

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

HARLEQUIN DUCK

Histrionicus histrionicus

Family: ANATIDAE
B096

Order: ANSERIFORMES

Class: AVES

Written by: S. Granholm

Reviewed by: D. Raveling

Edited by: R. Duke

Updated by: CWHR Program Staff, August 2005 and August 2008

DISTRIBUTION, ABUNDANCE, AND SEASONALITY

Rare to very uncommon from October to early April in marine waters along rocky coast from San Luis Obispo Co. north, with stragglers remaining through the summer. Also found uncommonly in winter along the Fresno river. Formerly nested May to August on large sierran rivers from Madera to Tuolumne cos. (Cogswell 1977, McCaskie et al. 1979, Garrett and Dunn 1981). Current range in Sierra Nevada now considered to be broader than this historic range, although not necessarily due to a true range expansion (Beedy 2008).

SPECIFIC HABITAT REQUIREMENTS

Feeding: Eats almost entirely animal foods, mainly crustaceans, mollusks, and (on breeding grounds) aquatic insects. Along coast in winter, dives for food in turbulent water along rocky shores, taking invertebrates from rocks or pilings. On breeding grounds, in turbulent rivers, most often dives for food, but also forages by tipping up, or merely immersing head. Sometimes wades in shallow water or walks on bottom, underwater.

Cover: Along the coast, rests on the water, or near water on offshore rocks or rocky shores (Cogswell 1977). On breeding grounds, commonly rests on river banks (Bellrose 1976). Prefers to escape by swimming or diving, rather than flying.

Reproduction: Probably still breeds rarely in California. Usually nests along shores of shallow, swift rivers with plentiful aquatic invertebrates. Nest often is in a recess, sheltered overhead by stream bank, rocks, woody debris, or low shrubs, but there is no evidence of nesting in tree cavities (Palmer 1976). Nest usually is within 2 m (7 ft) of water, but may be up to 20 m (66 ft) away. Islands in rivers are preferred (Palmer 1976). Broods are led to a quiet portion of stream, preferably with hiding places under overhanging vegetation, and remain there until half grown (Palmer 1976).

Water: No additional data found.

Pattern: This species winters in turbulent waters along the rocky outer coast, and breeds rarely along shores of swift shallow rivers, where it feeds. Rests on water, river banks, or rocky shores.

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, apparently diurnal activity only. Feeds most actively very early and late in day (Bellrose 1976).

Seasonal Movements/Migration: Except for a few breeding pairs and stragglers, the California wintering population migrates to breeding grounds in the northwestern U. S. and

Canada, and is absent from late April to September.

Home Range: In Iceland, where breeding pairs were numerous, home ranges were very small, but were not measured (Bengtson 1966). Breeding densities averaged 1.3 pairs per km of river (2.1 pairs per mile).

Territory: In Iceland, drakes did not defend breeding territories, but they defended small areas around their mates (Bengtson 1972).

Reproduction: Pairs form along coast in winter or early spring. In California, nests rarely from May to August (Cogswell 1977). Monogamous, solitary nester. Clutch size usually 3-7, and seldom more than 9. Single brooded. Incubation 27-29 days. The precocial young are tended by the hen only, but several families commonly combine into larger groups. The hen may desert the young before they are able to fly. Apparently breeds first at 2 yr.

Niche: In Iceland, predators on eggs included ravens, minks, and foxes (Bengtson 1972). There was little predation on ducklings. Adults are killed by foxes and gyrfalcons in the arctic. Few are killed by hunters.

Comments: A California Species of Special Concern. Both breeding and wintering populations in California have declined, probably resulting from human disturbance of breeding streams, and damming of rivers (Remsen 1978).

REFERENCES

- Beedy, T. 2008. Harlequin Duck (*Histrionicus histrionicus*) in Shuford, W.D. and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Studies of Western Birds 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento.
- Bellrose, F. C. 1976. Ducks, geese, and swans of North America. 2nd ed. Stackpole Books, Harrisburg, PA. 544pp.
- Bengtson, S. A. 1966. Field studies on the harlequin duck in Iceland. Wildfowl Trust Annu. Rep. 17:79-94.
- Bengtson, S. A. 1972. Breeding ecology of the harlequin duck, *Histrionicus histrionicus* (L.), in Iceland. *Ornis Scandinavia* 3:25-43.
- 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.

B096

Life history accounts for species in the California Wildlife Habitat Relationships (CWHHR) System were originally published in: Zeiner, D.C., W.F.Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Department of Fish and Game, Sacramento, California. Updates are noted in accounts that have been added or edited since original publication.