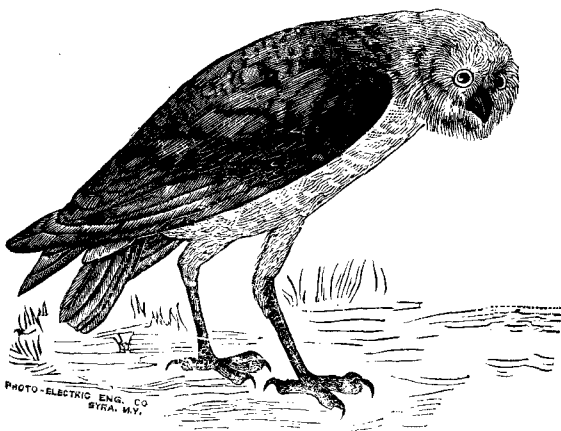


## THE BURROWING OWL.

*Speotyto Cunicularia Hypogæa.*

BY F. T. PEMBER, GRANVILLE, N. Y.

Having spent the last four seasons collecting on the Pacific coast, I have had abundant opportunity to observe the habits of the Burrowing Owl during the breeding season. In parts of Cal-



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ifornia, where I have spent considerable time, these interesting little owls are very numerous, and a ride of a few miles over the uncultivated plains usually shows them by dozens, sitting, either singly or in pairs, at the entrance to their underground homes. At such times they are very tame and stare wonderingly until you are within a few feet of them, when they either drop into the burrow or fly a few rods away. After these short flights they almost invariably alight on the mound in front of another burrow, when they turn about so as to face you, and at short intervals make a sharp, un-owl-like note, at the same time comically bowing themselves almost to the ground. It is quite amusing to those who see them for the first time.

During the breeding season the male owl seems to keep constant watch at the entrance of the hole, while his mate is attending to her household duties inside. Sometimes, however, we find the pair sunning themselves together. When disturbed at such times the female retreats underground, the male flying off as before stated.

When digging to obtain the eggs, we almost always find the female and occasionally both birds, backed up at the extreme end of the burrow. They do not show fight, and when pulled out by the hand offer little resistance, sometimes trying to bite, but seem incapable of doing much harm. The nest is made almost wholly of dry horse manure. The entire burrow is also lined with it and a quantity of the same material is strewn about the entrance. This is our guide when looking for eggs, for it is wholly useless to dig out holes that do not show this sign that house-keeping has actually commenced.

Looking therefore to "surface indications," which tell us when we can "strike it rich," we need waste no labor in digging empty burrows, unless, maybe, we find more young owls than we care to see. In such a case it is not necessary to dig far. If the young are a few days old we can hear them as soon as we commence work. They make a peculiar hissing noise and it is easy to imagine that the hole is full of snakes. Another sure indication of young birds is the amount of food provided for them, and it is scattered anywhere from entrance to end of burrow. This stock of provisions is somewhat varied, and I have found frogs, horned toads, centipedes, scorpions, grasshoppers, four or five kinds of mice, parts of snakes of several species, kangaroo rats, an assortment of lizards, etc.; but in digging out something like one hundred holes have only found fragments of birds once or twice, so that they must be of great benefit to the farmer and deserve his best protection.

In southern California the large Gray Ground Squirrel (*Spermophilus beecheyi*) is very abundant and the owls take possession of their abandoned burrows. More rarely they occupy the deserted hole of the badger and fox. Most writers state that the eggs are found from six to eight feet from the mouth of the burrow. This is not my experience, as I have rarely found them without digging eight or nine feet, and all the way from that to

fifteen. But this no doubt varies in different localities, according to the nature of the soil.

Writers of twenty years ago gave the number of eggs of this owl as four, while later authors say from four to ten. I think four seldom, if ever, constitutes a full set. Where incubation had commenced I have never found less than seven, while eight, nine and ten are more commonly found. I once found a set of eleven eggs, and again eleven young birds a few days old. They were covered with white down and were rather pretty. Last April I found my first set of twelve eggs and naturally felt very much elated over it. I knew that they were badly incubated but thought I would save them, no matter how much time it took. I had no time to attend to them until the second evening, and when I went to unpack them, I found that six of the young birds were nearly out of the shell, while the others were "getting there" as rapidly as possible. So I lost the largest set that I ever found, and very likely may never find another with so many eggs.

The eggs of the Burrowing Owl are nearly round, of a pure, glossy white. The range of measurements are 1.16x.98 to 1.35x1.10, averaging for a large lot 1.25x1.03. Fresh eggs may be found from middle of March to 15th of May, and perhaps later, but have never looked for them after that date.

On April 24th and 25th, 1889, near Riverside, California, I dug out twenty-five or thirty nests of this owl. About one-third of these contained young of all sizes up to half-grown, one-third were full sets in all stages of incubation, while the balance were fresh, and ranging in numbers from three to ten.

