

Memorial Fund of the American Museum of Natural History and the National Research Council of Canada.—SPENCER G. SEALY, *Dept. of Zoology, Univ. of Manitoba, Winnipeg, Canada. Accepted 9 Apr. 1976.*

**Incidence of runt eggs in the Canada Goose and Semipalmated Sandpiper.**—

There are few published reports of runt (dwarf) eggs in nature (Rothstein, *Wilson Bull.* 85:340–342, 1973) and little is known about the rate at which they occur in a given population. In 1973, while working under contract for the Canadian Wildlife Service on North Twin Island in James Bay, we examined about 950 eggs of various species. These included about 500 eggs (122 nests) of the Canada Goose (*Branta canadensis*) and 29 eggs (8 nests) of the Semipalmated Sandpiper (*Calidris pusilla*). In one Canada Goose nest, found on 19 May, there were 3 normal eggs ( $\bar{x}$  82.9 × 56.5 mm, 148 g) and a runt (46.4 × 35.8 mm, 39 g). The runt was only 26% of normal weight and unusually spherical. After boiling it was opened and found to contain a rather fibrous yolk, 5 mm in diameter. We did not disturb the normal eggs and their number had not changed by 25 May. Another Canada Goose nest, found on 16 June, contained 2 runt eggs (61.1 × 35.2 mm, 39.8 g; 56.0 × 34.3 mm, 35.0 g), but no normal eggs. These runts had no yolks and were, in Palmer's terminology (*Handbook of North American Birds*, Yale Univ. Press, New Haven, Conn., 1:13, 1962), "long elliptical." The female goose was apparently incubating the eggs in a normal manner and, unless it was a replacement clutch, had probably been so doing for nearly the full term—as other clutches were already hatching. One Semipalmated Sandpiper's nest contained 3 normal eggs ( $\bar{x}$  29.8 × 21.5 mm, approx. vol. 70.5 cc) and a runt egg (22.2 × 16.1 mm, approx. vol. 29.5 cc) of normal shape and color, but a volume only 42% normal. The normal eggs hatched 3 July but the fate of the runt is unknown.

Based on the above figures, the rate of occurrence of runt eggs is 0.6% for the Canada Goose or 0.4% if the 2 runts found in one nest are considered a single instance, 3.4% for the Semipalmated Sandpiper and 0.4% for all eggs examined by us in 1973. Unfortunately the samples are not random, because if no runts had been found there would have been no report. Museum samples are also liable to be biased upwards, because of a tendency for the unusual to be collected. If, therefore, we are to obtain reliable estimates of the rate of incidence of runt eggs in general and perhaps to make comparisons between species and populations it will be necessary for those handling large numbers of eggs to keep, at least approximate, records of the number of eggs they examine, even if no abnormality is found. Barth (*Zool. Mus. Univ. Oslo, Contrib.* 81, 1967) found only 1 runt among 4560 eggs (0.02%) in 4 species of gulls (*Larus*) and Ricklefs (*Bird-Banding*, 46:169) one runt in about 2000 eggs (0.05%) of the Starling (*Sturnus vulgaris*). We cannot recall previously finding a runt in the many eggs examined.—T. H. MANNING AND BRENDA CARTER, RR 4 Merrickville, Ontario, Canada, KOG INO. Accepted 22 Apr. 1976.

**Late fledging date for Harris' Hawk.**—On 29 November 1975, as part of an Arizona Raptor Study Committee project, we banded two nestling Harris' Hawks (*Parabuteo unicinctus*) approximately 40 km north of Phoenix, Maricopa County, Arizona. These 2 birds subsequently fledged sometime between 2 and 4 December 1975. This is the latest recorded fledging date for the species.

Previously recorded late dates are: a nest with fledged young in October and