it is olfactory. I might add that string beans, peas, and lettuce are also favorites of his, his main staff being sunflower seeds.

I have also been interested in the frequent use that he makes of bits of oak bark which he cuts from a slabside located in his cage. There is evidently something in that which fills a gap in his dietary complex.

A surprising thing about this parrot's feeding is the comparative infrequency of feeding. Passerine and gallinaceous birds are constantly in search of food, while this parrot feeds at rather distant intervals and in his dining-room performance enjoys a full gorge.—PAUL BARTSCH, *U. S. National Museum, Washington, D. C.*

The incubation period of the Great Horned Owl.—Bent (Life histories of North American birds of prey, Pt. 2, U. S. Nat. Mus. Bull. 170: 304, 1938) wrote of the Great Horned Owl (*Bubo v. virginianus*) that "the period of incubation has been estimated as from 26 to 30 days, but it does not seem to have been accurately determined; Professor Keyes (Condor, 13: 5–19, 1911) says that it is not less than 30 days, and probably more." This thought was reiterated by Baumgartner (Wilson Bull., 50: 274–285, 1938) after concluding his Ph.D. thesis research on the owl; he also cited correspondence with W. J. Breckenridge, who had "made some observations near Fridley, Minnesota, which indicate a period of at least twenty-nine days" (tom. cit.: 281).

In February, 1942, with advice and help of Dr. Paul L. Errington of Iowa State College, we undertook a study in the vicinity of Ames, Iowa. Among the known territories of the locally resident horned owls—doubtless *B. v. virginianus* (Swenk, Neb. Bird Rev., 5: 79–105, 1937)—one in particular seemed to promise a good opportunity to obtain data on the length of the incubation period. On Feb. 4, Dr. Errington, incidental to field work of a different nature, noticed that the owls were interested in a stick nest built the previous spring by a Red-tailed Hawk (*Buteo borealis*) in the crotch of a maple tree about forty feet above the ground; and, on the next occasion that the nest was observed, February 7, an owl could be seen sitting in it. The owl was not then disturbed, but, on the next day, it was flushed off the nest, and the single egg found there was marked.

The egg was suspected of having been laid on February 7, when the owl was first seen in the nest, but our main prospects of learning something definite concerning the incubation period depended, of course, upon whether another egg would be laid and hatched.

In view of the fact that incubation "normally begins with the laying of the first egg" (Baumgartner, tom. cit.: 281), the general procedure of our study was to examine the contents of the nest at daily intervals long enough to establish laying and hatching dates. Visits were planned for approximately the same hour each day (between 5:00 and 6:00 P. M., this being the only time that two of the authors could always be free to work together).

No change was observed on the visit of February 9, but on February 10 a second egg was found and marked. Thereafter, visiting was suspended to permit uninterrupted incubation and to reduce the chances of the eggs being abandoned or their embryos killed by chilling (see Baumgartner, tom. cit.: 281). It was felt that any advantages to be gained by marking possible additional eggs laid in the nest would be more than offset by greater risk to the clutch. Daily visits were resumed on March 4; on March 9, the first egg was found pipped, thirty days after the latest likely date of laying; and, on March 10, the owlet was hatched out but was still moist.

On March 12, the second egg had pipped, thirty days after marking; on March 13, the owlet had broken a hole in the shell about one-fourth inch in diameter; and, by the day following, March 14, this second young one was out of the egg and fully dry.

The weather from February 7 to March 14 was slightly warmer than usual. According to information given by the City Engineer of Ames, the average temperature over this period was 28.9° F.; the minimum, —5° (Feb. 18); the maximum, 64° (March 10). The temperatures recorded in Ames at 5:00 P. M. on the days that the eggs were exposed during our early visits were 30°, 26°, and 29°, Feb. 8–10, respectively, but we naturally took care to hurry out of the owl territory as soon as the necessary work at the nest had been done.—ARTHUR K. GILKEY, W. DAVID LOOMIS, BRUCE M. BRECKENRIDGE, AND C. HOWARD RICHARDSON, *Ames, Iowa.*

Raven eats Mormon cricket eggs—A juvenile specimen of the Western Raven (*Corvus corax sinuatus*) was collected in Vernon Creek, Tooele County, Utah, on August 5, 1941, as it rested upon a concrete livestock-watering trough. Examination of its stomach contents revealed the presence of three mature female Mormon crickets (*Anabrus simplex*) and 285 Mormon cricket eggs. Total insect food of three juvenile ravens and one adult, in addition to that listed above, consisted of five grasshoppers, seven beetles (three being weevils, *Ophryastes latirostris*) and one lepidopterous caterpillar. In addition, two stomachs contained hair and flesh of rodents, evidently of ground squirrels; one roundworm; 155 kernels of barley in two stomachs; and nine kernels of wheat in one stomach. Ravens often have been observed in numbers feeding in Utah areas in which there were Mormon cricket and grasshopper outbreaks during recent years.—G. F. KNOWLTON, *Utah Agricultural Experiment Station, Logan, Utah.*

Spring food of the Robin in central New York.—In a previous report [Wilson Bull. 52 (3): 179–182, 1940] I indicated the ease with which the food of certain passerine birds could be determined through fecal analyses and reported on the results of an examination of 700 Robin droppings taken during the summer at Ithaca, New York.

During May and June, 1942, several hundred Robin droppings were collected near my home at Ithaca, New York, and analyses of 200 of these droppings are recorded below. The droppings were collected at bird baths, on lawns frequented by these birds, and on sidewalks bordering barberry hedges which Robins frequented in some numbers. Direct observation substantiated the analyses which demonstrated that barberries were an important source of food during May and June, although insects were abundant and apparently secured with ease.

The following analyses were made of 200 Robin droppings collected between May 1 and June 12, 1942. The figures indicate the percentage of frequency of occurrence of the different food items.

PLANTS, 81.5: barberry, 61.0; sumach, 29.0; coral berry, 4.5.

ANIMALS, 93.5: beetles, (chiefly *Aeolus mellilus* Say, *Brachyrhinus rugosostriatus* Goeze, and *Brachyrhinus ovatus* Linn.), 82.5; millipedes, 38.5; ants (chiefly *Lasius* sp.), 27.0; cutworms, 9.5; sowbugs, 6.5; wireworms, 4.0; flies, 3.0; cockroaches, 1.5.

It is interesting to note that the elaterids and curculionids, eaten in considerable numbers, are pests of considerable importance to man.—W. J. HAMILTON, JR., *Cornell University, Ithaca, New York.*