

surface water (Bartholomew and Cade, op. cit.) it would not be surprising if its salt tolerance and its ability to discriminate between salt solutions of different concentrations actually function in promoting the biological success of the species. Whether this is actually the case will have to be shown by the results of future field studies.

## THE CANVASBACK, COMMON GOLDENEYE, AND BUFFLEHEAD IN ARCTIC ALASKA

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In Alaska, the Canvasback (*Aythya valisineria*) has been recorded north to Kotzebue Sound, 66° 45' N, 163° 00' W (Hansen, Condor 63:137, 1960); the Common Goldeneye (*Bucephala clangula*), north to "the lower reaches of the Porcupine" River (Gabrielson and Lincoln, Birds of Alaska, p. 191, 1959), the mouth of which lies at 66° 34' N, 145° 19' W; and the Bufflehead (*Bucephala albeola*), north, probably, to the village of Kobuk, 66° 55' N, 156° 52' W (Irving, U.S. Natl. Mus., Bull. 217:135, 1960). This paper reports the occurrences of these species in the central Brooks Range.

*Canvasback.* On 19 June 1958 I saw a flock of five adult male and female Canvasbacks on a lake one-half mile west of the John River at about 67° 9' N, 151° 52' W. The lake lies well within the forest, more than 55 air miles south southeast of the tree line in the John River valley. The ducks were closely observed, both in the air and on the water, with the aid of 8× binoculars.

*Common Goldeneye.* On 4 June 1963 Richard E. Morlan and I saw an adult female on the Koyukuk River, at Bettles Field (66° 55' N, 151° 30' W). On 10 June 1963 we saw an adult female on a lake beside the John River at the mouth of McKinley Creek (67° 24' N, 152° 03' W). On 13 June 1963 we found an adult male and an adult female on the John River at Threetime mountain (67° 14' N, 151° 54' W), and collected the female (*B. a. americana*,

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U.S. Natl. Mus. 529781). The largest egg follicle measured 6 mm. On 25 June 1963 we saw what appeared to be another adult female on the Alatna River at the mouth of Siruk Creek (66° 42' N, 153° 18' W). These several localities are in the forest; the northernmost, the mouth of McKinley Creek, lies 38 air miles south of the tree line in the John River valley.

*Bufflehead.* On 3 July 1956 I saw an adult male on a tundra pond beside the John River at about 68° 6' N, 151° 52' W. This locality is four air miles southwest of the summit of Anaktuvuk Pass. On 13 June 1961 William T. Stuart and I found an adult male and two adult females on a pond in the upper John River valley at about 68° 4' N, 152° 00' W, and collected the male (Peabody Mus. Nat. Hist. 8599). The testes measured 16 mm. On 19 June 1961 Joseph Mekiana and I flushed an adult female from a dense mat of dwarf birch (*Betula* sp.) beside the pond noted in the reference to 1956, above. Diving frequently, it refused to leave the water. A search for the nest was unsuccessful. On 8 June 1963 Morlan and I saw an adult male and an adult female on the Koyukuk River at Bettles Field. With the exception of Bettles Field, the localities where Buffleheads were observed are north of the forest; the southernmost lies 11 air miles northeast of the tree line in the John River valley.

On the above evidence, one may conclude that the Common Goldeneye and the Bufflehead probably breed in the central Brooks Range. Because the Nunamiut Eskimos have names for nearly all of the birds occurring within the limits of their present and recent territory (Irving, op. cit.), and because they do not recognize the three species noted here, one may further conclude that their occurrences in the central Brooks Range may represent recent, northward range extensions.

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## SUBSPECIFIC STATUS OF *BRANTA CANADENSIS* IN THE CENTRAL BROOKS RANGE, ALASKA

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Kessel and Cade (Biol. Papers Univ. Alaska 2:31-32, 1958) assign Canada Geese of the Colville River, north Alaska, to *B. c. taverneri*, remarking that on the Colville this race equals "*B. c. minima* in part of 5th edition A.O.U. Checklist; and *B. c. leucopareia* of Bailey, 1948." Irving (U.S. Natl. Mus., Bull. 217: 34-35, 1960) similarly assigns to *taverneri* the Canada

Geese from Anaktuvuk Pass (on the central Brooks Range divide) and from the wooded Koyukuk and Alatna Rivers in the south-central Brooks Range.

Six Canada Geese which I collected at Anaktuvuk Pass, on the Alatna River, and on the wooded John River, south of Anaktuvuk Pass, also represent *taverneri*. However, on 7 July 1961 at 68° 30' N, 149° 57' W on the upper Itkillik River, north-central Brooks Range, I took a nonbreeding adult male of the race *parvipes* (Yale Peabody Mus. 8596), from a flock of five adults. This bird, while not particularly fat, weighed 3202 g. The Itkillik River specimen of *B. c. parvipes* was appreciably heavier and larger than the adults and subadults of *B. c. taverneri* collected by me and reported by Kessel and Cade (op. cit.) and Irving (op. cit.) from the localities noted.

On 18 June 1963 Richard E. Morlan and I closely