

Meleagris) supports the conclusions drawn from the mammalian evidence (Robertson, in press) that the deposit represents a stream passing through a forested area.

I wish to thank S. David Webb for the opportunity to study the specimens under his care and Pierce Brodkorb for use of his skeletal collection and many helpful comments. —KENNETH E. CAMPBELL, JR., *Dept. of Zoology, Univ. of Florida, Gainesville, 32611. Accepted 16 May 1975.*

An unusual clutch size of the Black-bellied Whistling Duck.—The phenomenon of compound or dump nests in the whistling or tree ducks (*Dendrocygna* spp.) has been reported by several investigators (e.g., Cottam and Glazener, *Trans. N. Am. Wildl. Nat. Resour. Conf.* 24:382–395, 1959; Weller, *Ecol. Monogr.* 29:333–365, 1959).

While studying the nesting biology of the Black-bellied Whistling Duck (*D. autumnalis*) in nest boxes described by Bolen (*J. Wildl. Manage.* 31:794–797, 1967), we discovered a nest box containing 17 eggs on 14 June 1971 at 11:55. This box was subsequently rechecked at 11:27 on 16 June 1971 and then contained 50 eggs. Since Black-bellied Whistling Ducks lay their eggs in late afternoon (Bolen, Ph.D. thesis, Utah State Univ., Logan, 1967), this nest received 33 eggs in the 2 days, indicating that at least 17 different females contributed to the clutch based on the premise that these waterfowl lay 1 egg daily.

At 12:35 21 June 1971 a Black-bellied Whistling Duck adult flushed from the nest box which then contained 90 eggs. The incubating female and male were captured at the nest box on 23 June and 24 June 1971 and were banded with U.S. Fish and Wildlife Service leg bands. When the male was banded the nest contained 101 eggs. The nest was observed thereafter on 14 occasions at 1 to 4 day intervals until 38 eggs hatched on 26 July 1971. At the time of hatching the nest contained 99 eggs.

These observations raise the following points of interest concerning Black-bellied Whistling Duck nesting biology. First, Black-bellied Whistling Ducks apparently remove broken eggs from their nests. The eggs were counted on 24 July 1971, 2 days before hatching and no shell fragments of the 2 missing eggs, presumably broken, were observed in the nest. Sows (Prairie ducks, Stackpole, Harrisburg, Pa., 1959) described the removal of broken egg shells for several species of surface feeding ducks (*Anas* spp.).

Second, at least 11 additional eggs were deposited in the clutch after incubation began. It is generally accepted that waterfowl initiate incubation after the deposition of the final egg in clutches originating from a single hen.

Third, this nest took at least 36 days to hatch assuming incubation began on 21 June 1971 when the adult was flushed from the nest box at mid-day. Bolen (Ph.D. thesis, op. cit.) found a mean incubation period of 27.5 days for the species. Stotts and Davis (*Chesapeake Sci.* 1:127–154, 1960) indicated that the number of times a sitting bird is interrupted during incubation is related to the duration of the incubation period. Kendeigh (*Auk* 57:499–513, 1940) has shown that a narrow temperature range exists for optimum incubation so that interruptions may indeed lengthen the period required for embryonic growth. Accordingly, the temporary abandonment of the nest by the incubating birds during our inspections may have contributed to the lengthening of the incubation period for this clutch.

Fourth, although productive from the standpoint of numbers of young produced, only 38 of 99 of the eggs hatched. Reasons for the low hatchability include (a) the interval between the laying of the earliest eggs to the start of incubation may have been long enough to incur reduced viability in the older eggs (i.e. those laid first), and (b) the

incubating birds were unable to physically cover the entire clutch with their bodies so that many eggs, including those deposited after incubation began, would not be fully developed when the properly covered eggs hatched.—DON DELNICKI, ERIC G. BOLEN, and the late CLARENCE COTTAM, *Rob and Bessie Welder Wildlife Foundation, Sinton, TX 78387* (present address for DD: P.O. Box 156, Challenge, CA 95925). Accepted 14 May 1975.

An apparent hybrid goldeneye from Maine.—Recently there have been reports of male hybrids between Barrow's and Common goldeneyes (*Bucephala islandica* and *B. clangula*) based on specimens from New Brunswick, Canada (Snyder, *Wilson Bull.* 65: 199, 1953), and British Columbia (Jackson, *Auk* 76:92-94, 1959) and on sight records from Washington (Schultz, *Murrelet* 38:11, 1958) and Iceland (Bengtson, *Bull. Br. Ornithol. Club* 92:100-101, 1972). Fjeldsa (*Bull. Br. Ornithol. Club* 93:6-9, 1973) reported possible hybrid female specimens from Maine and Iceland.

At Perkins Cove, York Co., Maine on 3 March 1963, we observed an apparent hybrid male goldeneye for about 30 min. At a distance of 100 m through a 30× telescope we noted several features which seem intermediate between the 2 goldeneye species. The forehead sloped upwards gradually from the bill and the hind crown sloped back gradually, imparting a triangular appearance not typical of either species. The fore and upper parts

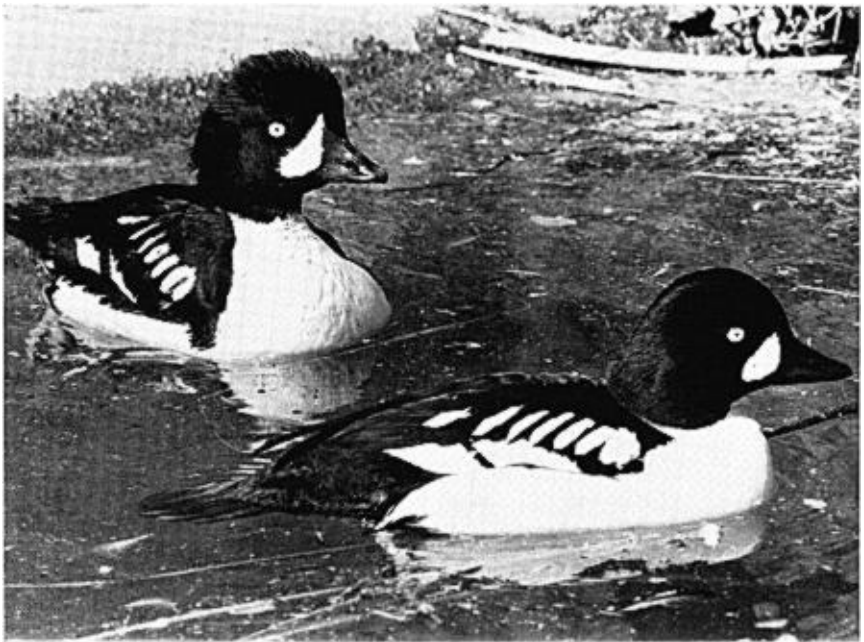


FIG. 1. Adult male Barrow's Goldeneye (left) and hybrid male Barrow's-Common goldeneye right. Note the oval facial spot, reduced amount of black on side, and lack of black "shoulder" mark on hybrid. Photograph in Denver Municipal Zoo by Thomas Mangelsen; photograph used by courtesy of Dr. Paul A. Johnsgard.