he seems to have no very strong objections to an audience. The performance of the birch drummer (Ruffed Grouse), can only be witnessed by the exercise of stealth and caution, Our little Spruce Partridge on the other hand will peer and look at the intruder and then, as if suddenly remembering, go through his evolutions with a gusto that excites our startled amusement. Though the drumming of the grouse is peculiar to the male its practice is not confined to the nesting season alone, but may be heard in any month of the year and occasionally at any hour of the day or night.

J. L. DEVANY.

SOME OBSERVATIONS ON BLANDING'S TURTLE.—During the summer of 1920 I spent several weeks at Point Pelée, Ontario, with a collecting party from the Royal Ontario Museum of Zoology. The first Blanding's Turtle (*Emys Blandingii*) was taken on June 15th, and from then until I left — July 23rd — it was much in evidence. The Point, having but a slight elevation above Lake Erie, permits many temporary rain pools apart from the main marsh, and it was in these pools, and along the sandy east beach, that most of the turtles were seen. At this season their terrestrial wanderings may mean a search for suitable sites to deposit their eggs, although it is known that this species is not strictly aquatic. However, I believe the majority of those seen on land were females — at least, those collected show this to be true.

At 6.30 p.m. on the 22nd of June I found two turtles preparing to deposit their eggs. Being determined to watch the process in spite of an empty stomach, and the hour for the attack of Point Pelée's mosquitoes drawing near, I kept one specimen under observation until excavation was fairly under way. Then, crawling within ten feet of the turtle, I watched the procedure without its showing any signs of fear.

Bracing itself up with its front feet, it dug with the hind feet, slowly carrying the sand to the surface on the upturned sole. In digging, the hind feet were always used alternately, the sand being placed first to the right and then to the left of the hole. While using one hind foot in scooping from the bottom, the other was rested against the side of the hole, helping the turtle to raise itself in order to lift the sand to the surface. After the hole was two or three inches deep, the turtle settled back so that the edge of the carapace rested on the rim of the hole. In this position, and by extending the hind legs, quite a depth was attained. After three quarters of an hour this operation was completed. My presence, however, may have retarded the work.

I estimated the hole to be seven inches deep with a surface opening of three and one-half to four inches in diameter. This broadened out below the surface, making a flask-shaped chamber about seven inches in diameter. After one egg had been dropped, I returned to camp.

Later, I returned with another member of the party and found the location. There was not the slightest sign of depression or mound, and upon digging for the eggs we found the sand well packed. The eleven eggs were transferred to a box of sand in camp, where they were left exposed to the weather. We expected to hatch them and learn the time required for incubation, but an unfortunate accident happened to them on August 26th. Another member of the party was able to examine the broken eggs and preserve several fully formed young turtles. They would evidently have emerged in a short time, but the exact period of incubation was impossible to determine. However, it would have been something over sixty-five days.

BEHAVIOR OF CAPTIVES.

The party carried back a number of adult live specimens of Blanding's turtle which were easily kept alive in captivity. They fed upon earth-worms, dead fish and meat scraps, taking food readily, both under and out of the water. After a few days they showed no signs of fear, and were frequently handled without their closing the hinged plastron.

Without a suitable place to deposit their eggs, Blanding's will retain them for a considerable time. One specimen collected when digging the hole, retained the eggs for at least thirty days. I believe this to be injurious to the turtle if postponed too long. One specimen that died in mid-

winter had a number of fully formed eggs taken from it. Other individuals relieved this condition by depositing their eggs in the water in the tub which confined them. Unnatural surroundings are almost sure to produce unnatural behavior.

L. L. SNYDER,
Royal Ontario Museum of Zoology,
Toronto, Ont.

HORNBY'S PETREL.—Through the generosity of Dr. L. C. Sanford, of New Haven Conn., the Victoria Memorial Museum has lately come into the possession of a specimen of Hornby's Petrel, *Oceanodroma hornbyi*.

For many years it has only been known from the type specimen in the British Museum obtained by Admiral Hornby, previous to 1853, and has for long appeared on the Hypothetical List of the American Ornithologists Union on the basis of its vague locality, "N. W. America", as given in the Catalogue of *Birds of the British Museum*.

In the *Auk*, XXXIV, 1917, p. 466, H. C. Oberholser advocates its installation as a fully accredited American bird on the grounds that at the time of its capture Admiral Hornby had his headquarters on Vancouver Island and there is little doubt that it was obtained in adjacent waters. It is seen that the probability of its being a Canadian species is suggested by the same evidence. It should likely be placed on our hypothetical list until further substantiated by specimens.

There are few North American birds of which we know so little as we do of the Petrels and their allies. Many nest in the southern hemisphere on lonely rocky islets lost in the vast oceanic wastes. With such limited breeding areas the total number of some of them must be very small and subject to accidental vicissitudes. The introduction say of rats from a wrecked ship might and probably has before now wiped out entire species or left them on the verge of extinction. Pigs, goats and cats have had such effects on many such insular habitats. Few of these stations are ports of call, some are inaccessible except in the calmest weather, and their dangerous possibilities and lack of resources cause mariners to give them a wide berth; hence their biota has seldom been investigated.

Petrels are purely pelagic and spend their lives far at sea in vast irregular wanderings, making no regular migration except at such times as the duties of reproduction call them to these out-of-the-way shores. They flit across the pathway of shipping and are seen in passing by the deep-water sailor; but by the coaster or the long-shoreman they are seldom noted. The former has no time to stop, investigate or collect, and the latter no opportunity. Of many species it is only the accidental straggler that normally comes to the eye of science, and probably a greater proportion of species are known by individual specimens in this group than in any other class of birds.

So it remained with Hornby's Petrel until R. H. Beck, collecting for Dr. Sanford eighty miles off the Peruvian coast in 1913, happened to come upon a number and obtained a series of them, of which this specimen is one.

The generosity of this donation to our National collections indicates that Dr. Sanford regards ornithology as more than the amassing of specimens; he refused to take advantage of his opportunity to retain the material and make his collection unique in the possession of this rare species. Whilst this spirit is not rare enough amongst naturalists to excite remark it is none the less worthy of approbation, especially as there are instances where less breadth of view and generosity have been evident.

P. A. TAVERNER.

NOTES ON THE BEHAVIOUR OF THE CHIPMUNK—No. 2.—While in camp at Lake Missanag, Frontenac County, Ontario, during part of August and September 1920, I was able to add a few notes to my record of the behaviour of the Chipmunk (*Tamias striatus lysteri*). The Chipmunk with the very short tail, upon which I made the observations recorded last year (*Can. F.-Nat.*, Vol. XXXIII, p. 92), had disappeared from her haunts of last year, nor was she to be found anywhere in the vicinity. This was a decided disappointment, as I had hoped to find out something in regard to the duration of memory in this species. The burrow in which another individual had lived the previous fall was also deserted. However, seeing a Chipmunk about a large