

SHORT COMMUNICATIONS

DISTRIBUTIONAL RECORDS FROM CERRO CAMPANA, PANAMÁ, WITH NOTES ON A NESTING OF THE QUAIL-DOVE, *GEOTRYGON LAWRENCII*

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Cerro Campana is a somewhat isolated, low mountain (1011 meters elevation) in central Panamá, some 30 miles southwest of the city of Panamá, rising less than five miles from the Bay of Panamá. While close to the Pacific Ocean, which it overlooks, Cerro Campana forms part of the continental divide and derives zoogeographic importance because it is in effect the southeastern terminus of a chain of mountains extending south from Central America. To the east (toward South America) these mountains rapidly descend almost to sea level in the nearby Canal Zone. Mountains of moderate elevation rise again east of the Canal Zone, but although the gap produced is not wide, their zoogeographic affinities seem to be rather more with northwestern South America. Despite the relatively low altitude of Cerro Campana, its location on a narrow isthmus and the absence of higher peaks to cut off the northeast trades cause its upper slopes to be enveloped frequently in mist, so that the climate is cool and humid with an approach to cloud forest conditions as low as about 750 meters. Much forest has been cut for agricultural or residential use, and the southern slopes are considerably eroded, but in the humid woodland remaining at higher elevations there is an interesting mixture of subtropical species with Costa Rican affinity (generally of the same race as in Costa Rica) and birds of both the humid Caribbean and the drier Pacific lowlands. The subtropical species occur (presumably as breeders) lower on Cerro Campana than they usually do in the higher and more extensive mountainous region of western Panamá. Among these (the first two are discussed below) the following have been taken: *Claravis mondetoura*, *Trogon aurantiiventris*, *Premnoplex brunnescens*, *Mitrephanes phaeocercus*, *Platyrinchus mystaceus*, *Turdus assimilis*, *Euphonia* (= *Tanagra* auct.) *anneae*, *Atlapetes brunneinucha*, *Zonotrichia capensis* (in cleared areas down to ca. 450 meters). Cerro Campana is readily accessible by motor road branching from the Inter-American Highway; Florida State University now maintains there the John W. Acker Field

Station, and the Panamanian government has established a reserve including part of the remaining humid forest to the nearby Cerro Trinidad. The species here discussed are rare, endemic, or very local in Middle America, and their collection on Cerro Campana extends their recorded geographic or altitudinal range. We have also included some unpublished notes on the biology of these little-known birds. Our Cerro Campana specimens mentioned below are now in the American Museum of Natural History.

Olson collected at Cerro Campana with shotgun and mist nets on 19 June 1966 (with Kurt Blum and Capt. R. A. Rassmussen) and 9 July 1966 (with John Wiese). Powell, accompanied by Stephen G. Martin during the first week of his stay, in the course of banding North American migrants with mist nets, from 29 October to 13 November 1966, captured and preserved a few resident birds. All collecting was done in the vicinity of the Acker station, which is on the Pacific slope of the mountain at an altitude of about 750 meters. Eisenmann has visited Cerro Campana on many occasions for periods of from one to three days.

Geotrygon lawrencii. The Purplish-backed Quail-Dove is an apparently rare and little-known Middle American species with a very interrupted distribution, reported in the literature only from the humid foothills of southern México, and the Caribbean slopes of Costa Rica and western Panamá. We have found no report of its nest or eggs. On 19 June 1966 Olson flushed a bird very close at hand beside a narrow forest trail near the Acker station. The bird disappeared into the surrounding vegetation before any identification could be made, but a search for a nest was immediately successful. The nest, containing a single egg, was in a low bush over the trail about 1.5 meters above the ground. It was a large, sparse but well-coalesced structure of sticks. A few hours later Olson returned and collected a bird as it sat on the nest. The specimen was a male *Geotrygon lawrencii* with enlarged testes (left testis 7×15 mm). Large seeds and fruit, cockroach egg capsules, and the seeds of a sedge (*Scleria* sp.) were found in the digestive tract. Although the egg was broken by shot, its condition permitted preservation. It was fresh and measured $37.4 \times$ ca. 26 mm. The very pale buff (cream) color of the egg resembles that of other species of *Geotrygon*, in contrast to the white of most columbid eggs.

On 9 July 1966 Olson with John Wiese saw another bird of this species as it crossed a wooded trail behind them a few hundred yards away from the above nest site. Powell took a female (ovary 10×15 mm) in the same vicinity on 29 October 1966 and netted and released other individuals on 6, 8, 11, and 13 November 1966.

The habitat in which all of the above birds were found matched that described for this species in Costa Rica by Slud (Bull. Amer. Mus. Nat. Hist. 128:114, 1964)—“mountainous terrain at the lower middle

altitudes under cool and wet, partly cloud forested conditions."

Earlier specimens from Panamá known to us (all from mountainous areas) are as follows: Bocas del Toro (Boquete Trail, 450–1100 meters; Río Changuena, 980 meters), "Chiriquí" (1899, no precise locality, ex Rothschild collection), Veraguas (Calobre, Santa Fé), Colón (Cerro Bruja), Darién (Tacarcuna). We are indebted to Pedro Galindo of the Gorgas Memorial Laboratory in Panamá for information on the Río Changuena example and to Alexander Wetmore for writing us of the unpublished specimen records from Cerro Bruja and Tacarcuna, the last of which brings the range of the species almost to the Colombian border in South America.

Claravis mondetoura. Powell took a specimen of the Maroon-chested Ground-Dove on 9 November 1966 (male; weight 77 g, right testis 4×7 mm, left testis 4×9 mm). Although this rare species has been recorded in the subtropical zone from southern México and spottily in the high mountains of Central America to extreme western Panamá, reappearing in the South American Andes, the only records hitherto known from Panamá are from the mountainous areas of the Volcán de Chiriquí massif. This Cerro Campana specimen extends the range on the isthmus considerably eastward, and it brings nearer together the rather widely separated Middle American and South American populations, sometimes regarded as distinct subspecies.

So little has been reported (see Slud, *op. cit.*) about the habitat and behavior of this beautiful dove that a few observations by Eisenmann in the mountainous region about the Volcán de Chiriquí may be useful. The Maroon-chested Ground-Dove seems extremely shy and hard to see, for it skulks in the interior of dense shaded thickets (especially of bamboo) at the borders of mature mountain forest or along logging tracks and trails. Occasionally birds venture into the open. Thus on 17 July 1964, at about 1450 meters, near Quiel, above the town of Boquete, Neal G. Smith called to Eisenmann's attention a group of four or five, including two apparently adult males, that flew into low shrubby growth at the edge of a potato field cleared from surrounding tall forest. Usually *C. mondetoura* reveals its hidden presence within the dark mountain undergrowth by a single, deep, resonant *woop* or *whoop*, repeated at intervals, with often from three to five seconds between notes. Attempts to track down a hooting dove generally achieve only a frustrating silence. Yet this vocalization is not rare in suitable habitats from 1550 to at least 2100 meters in extreme western Chiriquí. The note closely resembles that of its lowland congener the Blue Ground-Dove, *Claravis pretiosa*, which in Panamá ranges from sea level to about 1600 meters, in more open as well as drier habitats, and which was also netted by Powell on Cerro Campana, where it is not uncommon.

Eutoxeres aquila. Olson with Wiese took a female White-tipped Sicklebill (ovary not enlarged) in a mist net on 9 July 1966. The crop was filled with small wingless ants, a remarkable food for a hummingbird characterized by an almost semicircular bill. On 30 October 1966 Powell preserved a male (weight 11 g, testis 1.5×3.5 mm). A specimen taken 13 November was lost later, but Powell caught and released one or two individuals almost daily during his first week of netting.

This bird seems to occur chiefly in humid foothills, ranging in western South America from Colombia to Perú and northward into Middle America only as far as central Costa Rica, where Slud (*op. cit.*) reported it as distinctly uncommon and of spotty distribution. In Panamá the Costa Rican race (*salvini*) is recorded in the western half of the country, the few records coming from the humid foothills forest region of the Caribbean slope and extending on the Pacific slope in eastern Veraguas, to about Santa Fé and Chitra. In the hill forest of extreme eastern Panamá (Darién) occurs another population (*munda*), the subspecies of western Colombia. The Cerro Campana specimens, identified as *salvini*, coming from east of Veraguas, shorten the gap between the two apparently distinct populations.

Trogon aurantiiventris. Olson with Blum and Rassmussen on 19 June 1966 collected one of two individuals of the Orange-bellied Trogon seen that day. This was a female with a small ovary; the crop contained the remains of beetles and the seeds of *Cecropia peltata*. Powell and Martin saw the species several times but did not collect it. Dr. Wetmore informs us that he obtained a series on Cerro Campana some years ago.

This trogon is an endemic confined to the highlands of Costa Rica and western Panamá and reported in previous literature only as far east as Veraguas. Cerro Campana brings the range of the species still farther eastward. An unpublished specimen in the American Museum (Rothschild Collection) labeled as taken 21 March 1888 at "Capira" may actually refer to the mountains of the Cerro Campana area, as they were known as the Serrania de la Capira in those days. The specimen is labeled "in high forest," which does not apply to the habitat found about the nearby village of Capira today.

The yellowish-orange abdominal color (between Ridgway's "orange" and "orange-chrome") of this Cerro Campana female agrees well with Griscom's description of the subspecies *flavidior* from Cerro Flores, eastern Chiriquí (Amer. Mus. Novit. no. 141, 1924). The unique series taken on Cerro Flores, 1100–1200 meters, has suffered such extreme post-mortem fading in ventral color, as is usual in trogons, that we do not venture an opinion on whether *flavidior* is sufficiently distinct from nominate *aurantiiventris* of western Chiriquí to justify nomenclatural recognition. If separable, one would expect the Cerro Campana population to be more like Cerro Flores and Veraguas birds. The *T. aurantiiventris* complex is puzzling, for it seems to differ from the mainly sympatric *T. collaris puella* (regarded as a race of the widely distributed polytypic *T. collaris*) only in orange, as distinct from vermilion red, abdomen. However, *T. collaris* has not been reported from central Panamá, nor *T. aurantiiventris* from the eastern part.

The aid and assistance of Horace Loftin in Panamá is gratefully acknowledged. Powell's work in Panamá was supported by PHS Research Grant AI 06072 to Loftin from the National Institutes of Health. The U.S. Army Tropic Test Center provided Olson with working space. Alexander Wetmore generously provided considerable distributional data. Kurt Blum kindly identified some of the stomach contents of the *Trogon* and *Geotrygon*.

Accepted for publication 25 April 1967.