

## A new population of Cinnamon-breasted Tody-tyrant *Hemitriccus cinnamomeipectus* in Ecuador

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En febrero de 2004 llevamos a cabo una expedición a la meseta de Naytza, entre los valles de los ríos Zamora y Namangoza, provincia de Morona-Santiago, sur-oriente de Ecuador, durante la cual registramos a *Hemitriccus cinnamomeipectus* y localizamos nueve territorios a lo largo de un transecto de 5 km de longitud. Este registro representa la extensión del rango de una especie restringida y vulnerable 78 km hacia el noroccidente de Chinapintza, Cordillera del Cóndor, provincia de Zamora-Chinchipe, la única localidad previa en donde se había registrado esta especie en bajas densidades.

Cinnamon-breasted Tody-tyrant *Hemitriccus cinnamomeipectus* is endemic to the Cordillera del Cóndor region of south-east Ecuador and north-east Peru<sup>10,11</sup>. The species was discovered as recently as 1976, above San José de Lourdes, dpto. Cajamarca, Peru, at 2,200 m<sup>4</sup>, and for some years was known only from the type locality, La Peca (dpto. Amazonas) and Abra Patricia (dpto. San Martín), at 1,800–2,200 m. In September 1990, during an expedition to Chinapintza, Zamora-Chinchipe province, the species was finally located in Ecuador<sup>5</sup>. Chinapintza, at 1,700 m, is an isolated montane ridge very close to the Peruvian border, with stunted forest resembling that at San José de Lourdes, although soils there comprise reddish-brown clay, gravel and sand<sup>8</sup>, instead of whitish sand as at the type locality, where soils are primarily quartz and sandstone<sup>3</sup>.

The species is considered rare within its very restricted range, although it is perhaps numerous in optimal habitat<sup>2</sup>. Extensive searches for the species have been undertaken during recent decades in stunted forest within the cordilleras del Cóndor and Cutucú in Ecuador<sup>1,5,9,12,13</sup>, but it was not recorded until recently, on a low-elevation ridge (Naytza) at the confluence of the ríos Namangoza and Zamora, Morona-Santiago province. Here we report in detail on the discovery of *H. cinnamomeipectus* at Naytza, at 1,592 m (02°59'S 78°18'W), 10 km south-east of General Leonidas Plaza, thus extending the species' range 78 km north-west from Chinapintza.

Forest at this elevation resembles that on the flat-topped mesetas of the Cordillera del Cóndor, on the east bank of the río Zamora<sup>1</sup>. Vegetation at Naytza is sclerophyllous scrub, a habitat described by Foster & Beltrán<sup>6</sup> for the tepui-like vegetation of the Cordillera del Cóndor. It is typically stunted, 3–5 m high, and has a dense, shrubby understorey. Forest canopy is sparse and uneven, but reaches 15 m. The presence of emergents like *Podocarpus* sp. and palms is characteristic, and the most common shrubs belong to Ericaceae, Clusiaceae,

Melastomataceae, Asteraceae and Lecythidaceae. A dense layer of moss, bromeliads and ferns covers the ground, and the presence of roots, vines and *Chusquea* bamboo in the understorey renders the forest relatively impenetrable. Orchid diversity is high in the undergrowth. Soil composition is mainly coarse sand and gravel, with a high proportion of silicates, limestone and quartz, and soils are poorly drained.

### Results

The site was visited in February 2004 following a preliminary exploration of the area undertaken on 18–20 January 2004, during which we observed that habitat and soil composition closely resembled those of the Cordillera del Cóndor highlands that we were concurrently surveying. Thus, our main objective in February 2004 was to search for species found in the Cordillera del Cóndor. The study revealed an impoverished avifauna and a mixed composition of highland and low-elevation species inhabiting stunted forest. A total 67 species was recorded during 512 hours of mist-netting and four days of censuses along part of the trail (5.2 km). Total trail length was 6.9 km, crossing the top of the meseta in a south-east direction.

*Hemitriccus cinnamomeipectus* was initially recorded on 20 February 2004. We estimated nine territories along 5.2 km of trail. Four individuals were trapped in different mist-nets placed within the dense understorey. Two specimens were taken and deposited at Museo Ecuatoriano de Ciencias Naturales (MECN 3297, 3298), Quito, and aged as juveniles based on skull ossification, although plumage and soft-part coloration matched the adult description in Fitzpatrick & O'Neill<sup>4</sup> and Ridgely & Greenfield<sup>10</sup>. They had olive-green upperparts, pale yellowish fringes to the tertials, cinnamon lores, eye-ring and ear-coverts, and a rich buffy breast grading into yellow over the rest of the underparts. Body moult was medium to heavy and the flight-feathers fresh. Mandible pink, not black as in other juveniles<sup>4</sup>. Stomachs contained parts of insects, but

these could not be identified. Plumage of the other individuals resembled adults, with no evidence of body moult and had faded primaries; no brood patches were observed.

Few data are available concerning the ecology of the species. We closely observed several individuals and sound-recorded their natural vocalisations. Birds foraged mostly alone or in pairs and once apparently within a mixed-species flock. Foraging behaviour was not quantified, but all the observations by JN were of individuals foraging in the understorey, 2–3 m above ground, and sometimes up to 4 m in the lower mid storey. Typically, *H. cinnamomeipectus* is curious of observers, making it easy to detect and follow for a short period, before disappearing into dense vegetation. The species forages in short horizontal movements, both hops and flights, gleaning the underside of leaves. Movements are fast, but birds tended to perch upright (c.75% vertical) on narrow bare branches. Two different vocalisations were identified: a short rattle *ddddrr-rt* and a loud high-pitched *squeéck* or *wheék*, repeated 3–4 times, with pauses of 4–10 seconds. These vocalisations are quite similar to those of Black-throated Tody-tyrant *H. granadensis pyrrhops*, although calls of the last are often longer and faster<sup>7</sup>. Once, JN identified the begging call of a fledgling accompanied by another bird, presumably an adult. Both foraged low in the understorey and were observed briefly before they disappeared in the dense vegetation. This vocalisation seemed higher pitched and faster than other calls. As we visited the study area during the rainy season, it is possible that birds had finished breeding.

## Discussion

*H. cinnamomeipectus* is considered Near Threatened<sup>2</sup>. It has a very restricted distribution on the ridges of the cordilleras del Cóndor and Colán in south-east Ecuador and northern Peru. Furthermore, Ridgely & Greenfield<sup>9</sup> suggested that it might be treated as Vulnerable, a proposition with which we agree given the species' miniscule range. Population size is undetermined, although given the number of records at localities such as Abra Patricia, it has been suggested that the species is numerous in appropriate habitat<sup>2</sup>. However, the species is rare in Ecuador, where known from only two sites: four specimens taken at Chinapintza, just west of the Peruvian border<sup>8</sup>, and the locality reported herein. At Chinapintza territory size was established as 15 m by just a few metres<sup>2,8</sup>. In contrast, at Naytza we suggest that *H. cinnamomeipectus* has larger territories, given our counts of nine individuals over a transect of 5.2 km. However, estimating population size at the site is difficult as the species exhibited low to intermedi-

ate capture rates in comparison to the most abundant species (Speckled Hummingbird *Adelomyia melanogenys*, Sepia-brown Wren *Cinnycerthia olivascens* and Golden-eyed Flowerpiercer *Diglossopsis glauca*). Although natural vocalisations were not infrequent, all observers considered the species to be generally inconspicuous. The species responds vigorously to playback, as already noted by Krabbe & Sornoza<sup>8</sup>.

It has been suggested that the disjunct and restricted distribution of *H. cinnamomeipectus* corresponds to competitive interactions with *H. granadensis*<sup>2,8,10</sup>. The subspecies *pyrrhops* of *H. granadensis* occurs at higher elevations on Andean slopes of south-east Ecuador (1,700–3,000 m)<sup>10</sup> and also occurs on ridges of the Cordillera del Cóndor, where it has been recorded on both slopes above 2,000 m<sup>1,9,13</sup>. Thus, the two species overlap in altitude and might share similar habitat preferences as they have been found in the same forest type in the Cordillera del Cóndor<sup>8</sup>. Furthermore, *H. granadensis* is syntopic with *H. cinnamomeipectus* at two localities, Abra Patricia and Chinapintza<sup>2,8</sup>. It is presently unknown as to whether *H. granadensis* occurs at other Peruvian localities, e.g. San José de Lourdes, from where *H. cinnamomeipectus* has been recorded. We report the largest number of *H. cinnamomeipectus* to be found at a single locality, at which *H. granadensis pyrrhops* appears absent, which supports the proposition that the latter is the dominant species where the two are syntopic. Furthermore, that the apparently preferred habitat of *H. cinnamomeipectus*, sclerophyllous scrub on sandstone, is rare outside the Cordillera del Cóndor, may limit the species' presence elsewhere, e.g. in Cordillera of Cutucú. The absence of *cinnamomeipectus* at the latter is perhaps related to the presence of *H. granadensis*<sup>8,12</sup> or might correspond to limited dispersal capabilities.

The new locality for *H. cinnamomeipectus* is a low-elevation ridge at 1,550–1,750 m and possesses a mixed avifauna of temperate and montane species. Other species, typical of the stunted forest of Cordillera del Cóndor, are absent, e.g. Rufous-headed Pygmy-tyrant *Pseudotriccus ruficeps*, Black-capped Tyrannulet *Phyllomyias nigrocapillus* and Orange-banded Flycatcher *Myiophobus lintoni*, which are primarily found above 1,900 m in the Cóndor region<sup>1</sup>, and are also fairly common but local in montane forest at 2,200–3,300 m on the east slope of the Andes<sup>10</sup>. Their absence from the isolated Naytza ridge might also explain the presence of Cinnamon-breasted Tody-tyrant, given that some of these (e.g. *P. ruficeps*) can be numerous in dense undergrowth of montane forest. Further ecological studies are required to test these theories.

Given the limited ecological data for this species and its current conservation status, protecting the few known populations and promoting the conservation of these forests among local people can be considered priorities. One of the major threats we identified is silica mining, which is also the major threat at Chinapintza, where gold mining has been the principal economic activity since the late-20th century. However, the species' Peruvian populations are also threatened by deforestation<sup>2</sup>, from which country no very recent information is available. Nothing is known of the species' dispersal capabilities, but its presence on the opposite bank of the río Zamora and on both banks of the río Marañón in Peru suggests that the main rivers of the Córdor region do not limit its distribution. Thus, continued searches for the species in ornithologically unexplored parts of the cordilleras del Córdor and Colán are also much needed.

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