The nest and eggs of the Ochraceous Attila *Attila torridus* in south-west Ecuador with notes on parental care

Harold F. Greeney

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The genus *Attila* comprises seven species of medium to large flycatchers distributed from Mexico to Bolivia\(^{10}\). Overall, little is known of their breeding ecology and the nests of only four species have been described (*A. cinnamomeus*, *A. bolivianus*, *A. rufus* and *A. spadiceus*)\(^{4–10}\). Ochraceous Attila *A. torridus* is one of the range restricted of the genus, occurring only from south-west Colombia to north-west Peru on the west slope of the Andes through Ecuador, and mostly below \(1,000\) m\(^{10}\). Due to its restricted range and heavy habitat fragmentation, Ochraceous Attila is considered Vulnerable\(^{2,9}\). Here I present the first published breeding information for this poorly known and threatened species.

**Nest**

I discovered the nest on 1 February 2004 at 08h00, when it contained three eggs. It was situated 2 m above ground, nestled against the trunk of a c.20 cm-diameter tree close to the entrance road to Buenaventura Reserve (0°3′39″S 78°46″W), 20 km west of Piñas, El Oro province, south-west Ecuador, at 520 m. The nest was supported by a large clump of bromeliads and partially shaded by their leaves (Fig. 1). It was a broad, shallow, semicircular cup with the back formed by the trunk of the tree. The entire nest was constructed of red to brown-dry moss (similar in coloration to the adult) and coarse roots and rootlets. It had no differentiated lining and measured (cm): outside width 15; outside height 6; inside width 7.5; inside depth 4.5. The area around the nest was pasture in various states of regrowth, but with few trees over 6 m.

**Eggs**

The eggs were white to cream-coloured with coarse, sparse, red-brown and lavender splottes (Fig. 1). Their measurements were: 26.2 x 20.5, 25.0 x 21.1 and 26.5 x 20.2 mm.

**Nesting appearance and adult provisioning behaviour**

One egg hatched on 4 February between 08h30h and 14h45. The following day the second egg hatched before 08h00 and the third between 09h45 and 16h30. Newly hatched nestlings were pink to greyish pink with sparse short down, pale grey at the ends but pale yellow at the bases. Arising from discreet clumps, it gave the nestlings a speckled appearance which made them extremely cryptic in the dappled-sunlight environment of the nest. I have only seen similar nestlings in Cinnamon Flycatcher *Pyrrhomyias cinnamomea*, which often nests in similar situations (pers. obs.). Nestling gapes were bright yellow and mouth linings were bright orange-yellow. Their cloacae were yellow. On 13 February all three nestlings were still in the nest and wing pin-feather sheaths were unbroken. On 15 February the nest was empty, and though it appeared undisturbed, I presumed it had been depredated.

I placed a video camera 5 m from the nest and recorded behaviours at the nest from c.05h30 to 18h30 on 7 and 11 February, for a total of 25.3 hours. Both adults brought food to the nestlings, but were only at the nest together once for 39 seconds on 7 February. In this instance the second adult brought a frog, which it passed to the adult already present and then left. Often (>8/32 arrivals), as one adult flew to the nest, the second would swoop past the nest, crossing paths with the arriving adult and causing a brief confusing flash of wings and movement. One adult remained at the nest and the other flew away from it, drawing an observer’s attention from the nest. I interpreted this as a means of alerting the observer to the presence of the other adult, which could not be detected whilst at the nest. I observed this behaviour 0.9 times during 0.9 minutes, (i.e. not very often). During 20% of the day (0.9 minutes) both adults occupied the nest and wing pin-feather sheaths were unbroken. During 20% (0.9 minutes) the nest was occupied by one adult only (i.e. not very often). During 6% (0.9 minutes) the nest was occupied by two adults. During 6% (0.9 minutes) both adults occupied the nest for 6% (0.9 minutes) of the day. I observed both adults entering the nest and remaining in the cup and both adults occupying the nest 6% (0.9 minutes) of the day.

**Egg hatching**

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This as a means of predator distraction. Because the camera had a narrow view, I was not always able to detect the second adult, and I feel it is likely that this behaviour has been observed more frequently than observed on film. Similar distraction behaviour at the nest has been observed in Orange-bellied Euphonia Euphonia xanthogaster, where the male flies by nearly every time the female visits the nest (C. Dingle pers. comm., H. F. Greeney unpubl.). I do not know, however, if only the male Ochraceous Attila performed this behaviour. Whilst perching on the nest after feeding or before settling to brood, adults occasionally (10/32 times) leaned into the cup and probed sharply (19 times) or rapidly (20 times) into the nest lining as described for other passerines\(^{3,5}\). The nestlings were brooded for 29% of the day (06h00–18h00) on 7 February and for only 0.9 minutes (0.1%) on 11 February. I do not know if both adults brooded, but suspect that only one did.

During periods of movement, adults spent 6% of their time moving about on the nest (0–3 times per standing bout; mean number of stands per bout ± SD 47 ± 49 seconds perched on the rim of the nest). Remained to brood, adults spent only 2% of the observation period perched on the rim of the nest (i.e. not vigilant). During periods of movement, adults repeated themselves from the brooding position and peered into the nest. Often (13/31 times) they would then sit back down. On 11/31 occasions (0–2 times per standing bout; mean number of probes ± SD 0.5 ± 0.8) they performed rapid probing behaviours, and on 10/31 occasions (0–3 times per standing bout; mean number of probes ± SD 0.4 ± 0.7) they probed sharply. In total, including whilst perched on the rim, adults rapidly probed 38 times and sharply probed 32 times. I observed preening only briefly in two bouts of one second each.

The nestlings were fed eight times on 7 February and 18 times on 11 February, for feeding rates of 0.2 and 0.5 feeds per nestling hour respectively. On 7 February, however, four prey items proved too large for the nestlings and were carried away by the adult. This happened twice on 11 February. I was unable to identify 25% of prey items. The remaining prey comprised 31% insects (seven cicadas, Cicadidae; one long-horned beetle, Cerambycidae; one grasshopper, Orthoptera; one unidentified) and 44% vertebrates (11 frogs; three lizards). Most prey items were large (2–4 cm length), and the lizards were c.10–15 cm in total length. Adults often had to take the prey item back from the nestling, manipulate it and return it. Once a nestling took over 1.3 hours to completely ingest one of the lizards. On one of the visits where I was unable to identify the prey item the adult appeared to regurgitate to the nestling, but I was unable to confirm this. Nestlings produced ten faecal sacs on 7 February and 12 on 11 February. Adults consumed five and two faecal sacs at the nest on each day respectively, carrying the rest away.

When feeding nestlings adults spent a mean ± SD 47 ± 49 seconds perched on the rim of the nest (n = 32 visits). During all visits to the nest, including those when no prey was delivered and the adults remained to brood, adults spent only 2% of the observation period perched on the rim of the nest (i.e. in a position drawing attention to the nest).

Discussion

The nest of Ochraceous Attila most closely resembles that described for Dull-capped Attila A. bolivianus from Colombia\(^ 1\) in that it was a rusty-coloured cup of moss, rootlets and plant fibres, which probably aids in camouflage the similarly coloured adults whilst at the nest. The use of moss is similar to the nest of Bright-rumped Attila A. cinnamomeus\(^ 6\) but differs from the stick and rootlet nest of Cinnamon Attila A. cinnamomeus. Nest placement and egg coloration of Ochraceous Attila are similar to other Attila species\(^ 6\), except for that of Grey-hooded Attila A. rufus recorded nesting inside an earthen cavity\(^ 2\). Like other attilas\(^ 6\), the diet of Ochraceous Attila includes vertebrates, but this appears to be the first record for this species.

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References

Harold F. Greeney
Yanayacu Biological Station & Center for Creative Studies, Cosanga, Napo, Ecuador, c/o 721 Foch y Amazonas, Quito, Ecuador; and Museo Ecuatoriano de Ciencias Naturales, Rumipamba 341 y Avenida de Los Shyris, P.O. Box 17-07-8776, Quito, Ecuador. E-mail: revmmoss@yahoo.com.

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The genus Attila is small, diverse and well-known in Central and South America. The family, mixed-species Asellatorinae, contains four genera: Attila, Macconellicochlis, Hemitrichia, and Grallaria. The family has a long history of study, with many species described and their biology well known. The Ochraceous Attila (Attila rufus) is one of the species studied in this region. While few bellied Fl)

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