

GENERAL NOTES

More on the wing length of the Slate-colored Junco.—I have twice previously (Blake, 1962, *Bird-Banding* **38**: 97-99 and 1964, **35**: 125-127) discussed the wing length of *Junco hyemalis*. Recently I have been able to partition a sample of provable adults into two Gaussian distributions by Rao's method (C. R. Rao, 1952, *Advanced Statistical Methods in Biometric Research*, 300-304). The sample from my Hillsborough, N. C. bandings differs somewhat from the 1962 sample. It consists of 146 birds with mean 77.1 ± 2.9 mm. The mean and standard deviation are essentially identical with those of the earlier sample. The skewness ($-.313$) has the same sign but is larger and is considered significant. The new sample is leptokurtic (3.43) but not significantly so while the former sample was insignificantly platykurtic (2.29).

The method of Rao assumes that each component has the same standard deviation. The main effect of this simplifying assumption is to bias the estimates of the proportions of the components relative to the whole sample. I further assume that the component with the smaller mean length consists of females and the one with the larger mean, of males. The results of the calculations are stated on the assumptions above.

	Wing length	Standard Deviation	Per cent in sample
Females	73.7	1.5	32
Males	78.7	1.5	68

The component assumed to be female has the same mean as my 1962 sample of known immatures from Lincoln, Mass. This is hardly a surprising result. The male component has a mean 0.5 mm. greater and almost the same standard deviation as my earlier sample of birds without brown in the plumage which I then suggested were adult males. Actually one would not expect the complete agreement between the female and immature means except by the merest chance. The two presumed male samples have probability of real agreement of about 0.65 based on a *t*-test. It would appear that the mean difference of wing length between immature and adult males is about 5 mm. I believe these results are more nearly correct than those I arrived at in 1962.

The present results lend some credence to the possibility I rejected in 1964, that the adult population here was preponderantly male. It still remains to be shown that there are areas in which wintering adult females are in excess.—Charles H. Blake, Mus. Comparative Zoology, Cambridge, Mass.

Second broods in the Wood Duck.—It is well known that wild ducks are single-brooded and reneest only if their first nests are lost. Recently, however, Wood Ducks (*Aix sponsa*) have been observed to reneest after a successful first nest. Hester (*Proc. 16th An. Conf. SE Asso. Game and Fish Comm.* pp. 67-70, 1962) reported four cases in North Carolina; Grice and Rogers (*The wood duck in Massachusetts. Final Rept., Fed. Aid Project W-19-R*, 1965, see p. 45) one case in Massachusetts; and McGilvrey (*Auk*, **83**: 303, 1966) two cases in Maryland. The purpose of this report is to document five similar cases observed on the Duck Creek Wildlife Area and the Mingo National Wildlife Refuge, contiguous areas in southeast Missouri where Wood Duck studies have been underway for several years. One case was noted in 1965 and four in 1966, as follows:

1. F 656-17010. Nest of 19 eggs begun 6 March 1965 and hatched 15 April 1965; second nest of 12 eggs begun 28 May 1965 and hatched 9 July 1965.
2. F 656-17005. Nest of 15 eggs begun 16 March 1966 and hatched 25 April 1966; second nest of 13 eggs begun 25 May 1966 and hatched 3 July 1966.
3. F 706-22636. Nest of 13 eggs begun 11 March 1966 and hatched 26 April 1966; second nest of 8 eggs begun 1 June 1966 and hatched 11 July 1966.
4. F 706-22576. Nest of 15 eggs begun 4 March 1966 and hatched 13 April 1966; second nest of 11 eggs begun 25 May 1966 and hatched 3 July 1966.
5. F 556-33087. Nest of 12 eggs begun 14 March 1966 and hatched 24 April 1966; second nest of 12 eggs begun 22 May 1966 and hatched 29 June 1966.

In the cases listed above renesting intervals ranged from 28 to 43 days. Because of the long interval it is likely that only the earliest nesting females had time to renest. This seems to be true, also, for the other cases reported in the literature. Since yearling females nest about two weeks later than adults in southeast Missouri, this means that second broods probably occur only among females two or more years old.

The motivation for renesting after a successful first nest is not clear. It may involve loss of the first brood through predation or accidental separation from the female. Not all losses are due to predation because marked individuals from two first broods in this study and one in Massachusetts (Grice and Rogers, *op. cit.*) are known to have survived the brood period. On the other hand, separation may not be uncommon in the dense brood cover preferred by this species. Also, the readiness with which female wood ducks seem to accept strange young into their broods, as noted by Stewart (*Auk*, 75: 161, 1958) and Beard (*J. Wildl. Mgt.*, 28: 516, 1964) may cause some females to lose their young through combination of broods.

Although these possibilities may suffice to explain second broods, one other possibility should be considered: spontaneous dissolution of the bond between female and young may stimulate renesting in some females even after a successful first nest. In eight of the 12 cases reported here and in the literature, renesting intervals ranged from 5 to 12 weeks. According to Beard (*J. Wildl. Mgt.*, 28: 512-513, 1964) a noticeable deterioration of the bond between hen and brood occurs when the young are about five weeks old. This relatively short brood period would make it possible for some females to renest and rear a second brood. This is most likely to occur in the southern portions of the breeding range where the nesting season may begin in February and last as long as 130 days (Hester, *op. cit.*).

In conclusion, second broods apparently occur regularly among Wood Ducks but are too few to be a significant production factor. However, the fact that they occur shows that these birds are extremely persistent renesters with the urge to renest extending well into the brood rearing period in some cases.—John P. Rogers, *University of Missouri, Gaylord Memorial Laboratory, Puxico, Missouri* and James L. Hansen, *Mingo National Wildlife Refuge, Puxico, Missouri*.

A Partial Albino Laughing Gull.—On 4 June 1964, I collected a partial albino Laughing Gull (*Larus atricilla*) at Moore's Beach, Cumberland County, New Jersey. The bird was taken from a large flock of Laughing Gulls which was feeding on King Crab eggs along the shore of Delaware Bay. A normal-plumaged adult female Laughing Gull was obtained at the same time, thus affording an opportunity for immediate comparison of soft parts coloration.

Shortly after collecting, the color of the soft parts of both specimens was determined by using the chart from Palmer (*Handbook of North American Birds*, New Haven and London, Yale University Press, 1962). This reference was also used in the plumage description.

The specimen is basically in second year nuptial plumage, but possesses a white mantle. It is a male (testis 7 x 13mm) and was not fat. Measurements are: culmen, 42mm; wing (arc), 314mm; tarsus, 48mm; bill (depth at base), 13mm; bill (depth at gonys), 11mm.

The color of the soft parts was identical to the normal-plumaged adult bird, except as noted. The bill was dark red, but distinctly brighter than the normal bird. The later also had an indistinct dark band between the gonys and the tip which was lacking in the albinistic bird. Other colors were: iris, olive; orbital ring, brownish red; legs, very dark red, but again brighter than the normal-plumaged adult bird.

Plumage Description — Head, blackish gray; foreneck, belly, upper tail coverts and sides, white; nape, side of neck, back, rump, scapulars, lesser, middle and greater coverts and tertials, white with very light pale gray cast, marginal coverts slightly darker; axillars, pale gray; under wing coverts, light bluish gray anteriorly and distally, white posteriorly; primary coverts, medium to light gray, two outer feathers have some black along the shaft; secondaries, light gray outer vanes and pale gray inner vanes; primaries grade from black and brownish black of 10 to 7, through light gray of 6 and 5 to pale gray and white of 4 to 1. Outer shafts of primary coverts and primaries are black. The shafts become lighter inward until they are white on the innermost feathers. Rectrices, medium gray, shafts dark except two center ones which are mostly white; under tail coverts, white grading distally to very light bluish gray.