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 occurence 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

November (LeSassier and Williams, Wilson Bull. 71:386–387, 1959); nests with young fledged in September (Pache, Wilson Bull. 86:72–74, 1974); and nest with recently fledged young 26 October 1975 (Mader, Auk in press).

The Arizona nest was located in excellent Harris' Hawk habitat. Additionally, 1975 was a year of high desert cottontail (*Sylvilagus auduboni*) numbers, and the caretaker of the nearby golf course was systematically shooting these mammals and not retrieving them. Coyotes (*Canis latrans*) were observed carrying off the carcasses, and the Harris' Hawks may also have been using this source of food; cottontail skulls, tails, and legs were found in the nest and around the base of the nest site. A few feathers of Gambel's Quail (*Lophortyx gambelii*), and the tail of a Harris' antelope ground squirrel (*Ammospermophilus harrisii harisii*) were also collected from the nest.

The nest was built in a Saguaro (*Carnegiea gigantea*), about 7 to 8 m from the ground. Because of the large size and lack of cup in the nest, we believe it to have been rebuilt or added to several times. Klimosewski first saw it in the winter of 1974–75, and in the spring of 1975 he saw an adult female sitting on the nest; however, no young were fledged from this presumed nesting attempt. The next indication of use was on 22 November 1975, when 2 large young were seen in the nest.

Two males and a female (sex determined by comparative size), all in adult plumage, were in attendance at this nest both in the spring and in November/December and would support the conclusion that this late nesting was at least the second attempt by the same group. A nest-helping system has been recorded for Harris' Hawks by Mader (Living Bird, 14:59–85, 1975).—ELEANOR L. RADKE, *P.O. Box 446, Cave Creek, AZ 85331* and JOHN KLIMOSEWSKI, *1810 N. 16th Ave., Phoenix, AZ 85007.* *Accepted 15 March 1976.*

The spatial distribution of wintering Black-bellied Plovers.—The Black-bellied Plover (*Pluvialis squatarola*) is a common winter resident along much of the coastal United States. Individuals in foraging flocks of wintering Black-bellied Plovers are generally quite scattered. This is in contrast to most other winter shorebirds (e.g., Sanderlings, *Crocethia alba*; Semipalmated Plovers, *Charadrius semipalmatus*; Knots, *Calidris canutus*; and Ruddy Turnstones, *Arenaria interpres*) which frequent the same beaches in fairly compact flocks. This note discusses the spatial distribution of wintering Black-bellied Plovers along the Gulf coast beaches of Sanibel Island, Florida. From 25 through 30 December 1975, I made 13 surveys of Black-bellied Plovers on Sanibel Island, each time pacing off the distance between adjacent plovers. I measured 201 inter-plover distances, sampling only sections of beach bordered by vegetation. I avoided stretches of beach with many people and all areas where there were dogs, for the plovers seemed to avoid both situations. To avoid sampling regions where recent disturbance (e.g., a dog running along the beach) may have caused all the plovers to leave the area temporarily, I did not record any inter-plover distances which were greater than 270 m. The groups of inter-plover distances were homogeneous (Kruskal-Wallis test, $P > .975$), so all samples were combined.

The null hypothesis that the 201 observed distances are indistinguishable from a random distribution of plovers along the beach was tested against the alternative hypothesis that observed distances were more evenly spaced than a random distribution of plovers would produce; the plovers were obviously not clumped. The random distances were generated from the equation,

$$N_m = \frac{1}{S} \sum_{I=1}^{m} \frac{1}{S - I + 1},$$