1.1 Habitat Description

Black guillemots inhabit rocky coasts and rocky offshore coastal islands (Borrer 1994, Butler and Buckley 2002). Eggs are placed directly on rocks, and so to protect against predation, nesting colonies occur along rocky coasts under storm tossed rocks or in rocky crevices (Borrer 1994). Cairns (1980) observed black guillemots nesting under tree roots and earth-lined holes. Preferred foraging areas are shallow inshore waters with bottom-dwelling crustaceans, fish, and invertebrates (Borrer 1994, Butler and Buckley 2002). Wintering areas are generally the same as breeding areas, except at sites with solid ice cover where black guillemots move offshore to open waters with pack ice (Butler and Buckley 2002).

1.2 Justification

The black guillemot is of conservation concern because New Hampshire is the southernmost extent of its breeding range (Borrer 1994) and it is a high priority species in Breeding Conservation Range 14 (Dettmers, unpublished data). Fewer than 5 breeding pairs of black guillemots occur on New Hampshire's coastal islands (Hunt, unpublished data). Increased concentrations of predatory great black backed gulls (*Larus marinus*) pose a threat to black guillemot chicks, further jeopardizing already small populations (Butler and Buckley 2002). Black guillemots are at great risk for biomagnification of heavy metals

because they forage in shallow waters of the sea floor where sediment contaminants are highest (Butler and Buckley 2002). Global warming may also affect populations of black guillemots by forcing them to move further south where breeding and foraging habitats may be unsuitable.

1.3 Protection and Regulatory Status

The black guillemot is a species of special concern in New Hampshire. It is protected under the Migratory Bird Act and various non-government coastal water bird programs (e.g., Bird Conservation Regional Plans, Waterbird Conservation for the Americas, Gulf of Maine Council on the Marine Environment).

1.4 Population and Habitat Distribution

The range of black guillemots extends from remote islands in the Canadian Arctic down to offshore islands in southern New England with some birds occasionally wintering as far south as New Jersey (Borrer 1994, Butler and Buckley 2002). Population estimates for North America are between 100,000 and 200,000 birds with 25,000 birds in Biological Conservation Region 14 (Kushlan et al. 2002). In New Hampshire, black guillemots have only been found off the coast on the Isles of Shoals, with occasional winter sightings along the mainland coast (New Hampshire Bird Records, Borrer 1994).

1.5 Town Distribution Map

Not completed for this species.

1.6 Habitat Map

1.7 Sources of Information

Sources of information include Birds of North Amer-

ica, New Hampshire Bird Records, the North American Waterbird Conservation Plan, and peer-reviewed scientific literature.

1.8 Extent and Quality of Data

The habitat and distribution of black guillemots in North America are well studied, but little is known about their distribution in New Hampshire due to a lack of adequate census data.

1.9 Distribution Research

Develop accurate census techniques to track population trends in black guillemots. Conduct breeding surveys to estimate population size and effects of global warming. Identify and monitor important nesting, foraging, and wintering areas.

ELEMENT 5: REFERENCES

5.1 Literature

- Borror, A. C. 1994. Black guillemot. Pages 100 –101 in C. R Foss, editor. Breeding bird atlas of New Hampshire. Arcadia, Dover, New Hampshire, USA.
- Butler, R. G., and D. E. Buckley. 2002. Black Guillemot (*Cepphus grille*). In A. Poole and F. Gill, editors. The Birds of North America, No 675. The Birds of North America, Philadelphia, Pennsylvania, USA.
- Cairns, D. K. 1980. Nesting density, habitat structure and human disturbance as factors in black guillemot reproduction. *Wilson Bulletin*. 92:352-361.
- Kushlan, J. A., M. J. Steinkamp, K. C. Parsons, J. Capp, M. Acosta Cruz, M. Coulter, I. Davidson, L. Dickson, N. Edelson, R. Elliot, R. M. Erwin, S. Hatch, S. Kress, R. Milko, S. Miller, K. Mills, R. Paul, R. Phillips, J. E. Saliva, B. Sydeman, J. Trapp, J. Wheeler, and K. Wohl. 2002. Waterbird conservation for the Americas: the North American waterbird conservation plan, Version 1. Waterbird Conservation for the Americas, Washington, DC, USA.

5.2 Data Sources

New Hampshire Bird Records. New Hampshire Audubon, Concord, New Hampshire, USA.