

Ecuador mammal trip report, Nov 21 to Dec 05, 2013

TAPICHALACA, NOV 21-28.

Trapping: I set 40 traps on the Ondulata trail Nov 21-23 (within 400 m of lodge), on the Jocotoco trail Nov 23-25, and on the Ondulata trail (500-800 m from lodge) Nov 25-27. An additional 10 traps were placed nightly around Casa Simpson and at the garbage dump near the lodge.

Mist netting: I set 3 to 5 nets on the Ondulata trail (Nov 22); Jocotoco trail (Nov 24); and Tangara trail (Nov 25); and 3 nets were set on a trail opposite the reforestation area on Nov 26. I netted bats every day when the conditions were sufficiently dry, although on 2 nights light rain and mist may have slowed capture rates.

Observations: I walked trails by day and night, and spent time at a locality on the Tangara trail where my companion saw a Mountain Coati.

Annotated list of mammals at Tapichalaca

Opossums

Caenolestes cf. caniventer, one caught on second half of Ondulata trail on a small stream on Nov 27. This male was quite large and differed from *C. caniventer* in lacking distinctly pale underparts with a dark pectoral spot and a bicolor tail. On our example, fur is gray, 12 mm on back, only slightly paler below. The tail was unicolor with a paler tip. The upper canines measured about 1.5 mm in life, rather small in comparison with most *Caenolestes* spp. Its external measurements are within the range of measurements given for *C. caniventer* (Ojala-Barbour et al., 2013). Our animal differs from the widespread *C. fuliginosus* in being larger - hind foot is usually below 25 and weight below 30 g in that species, although the coloration is similar to our animal. As opossums tend to continue to grow throughout life, ours may be a very large example of *C. fuliginosus*.
Measurements: HB 130, T 136, HF 28, E 15, Wt 47.5 g.

Bats

Myotis oxyotus . 7 caught . Caught at all sites except on Jocotoco trail. This is a highland *Myotis* that is not well known, but appears to be the dominant insectivorous bat at Tapichalaca.
Measurements: FA 40-43, HB 52-60, T 30-42, HF 8-9, E 13-14, Wt 6-8 g.

Sturnira bidens, 6 caught at all 4 localities. Locally common. Status IUCN – Near-threatened. This is a frugivorous bat. Unlike most *Sturnira*, it has only 2 lower incisors and does not have yellow shoulder patches.
Measurements: FA 41-45, HB 65-70, T 0, HF 11-13, E 14-16, Wt 15-22 g

Anoura geoffroyi, 6 caught, all near Casa Simpson, where this species is the common visitor to the hummingbird feeders. It was not recorded on the Jocotoco trail or at the reforestation area trail.
Measurements: FA 45-46, HB 65-70, T 0, HF 10-12, E 13-15, Wt 15-16 g.

Anoura fistulata, 2 caught, one on Tangara and one on Ondulata trail. This is a smaller nectar bat, with a tiny tail. It was described in 2005 and is *endemic to Ecuador*. It has a tongue that is 1.5 x the head and body length, measuring 3.5 inches. I did not confirm this bat at the feeders but it may visit occasionally. One was caught with pollen on its head.

Measurements: FA 36, HB 60, T 3-4, HF 9-10, E 11-12, Wt 9-10 g.

Small rodents

Thomasomys baeops 5 caught (one specimen deposited), all males, on both parts of Ondulata and Jocotoco trail trail.

This is a small, long-tailed *Thomasomys*. The species identification needs to be verified from the specimen, as there are a number of similar small, long-tailed species in southern Ecuador.

Measurements: HB 90-110, T 130-145, HF 26-28, E 15-18, Wt 16-35 g.

Thomasomys cf. caudivarius. 3 caught (one specimen deposited). Caught on Ondulata trail (first section) and Jocotoco trail.

This species does not fit well with any *Thomasomys* reported by Tirira (2007) for southern Ecuador, as it is relatively large with tail = Head and body length. The genus is in need of revision, but examination of skull and teeth may throw light on its identity. I obtained an in-prep manuscript on rodents with a chapter on *Thomasomys* written by Victor Pacheco, and I consulted directly with the author. His first choice, based on our photos, is *T. caudivarius*, although this species usually has a longer tail with a distinct white tip. Dr. Pacheco is willing to examine photos of the skull once it has been cleaned, and he may be able to identify the species at that time.

Measurements: HB 125-132, T 123-130, HF 30-31, E 15-17, Wt 49-51 g.

Thomasomys taczanowskii, 2 were caught, one on Ondulata trail near Casa Simpson, one on Ondulata trail about 1 km beyond Casa Simpson.

This arboreal rat was not noted by Tirira (2007), but it is described in Dr. Victor Pacheco's chapter on this genus, presently in prep for Mammals of South America. It has been caught in the vicinity of Tapichalaca. Our two animals fit perfectly in the size and color given for this species by Pacheco. Dr. Pacheco was kind enough to examine our photographs and he confirmed my identification. He noted that his limited observations of the species demonstrated that it was an excellent, agile climber. These rats are much more arboreal than all other species that we captured, and our two animals rapidly climbed curtains and walls in the room we used as a studio.

Measurements: HB 90- 110, T 125-132, HF 24-28, E 15-16, Wt 30-39 g.

Oreoryzomys balneator , 15 caught, at all locations (one specimen deposited). Common at Casa Simpson and around dump, as well as in forest. Although this species is reported to occur only to 2,000 m, it was very common in the area at elevations of 2,450 to 2,600 m. It has a distinctive white dorsum and long tail. Dr. Pacheco confirmed that he has caught this species at 3,000 m in Peru, but it is normally uncommon or rare.

Measurements HB 85-100, T 110-145, HF 24-27, E 13-17, Wt 21-30 g.

Nephelomys albigularis, 13 caught on all forest trails (not near house or dump).

This is a large rice rat with a bicolor tail. I am very familiar with this rat and did not need to collect specimens for identification.

Measurements: HB 125-150, T 150-170, HF 34-36, E 19-24, Wt 55-74 g

Nephelomys auriventer, 1 caught on more distant part of Ondulata trail.
This rodent is very similar to *N. albigularis* but it does not have a bicolor tail.
Measurements: HB 130, T, 150, HF 35, E 20, Wt 48 g.

Akodon mollis (?) 8 caught. One specimen was deposited.
Akodon are very difficult to identify in the field. The most common species in the area is *A. mollis*. These are short-tailed, vole-like rodents. They were encountered in all trap areas including near the lodge.
Measurements: HB 80-110, T 70-90, HF 21-24, E 12-16, Wt 17-36 g.

Large rodents

Cuniculus taczanowskii, 3 seen. Two were regular visitors to food set out at Casa Simpson. We saw a third, wild individual at the Jocotoco palapa one night. It was very confident, searching for food at the Jocotoco Antpitta feeding areas and around the palapa, oblivious to our UV lights and presence.

Carnivores

Nasuella olivacea, one seen by GMS crossing the Tangara trail near a small stream. It was reported as being more reddish-orange than lowland coatis, with a short, bushy tail.

BUENAVENTURA, NOV 28 TO DEC 05, 2013

Trapping: I set 50 traps along the Royal Flycatcher trail for 3 nights (Nov 29-Dec 1), then moved them to the upper part of the reserve along the Sendero Deloro Parakeet trail for 2 nights (Dec 2-4).

Netting: I set 4-6 nets per night, with some set in the subcanopy by throwing lines over branches and raising nets on slim poles. Nets were set along the dirt road toward the Umbrella-bird lookout on Nov 29, 30 and Dec 1 (lower site), and along the road near the Sendero Deloro Parakeet trail (upper site) on Dec 2 and 3.

Observations: mammals were observed during bat netting, rodent trapping, and at other times when walking trails. One spotlighting trip took place on return from the upper area after bat netting on Dec 2.

Annotated list of mammals at Buenaventura

Bats

Phyllostomus hastatus, three of these large bats were caught on the road about 400 m north of Umbrellabird Lodge. One chewed through 3 lines of a mist net.
Measurements: FA 88

Phyllostomus discolor, 1 male caught in same area as above. It was not measured but it is unmistakable in the hand.

Micronycteris megalotis, 1 male caught at upper net site on Dec 3.
Measurements: FA 34

Glossophaga soricina, 4 of these common nectar bats were caught at the lower site. None were seen visiting the hummingbird feeders.

Measurements: FA 35

Anoura fistulata, two individuals of this endemic bat were caught at the upper site

Measurements: FA 35-36, HB 55, T 3-4, HF 10, E 12, Wt 10 g.

Carollia brevicauda, a group of about 300 was observed up close (and one captured by hand) in a small closed culvert about 600 m up the road from the lodge. This bat was very common at the lower site where 27 were caught, and less common in the more mature forest at the upper site where 5 were caught.

Measurements: FA 40-42, HB 63-65, T 10-12, HF 15, E 20, Wt 18-21 g

Carollia castanea, three were caught at the lower site and one at upper site. This smaller *Carollia* has less banded fur than the other species.

Measurements: FA 35

Carollia perspicillata, two were caught at the upper site, none at lower site.

Measurements: FA 43-45.

Artibeus Jamaicensis, two were caught at the lower site and one at upper site.

Measurements: FA 62-63

Artibeus ravsus, three were caught at lower site and 5 at upper site. This bat is very similar to its Central American counterparts (*A. watsoni* and *A. phaeotis*) in having pale fur, prominent facial stripes, and pale edging on ears and noseleaf.

Measurements: FA 38-41.

Artibeus species 1, 7 were caught at the upper site, none at the lower site. This bat is unlike all small *Artibeus* reported from South America as it has very dark fur, faint facial stripes, and no pale edging on noseleaf or ears. It slightly resembles *A. toltecus* (from Central America) but it is smaller and darker. No such species are currently recognized from South America and I was not able to assign it to any known species. Burton Lim, an expert on the small *Artibeus* species, was unable to identify it from portraits. In the future it will be necessary to collect voucher specimens of this species for museum analysis. It may well represent an undescribed species.

Measurements: FA 37-38, HB 50-52, T 0, HF 9, E 15, Wt 10-12 g.

Vampyressa thuyone, one male was caught at the upper site

Measurements: FA 32, HB 55, T 0, HF 10, E 12, Wt 9 g.

Playtrrhinus albericoi, two of these attractive large bats were caught at the upper site

Measurements: FA 59, HB 92, T 0, HF 16, E 23, Wt 50 g.

Sturnira lilium, four were caught at the lower site and 3 at the upper site. This is a small *Sturnira*. Note: the small species are difficult to distinguish without close examination of the teeth.

Measurements: FA 41-42, HB 65, T 0, HF 12, E 15, Wt 22 g.

Sturnira ludovici, two were caught at the upper site. This is a larger *Sturnira* with very hairy legs. Measurements: FA 48, HB 74-75, T 0, HF 12-13, E 16-18, Wt 27-28 g.

Enchisthenes hartii, 2 were caught, one at lower site and one at upper site in a high net. This is an uncommon bat with deep chocolate-brown fur and strong facial stripes. Measurements: FA 39-40, HB 55-57, T 0, HF 10-11, E 15-16, Wt 18-20 g.

Desmodus rotundus, 16 were caught at the lower site, none at upper site. The common vampire is usually found close to areas with cattle. Measurements: FA 53-58, HB 75-80, T 0, HF 15-16, E 20-21, Wt 35-38 g.

Myotis sp. One small *Myotis* species was found roosting under screening at Cabin 2. It escaped capture but was quite closely seen. It resembled *M. nigricans* but without examination in the hand, the ID is tentative.

Small Rodents

Despite setting out 50 traps for 5 nights (250 trap nights), only one rodent was captured.

Sigmodontomys alfari, one caught by Leo at the intersection of the Deloro trail with the dirt road. This rodent is quite uncommon though widespread. It was known only from northern Ecuador (Tiriria, 2007), and our record extends its range through the western versant of the country. It can be recognized by the fact that the claws on the hind feet are not covered by long hair, as in other large rice rats (*Nephelomys* spp. and others). To my knowledge, our pictures represent the only photos of any species of *Sigmodontomys* taken from life.

Measurements: HB 145, T 172, HF 36, E 22, Wt 90 g.

Large Rodents

Dasyprocta punctata, seen on 3 occasions near the dining area at Umbrellabird lodge.

Cuniculus paca, one seen at night about 300 m north of the lodge on the dirt road.

Armadillos

Dasypus novemcinctus. Seen at night on the road, on the Royal Flycatcher trail, and near the lodge, on 3 occasions.

Carnivores

Potos flavus, a lone individual seen nightly on the road near the lodge (usually within 200m of the lodge) and one seen at the upper site.

Nasua narica, a band of 30 or more coatis frequents the dining area where they were seen daily.

Summary and Comments

In a very short amount of time (14 days), I was able to document 4 species of bats, 8 rodents, one opossum and a carnivore at Tapichalaca, and 17 species of bats, 3 rodents, 2 carnivores and one armadillo at Buenaventura. Interestingly, only one species occurred at both sites (*Anoura fistulata*). Thus my total list of mammals recorded for the two sites combined is 35 species. During most of the period we did not have access to a vehicle and trapping and netting was limited to regions within walking distance of the accommodations.

At **Tapichalaca**, a few other bats are expected to occur, but the logistics of setting nets on steep hills and the often-present mists make bat netting a challenging enterprise. Nonetheless, we recorded an endemic bat, *Anoura fistulata*, and three other species, including one listed as Near Threatened (IUCN). At this site, small rodents and marsupials are of considerable interest. The Caenolestid opossums are a generally poorly-known group represented by few specimens. A new species was described this year from Sangay National Park (Ojala-Barbour et al., 2013).

Among the small rodents, we caught a *Thomasomys* that may be a known Ecuadorean species (*T. caudivarius*), but appears to differ considerably from typical examples of that species. We also recorded *T. taczanowskii*, a species that was not reported in Tirira's book, and obtained some information on habits of this uncommon rodent. We obtained an elevational record (in Ecuador) for one of the most common species in the region, *Oreoryzomys balneator*. With more traps and access to a vehicle to reach more distant parts of the reserve, I expect we could obtain more species of interest and possibly new records for the region. This is an area of endemism and appears to have been poorly sampled by mammalogists, thus much remains to be learned.

At **Buenaventura**, for the first 4 days there was no vehicle available at appropriate times, and I was limited to setting nets and traps in the secondary forest around the lodge. The resulting netting provided a number of widespread Central to South American bats (including one uncommon bat, *Enchisthenes hartii*, which I had not captured prior to this study). No rodents were caught in traps on the rather dry secondary trail to the river. The last two study nights I was finally able to access the more mature, wetter, and much more productive part of the reserve, and these days justified the entire period. First, a small *Artibeus* bat was caught that appears to be undescribed. This is amazing to me as these bats are among the most easily captured bats and it was fairly common in the area. Second, our one rodent record is of a genus that is poorly known and which I strived (unsuccessfully) to catch throughout Costa Rica and Panama. I am not aware of any other photographs of this genus taken of live animals. The species, *Sigmodontomys alfari*, was not known from southern Ecuador prior to our study, thus we have extended the known range of this rat.

I am very grateful for the help received from staff at both lodges, in particular from Byron, the two days he was present at Tapichalaca (it was unfortunate that he was absent from day 1-5 of our stay), and from Leo who was very helpful setting nets and traps throughout my stay at Buenaventura. Francisco Sornoza took me to the top of the reserve at Buenaventura and assisted with netting one night, and Marco kindly taxied us up and down the next two days. Above all, I am very thankful for the help, company, and excellent photographs of mammals and other fauna taken by George M. Smiley that appear in this report and on his website.

On my return I consulted with Jim Patton (who sent me a 4,000 page unpublished manuscript on South American rodents which proved indispensable), Bruce Patterson, who provided unpublished data on caenolestids, Victor Pacheco, who helped with *Thomasomys* and will examine cleaned skulls of the

species collected, and Mike Carleton, who assisted with oryzomiine rodents. I am grateful to these experts for their valuable time and assistance.

Fiona A. Reid, December 2013

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Images of mammals caught in Tapichalaca
photos by George Smiley (GMS) or Fiona Reid (FAR)

Caenolestes cf. caniventer (GMS)



Akodon cf. mollis (GMS)



Nephelomys albigularis (GMS)



Oreoryzomys balneator (GMS)



Thomasomys baeops (GMS)



Thomasomys sp. 1 (GMS)



Thomasomys taczanowskii (GMS)



Cuniculus taczanowskii (GMS)



Myotis oxyotus (GMS)



Anoura geoffroyi (GMS)



Anoura fistulata (GMS)



Sturnira bidens (GMS)



Mammals from Buenaventura

Sigmodontomys alfari (FAR)



Phyllostomus hastatus (GMS)



Phyllostomus discolor (GMS)



Micronycteris megalotis (GMS)



Glossophaga soricina (FAR)



Carollia brevicauda (GMS)



Carollia castanea (GMS)



Artibeus jamaicensis (GMS)



Artibeus ravus (GMS)



Artibeus species 1 (FAR)



Artibeus species 1 (GMS)

Platyrrhinus albericoi (GMS)



Enchisthenes hartii (GMS)



Vampyressa thyone (FAR)



Desmodus rotundus (GMS)



Sturnira lilium (GMS)



Sturnira ludovici (GMS)

