

was a specimen of the famed Secretary Bird (*Serpentarius secretarius*). Its plumage was varying shades of neutral tints, evidently protective coloring harmonizing with its surroundings; in length 51 inches with an expansion of 74 inches. The bird is strong on legs and wing, generally running a considerable distance before taking flight. It builds a gigantic nest, perhaps even larger than that of the King of Kopje, the Black Vulture (*Otogyphs auricularis*). The nest is loosely put together, of coarse twigs, and not infrequently placed in the deep center of one of those thorn trees whose formidable spines have won an unenviable notoriety for the species in South Africa.

The Secretary, known to the Boers as the snake-eater, makes a meal of lizards, rats, meercats, locusts, or snakes, just as the menu provides. In his encounter with the latter he is seen at his best. No sooner does his keen eye locate a snake than he advances toward it, carefully but surely. When within striking distance the ear tufts and neck feathers are erected, the bird strikes out with its foot, somewhat after the manner of a game rooster, at the same time lowering a wing which it interposes as a shield to receive the stroke of the snake. The fight is generally one of but a few rounds, for the bird is an able fencer and succeeds very quickly in getting in a single blow which breaks the back of the snake. The bird immediately follows its advantage by implanting its foot upon the head and neck of the reptile, pressing them into the ground, while it delivers the *coup de grace* with its powerful beak. It then deliberately swallows the snake whole, beginning with the tail, and, as if to make death doubly certain, it bangs the head once again against the ground just as it disappears within the accommodating maw of the victor. This bird is so valuable as a scavenger that it is now upon the protected list.

One might linger longer and recount memories of the great vultures, those mighty factors in South African sanitation, or repeat legends of the White-necked Raven, associated in the hazy orthodoxy of the voretrekkers as the species which fed the exiled prophets, or might perchance hear again, as we have so often done, the weird affrighted cry of the Plover which threaten to reveal our presence as we carry despatches or steal ghost-like amidst the midnight shadows to outflank the watchful Zulu or cunning Matabele. But time forbids.

In conclusion let us only earnestly hope that future campaigns in South Africa may be those of the ornithologist and scientist, marching thrice-armed in the justness of their cause against an only too numerous and capable enemy, the insect pests, whose advance at times is as terrible and as destructive as an army with banners.

Alameda, California?

NESTING OF THE WESTERN HORNED OWL IN COLORADO

By ROBERT B. ROCKWELL

YEAR after year, as the first faint signs of approaching spring begin to manifest themselves and the familiar longing for the fields and woods asserts itself the writer's first thought has been of that much-sought-for nest of the Western Horned Owl (*Bubo virginianus pallescens*). But despite repeated inquiries, numerous "false alarms" and long hard trips during many different years it was not until the spring of 1907 that the long-looked-for nest was discovered.

Repeated failure had created a rather vague impression that a Horned Owl's

est was some sort of a myth or that a charm of some kind protected it from discovery, and it was with a decided lack of confidence that the search was renewed for another year, early on the morning of March 10, 1907.

A brisk ride of ten miles brought us to our field of operations: a typical prairie creek with a wide sandy bed, over which very little water was flowing, and bordered on either side by low bluffs and occasional groves of cottonwoods and scrub willows.

Practically the only signs of spring discernible were a few scattered Robins, new arrivals from their winter homes, an occasional blade of green grass and a flock of noisy Red-winged Blackbirds at the very top of a tall naked cottonwood, each apparently trying his best to outdo the melodious "kong-ker-ee" of the rest.

After following the course of the creek about a mile we came to a grove which filled every requirement for an ideal nesting site of our friend *Bubo*. The grove lay between the creek bed and an abrupt bluff protecting it from the north, and at the foot of which lay a slough overgrown with tules, cattails and rank grass, now dead, dry and yellow but furnishing excellent cover for a variety of small bird life. The timber was very dense in places and more open in others, affording a welcome retreat for almost any type of bird and thus an abundance of food for any predatory birds hunting in the grove.

We had almost completed a thoro search of the grove without results when out flopped a big owl from a dense scrub willow tree within a few feet of us. A close scrutiny of the tree



WESTERN HORNED OWL ON NEST

failed to reveal a nest, so a systematic search of the grove was begun. As no dead trees of any size were seen we concluded that the nest must be in one of the old magpie's nests which abounded all thru the grove. So arming ourselves with sticks we began an animated bombardment of each nest. After considerable hard work and as we were nearing the outer edge of the grove a nest was encountered which was so small and dilapidated in appearance that it hardly seemed worth while to throw at it, but as the second stick thrown crashed heavily against the nest Mrs. *Bubo* rose clumsily from the nest and launching herself slowly into the air silently flapped out of sight.

Just how long it took the writer to climb that tree is not part of the story but it was pretty close to 0:00 flat, and as his head came to a level with the nest there

lay one great, round, pearly white egg in a downy bed of fluffy yellowish feathers.

The nest was a badly dilapidated magpie's nest from which all of the top had weathered away except a portion which shielded the bird from the north, leaving a rather flat platform of sticks not unlike an old hawk's nest, and was situated about 15 feet from the ground in a small cottonwood tree about 8 inches in diameter. The depression of the nest cavity was quite shallow and was unlined except for a thin layer of feathers from the parent's breast, upon which, together with some dead leaves and similar trash the egg was deposited.

After taking a few preliminary notes we left the nesting site as quietly as possible in order not to disturb the birds any more than was necessary. A week later we returned and carefully approached the nest. The owl evidently heard us and as she raised up we could plainly see her head above the rim of the nest.



NEST AND EGGS OF THE WESTERN HORNED OWL

We promptly got our cameras into action and after making a couple of exposures from the ground, climbed a tree about 25 feet from the nest in order to get a better view of the brooding female. This did not seem to frighten her, but when we got about half way up a tree within 15 feet of the nest the old bird flopped off the nest and out of sight.

An examination of the nest revealed two eggs in which incubation had begun. The nest contained many more feathers than on the previous week and as a breeze was blowing these nodding feathers gave the interior of the nest a beautifully soft downy appearance. By climbing an adjacent tree and lashing the camera to a limb we secured a close view of the nest and eggs, and then by careful work, after winding the nest securely, we cut down the tree and, loading it into the wagon nest and all, carried it in triumph to the Colorado Museum of Natural History

where it will no doubt form part of an environmental group at no greatly distant date.

During all the time we were photographing and removing the nest we did not catch sight of either of the parent birds, in fact we did not see the male bird at all on our second trip to the nest.

Spurred on by our success we made a trip to another spot fully ten miles from where the nest was found, where Horned Owls had been reported; but altho both birds were flushed, an exhaustive search on this and a later day failed to reveal a nest. These birds while living in this particular locality thruout the year were apparently not nesting.

From the above statements it might be inferred that the Western Horned Owl is a rare bird in Colorado. Such however is hardly the case; in fact, in certain isolated localities it is reasonable to assume that it is fairly common. It is true that the omnipresent "small boy with a gun" has practically exterminated the species in the immediate vicinity of Denver, but along many of the creeks on the plains east of Denver which afford sufficient food and cover the Horned Owls are of regular and rather frequent occurrence. Thruout the mountainous western portion of the state the birds occur regularly but I have never seen them in any numbers. Whether this is due to lack of observation or to an abundance of cover and a real scarcity in numbers I am unable to state. At any rate I do not think the birds are as common anywhere in the state as they are along the well wooded prairie streams.

As is the case with the typical form of the Horned Owl, the western form chooses various nesting sites. Cavities in large trees and in sandstone ledges, deserted hawk's nests and even nests on the ground have been reported, but probably owing to their great abundance and the natural advantages they offer, deserted nests of the magpie are more commonly resorted to than any other site.

The very early date at which nidification takes place and the quiet and inconspicuous habits of the birds during the nesting season probably accounts for the scarcity of eggs of this subspecies in collections, and these reasons are also probably responsible for the way in which these birds withstand constant persecution, not only from hunters but from ranchmen as well, for every farmer seems to feel it a solemn duty to do his share toward exterminating the entire owl family.

It has been said and possibly it is true that the Horned Owl is the most destructive of North American birds, but even if this be true, it is certainly a fact that what damage the comparatively few individuals of the species, to be found in any given locality, really do is not sufficient to brand them as a natural menace, and the amount of good they do in destroying small rodents should certainly be a strong point in their favor.

But when all other arguments for a sweeping bird protection fail to convince, we can always fall back on the fundamental fact that Nature knows how to conduct her affairs very well and if those who are over-anxious to exterminate any creature regarding whose economic usefulness there is a question would rest from their labors of carnage and let the natural laws take their course, the ultimate results would probably be fully as satisfactory. The natural order of things was normal when we came and will be normal after we are gone. Why not let a wise Nature of which man is but an insignificant part rule without our interference?

Denver, Colorado.