

fueron sintiendo sucesivamente en todas las islas de Sotavento entre la Dominica y las Islas Virgenes." Indeed, on reaching Puerto Rico, where it was named "San Ciriaco," it caused more loss of human life than all other recorded hurricanes combined (Salvia 1972). Later that month on 30 August another hurricane passed only 20 miles north of St. Kitts (Cry 1965). The combination of San Ciriaco and the hurricane of 30 August was probably enough to eliminate *L. p. grandis*.

There is good circumstantial evidence for hurricanes drastically affecting bird populations. In Puerto Rico alone, the Puerto Rican Flycatcher (*Myiarchus antillarum*), a bird of wider distribution than *L. p. grandis*, is believed to have been almost wiped out by hurricane San Felipe II of 13 September 1928 (Danforth 1936). The Troupial (*Icterus icterus*) found by Gundlach (1878) to be common around Quebradilla was not found at all by Bowdish (1902-03) in 1899-1901 following hurricane San Ciriaco. Wetmore (1927) found only one bird during ten months of intensive study in 1909-1912. The Troupial was not recorded again until 1935 when it began to be seen regularly (Danforth 1936).

One is hard put to find tenable alternative hypotheses to explain the demise of *L. p. grandis* when one considers that this was an unhunted, high mountain form; that its habitat underwent extremely little disturbance, if any; that monkeys were rare in the environment where the birds lived and co-existed for over 200 years with them; that the form apparently experienced a rapid disappearance; and that *L. noctis* and other birds are common where monkeys abound. I therefore suggest that the Puerto Rican Bullfinch on St. Kitts should tentatively be considered as having become extinct due to natural causes rather than as a result of introduced predators.

## A NEST OF THE MEXICAN RED WARBLER

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The Red Warbler (*Ergaticus ruber*) is known to occur only in the Mexican highlands. Although it is a conspicuous bird in the pine-oak forests and woodlands throughout its range, only a few nests of this species have been found, and until recently, nothing was known about its breeding habits or natural history. Elliott (1965) published the first description of the Red Warbler's nest. His life history, done in the mountains near Mexico City, is still the only detailed study of this bird (Elliott 1969). I recently discovered another nest of the Red Warbler which confirms much of what Elliott found, and contributes new information on the breeding habits.

I found the nest at an altitude of 3,000 m in the central highlands on the border between the States of Puebla and Mexico. Located one-half km S of the town of Río Frío, the nest was situated in pine-oak-fir forest just to the north of Volcán Ixtaccíhuatl. The nest was in a small sunlit clearing; on the ground was a thick, loose layer of pine needles, and many different herbaceous plants, predominantly the bunch grass zacatón (*Epicampes macroura*). The nest was on the ground, hidden in the duff near the base of a clump of zacatón, and totally concealed by overhanging leaves of grass.

The nest was roofed, typical of those made by

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tropically breeding birds (Skutch 1976). It measured 14 cm long, 14 cm high, and 11 cm wide. The nest was constructed entirely of woven pine needles and lined with fine grasses. Underneath the nest was a cushion-like bed of sphagnum moss and *Usnea* lichen, some of which was woven into the front of the nest. Elliott (1969) described the Red Warbler nest as being made primarily of grass leaves and stems. Rowley (1966) described one nest that he found as "composed of dried leaves and pine needles" but covered entirely with a grassy hood. Both the cup and roof of my Red Warbler nest were made of pine needles. According to Skutch (1954) and Dawn (1963), the nest of the closely related Pink-headed Warbler (*Ergaticus versicolor*) of Chiapas and Guatemala is made primarily of pine needles.

I found the nest on 29 June 1974, which is the latest breeding date reported for the species. Although late, the nest was complete and well-made.

Three young with sheathed primaries were in the nest when I found it. I watched two adults feed them insects and carry away fecal sacs. Presumably in order to avoid revealing the nest, the adults moved deceptively each time they brought food to the young. Before and after visiting the nest, the adults flitted around in nearby trees, bushes, and grasses, foraging and pretending to forage for food. Everywhere, including the nest, they never stopped for more than a few seconds, consequently making it difficult to locate the nest.

Despite the deceptive movements of the adults, the hidden location of the nest, and its cryptic structure,



FIGURE 1. A nest of the Red Warbler (*Ergaticus ruber*). Overhanging leaves of grass, which covered the nest, have been brushed aside in order to take the photograph. Three young are in the nest. Note the oak leaf at the entrance.

the nest was easy to find. Whenever the nestlings saw an adult approaching with food, they uttered a high, rapid peeping sound. This betrayed their presence and enabled me to locate them.

## PEREGRINE FALCON SIGHTINGS IN EASTERN PERU

MICHAEL COCHFELD

The Peregrine Falcon (*Falco peregrinus*) is among the most cosmopolitan of land birds, but there are no records for it east of the Andes in Peru. I report here several sightings of peregrines in the Chancay-mayo Valley, Department of Junin, Peru. On 5 August 1972, Peter Alden and I saw a large falcon, all pale below, sailing along a cliff face at a point about 15 km by road above the city of San Ramon. The elevation of the valley floor was 1,370 m. The following day we again saw a falcon, presumably the same one, perched on a tree on the cliff top, about 400 m above us. Through a 40 $\times$  telescope we saw the black subocular mark, the nearly circular whitish auricular area, the whitish underparts with only a trace of barring, and the bluish-gray wings and mantle merging into a darker crown. These features are adequate to distinguish the Peregrine from: the Pallid Falcon (*F. kreyenborgi*, only five specimens known) which has a pale buffy crown and nape and less distinct subocular mark, the Orange-breasted Falcon (*F. deiroleucus*) which has brown and black underparts, and from the Aplomado Falcon (*F. femoralis*) which has a conspicuous dark breast band. On 11 and 13 September 1972, Stuart Keith and I observed two adult peregrines flying and sitting in trees atop the same cliff. One bird was gray-backed but the other could not be seen clearly enough to determine whether there were two males or a male and female present.

I found a single oak leaf at the entrance of the nest (Fig. 1). I searched the area surrounding the nest in a radius of several feet for other leaves but found none. Because the oak leaf was the only one of its kind in the area, and because it was right at the nest entrance, it may have been placed there by the Red Warblers. Perhaps the leaf served as a clue to help the adults find the nest more quickly as they flew into the clump of grass which hid it from view.

I am grateful to Barbara B. DeWolfe, Paulino Rojas-Mendoza, and Dwain W. Warner for their advice in preparing this note.

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We could not detect size differences or displays suggestive of a nesting pair. On 6 August 1972, near the town of La Merced, about 30 km by road downriver from the cliff locality, an adult male peregrine, also with distinct subocular mark, pale blue-gray back, and whitish underparts, flew past me.

Two races of the Peregrine Falcon are likely to reach Peru. The South American *F. p. cassini* breeds from Tierra del Fuego north to Atacama, Chile and Tucuman, Argentina, and probably migrates to northern South America. The recently described race *F. p. tundrius* (White 1968) of the American high Arctic has been identified from Surinam (Haverschmidt 1972) and is the one most likely recorded elsewhere in South America (e.g. Sick 1960) although older records were assigned to the relatively non-migratory *F. p. anatum*. The Pallid Falcon, either a species or a race or color morph of peregrine (Brown and Amadon 1968) is presumed to breed on the southern tip of South America and to wander north to central Patagonia. In Peru, Koepcke (1970) reported that *anatum* (=*tundrius*) occurs along the coast in the northern winter, although a specimen collected by Kalinowski on 4 March 1890 was identified as *cassini* (von Berlepsch & Stolzmann 1892). Morrison (1939) saw two peregrines at Yauli, Dept. of Huancavelica (alt. 3,300 m) on 10 September 1937 and assumed they were *cassini*. Chapman (1926) noted that peregrines occurred in Ecuador "throughout the year" based on specimens from February, May and July; at least one was identified as *anatum* rather than *cassini*.

The observations reported here, apparently the first for eastern Peru, are of unusual interest because