



Trinibats

Trinidad and Tobago, West Indies

Field Survey March 2013

By Daniel Hargreaves

Introduction

The trip was organised between Geoffrey Gomes and Daniel Hargreaves and was planned to survey the Central and South East regions of Trinidad. The field notes below are a summary of findings and further detailed information (capture data, measurements, and locations) can be requested from Daniel Hargreaves.

5th March 2013

Arrival night – Day 1

The main group arrived in Port of Spain at dusk and as we drove through the city we could see molossid bats flying high and fast alongside the highway. As we settled into Alicia's guest house a few of the participants that arrived earlier set a mist net across a small swimming pool and caught 2 species: Little Mastiff bat (*Molossus molossus*) and a Jamaican Fruit-eating bat (*Artibeus jamaicensis*).

Day 2

In the morning we headed to Caroni mangroves and met our swamp guide, Lester. We spent a few hours exploring the swamp by boat looking for roosting bats and other wildlife. After a few hours of searching we had great views of a colony of 5 Proboscis bats (*Rhynchonycteris naso*) lined up on a tree over the water. We were lucky to find some other rare mammals including Silky Anteaters and the elusive, and very rarely observed, Crab-eating Raccoon.

In the afternoon we boarded a 36' cabin cruiser, and headed out to Monos Island, off Trinidad's north-west peninsula; as we had plenty of time we made a small detour and found a playful pod of Atlantic Bottlenose Dolphins swimming between the joining of two currents. As dusk approached we moored up at the side of a cave which contained a colony of 150 – 200 Greater fishing bats (*Noctilio leporinus*). We caught a young male that was roosting alone in order for the Trinibats group to see the amazing features these bats have. After viewing some behaviour in the cave we sat on the jetty outside eating dinner, and watched the bats emerge from the cave with some of them fishing right under our feet. The colony was mixed sex and the females appeared to be heavily pregnant and probably likely to give birth within a couple of weeks.



Day 3

We left Alicia's palace and drove to the Southeast and to a new accommodation for Trinibats – the aptly named “whispering palms” or the “chill house” as the group nicknamed it. In the afternoon we ventured into Nariva swamp with our guide Roshan, and followed the forest loop trail. It wasn't long before we spotted the first bats lined up on the outside of a tree; they were identified as 3 Lesser white lined bats (*Saccopteryx leptura*). After a short walk, we came across a hollow section of a tree that contained a colony of ~7 Greater White-lined bats (*Saccopteryx bilineata*). We caught one male and pointed out the identification features and the sac positioned on the front of the forearm. We watched as the males fanned the females, “salting” them with perfumes stored in the wing-sacs, in their effort to control and organise social cohesion within the group. Further along the trail, we found a fallen hollow tree containing a colony of 6-8 Common Big-eared bats (*Micronycteris megalotis*). The first tent making bat of the trip was found roosting in a ‘Umbrella’ style tent in a Carat palm; it was identified as the Common Tent-making bat (*Uroderma bilobatum*). We found similar tents and these contained 1 and 2 Jamaican Fruit-eating bats (*Artibeus jamaicensis*). As we neared the end of the trail we found a roost of 5 Spix's Disk-winged bats (*Thyroptera tricolor*) roosting in a rolled heliconia leaf.

That evening we split into three teams to cover varied habitat including the forest edge. We caught an incredible 26 species including two that have not been seen on previous Trinibats expeditions*:

- Greater White-lined bat (*Saccopteryx bilineata*)
- Lesser White-lined bat (*Saccopteryx leptura*)
- Common Tent-making bat (*Uroderma bilobatum*)
- Great Fruit-eating bat (*Artibeus lituratus*)
- Jamaican Fruit-eating bat (*Artibeus jamaicensis*)
- Gervais's Fruit-eating bat (*Artibeus cinereus*)
- Hellers Broad-nosed bat (*Platyrrhinus helleri*)
- MacConnell's bat (*Mesophylla macconnelli*)
- *Great Stripe-faced bat (*Vampyroides caraccioli*)
- Tilda's Yellow shouldered bat (*Sturnira tildae*)
- Little Yellow shouldered bat (*Sturnira lilium*)
- Seba's Short-tailed Fruit bat (*Carollia perspicillata*)
- Common Long-tongued bat (*Glossophaga soricina*)



- *Lesser Long-tongued bat (*Choeroniscus minor*)
- Geoffroy's Hairy-legged bat (*Anoura geoffroyi*)
- Greater Spear-nosed bat (*Phyllostomus hastatus*)
- Orange-throated bat (*Lamproncycteris brachyotis*)
- Niceforo's bat (*Trinycteris nicefori*)
- Stripe-headed Round-eared bat (*Tonatia saurophila*)
- Pygmy Round-eared bat (*Lophostoma brasiliense*)
- Striped Hairy-nosed bat (*Mimon crenulatum*)
- Southern Yellow bat (*Lasiurus ega*)
- Common Big-eared bat (*Micronycteris megalotis*)
- Davy's Naked-backed bat (*Pteronotus davyi*)
- Riparian Myotis (*Myotis riparius*)
- Hairy legged Myotis (*Myotis keaysi*)

Day 4

We met our south-eastern forests' guide, Philip, and walked a ridge trail in Trinity Hills forest where we found a roost of Greater White-lined bats (*Saccopteryx bilineata*). In the evening we set nets in the Guayaguayare forest alongside a dam, in the forest, and along the ridge.

We caught several species, including a Greater Fishing bat (*Noctilio leporinus*) which we haven't previously seen in this area:

- Riparian Myotis (*Myotis riparius*)
- Common Tent-making bat (*Uroderma bilobatum*)
- Hellers Broad-nosed bat (*Platyrrhinus helleri*)
- Gervais's Fruit-eating bat (*Artibeus cinereus*)
- Hairy big-eyed bat (*Chiroderma villosum*)
- Seba's Short-tailed fruit bat (*Carollia perspicillata*)
- Common Long-tongued bat (*Glossophaga soricina*)
- Proboscis bat (*Rhynchonycteris naso*)
- Greater Fishing bat (*Noctilio leporinus*)



Day 5

In the morning we had a stroll to the mud volcano on the way we found a number of bats tents but the bats were very flighty and left before we could get good views of them. A small culvert contained 2 Seba's Short-tailed Fruit bats (*Carollia perspicillata*) and 1 Common Long-tongued bat (*Glossophaga soricina*). On the road we stopped and checked a bridge that contained a small colony of 3 Common Big-eared bats (*Micronycteris megalotis*). Next to the bridge a rolled heliconia leaf contained 6 Spix's Disc-winged bats (*Thyroptera tricolor*); 2 bats flew but we managed to catch the others - 3 males and 1 female, all adults.

In the afternoon we visited a large road culvert underneath the main forest road. There were 200-300 bats present of two species; Seba's Short-tailed Fruit bats (*Carollia perspicillata*) and Common Long-tongued bats (*Glossophaga soricina*).

In the evening we spread out over a ridge in Mora forest at Victoria Mayaro Forest Reserve. The ridge was great and we caught a lot of bats including a species that we hadn't previously caught on the Trinibats expeditions*:

- Greater White-lined bat (*Saccopteryx bilineata*)
- Lesser White-lined bat (*Saccopteryx leptura*)
- Common Tent-making bat (*Uroderma bilobatum*)
- Great Fruit-eating bat (*Artibeus lituratus*)
- Jamaican Fruit-eating bat (*Artibeus jamaicensis*)
- Gervais's Fruit-eating bat (*Artibeus cinereus*)
- Hellers Broad-nosed bat (*Platyrrhinus helleri*)
- Niceforo's bat (*Trinycteris nicefori*)
- Stripe-headed Round-eared bat (*Tonatia saurophila*)
- Greater Spear-nosed bat (*Phyllostomus hastatus*)
- Common Big-eared bat (*Micronycteris megalotis*)
- Tiny Big-eared bat (*Micronycteris minuta*)
- Hairy Big-eyed bat (*Chiroderma villosum*)
- Tilda's Yellow shouldered bat (*Sturnira tildae*)
- Seba's Short-tailed Fruit bat (*Carollia perspicillata*)
- Common Long-tongued bat (*Glossophaga soricina*)
- *Lesser Doglike bat (*Peropteryx macrotis*)



Day 6

We walked behind Philip's house into the Trinity road forest. A small culvert under the road contained one Common-long tongued bat (*Glossophaga soricina*). We found 3 occupied tents in Carat Palms containing 1 to 3 Common Tent-making bats (*Uroderma bilobatum*). We also found a "boat" style tent in a Heliconia leaf, the bats flew when approached, but the design looked like that used by Gervais Fruit-eating bats (*Artibeus cinereus*). A large fallen hollow tree contained 3 Seba's Short-tailed Fruit bats (*Carollia perspicillata*) another 4 of these bats were seen in a culvert under the road.

In the evening we spread our nets along "Balata Ridge" in the Victoria Mayaro Forest Reserve. We caught 16 species:

- Common Tent-making bat (*Uroderma bilobatum*)
- Great Fruit-eating bat (*Artibeus lituratus*)
- Gervais's Fruit-eating bat (*Artibeus cinereus*)
- Hellers Broad-nosed bat (*Platyrrhinus helleri*)
- Niceforo's bat (*Trinycteris nicefori*)
- Stripe-headed Round-eared bat (*Tonatia saurophila*)
- Greater Spear-nosed bat (*Phyllostomus hastatus*)
- Common Big-eared bat (*Micronycteris megalotis*)
- Hairy Big-eyed bat (*Chiroderma villosum*)
- Tilda's Yellow shouldered bat (*Sturnira tildae*)
- Seba's Short-tailed Fruit bats (*Carollia perspicillata*)
- Common Long-tongued bat (*Glossophaga soricina*)
- Greater White-lined bats (*Saccopteryx bilineata*)
- Pale Spear-nosed bat (*Phyllostomus discolor*)
- Little Yellow shouldered bat (*Sturnira lilium*)
- Hairy Big-eared bat (*Micronycteris hirsuta*)



Day 7

In the morning we waved goodbye to the Southeast, and headed to Central Trinidad to stay at Hacienda Jacana, and met our hosts Helen and Jesse. In the afternoon we visited Aripo Savannah, and quickly checked the abandoned bunkers where we found Seba's Short-tailed Fruit bats (*Carollia perspicillata*) some carrying pups that were one to three weeks old. We also found some Common Long-tongued bats (*Glossophaga soricina*).

We then headed to Arena forest where we were joined by the head and staff from the Trinidad National Animal Disease Centre. They are responsible for controlling vampire bat numbers within Trinidad, and following a meeting with Geoffrey and I earlier in the week, we had invited them to see the sort of work we were doing. We set up various nets in the forest and caught 12 species:

- Greater White-lined bat (*Saccopteryx bilineata*)
- Lesser White-lined bat (*Saccopteryx leptura*)
- Common Tent-making bat (*Uroderma bilobatum*)
- Hellers Broad-nosed bat (*Platyrrhinus helleri*)
- Greater Spear-nosed bat (*Phyllostomus hastatus*)
- Seba's Short-tailed Fruit bat (*Carollia perspicillata*)
- Common Long-tongued bat (*Glossophaga soricina*)
- Little Yellow shouldered bat (*Sturnira lilium*)
- Brazilian Brown bat (*Eptesicus brasiliense*)
- Striped Hairy-nosed bat (*Mimon crenulatum*)
- Common Mustached bat (*Pteronotus parnelli*)
- Gervais's Fruit-eating bat (*Artibeus cinereus*)

Day 8

Today was all about vampire bats and we managed to find the two species known in Trinidad. We were joined by Dr Luke Rostant, a lecturer from the University of the West Indies (UWI). We first visited an abandoned, WW2 ice storage facility, and explored the various rooms finding a number of species including:

- Seba's Short-tailed Fruit bat (*Carollia perspicillata*)
- Common Long-tongued bat (*Glossophaga soricina*)
- Greater Spear-nosed bat (*Phyllostomus hastatus*)
- Common Mustached bat (*Pteronotus parnelli*)
- Ghost-faced bat (*Mormoops megalophylla*)
- Common Vampire bat (*Desmodus rotundus*)

We caught a male common vampire bat and after pointing out the ID features we released it on the ground where it ran and hopped into flight. We noticed in the

same chamber two common vampire pups one which was probably only 1-2 weeks old (photo below) and one slightly larger and probably >3 weeks old. We also caught a couple of Ghost-faced bats (*Mormoops megalophylla*) with hand nets, and had a good look at their peculiar facial orientation.



We explored a 2nd abandoned, WW11 Cold Storage facility, and found 5 species:

- Seba's Short-tailed Fruit bats (*Carollia perspicillata*)
- Common Long-tongued bat (*Glossophaga soricina*)
- Greater Spear-nosed bat (*Phyllostomus hastatus*)
- Common Mustached bat (*Pteronotus parnellii*)
- Greater White-lined bats (*Saccopteryx bilineata*)

In the evening we visited a large hollow silk cotton tree in Northeast Trinidad. We could see seven species roosting inside the tree, including a colony of White-winged Vampire bats (*Diaemus youngi*); we caught one female in a hand-net for a closer look, and discussed the difference between this and the common vampire bat. We set up a small flick-net, and caught a number of Greater Spear-nosed bats (*Phyllostomus hastatus*) and Pale Spear-nosed bats (*Phyllostomus discolor*). Other species seen included:



- Seba's Short-tailed Fruit bat (*Carollia perspicillata*)
- Common Long-tongued bat (*Glossophaga soricina*)
- Greater White-lined bat (*Saccopteryx bilineata*)

- Lesser White-lined bat (*Saccopteryx leptura*)

Before the night ended we set up the triple high net alongside one of our lodges where a colony of bats had moved into the roof. In the evening we caught

- Seba's Short-tailed fruit bat (*Carollia perspicillata*)
- Common Long-tongued bat (*Glossophaga soricina*)
- Greater Spear-nosed bat (*Phyllostomus hastatus*)
- Common Tent-making bat (*Uroderma bilobatum*)

Day 9

2 hours before dawn we raised the triple high nets hoping to catch the bats returning to the roost and we caught 24 little mastiff bats (*Molossus molossus*). It was a mixed sex roost but none of the females appeared to be lactating or heavily pregnant so we decided to fur clip the bats and relocated them to see if they would return to the same roost, or choose to stay at the new location.

In the afternoon we visited Tamana Hill Bat cave and explored both the main and dry sections of the cave. The first chamber (section 1) was almost devoid of bats which was unusual as it's normally home to clusters of Geoffroy's hairy legged bats (*Anoura geoffroyi*); (sec. 2) was much drier than last year and all the Geoffroy's bats appeared to be roosting in this chamber instead; we found one albino bat roosting in one of the clusters. This chamber also contained Trinidadian Funnel-eared bats (*Natalus tumidirostris*) and a few individual Ghost-faced bats (*Mormoops megalophylla*). Through the crawl hole to the main chimney (sec. 4, 5, 6 & 7) we found numerous groups of Greater Spear-nosed bats (*Phyllostomus hastatus*) in harem groups with males defending individual clusters of females. It was evident that there were many more ringed bats in these sections than previous years and some of the males also had coloured rings fitted. Under the main chimney were a few small clusters of Geoffroy's Hairy-legged bats (*Anoura geoffroyi*) but many less than in previous years. We could see lots of Mormoopidae species roosting in the deep section. It was unusual that the chambers near the exit holes contained fewer bats than previous years this might be linked to the unusual dry weather, or maybe a sign of excessive disturbance pushing the bats further in. We were joined by Mike Rutherford from the University of West Indies, Mike and Daniel explored the dry cave where we found Ghost-faced bats (*Mormoops megalophylla*), Greater Spear-nosed bats (*Phyllostomus hastatus*), Seba's Short-tailed Fruit bats (*Carollia perspicillata*) and Geoffroy's Hairy-legged bats (*Anoura geoffroyi*).

The harp trap was positioned at the main chimney and within a couple of hours had caught:

- 62 Common Mustached bats (*Pteronotus parnellii*)
- 138 Ghost-faced bats (*Mormoops megalophylla*)
- 497 Davy's Naked-backed bats (*Pteronotus davyi*)
- 28 Lesser Mustached bats (*Pteronotus personatus*)
- 1 Trinidadian Funnel-eared bat (*Natalus tumidirostris*)
- 2 Geoffroy's Hairy-legged bats (*Anoura geoffroyi*)



One Geoffroy's Hairy-legged bat was an albino juvenile, and probably the one that we saw earlier in the cave. It was a full albino with pink eyes and no melanin pigmentation.

Day 10

It was raining when we woke at 4am as we began our attempt to capture, or re-capture, the fur-clipped molossids returning to the lodge roost. There was a 15 minute break in the weather at 4.45am and we managed to catch 5 Little Mastiff bats (*Molossus molossus*) and three of them were fur-clipped, which provided enough evidence that relocation didn't work in this case, probably due to the relatively close (as the bat flies) proximity of the alternate roost we chose. We did, however, provide lots of info on the best methods to exclude bats from their lodges, but also how first to ensure the bats have another place to roost once evicted. To that end, Jesse and Helen have purchased a bat house and will work on persuading the bats out of the lodge and into the bat house. Trinibats will be kept informed as to the progress.



Before leaving for the airport we had a stroll around the Hacienda Jacana property and found a roost of Great Fruit-eating Bat (*Artibeus lituratus*) containing 4 adults and 3 pups.

Participant list

Organisers:

Geoffrey & Stephenie Gomes (Trinidad) <http://trinibirding.com/index.php>

Daniel Hargreaves (UK) daniel@batdan.co.uk

Participants:

Bob Cornes

Ross Baker

Adrian Bayley

Jonathan Durward

Andrew Palmer

Claire Martin

Denise Foster

David Lee

Jude Hirstwood

Lynn Whitfield

Nigel Milbourne

Linda Kergon

Stephen Davison



Trip Species List 2013

Total list of the 42 bat species identified:

Family: Emballonuridae / Sac-winged Bats

Proboscis Bat - *Rynchonycteris naso*

Greater White-lined Bat - *Saccopteryx bilineata*

Lesser White-lined Bat - *Saccopteryx leptura*

Lesser Doglike bat - *Pteropteryx macrotis*

Family: Mormoopidae / Leaf-chinned Bats

Ghost-faced Bat - *Mormoops megalophylla*

Common Mustached Bat - *Pteronotus parnelli*

Lesser Mustached Bat - *Pteronotus personatus*

Davy's Naked-backed Bat - *Pteronotus davyi*

Family: Phyllostomidae / Leaf-nosed Bats

Subfamily: Phyllostominae / Leaf-nosed Bats

Tiny Big-eared Bat - *Micronycteris minuta*

Common Big-eared Bat - *Micronycteris megalotis*

Hairy Big-eared bat *Micronycteris hirsuta*

Niceforo's Bat - *Trinycteris nicefori*

Orange-throated bat - *Lampronycteris brachyotis*

Stripe-headed Round-eared Bat - *Tonatia saurophilia*

Pygmy Round-eared Bat - *Lophostoma brasiliense*

Striped Hairy-nosed Bat - *Mimon crenulatum*

Pale Spear-nosed Bat - *Phyllostomus discolor*

Greater Spear-nosed Bat - *Phyllostomus hastatus*

Subfamily: Desmodontinae / vampire bats

Common Vampire bat - *Desmodus rotundus*

White-winged Vampire bat - *Diaemus youngi*

Subfamily: Glossophaginae / nectar feeding bats

Common Long-tongued Bat - *Glossophaga soricina*

Geoffroy's Hairy-legged Bat - *Anoura geoffroyi*

Lesser Long-tongued bat - *Choerniscus minor*

Subfamily: Carolliinae / Short-tailed bats

Seba's Short-tailed Fruit Bat - *Carollia perspicillata*

Subfamily: Stenodermatinae / Tailless bats

Little Yellow shouldered Bat - *Sturnira lilium*

Trinidadian Yellow shouldered Bat - *Sturnira tildae*

Great Fruit-eating Bat - *Artibeus lituratus*

Jamaican Fruit-eating Bat - *Artibeus jamaicensis*
Gervais's Fruit-eating Bat - *Artibeus cinereus*
Common Tent-making Bat - *Uroderma bilobatum*
Heller's Broad-nosed Bat - *Platyrhinus helleri*
MacConnell's bat - *Mesophylla macconnelli*
Great Stripe-faced bat - *Vampyroides caraccioli*
Hairy Big-eyed bat - *Chiroderma villosum*

Family: Noctilionidae / Fishing bats

Greater Fishing bat - *Noctilio leporinus*

Family: Natalidae / Funnel-eared Bats

Trinidadian Funnel-eared Bat - *Natalus tumidirostris*

Family: Thyropteridae / Disk-winged Bats

Spix's Disk-winged Bat - *Thyroptera tricolor*

Family: Vespertilionidae / Plain-nosed Bats

Riparian Myotis - *Myotis riparius*
Hairy-legged myotis - *Myotis keaysi*
Southern Yellow bat - *Lasiurus ega*
Brazilian Brown bat - *Eptesicus brasiliensis*

Family: Molossidae / Free-tailed Bats

Little Mastiff Bat - *Molossus molossus*