

General Field Notes

DAVID S. LEE, Department Editor

North Carolina State Museum, P.O. Box 27647
Raleigh, N.C. 27611

JULIAN R. HARRISON, Associate Editor

Department of Biology, The College of Charleston, Charleston, S.C. 29401

Hooded Merganser Nesting in Wood Duck Boxes in Wake County, N.C.

SARAH S. ROBINSON
5020 Clear Run Drive
Wilmington, N.C. 28403

The Hooded Merganser (*Lophodytes cucullatus*) is a cavity-nesting species that breeds primarily in the Great Lakes area, but with secondary breeding areas along Pacific coastal states and provinces and the eastern half of the United States (Johnsgard 1975, Bellrose 1976). The latter secondary nesting area includes North Carolina.

For North Carolina, Odum (1947) lists the Hooded Merganser as a "scarce breeder inland" in the state. Pearson et al. (1959) give two breeding records; Hader (1969) gives the Hooded Merganser "rare summer resident" status in Wake County and mentions briefly four of the nests described in this paper. Additional published notes have indicated the presence of adult Hooded Mergansers in spring and summer (Chat 13:34, 34:27, 36:94, 40:87, 41:88-89, and 43:88) as well as an abandoned nest (Chat 38:78) and the presence of young birds (Chat 37:108 and 44:22). These occurrences are summarized in Potter et al. (1980).

The breeding range and nesting requirements of the Hooded Merganser are similar to those of the Wood Duck (*Aix sponsa*), and the merganser occasionally uses nest boxes erected in Wood Duck management projects; Bellrose (1976) provides a summary of published accounts of this occurrence throughout the United States. Hester and Dermid (1973) refer to the occurrence of nests described in this paper, and one other nest in a Wood Duck nest box has been reported in the state (Chat 38:78).

The nests reported here were found in nest boxes on Hester's Pond in east-central Wake County, N.C., near Wendell, approximately 30 miles east of Raleigh. The pond, on a tributary of Little River, comprises 8 acres of open water with an alder thicket (*Alnus serrulata*) near the upper end. The surrounding woodlands are mixed pine-hardwoods. The Wood Duck nest boxes were erected between 1954 and 1966; nesting data reported here were collected between 1961 and 1971 and in 1974 by North Carolina State University Department of Zoology graduate students, including the author. Further descriptions of Hester's Pond and of data collection techniques can be found in Hester (1956) and Robinson (1977).

During the years 1961 through 1971 and 1974, 13 Hooded Merganser nests were initiated on Hester's Pond; Table 1 summarizes information on the recorded nests. All of the

TABLE 1. Summary of Hooded Merganser nesting on Hester's Pond, 1961-1971 and 1974.

<i>Year</i>	<i>Total number of eggs¹</i>	<i>Number of eggs hatched</i>	<i>Incubating hen²</i>
Hooded Merganser nests			
1962	9	8	Hooded Merganser (57564089) ³
1963	10	0 ⁴	
	2	0 ⁴	
1964	5	0 ⁴	
1971	9	9	Hooded Merganser (no band)
Hooded Merganser-Wood Duck nests			
1962	20 (1+19) ⁵	0 ⁴	
1963	11 (2+9)	0 ⁴	
	22 (3+19) ⁶	17 (1+16)	Wood Duck (57564097) ⁷
	25 (3+22)	0 ⁸	
1964	19 (3+16)	11 (2+9) ⁹	Wood Duck (57564098) ⁷
1974	15 (2+13)	0 ¹⁰	
	16 (13+3) ¹¹	11 (11+0)	Hooded Merganser (no band)
	7 (6+1) ¹²	0 ¹⁰	

¹For single nests all of the eggs are Hooded Merganser eggs, and as closely as can be determined, all are from one hen; for dump nests the total includes Hooded Merganser and Wood Duck eggs.

²Whenever possible during the study on Hester's Pond hens were given U.S. Fish and Wildlife Service leg bands during the third week of incubation; if the hen already wore a band, the number was recorded.

³Female Hooded Merganser was banded (57564089) on this nest on Hester's Pond in 1962, and this was her only documented nesting on the pond during the study.

⁴The nest was never incubated.

⁵Hooded Merganser eggs + Wood Duck eggs.

⁶The field notes on this nest report on one day that the nest had 21 Wood Duck eggs, but on the following check 19 were again reported; no reason for the inconsistency is known.

⁷The female Wood Ducks were banded (57564097 and 57564098) on nests on Hester's Pond in 1962. Each nested a total of six times on the pond but had only one documented nest with a mixed Wood Duck-Hooded Merganser clutch.

⁸The nest was deserted by the incubating hen.

nests were reported in February or March, the earliest being 18 February and the latest 28 March. This period corresponds with the peak period of Wood Duck nesting activity on the pond (Robinson 1977).

The Hooded Merganser nests comprised two types, single nests with eggs laid by one Hooded Merganser hen and compound or dump nests containing both Hooded Merganser and Wood Duck eggs. Five nests were single nests; only two of these, each with nine eggs, were incubated. Eight Hooded Merganser/Wood Duck dump nests were found on Hester's Pond, and three of these produced young.

The dump nesting phenomenon has been noted among both waterfowl and other birds. Among gallinaceous birds, the behavior occurs regularly in the Ring-necked Pheasant (*Phasianus colchicus torquatus*) (Bent 1932). Dumping also occurs in some ground-nesting species of ducks, including the Ruddy Duck (*Oxyura jamaicensis*), Redhead (*Aythya americana*), and Canvasback (*A. valisineria*) (Bent 1907, Hochbaum 1944, Weller 1959). Among cavity-nesting species, Wood Duck dump nests have been reported frequently in conjunction with nest-box studies, and over the 11-year period from 1961 through 1971 they represented 61% of all Wood Duck nests on Hester's Pond (Robinson 1977). Hooded Merganser dump nests have been reported by Morse et al. (1969), and Bouvier (1974) reported nesting interactions among Hooded Mergansers, Wood Ducks, and Common Goldeneyes (*Bucephala clangula*) in Quebec.

One incidence of a Hooded Merganser laying in a Wood Duck nest on Hester's Pond was verified in 1974. On 20 February I checked box 41 shortly before 1300, noting 13 Wood Duck eggs and 1 Hooded Merganser egg. The eggs were photographed to show the differences in size and coloration. As soon as I had left the box and rowed to the upper end of the pond, a hen and drake Hooded Merganser landed on the water near box 41 and swam for approximately 3 minutes. At 1310 the hen flew into the box. The drake remained on the water for a few minutes longer before flying off to the south. At 1325 the hen left the box and also flew south. I immediately returned to the nest box and found one additional Hooded Merganser egg, still warm, making a total of 15 eggs in the box. This nest received no more eggs, and it was never incubated; it eventually was destroyed by flickers, starlings, or both.

TABLE 1, footnotes, continued

⁹One young Hooded Merganser and four young Wood Ducks that hatched from this mixed clutch did not leave the box with the female Wood Duck. The hen apparently left the box with one Hooded Merganser and five Wood Duck chicks.

¹⁰The nest was destroyed by predation.

¹¹If, as reported in the literature, female Hooded Mergansers lay one egg every other day, it is probable that more than one Hooded Merganser was laying in the box. Between 6 March and 27 March a total of 13 Hooded Merganser eggs were deposited in the nest. This nest also held one Eastern Screech-Owl (*Otus asio*) egg, which was not included in the total number of eggs; the owl egg was noted in the nest box on 6 March before any of the Hooded Merganser or Wood Duck eggs were laid.

¹²This nest possibly should be considered a single-species (Hooded Merganser) nest because Wood Duck eggs were found in the box at irregular intervals during the nesting season.

The small number of nests reported here prevents generalizations on the nesting behavior of the Hooded Merganser, but these nests do follow the patterns observed in Oregon by Morse et al. (1969) and in other studies summarized in Bellrose (1976). Of the 13 nests on Hester's Pond with which Hooded Mergansers were involved, all but one are known to have been in nest boxes located over water; Morse et al. (1969) found that Hooded Mergansers selected the nest boxes nearest the water. In each of the three incubated dump nests, a hen of the species that appeared to have initiated the nest performed the incubation, and the number of eggs of that species predominated in the nest, observations that agree with Bellrose. Bellrose also states that Wood Duck and Hooded Merganser incubation periods are the same so that eggs of both species in mixed clutches hatch, and two of the three dump nests on Hester's Pond did produce young of both species.

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