## SOME ARIZONA BIRD STUDIES

## BY HERBERT BRANDT

It was the writer's privilege to spend two weeks during mid-May, 1936, observing the bird life in the Upper Austral Zone on the western slopes of the Huachuca Mountains of Arizona, in the vicinity of the Sunnyside Ranch. A considerable amount of ornithological work has been done on the eastern slopes but there has been little reported from the steeper, more rugged western side of this magnificent mountain range. I was accompanied by Mr. Edouard C. Jacot, the noted Arizona collector, who is very familiar with the birds and the country on the western side of the mountain. Following are a few of our observations which it may be well to record.

Band-tailed Pigeon, Columba fasciata fasciata.—We found this large pigeon common in the live-oak groves that clothe the western foothills of the mountains up to an altitude of about 6500 feet. It was just starting to nest when I left on May 18. Three nests were observed, each containing a single egg which seemed to constitute the full complement. Dozens of birds were often seen in a day's tramp over the stony, wooded hills and they were conspicuous in their bounding flight.

Jacot states that fifteen years ago the Band-tailed Pigeon was nearly shot out in the Huachucas but, probably due to continuous federal protection, they have been increasing each year until now they have become common in the oak belt on the western side of the range.

Spotted Screech Owl, Otus trichopsis.—This rare little owl appears to be found within our borders chiefly in the Huachuca and Catalina Mountains of southern Arizona, but little or nothing seems to have been written concerning its life history. Bendire, in his 'Life Histories of North American Birds,' describes the nidification of what he thought to be the Spotted Screech Owl, and likewise Gilman, in 'The Condor' for 1909 (vol. 11, p. 147) speaks of collecting its eggs. On investigation, however, I have concluded that both descriptions should refer to Otus asio gilmani, because the Spotted Screech Owl has never been known to occur in the Lower Austral Zone among the giant cactus. The reason that these records are incorrect is presumably because the early name for the common Screech Owl of Arizona, as applied by the first A. O. U. Check-list, published in 1886, was Megascops asio trichopsis. error was discovered by Ridgway, who in 'The Auk' (vol. 12, p. 389, 1895) corrected the name of the common Desert Screech Owl, which he showed was not Megascops (Otus) trichopsis, and named it Megascops asio cineraceus, assigning the name Megascops trichopsis to the Spotted Screech Owl, to which it belongs. With this in view, it appears that the eggs and nest of the latter have not been described, although Swarth, in his 'Distributional List of the Birds of Arizona' (page 30), mentions that G. F. Boeninger took a set of three eggs in the Huachua Mountains, on June 19, 1901.

We were fortunate in finding two nests of this very rare bird: one on May 8, with three highly incubated eggs, and on the following day, a second set of the same number in which incubation had just begun. The first nest was situated 22 feet from the ground, in what was apparently a Flicker's hole in a dead juniper stub growing at an elevation of about 5900 feet, in the bottom of Sunnyside Canyon. The incubating bird left its retreat when Jacot struck the tree sharply, but returned almost

at once and was captured on the nest. The three globular white eggs were found, partly buried, at the bottom of the cavity, which was 16 inches deep.

The second nest was detected by the same method as the first. In this case the bird had selected a large sycamore tree growing at an altitude of about 6300 feet, which is here the upper limit of the Upper Austral Zone in Bear Canyon. The bird chose an open cavity, formed by the breaking out of a main limb, in which to lay its three white eggs. No lining for the nest was employed, but the eggs were deposited simply on the accumulated débris. The site was open above, and so formed that the sitting bird could look out without effort and observe whatever occurred at a large spring below. This owl was collected also, and at each nest the incubating bird proved to be a female.

The measurements of these two sets of eggs of the Spotted Screech Owl are as follows:

Set 1	Set 2
32.8 x 28.6 mm.	$32.3 \times 29.0 \text{ mm}$
33.7 x 28.0	$31.9 \times 28.7$
$33.5 \times 27.8$	$32.3 \times 28.7$

These furnish an average of 32.75 x 28.47 mm., dimensions which are considerably smaller than those of the eggs of the Otus asio group found in southern Arizona. In color, the egg of the Spotted Screech Owl is uniformly flat white; the shell is strong though not very thick; and the surface has a slight luster. In contour the egg is usually oval although one set inclines toward the spherical. Three eggs seem to constitute a full complement.

We found the Spotted Screech Owl not uncommon in Sunnyside Canyon, where a pair dwelt about every mile or so. As soon as it becomes dark this little bird begins to bark its four, evenly pitched notes, which are more dog-like than those of the Screech Owl. It is tireless in its refrain, which may continue uninterrupted for an hour or more, usually coming down from well up on the canyon-side. The voice is gentle yet has far-reaching power and somewhat resembles the sound produced by blowing across the opening of a bottle. This bird is not a migrant, according to Jacot, but spends all its time in the canyons and may be heard at almost any time of the year, especially on those nights of the perfect moon.

Jacot had devised a method of observing these nocturnal birds that is both ingenious and instructive. Equipping ourselves with a strong electric headlight apiece, we went forth into the darkness of the canyons and worked our way toward the calling bird, until oftentimes we had the pleasure of turning our lightbeam on the curious little ball of gray feathers as it sat in the darkness of its deep bower. Then it ruffled its feathers wide and its curious yellow eyes reflected back to us a sparkling eyeshine of gold.

On one occasion a Spotted Screech Owl, from high up on the mountain side, was giving incessantly its nocturnal calls. As it was a long climb up to meet the bird we tried to lure it down to us by "squeeching." Very promptly, after the first few "squeeches," its answering voice was notably louder, hence we surmised closer, and before long, like a shadowy bat in the darkness, the bird alighted in a tree only five feet over our heads. In inquisitive composure it permitted us to shine it to our hearts' content, to study it with our glasses, and to enjoy the rare privilege of intimacy with this rarest of North American owls.

ELF OWL, Micropallas whitneyi whitneyi.—There are three other quaint little nocturnal owls that dwell in Sunnyside Canyon: the Mexican Screech Owl, the

Flammulated Screech Owl, and the Elf Owl. Each has distinctive calls and is met with at not infrequent intervals. I was surprised to find the Elf Owl not uncommon here, whereas this strange little creature is supposed to stray but seldom from the arms of the giant cactus on the lower desert. A pair of these little birds occupied a Flicker's hole in a large tree near the edge of the corral at Sunnyside Ranch and each evening after the blanket of night was spread, the little male perched near the top of a medium-sized tree, where he whimpered and whistled continuously for some time. The usual call is a rather high-pitched, squeaky, tremulous whistle numbering four or five notes without change, but at intervals he modified the monotony by warbling and lisping his strange owl words that none but the elect may understand. The eyeshine of this little bird, like that of the other owlets, is yellow to gold, and often not very distinct.

Coppersy-tailed Trogon, Trogon ambiguus ambiguus.—The turkey-like call of this rare, semi-tropical visitor is a common bird note in Sunnyside Canyon and in the lower reaches of Bear Canyon. There were at least three pairs of birds in each of these valleys and in the morning they noisily called back and forth to one another. These valley floors are usually densely wooded and would make this bird difficult to study were it not for its inquisitive nature, for usually it is easily lured by the "squeech." One lavishly garbed male and his more modest mate repeatedly allowed me to walk up to within some twenty feet of them before they would fly a short distance, then allow me to approach them again. Each time they both called their hen-turkey-like notes: kum-kum-kum, ever answering my "squeeches" of a like count and inflection. That this bird breeds in the vicinity there is little doubt, but we did not spend time seeking its home as Arizona has wisely put it on the permanently protected list, and in consequence this mountain-loving species is again becoming common in its densely tangled retreats.

Southern Red-breasted Sapsucker, Sphyrapicus varius daggetti.—On May 7, 1936, we collected an adult female of this species at an elevation of 6000 feet, in Scotia Canyon of the Huachuca Mountains, which is about three miles from Sunnyside Ranch. This specimen has the head, throat, and breast bright red, without any black on the breast, and is a typical example of this well-marked subspecies. So far as I can discover, there is no published record of its occurrence in Arizona, hence our record furnishes a new bird for that State.

CLARKE'S NUTCRACKER, Nucifraga columbiana.—This roving species evidently found the year 1936 to its liking on the lower western slopes of the Huachuca Mountains, for it was often seen there flying about in small numbers. Three males were collected, one below 6000 feet elevation.

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