

HOODED ANTPITTA
(*GRALLARICULA CUCULLATA*)
IN THE EASTERN ANDES
OF COLOMBIA

PAUL E. GERTLER

Many avian species in the Andes of Colombia are restricted in range to one or two of the three cordilleras (Meyer de Schauensee, *The birds of Colombia*, Livingston Publ. Co., 1964:242). The known range of the Hooded Antpitta (*Grallaricula cucullata*) in Colombia was restricted to the subtropical zone of the eastern slopes of the Western and Central Cordilleras, though it was also suspected by that author to occur in the Eastern Cordillera (Meyer de Schauensee, *The species of birds of South America and their distribution*, Livingston Publ. Co., 1966:299).

Observations and collection in the Parque Nacional Cueva de los Guácharos (Cave of the Oilbirds National Park, Huila, Southern Colombia 1°60'N, 75°93'W) have verified the presence of this species on the western slope of the Eastern Cordillera. The Eastern Cordillera bends to the west in the park area

and in approximately 30 km merges with the Central Cordillera. One male Hooded Antpitta was netted and collected in primary forest at an altitude of approximately 1900 m on 21 September 1975. Three more specimens were collected in the park in June and July 1976. The skins are in the bird collection of the Instituto de Ciencias Naturales (Institute of Natural Sciences) of the Universidad Nacional in Bogotá.

I observed a single Hooded Antpitta at close range for approximately 20 min on 8 October 1975. The bird appeared to be very curious as it hopped from perch to perch, from ground level to 1.5 m above ground, in a circle around me. It rocked laterally when perched, moving only its body and keeping both legs and head stationary. This behavior was performed continuously.

I acknowledge the support of the Smithsonian-Peace Corps Environmental Program and of INDERENA (Instituto de Desarrollo de los Recursos Naturales Renovables). I thank Jorge Hernandez C. and Luis Alfredo del Castillo M. for their encouragement.

Smithsonian-Peace Corps Environmental Program, INDERENA, c/o U.S. Embassy, Bogotá, Colombia.
Accepted for publication 27 September 1976.

COMMENTS ON THE EXTINCTION
OF *LOXIGILLA PORTORICENSIS*
GRANDIS IN ST. KITTS,
LESSER ANTILLES

HERBERT A. RAFFAELE

To aid in perceiving potential threats to endangered species it is valuable to understand the causes of endangerment of vanishing species or those recently believed to have become extinct. In the case of most species no evidence establishes the cause of extinction, but frequently, some alterations in the animal's environment suggest a possible cause. Such is the situation with *Loxigilla portoricensis grandis* a subspecies of the Puerto Rican Bullfinch endemic to St. Kitts and last reported there in 1880 when it was found to be "not uncommon in the forest on Mt. Misery," (Bond 1956). It has not been observed since that date and is presently considered extinct.

The only explanation yet put forward for the extinction of *L. p. grandis* is that of Bond (1936, 1956), who suggested the bird's demise resulted from heavy predation by Green Monkeys (*Cercopithecus aethiops*) which were introduced on St. Kitts. Greenway (1958) noted that this hypothesis appears weak because the related Lesser Antillean Bullfinch (*L. noctis*) has survived disturbance by the same monkeys on Barbados (indeed, *L. noctis* thrives on St. Kitts itself); he further suggested that "Other unknown factors may have been involved." Greenway, however, did not propose an alternative hypothesis. I shall examine the often-quoted monkey hypothesis and suggest an alternative explanation.

One point difficult to reconcile with the monkey hypothesis is why *L. p. grandis* should have become extinct so long after the introduction of the monkeys, and then so suddenly. Green Monkeys have been wild on St. Kitts for approximately 300 years and have been established pests from about the year 1700

to the present day (McGuire 1973). It seems odd that after coexisting with a bird that even in 1880 was reasonably common high on the flanks of Mt. Misery, the monkeys should suddenly eliminate it.

Presently Green Monkeys thrive in the mountain ravines of St. Kitts, while their density appears to be relatively low high up in the mountains (McGuire 1973). On the basis of available evidence, McGuire believed that the population of *C. aethiops* became stable early in the 18th century, indicating a long residency in the mountains. In line with Greenway's reasoning, considering the abundance of Green Monkeys in the ravines and the fact that bird eggs and young are common prey items (McGuire, pers. comm.) it is striking that the Lesser Antillean Bullfinch, and other forest birds are relatively common in these ravines and throughout the forest at least to an elevation of 700 m (Bond 1956, Raffaele, pers. observ.). It would seem plausible that the monkeys should have had a greater effect on these species than on the endemic bullfinch, which occupied a habitat where monkeys are relatively uncommon.

An alternate explanation for the extinction of *L. p. grandis* is based on the species' limited distribution on the higher slopes of Mt. Misery, the most restricted range of any forest bird on St. Kitts (Bond 1956, Raffaele, pers. observ.). How the bird's range came to be so restricted is not entirely germane to this discussion though the form's large size ($\frac{1}{3}$ larger than *L. p. portoricensis*) may suggest an answer. *Loxigilla p. grandis* may have acquired its large size and restricted distribution as a result of character displacement fostered by interaction with *L. noctis* on St. Kitts. Such interaction and resultant range restriction is similar to that presently taking place between the Yellow-bellied Elaenia (*Elaenia flavogaster*) and Caribbean Elaenia (*E. martinica*) in the southern Lesser Antilles (Bond 1948, Crowell 1968).

On 7 August 1899 a major hurricane struck St. Kitts, the eye passing only 35 miles south of the island (Cry 1965). Its impact on St. Kitts was devastating as described by Salvia (1972), "sus efectos desastrosos se

fuieron 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 (Salivia 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 Bowditch (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 un hunted, 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

PAUL D. HAEMIG

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

LITERATURE CITED

- BOND, J. 1936. Birds of the West Indies. Acad. Nat. Sci. Philadelphia.
- BOND, J. 1948. Origin of the bird fauna of the West Indies. Wilson Bull. 60:207-229.
- BOND, J. 1956. Check-list of the birds of the West Indies. Fourth ed. Acad. Nat. Sci. Philadelphia.
- BOWDITCH, B. S. 1902-1903. Birds of Porto Rico. Auk 19:356-366; 20:10-23.
- CROWELL, K. L. 1968. Competition between two West Indian flycatchers. Auk 85:265-286.
- CRY, G. W. 1965. Tropical cyclones of the North Atlantic Ocean. Tech. Pap. No. 55, U.S. Weather Bur.
- DANFORTH, S. T. 1936. Los pájaros de Puerto Rico. Rand McNally, N.Y.
- GREENWAY, J. C., JR. 1958. Extinct and vanishing birds of the world. Am. Comm. Intern. Wild Life Protec. Spec. Publ. 13.
- GUNDLACH, J. 1878. Apuntes para la fauna Puerto-Riqueña. Aves. Ann. Soc. Espan. Hist. Nat. Madrid 7:141-234, 343-422.
- MCCUIRE, M. T. 1973. The St. Kitts vervet (*Cercopithecus aethiops*) its history, its home, its population and comments on its scientific importance. St. Kitts Hist. Soc.
- SALIVIA, L. A. 1972. Historia de los temporales de Puerto Rico y las Antillas 1492-1970. Editorio Edil Inc., San Juan, P.R.
- WETMORE, A. 1927. The birds of Porto Rico and the Virgin Islands. Sci. Surv. Porto Rico and Virgin Islands, 245-598. New York Acad. Sci.

Department of Natural Resources, Box 5887, Puerta de Tierra, Puerto Rico 00906. Accepted for publication 14 September 1976.

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,