

FROM FIELD AND STUDY

Clark Nutcrackers Preying on Ground Squirrels and Chipmunks.—On April 19, 1935, a nest of the Clark Nutcracker (*Nucifraga columbiana*) was found in the lower branches of a juniper tree on a warm south slope near the shore line of Gull Lake, Mono County, California. After waiting two and a half hours the parent nutcrackers arrived and proceeded to brood the three shivering youngsters in the nest. Following a few minutes of brooding, a parent bird began regurgitating square-shaped chunks of fresh meat and fed each young until it refused any further food. We were puzzled as to where the parent bird could have obtained this fresh meat.

As we left the nest we heard a commotion on a slope beyond a slight rise in the ground. Hurrying there to see what was going on, we found an adult nutcracker battling with a Belding ground squirrel (*Citellus beldingi*). The nutcracker soon won the battle. We stood within 25 feet of the bird and watched it skin back the hide from the carcass of the squirrel and proceed to tear off the fresh meat in square chunks. In a very short time the nutcracker had finished the job of tearing off the meat from the squirrel. It then flew away in the direction of the nest we had found.

Our field notes show that on this same trip we saw two instances of the nutcrackers attacking chipmunks. In one case the nutcracker killed the chipmunk and ate it. In the other case the chipmunk escaped. This is the only season in which we have ever observed such action on the part of the nutcrackers in the twenty-six years we have spent in the area. In 1935 there was an unusually large number of nesting nutcrackers in this part of Mono County.—JAMES B. DIXON, *Escondido, California, May 6, 1956.*

A Collection of Panamanian Nests and Eggs.—A small collection of Panamanian nests and eggs acquired by the Chicago Natural History Museum several years ago contains a number of specimens that are noteworthy, either by virtue of their uniqueness or because there is need for further information relating to the breeding habits of the species represented. The specimens described here were collected approximately 5400 feet above sea level on the slopes of Volcán de Chiriquí, a classic collecting locality, by Señor T. B. Mönniche, proprietor of Finca Lerida, Boquete. A report on some 1600 bird skins collected in the same region by Señor Mönniche approaches completion and will be published later by the Chicago museum.

Oreopeleia linearis chiriquensis. White-faced Quail-Dove. A nest collected on August 24, 1950, is constructed of twigs from a coffee tree and coarse roots loosely arranged in the form of a very crude platform lined medially with somewhat finer roots; the diameter is 14 inches. This nest, located eight feet above the ground on a bent primary branch of a coffee tree, was partly supported by a mass of smaller branches. The nest material is surprisingly coarse. One twig is 30 inches long and has a maximum diameter of $\frac{1}{4}$ inch. The two eggs are deep creamy white, with a slight gloss, and measure 33.7×24.9 and 32.4×25.1 mm. Incubation was advanced. It is noteworthy that two Costa Rican nests mentioned by Carriker (*Annals Carnegie Museum*, 6, 1910:408) contained fresh eggs as late as September 16.

Phaethornis guy coruscus. Green Hermit. A nest collected on May 9, 1932, is cone-shaped and slightly flattened on one side where attached to a palm leaf. It is made almost wholly of very fine plant fibres and grass intermixed with moss near the rim of the cup. The inside of the cup is lined with feathery seeds of a vine. Dimensions of the nest are 3×8 inches, the cup being $1\frac{1}{4}$ inches in diameter and $1\frac{1}{2}$ inches deep. The nest was firmly attached by means of a thin network of exceedingly fine fibres to the underside of the tip of a palm leaf which served as a roof to the cup. The two dull white eggs, accidentally destroyed, measured 17×11 and 18×11 mm. Incubation was advanced (Mönniche notes).

According to Mönniche, a large number of Chiriqui hummingbirds adopt a nesting site similar to the one described here and Worth (*Auk*, 59, 1942:367) has previously reported a Green Hermit nest of this type.

Selasphorus scintilla. Scintillant Hummingbird. Three nests with incubated eggs were collected on November 4 and December 12, 1932. These nests are similar in general appearance—compact, cup-shaped structures of moss, more or less covered with lichens; but their respective bowls are lined with

white cottony plant-fibres, brown scales from a fern-stem, and feathers from an undetermined passerine bird. Average dimensions of the nests are $1\frac{1}{2} \times 1\frac{1}{4}$ inches. The cups measure approximately $\frac{7}{8} \times \frac{5}{8}$ inches. Each nest contained two dull white eggs. Measurements of two clutches: 12×8 and 11.5×8 ; 11.5×8 and 11×8 mm.

Trogon aurantiiventris aurantiiventris. Orange-bellied Trogon. A nest containing one incubated egg found on July 2, 1932, apparently is the first of record. The nest cavity, six feet above the ground in a large tree, was caused by the rotting of a branch. The single immaculate white egg is slightly glossy and measures 26.9×22.5 mm. It was deposited on the "sawdust" and rotten wood of the cavity's floor, which bore no evidence of introduced nesting materials.

Empidonax flavescens flavescens. Yellowish Flycatcher. Two nests with incubated eggs were collected on April 13 and May 26, 1932. Both nests are made of firmly packed moss and have rounded cups lined with hair-like roots and fibres. Outside dimensions of one nest are $3\frac{1}{2} \times 4$ inches. Its cup is $1\frac{3}{4}$ inches in diameter and $1\frac{1}{2}$ inches deep. Both nests were found in rock crevasses adjacent to creeks, one foot and four feet, respectively, above the water. One nest contained three eggs, the other only two. The eggs are dull creamy white, with chestnut-rufous spots and blotches concentrated chiefly at the larger end. Measurements of one clutch: 18×14.5 , 18×14.5 , 18.5×14 mm.

Elaenia chiriquensis chiriquensis. Lesser Elaenia. A nest found five feet above the ground in a peach tree on May 6, 1933, seems to be the first of record for this species. This nest is made of fine rootlets and has several pieces of string woven into its base. White chicken feathers line the cup. Dimensions: $3\frac{1}{2} \times 2$ inches; the shallow cup $1\frac{3}{4} \times 1$ inch. The two partly incubated eggs are dull white, with a scanty halo of small chestnut spots around the larger end. Only fragments of these eggs were preserved, but the collector's field notes indicate that one egg had a transverse diameter of 14 mm.

Elaenia obscura frantzii. Dusky Elaenia. Three nests with eggs were found near the ground in coffee trees on April 6 and May 26, 1932. Each of the nests is made of fine rootlets and has an outer covering of moss. The cups of two are lined with horsehairs and all contain feathers, among which can be recognized those of a chicken and of a wild pigeon. Average dimensions of the nests are $3\frac{1}{2} \times 2$ inches, the cups being approximately $2\frac{1}{2}$ inches in diameter and $\frac{3}{4}$ inches deep. Each nest contained two dull white eggs marked, chiefly on the larger end, with a few reddish-brown spots and dots. Measurements of three eggs: 21.3×16.5 , 18.5×14.9 , 18.8×15 mm.

Thryothorus modestus modestus. Plain Wren. A nest found in a low bush on May 10, 1932, contained two partly incubated eggs. They are dull white, unmarked, and measure 21.5×14.3 and 22.3×14.2 mm. The retort-shaped nest is eight inches high and has a maximum diameter of five inches. It is loosely woven of dry grass, this being finest in the lining. The nest cup is lined with chicken feathers.

Turdus assimilis cnephosus. White-throated Robin. A nest collected on April 28, 1932, contained three partly incubated eggs. These are so heavily speckled and blotched with dull reddish-brown as largely to obscure the pale greenish-white ground color. Measurements: 31.3×20.6 , 30.4×20.6 , 31×21 mm. The nest, consisting of little more than a shallow cup loosely constructed of coarse twigs, was located $1\frac{1}{2}$ feet above the ground in a large rotten stump. The cup is 3 inches in diameter and $1\frac{1}{2}$ inches deep.

Turdus grayi casius. Clay-colored Robin. Three nests containing incubated eggs were collected on May 28, 1932, and May 15, 1933. The nests are compact structures of moss intermixed with earth and are lined with coarse rootlets. A turkey feather is imbedded in one of the cups. Two of the nests were located seven feet above the ground in coffee trees; the third was twenty feet above the ground in an orange tree. The clutches of eggs number 3, 3 and 2, respectively. All have a pale greenish-white ground color, but there is much variation in the markings. These consist of reddish-brown or chestnut spots or specks concentrated chiefly at the larger end where sometimes intermixed with lavender. Several of the eggs are virtually interchangeable with those of the preceding form. Measurements of seven eggs: 28.6×20.2 , 28.4×19.4 , 27.9×19 , 27.8×19.6 , 27×18.9 , 26.2×19.3 , 25.7×19.2 mm.

Myadestes ralloides melanops. Black-faced Solitaire. I find no reference to the nest and eggs of this thrush although it is a notable songster and quite abundant in humid mountain forests both in Costa Rica and in western Panamá. A nest collected on March 30, 1932, was located in the crevice of a rock about three feet above a road. It is made almost wholly of soft moss and has a smooth lining of black hair-like rootlets. Dimensions: $6 \times 5 \times 2\frac{1}{2}$ inches, the cup $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ inches. The two eggs, partly incubated, measure 24×16.7 and 22.8×16.9 mm. They are pinkish-white, minutely speckled

with dull chestnut except toward the larger end where they are increasingly spotted and blotched with the same.

Catharus aurantiirostris russatus. Orange-billed Nightingale-Thrush. A nest and two partly incubated eggs collected on May 13, 1932, apparently are the first of record. The nest was located eight feet above the ground in a small tree. It is a compact structure of moss, much like that of *Myadestes ralloides melanops* described above, but it has a few bits of dried leaves and plant stalks woven into its base and side. The cup is neatly lined with black, hair-like rootlets. The outside dimensions are $5\frac{1}{2} \times 4\frac{1}{2} \times 3$ inches. The cup $2\frac{1}{2} \times 1\frac{3}{4}$ inches. A single egg of the pair was preserved. It is pale greenish-white, thickly and almost uniformly speckled with light reddish brown; it measures 23.4×17.3 mm. The collector's field notes state that the second egg was similar in color and measured 23×18 mm.

Tanagra musica elegantissima. Blue-hooded Euphonia. The eggs of this tanager have been described on several occasions but I find no reference to its nest. An example collected on May 13, 1932, was located fifteen feet above the ground in the crown of a tree and is a masterpiece of camouflage. It is constructed of green moss and surmounts a large shapeless mass of the same material. The nest measures $4 \times 3\frac{1}{2} \times 5$ inches and has a pouch-shaped cup, three inches in depth but only one inch in diameter at the rim. Pale, hair-like rootlets line the cup. The two creamy white eggs are spheroidal in shape and thickly dotted, especially at the larger end, with small sharply defined spots of very dark purplish-brown and dull chestnut. Incubation was begun. Measurements: 17.6×13.8 and 18×14 mm.

Piranga bidentata sanguinolenta. Crimson-collared Tanager. Two nests collected on March 19 and May 10, 1932, are loosely constructed of dry twigs, small roots and tendrils. Fine grass stems line both cups and a few horse hairs are woven into the sides of one. Outside dimensions of these nests are $5 \times 2\frac{1}{2}$ inches, the cups $3 \times 1\frac{1}{2}$ inches. One of the nests was located three feet above the ground in a tangle of bushes and vines; the other was found seven feet above the ground in a coffee tree. The eggs, in clutches of three and two, respectively, were partly incubated. They are pale blue and rather lightly speckled, chiefly toward the larger end, with reddish-brown intermixed with dark lavender. Measurements of one clutch: 23.1×17.8 , 23.4×18 , 22.5×17.2 mm.

Atlapetes gutturalis brunnescens. Yellow-throated Brush-Finch. A nest collected on April 11, 1932, is made entirely of grass and straw-like materials, finest in the lining, and measures $5 \times 4 \times 2\frac{1}{2}$ inches. Its cup is shallow and ill-defined. This nest, unlike others of the species that have been described, was built on the ground. The two immaculate white eggs are slightly glossy and were faintly tinged with blue when found. Measurements: 23.5×16.3 and 23×16.5 mm.

Zonotrichia capensis costaricensis. Rufous-collared Sparrow. A nest and two incubated eggs collected on February 23, 1933, are especially noteworthy in that previous breeding records of the species in Central America have been limited to the period from April to September, inclusive. This nest, found on the ground at the base of a precipice, is a loosely made structure of coarse straw, grass and leaves. The cup is lined with very fine grass stems and skunk hair. Outside dimensions of the nest are $4\frac{1}{2} \times 5 \times 3$ inches, the cup $2\frac{1}{2} \times 1\frac{1}{4}$ inches. The two eggs are bluish-white, generously and almost evenly speckled with lilac and reddish-brown. Measurements: 20×16 and 20.5×16 mm.—EMMET R. BLAKE, *Chicago Natural History Museum, Chicago, Illinois, March 29, 1956*.

Land Birds at Sea Off Southern California.—A number of occurrences of land birds at sea off southern California were recorded in May of 1951 (Wisner, Condor, 54, 1952:62-63). On September 25, 1953, an entirely different group of land birds was observed on board the research vessel E. W. Scripps at latitude $32^{\circ} 34.6'N.$, longitude $117^{\circ} 21.5'W$. The nearest points of land were Point Loma, 8 miles northeast and the Coronados Islands, 8.5 miles to the south. The ship was surrounded by a heavy fog, and visibility aboard was reduced to about one-half mile. The foggy condition had prevailed for several days prior to these observations. The sea was calm and the air temperature about $72^{\circ}F$. The ship was at anchor during the night at this location prior to the following recordings.

The observations were made between 7:30 a.m. and 9:30 a.m. The first bird, a Long-billed Marsh Wren (*Telmatodytes palustris*, probably *plesius*; specimen damaged in capture) was found feeding on a moth that had become lodged in some electrical cable on deck. The wren's actions indicated that it had already become adapted to shipboard life, as it flitted about with complete composure. At the same time a Brewer Sparrow (*Spizella breweri*) and a Western Tanager (*Piranga ludoviciana*) were observed to be aboard. The sparrow seemed to be shy and retired to a secluded spot when disturbed.