

unable to study the pelvic musculature of *Casmerodius albus*; it would be of the greatest interest to know if its musculature agreed with that of the four "day" heron genera studied by him. My field observations and the detailed anatomical investigations of Vanden Berge suggest that heron foraging behavior provides a fertile field for studies of the functional anatomy of heron musculature.—ANDREW J. MEYERRIECKS, *Department of Biology, University of South Florida, Tampa, Florida 33620, 28 January 1971.*

**Size differences between Ross' and Snow Goose eggs at Karrak Lake, Northwest Territories in 1968.**—In the central Canadian Arctic Ross' Geese (*Chen rossii*) and Snow Geese (*Chen caerulescens*) nest in mixed colonies on islands in shallow tundra lakes (Ryder, Auk, 86: 282-292, 1969). During nesting studies of the Ross' Goose at Karrak Lake, Northwest Territories (67°15'N 100°15'W) I occasionally found it difficult to determine visually whether temporarily unattended nests belonged to Ross' or Snow Geese. When I approached a nesting island during the egg-laying period, attending pairs would flush at a considerable distance (Ryder, Canadian Wildl. Serv. Rept. Ser. No. 3:27, 1967). One of the procedures used to obtain nest histories (i.e. follow the fate of nest and eggs from the day the first egg was laid to the hatching or disappearance of all eggs) was to mark all newly-started nests in a number of study areas at the colony. We temporarily assigned a species to each marked nest until the female was seen sitting on the nest. This method had one major drawback. On occasion marked nests were destroyed by predators (arctic fox, *Alopex lagopus*; Glaucous Gull, *Larus hyperboreus*; Herring Gull, *L. argentatus*) before laying was completed or just after completion. In such

TABLE 1  
MEASUREMENTS OF SNOW GOOSE AND ROSS' GOOSE EGGS, KARRAK LAKE, NORTHWEST TERRITORIES, 1968

Snow Goose	Length (mm)	Width (mm)
N	50	50
upper	87.9	56.7
Range:		
lower	72.6	50.5
Average	80.5	53.8
S.D.	2.0	1.3
Ross' Goose	Length (mm)	Width (mm)
N	52	52
upper	80.2	51.4
Range:		
lower	67.2	44.7
Average	73.1	47.5
S.D.	2.5	1.5

Average lengths and widths are significantly different,  $P < 0.01$ .

instances attending females would desert before we had an opportunity to determine which species the nest belonged to.

I found from handling over 3000 Ross' and Snow Goose eggs that species determination of unattended nests was possible by the relative feel of egg widths. When an egg was held with the pointed end toward the thumb, there was a definite difference in the impression of size between eggs of the two species. To test this I classified, in 1968, by the above method, 52 Ross' and 50 Snow Goose eggs before measuring their lengths and widths. The eggs were given to me by my assistant who alone knew to which species the eggs belonged. In all cases I made correct identification. Lengths and widths of the eggs are presented in Table 1. Although the statistical tests presented are simple (they can be completed in the field) the data show that there is little overlap in the widths of the eggs between these two species.

This report may be useful to future investigators. Certainly the measurements of length and width are accurate, easily obtained and provide considerable confidence in correct identification of unattended goose nests in such mixed species populations.—JOHN P. RYDER, *Department of Biology, Lakehead University, Thunder Bay "P", Ontario, 25 January 1971.*

**Cassin's Sparrow parasitized by cowbird.**—On 16 May 1970 we camped in the Comanche National Grassland, 11 miles southeast of Campo, Baca Co., in extreme south-eastern Colorado. We flushed a Cassin's Sparrow (*Aimophila cassinii*) from its nest in a sagebrush (*Artemisia filifolia*), about six inches above the ground. Inspection of the nest revealed three white eggs and one dull whitish egg blotched with brown. We believe the latter to have been an egg of the Brown-headed Cowbird (*Molothrus ater*). No bird of that species was observed at the site or in the vicinity.

The location is a vast sagebrush and grass prairie. A solitary tree is located approximately one mile from the site; while the nearest farm and associated grove of trees must be at least five miles from the site, although we have not measured the distance. Typical birds of the habitat are, besides *A. cassinii*; Western Meadowlark (*Sturnella neglecta*), Lark Bunting (*Calamospiza melanocorys*), Grasshopper Sparrow (*Ammodramus sava-narum*), and Mockingbird (*Mimus polyglottos*). There are, in addition, Lesser Prairie Chicken (*Tympanuchus pallidicinctus*) in this portion of the Comanche National Grassland.

Friedmann (U.S. Natl. Mus. Bull. 233:159, 1963) states that "Cassin's sparrow appears to be an infrequent victim of the brown-headed cowbird." He lists eight records, all for the state of Texas with only two of these north of San Antonio. Sutton (Oklahoma Birds, 1967, p. 558) states that no parasitism of the Cassin's Sparrow has been reported in Oklahoma. Bailey and Niedrach (Birds of Colorado, 1965) and Ligon (New Mexico Birds, 1961) do not mention parasitism of *A. cassinii*. A search of the literature failed to reveal any references not included by Friedmann. Apparently, this is the first recorded instance of cowbird parasitism of the Cassin's Sparrow outside of the state of Texas.

The earliest date reported by Sutton (op. cit.: 616) for a nest with eggs in Oklahoma is 26 May. Normal clutch size judging from evidence he cites is four to five. We conclude that the nest we found was likely completed and represents an early date for this species. In addition, this is only the fourth report of a Cassin's Sparrow nest for Colorado, although this species is common in southeastern Colorado (Bailey and Niedrach, op. cit.: 809).—HUGH E. KINGERY AND PAUL R. JULIAN. 10 Emerson St., Denver, Colorado 80218 and 1269 Chinook Way, Boulder, Colorado 80303, 10 November 1970.