

Notes on the breeding of birds in Yanachaga-Chemillén National Park, Peru

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Se presenta información acerca de la nidificación de 21 especies de aves en el Parque Nacional Yanachaga-Chemillén, dpto. de Pasco, Perú; incluso de algunas especies, como *Penelope montagnii*, *Aulacorhynchus coeruleicinctis*, *Thripadectes holostictus*, *Phylloscartes parkeri*, *Myiobius villosus* y *Chlorophonia cyanea*, sobre las cuales la información publicada es muy escasa. Nuestros datos parecen indicar un aumento en la actividad reproductiva al final de la época seca en los bosques nublados de Perú. La biología reproductiva de la avifauna de los bosques tropicales y subtropicales andinos sigue siendo muy poco conocida, y por esta razón la publicación de datos básicos puede ser una contribución útil para documentar la historia natural de estas aves.

The east slope of the tropical Andes possesses one of the most diverse avifaunas on Earth². Despite this, the breeding biology of Andean forest birds is poorly known¹³. Basic data for Colombian birds are presented in Hilty & Brown¹⁴, whilst Fjeldsá & Krabbe⁸ summarised information for birds in the temperate Andes, and Greeney *et al.*⁹ are documenting the natural history of Ecuador's avifauna. Data on the breeding of Peruvian birds, however, are more scattered. Given the limited information on natural history of Andean montane forest birds, even fragmented data merit publication, to build knowledge useful in developing conservation policy⁹. Here, we present breeding data for 21 species in Yanachaga-Chemillén National Park, Peru, including several for which previous details were very limited.

Study site and Methods

We conducted field work in November 2006 at two sites in Yanachaga-Chemillén National Park, dpto. Pasco, central Peru: on 5–10 November at El Huampal (10°11'S 75°34'W), at km 61 on the Oxapampa–Pozuzo road, and on 11–14 November at quebrada San Alberto (10°32'S 75°21'W). Field work at El Huampal was at elevations of 1,000–1,300 m, between km 61 and 55 of the Oxapampa–Pozuzo road, along trails near El Huampal guard station and at Pan de Azúcar, c.2 km above there. Habitat is primary and secondary upper tropical/lower subtropical forest ('montane evergreen forest'²³), on the steep slopes of the narrow río Pozuzo Valley. Field work at quebrada San Alberto concentrated on the trail from the park boundary (2,350 m) to the pass at Abra Esperanza (2,700 m), in lush, epiphyte-laden cloud forest that gives way to stunted, mossy elfin forest near the pass. *Chusquea* bamboo is abundant in the understory, especially at higher elevations. The park's avifauna is poorly known²⁵ and the only extensive ornithological survey of the Cordillera

Yanachaga was in 1982²⁰. We made observations on breeding opportunistically, as part of a multi-taxa survey of the park's biodiversity¹. Birds were surveyed through visual observations, tape-recordings, mist-netting and some collecting. Specimens (INRENA permit 008745-AG), which are held at the Museo Civico di Storia Naturale, Carmagnola, Italy (MCCI) and the Universidad Nacional Agraria La Molina, Lima, Peru (UNALM), were checked for evidence of breeding condition.

Results

Andean Guan *Penelope montagnii*.—A recently fledged chick (Fig. 1) with adults on 14 November at quebrada San Alberto. Breeding biology almost unknown: in Colombia, juveniles seen in June, whilst in Bolivia the species is thought to breed November–February⁵.

Blue-banded Toucanet *Aulacorhynchus coeruleicinctis*.—On 13 November, we flushed a juvenile from an apparent nesting cavity above quebrada San Alberto, at c.2,550 m. It was only able to fly a few metres before awkwardly landing in the understory. Unable to take off again, it sought cover, uttering loud alarm-calls that attracted nearby adults. The bird was flushed from a cavity c.80 cm above ground on a vertical bank beside the trail, amongst dense, tangled, moss-covered roots. The only other data suggest breeding occurs January–April in Peru and August–January in Bolivia²¹.

Streaked Tuftedcheek *Pseudocolaptes boissonneautii*.—Adult feeding a begging juvenile above quebrada San Alberto on 13 November. Breeding biology very poorly known; the only data on seasonality are from Colombia; dependent juveniles in September¹⁸ and birds with enlarged gonads July–October⁸.

Striped Treehunter *Thripadectes holostictus*.—Male with enlarged testes (9.6 mm; MCCI 2557) collected at El Huampal on 9 November. Breeding biology poorly known; the only data concern juveniles/immatures in September in Colombia and February in Peru (dpto. Pasco), and birds with enlarged gonads in Colombia in August⁸.

Wedge-billed Woodcreeper *Glyphorhynchus spirurus*.—Male with enlarged testes (7.3 mm; UNALM specimen) collected at El Huampal on 9 November. Data on seasonality from the Andes only available from Colombia, where birds with enlarged gonads recorded January–April¹⁴.

Plain Antvireo *Dysithamnus mentalis*.—Male with enlarged testes (7.6 mm; UNALM specimen) collected at El Huampal on 6 November. Breeding biology relatively well known²⁷, but the only data on seasonality in the Andes are from Colombia; birds with enlarged gonads in April–May in the Central Andes and Perijá Mountains, and birds with enlarged gonads in March–July and dependent young in July and September in the West Andes¹⁴.

Cinnamon-faced Tyrannulet *Phylloscartes parkeri*.—A pair feeding a begging juvenile on 9 November above El Huampal. The juvenile agreed well with the only published description of this plumage⁷. The only published breeding data concern several presumed family groups, including juveniles, at Cerro de Pantiacolla, dpto. Madre de Dios, southern Peru, in November 1985⁷.

Streak-necked Flycatcher *Mionectes striaticollis*.—Two males with enlarged testes (7.0 and 6.0

mm; MCCI 2559 and UNALM specimen) collected at quebrada San Alberto on 13 November. In the south-east Peruvian Andes breeding-condition males were recorded in the late dry / early wet season, in September–December⁶; in north-east Ecuador, breeding activity was also concentrated in the wet season, in January–August, peaking April¹⁰.

Olive-striped Flycatcher *Mionectes olivaceus*.—Two males with enlarged testes (7.5 and 6.1 mm; UNALM specimen and MCCI 2572) collected at El Huampal on 9–10 November. Data on seasonality from the Andes are available from the Perijá Mountains, Colombia, where breeding-condition birds were taken in April and immatures in July¹⁴.

Scale-crested Pygmy Tyrant *Lophotriccus pileatus*.—On 10 November, a pair with a dependent juvenile near km 54 of the Oxapampa–Pozuzo road, at c.1,300 m. Birds in breeding condition found in March–June in Colombia¹⁴, but no data on seasonality from Peru. The distinctive juvenile, of which we obtained the first photographs (Fig. 2), was recently illustrated¹⁹, though it is mislabelled as an adult female (R. Restall *in litt.* 2007). The bird we observed differed from the adult in its conspicuous, complete white eye-ring, lack of crest, unscaled rufous crown, plainer underparts with no hint of streaking, a pale brownish wash on the upper breast and somewhat browner upperparts.

Tawny-breasted Flycatcher *Myiobius villosus*.—Male with enlarged testes (5.4 mm; UNALM specimen) collected at El Huampal on 9 November.



Figure 1. Andean Guan *Penelope montagnii* chick, quebrada San Alberto, Yanachaga-Chemillén National Park, Peru, 14 November 2006 (Giorgio Gertosio)



Figure 2. Juvenile Scale-crested Pygmy Tyrant *Lophotriccus pileatus*, above El Huampal, Yanachaga-Chemillén National Park, Peru, 10 November 2006 (Giorgio Gertosio)

Almost nothing appears to have been published on breeding in this species.

Andean Cock-of-the-Rock *Rupicola peruvianus*.—A nest with two recently hatched chicks on a small ledge on a rocky cliff c.3 m above a rushing torrent at El Huampal on 7 November. The nest—a concave cup lined with vegetable matter, typical of *Rupicola*—was located by park guards, who also found another four active nests along a 400-m stretch of the same river in the same period. Data on seasonality indicate that the main breeding season in Colombia is February–July, whilst in Bolivia egg-laying occurs in August²², and active nests in north-west Ecuador have been recorded July–February¹¹. Moulting data indicate breeding in the latter half of the year in the south of the range²², which concurs with our findings.

Grey-breasted Wood Wren *Henicorhina leucophrys*.—Two males with enlarged testes (7.4 mm and 6.0 mm; UNALM specimen and MCCI 2571) collected at quebrada San Alberto on 13 November. In the Colombian Andes, breeding noted December–June, concurrent with White-breasted Wood Wren *H. leucosticta*¹⁷.

Paradise Tanager *Tangara chilensis*.—A pair repeatedly carrying nesting material at Pan de Azucar on 9 November, gathering moss from tree branches. In Peru, nest building noted in June in the south-eastern Amazonian lowlands²⁶.

Purple Honeycreeper *Cyanerpes caeruleus*.—A family group including a begging juvenile on 7–10 November, near km 59 of the Oxapampa–Pozuzo road above El Huampal. No published breeding data from Peru, though its breeding biology elsewhere is relatively well studied¹⁵.

Stripe-headed Brush Finch *Buarremon torquatus*.—Male with enlarged testes (9.9 mm; MCCI 2561) taken at quebrada San Alberto on 13 November. In Colombia, breeding-condition birds recorded January–August¹⁴.

Slaty Brush Finch *Atlapetes schistaceus*.—A family group including a recently fledged juvenile (very obvious gape) at Abra Esperanza on 13 November. Juvenile plumage is quite variable in this species¹⁹. The bird we observed was of central Peruvian *A. c. taczanowski*, the juvenile plumage of which is undescribed. It was similar to the adult, but with a much-reduced (almost absent) white throat, a shorter moustachial stripe that appeared better-defined, duller blackish cheeks, and a paler, duller rufous crown that was less bushy. In the Central Andes in Colombia, begging juveniles (of the nominate race) noted April and June¹⁴, whilst in

Peru (*taczanowski*), juveniles with adults recorded June–July in dpto. Huánuco⁸.

Spectacled Whitestart *Myioborus melanocephalus*.—Recently fledged juvenile with adults in a mixed-species flock at quebrada San Alberto on 13 November. In dpto. Junín, just to the south, recently fledged juveniles reported in December⁴, and to the north, in dpto. Huánuco, in June⁸.

Dusky-green Oropendola *Psarocolius atrovirens*.—Male with enlarged testes (19.8 mm; MCCI 2564) collected at El Huampal on 7 November. In Bolivia, nests recorded July–November, and it has been suggested, based on moulting timing, that birds in southern Peru breed later¹⁶.

Orange-bellied Euphonia *Euphonia xanthogaster*.—Male carrying a faecal sac near km 55 of the Oxapampa–Pozuzo road on 9 November; male with enlarged testes (7.0 mm; MCCI 2562) collected at El Huampal on 7 November. Breeding data from Peru unavailable; in western Colombia, nests found November–April, whilst birds in breeding condition have been collected May–July in the Perijá Mountains on the Venezuela/Colombia border¹⁴.

Blue-naped Chlorophonia *Chlorophonia cyanea*.—On 7 November we found an active nest near km 58 of the Oxapampa–Pozuzo road above El Huampal, at c.1,200 m. The nest was in a moss-covered cavity of a large boulder on a landslide, c.1 m above ground. It was impossible to approach the nest, but both adults repeatedly brought food to it on 7–10 November. The location agrees with those of nests in Santa Marta, Colombia, in small cavities or crevices in overhanging cliffs or banks²⁴. The only breeding data from Peru concern fledglings in dpto. Cusco in April⁸.

Discussion

The frequency with which evidence of breeding—especially dependent juveniles—was encountered in a relatively brief period suggests that November is near the end of the breeding season for many species in Yanachaga-Chemillén National Park. At Oxapampa, the wet season is considered to be October–April, with most precipitation in December–March³; data from quebrada San Alberto for 2003–04 suggest that November marks the end of the dry season (<150 mm of precipitation), whilst the rainy season commences in earnest in December (c.450 mm) and persists until early April³. Our observations were made during the transition from the dry to the wet season, though preceding weeks had been unusually wet (D. Catchpole pers. comm.). Data on breeding seasons

for Andean forest birds in Peru are few, though Fitzpatrick & Stotz⁷ indicate that in foothill forest in southern Peru activity peaks in August–November, i.e. in the late dry season. Our observations also confirm breeding activity in the late dry season for many Andean birds. However, 2006 was an El Niño year, which may have affected the breeding of cloud forest birds: unpublished data from Manu National Park suggest that the breeding peak for many species (e.g. Marcapata Spinetail *Cranioleuca marcapatae*, Slaty Tanager *Creurgops dentatus*, Orange-eared Tanager *Chlorochrysa calliparaea*, Blue-necked Tanager *Tangara cyanicollis*, Paradise Tanager and Olivaceous Siskin *Carduelis olivacea*) is about a month earlier in El Niño years (H. Lloyd *in litt.* 2007).

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