

California Wildlife Habitat Relationships System
California Department of Fish and Wildlife
California Interagency Wildlife Task Group

BARROW'S GOLDENEYE

Bucephala islandica

Family: ANATIDAE

Order: ANSERIFORMES

Class: AVES

B102

Written by: S. Granholm

Reviewed by: D. Raveling, D. Airola

Edited by: R. Duke

DISTRIBUTION, ABUNDANCE, AND SEASONALITY

A very uncommon winter resident (October to March) along the central California coast, mainly in San Francisco Bay and vicinity, and in Marin and Sonoma cos. It is found locally on estuarine (lagoons and bays) and brackish lacustrine waters. Yocom and Harris (1975) reported only 5 records from northwestern California south through Mendocino Co. Rare and local inland in winter on lacustrine and riverine waters, and found regularly in southern California only along the Colorado River. Formerly nested in the southern Cascades and the Sierra Nevada south at least to Fresno Co., but no potential breeders reported since before 1940 (Remsen 1978). Breeding status uncertain, because there have been few surveys in California (Cogswell 1977, McCaskie et al. 1979, Garrett and Dunn 1981).

SPECIFIC HABITAT REQUIREMENTS

Feeding: Feeds principally on animal foods, mainly mollusks and crustaceans in saltwater, and aquatic insects and crustaceans in freshwater, but also eats fish eggs and young. Also eats algae and the seeds, leaves, and stems of other aquatic plants. Juvenile eats almost entirely aquatic invertebrates, mostly insects. Dives and takes food from bottom, preferring water 0.9-3 m (3-10 ft) deep (Palmer 1976). Also gleans food from submerged plants. At low tide, occasionally feeds in water 8-15 cm (3-6 in) deep by immersing head, but does not tip up (Palmer 1976). Prefers to feed on rocky bottoms, at least on coastal wintering grounds (Palmer 1976).

Cover: At night, rests on sheltered, open water. In daytime, rests in feeding areas, or if very windy, seeks sheltered waters.

Reproduction: Apparently no longer nests in California. Usually nests in a tree or snag cavity, often the deserted nest-hole of a pileated woodpecker or flicker, the latter necessarily being enlarged by decay. Also uses nest boxes and, where tree cavities are unavailable, rock crevices or buildings, or even nests under bushes. Nest is near a lake or quiet river. Prefers moderately alkaline lakes with abundant submerged vegetation and open water, often bordered by dense emergent vegetation (Palmer 1976). In California, nests were beside tree-bordered mountain lakes and large streams (Cogswell 1977).

Water: No additional data found.

Pattern: Found on estuarine and brackish lacustrine waters. For nesting, in California preferred tree cavities near wooded mountain lakes or large streams.

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, mostly diurnal activity, but when breeding, sometimes feeds on bright, moonlit nights (Palmer 1976). Incubating female feeds most actively in midmorning

and just before sunset (Palmer 1976). Migrates at night, and probably also by day (Palmer 1976).

Seasonal Movements/Migration: The California wintering population migrates to breeding grounds in Oregon, Washington, western Canada, and Alaska, and mostly is absent from April to September.

Home Range: No information found.

Territory: Nesting territory is located on the water area nearest the nest, and is used for copulation and feeding, but the pair often feeds elsewhere as well. In a British Columbia lake with a high breeding density 38 pairs each occupied 37-55 m (120-180 ft) of shoreline. At lower densities, territories were larger. Defense is mainly by the drake. After eggs hatch, the female defends a brood territory, usually at a different site than the nesting territory, driving off other females and killing, or driving away, their ducklings. Boundaries are poorly defined, and size has not been measured (Palmer 1976).

Reproduction: May no longer breed in California; young formerly were found June to August (Cogswell 1977). Pair formation occurs mostly on wintering grounds. Monogamous, solitary nester; clutch size 4-13, and averaging 9-11. Single-brooded, and incubates for 32-34 days. Precocial young tended by the female only. They are deserted by 6 wk (sometimes much earlier), and attain flight at about 8 wk. Breeds first at 2 yr.

Niche: Drake commonly attacks ducks of other species that enter the breeding territory. Major predators in western North America are great horned owls, bald eagles, and golden eagles (Palmer 1976). Predation on nests is infrequent, but the newly hatched young are sensitive to cold, wet weather (Palmer 1976).

Comments: A California Species of Special Concern. The apparent extirpation of the California breeding population may have resulted from disturbance from fishing, boating, and shooting, and possibly removal of large trees that provided nesting cavities (Remsen 1978).

REFERENCES

- Bellrose, F. C. 1976. Ducks, geese, and swans of North America. 2nd ed. Stackpole Books, Harrisburg, PA. 544pp.
- Cogswell, H. L. 1977. Water birds of California. Univ. California Press, Berkeley. 399pp.
- Garrett, K., and J. Dunn. 1981. Birds of southern California. Los Angeles Audubon Soc. 408pp.
- Johnsgard, P. A. 1975b. Waterfowl of North America. Indiana Univ. Press, Bloomington. 575pp.
- McCaskie, G., P. De Benedictis, R. Erickson, and J. Morlan. 1979. Birds of northern California, an annotated field list. 2nd ed. Golden Gate Audubon Soc., Berkeley. 84pp.
- Palmer, R. S., ed. 1976. Handbook of North American birds. Vol. 2. Yale University Press, New Haven, CT. 521pp.
- Palmer, R. S., ed. 1976. Handbook of North American birds. Vol. 3. Yale University Press, New Haven, CT. 560pp.
- Remsen, J. V., Jr. 1978. Bird species of special concern in California. Calif. Dept. of Fish and Game, Sacramento. Wildl. Manage. Admin. Rep. No. 78-1. 54pp.
- Yocom, C. F., and S. W. Harris. 1975. Birds of northwestern California. Humboldt State Univ. Bookstore, Arcata. 74pp. 4pp.