



Trinibats Field Survey

March 2015

By Daniel Hargreaves

Introduction

The trip was organised between Geoffrey Gomes and Daniel Hargreaves and was planned to survey areas previously visited and new sites surveyed by the 2014 Glasgow University Expedition. The field notes below are a summary of findings and further detailed information (capture data, measurements, and locations) can be requested from Daniel Hargreaves.

18th March 2015

At Alicia's Palace the group spotted 3 Lesser white-lined bats (*Saccopteryx leptura*) roosting under the road culvert and spotted Little mastiff bats (*Molossus molossus*) returning to their roost at dawn in the roof of the second floor.

In the morning we visited **Caroni swamp** where our guide Lester took us by boat to explore the swamp. We spotted five groups of Proboscis bats (*Rynchonycteris naso*) lined up on trees in separate areas. The bats were spread through one area and consisted of groups of 9, 6, 5, 6 and 3 individuals. That's the highest number of individuals and colonies that we have ever seen in the swamp.



In the evening we took a boat ride to the **Monos Islands** and to a previously discovered roost of *Noctilio Leporinus*. The colony count was ~67 slightly lower than previous counts however the females were heavily pregnant and expected to give birth within the following week. We caught one non breeding male for the group to see. We noted and captured on night vision cameras that on three occasions a male was copulating with a heavily pregnant female. We watched as the bats emerged and fished around our moored boat.



19th March

We headed to the North East coast and explored **Crapaud cave**. This is the third visit to this recently rediscovered cave. The cave contains the only colony of Sword nosed bats (*Lonchorina aurita*) known in Trinidad. Previously the colony was dispersed in the cave and a colony of around 30 to 50 bats was counted, on this visit the colony was all in one high chamber and ~300 individuals were seen clustering together. This is really good news as it shows a very substantial colony. We also found a large colony of Trinidadian funnel-eared bats (*Natalus tumidirostris*) with several pregnant females seen; they occupied a large chamber towards the back of the cave. Other species found were: Seba's short-tailed bats (*Carollia perspicillata*), Geoffroy's hairy-legged bats (*Anoura geoffroyi*), Common mustached bats (*Pteronotus parnelli*), Lesser mustached bats (*Pteronotus personatus*), Davy's naked backed bats (*Pteronotus davyi*), Ghost faced bats (*Mormoops megalophylla*) and Common long tongued bats (*Glossophaga soricina*).



In the evening we set a harp trap at the walk in entrance and caught:

- 1 x Geoffroy's hairy-legged bats (*Anoura geoffroyi*)
- 13 x Lesser mustached bats (*Pteronotus personatus*)
- 516 x Davy's naked backed bats (*Pteronotus davyi*)
- 75 x Common mustached bats (*Pteronotus parnellii*)
- 120 x Ghost faced bats (*Mormoops megalophylla*)
- 35 x Seba's short tailed bats (*Carollia perspicillata*)
- 2 x Sword nosed bats (*Lonchorina aurita*)

Mist nets were set along the trail towards the cave and caught 12 species:

- 7 Jamaican Fruit-eating bat (*Artibeus jamaicensis*)
- 3 Gervais's Fruit-eating bat (*Artibeus cinereus*)
- 80 Seba's Short-tailed Fruit bat (*Carollia perspicillata*)
- 3 Common Tent-making bat (*Uroderma bilobatum*)
- 1 Tilda's Yellow shouldered bat (*Sturnira tildae*)
- 1 Little Yellow shouldered bat (*Sturnira lilium*)
- 2 Common Mustached bat (*Pteronotus parnellii*)
- 1 Common Long-tongued bat (*Glossophaga soricina*)
- 1 Great Fruit-eating bat (*Artibeus lituratus*)
- 4 Greater spear-nosed bats (*Phyllostomus hastatus*)
- 4 Sword nosed bat (*Lonchorina aurita*)
- 1 Heller's Broad-nosed bat (*Platyrhinus helleri*)

20th March

In the morning we inspected one of the abandoned lodges at Grand Riverie which contained a roost of Greater spear-nosed bats (*Phyllostomus hastatus*) we counted 85 individuals and we also spotted 1 Seba's Short-tailed Fruit bat (*Carollia perspicillata*), 1 Common Long-tongued bat (*Glossophaga soricina*) and 3 Lesser white-lined bats (*Saccopteryx leptura*). Before leaving the beach one of the locals informed the group of some bats roosting in a tree hollow; on closer inspection we were amazed to find 3 Tilda's yellow shouldered bats (*Sturnira tildae*) roosting in the end of a branch knot hole in a seaside almond tree. This is the first roost of *Sturnira* spp. we have discovered on the Island.



After breakfast we travelled to our new accommodation Hacienda Jacana in Talparo. In the evening one team stayed at Hacienda and netted between the two ponds catching 1 Seba's short tailed bats (*Carollia perspicillata*), 1 Heller's broad-nosed bat (*Platyrrhinus helleri*) and 3 Jamaican fruit eating bats (*Artibeus jamaicensis*). The main capture site for the evening was **Arena forest reserve** where we split into two teams with one team operating the triple high net on the main road catching a wide range of species:

- 2 Common Big-eared bat (*Micronycteris megalotis*)
- 1 Stripe-headed Round-eared bat (*Tonatia saurophila*)
- 5 Jamaican Fruit-eating bat (*Artibeus jamaicensis*)
- 2 Seba's Short-tailed Fruit bat (*Carollia perspicillata*)
- 4 Gervais's Fruit-eating bat (*Artibeus cinereus*)
- 5 Common Tent-making bat (*Uroderma bilobatum*)
- 1 Greater Spear-nosed bat (*Phyllostomus hastatus*)
- 1 Thomas' Yellow bat (*Rhogeessa io*)
- 3 Brazilian brown bat (*Eptesicus brasiliensis*)
- 1 Hairy Big-eyed bat (*Chiroderma villosum*)
- 1 Tricolored bat (*Glyphonhycteris sylvestris*) – note: photo opposite, only the second capture of this species on all the Trinibats surveys.



We had a second team in the forest on a track off of the main trail and caught:

- 1 Riparian myotis (*Myotis riparius*)
- 4 Jamaican Fruit-eating bat (*Artibeus jamaicensis*)
- 7 Seba's Short-tailed Fruit bat (*Carollia perspicillata*)

- 2 Gervais's Fruit-eating bat (*Artibeus cinereus*)
- 2 Common Tent-making bat (*Uroderma bilobatum*)
- 1 Greater Spear-nosed bat (*Phyllostomus hastatus*)
- 1 Brazilian brown bat (*Eptesicus brasiliensis*)
- 2 Greater White-lined bat (*Saccopteryx bilineata*)
- 2 Trinidadian yellow shouldered bats (*Sturnira tildae*)
- 1 Striped Hairy-nosed bat (*Mimon crenulatum*)
- 1 Common Big-eared bat (*Micronycteris megalotis*)
- 1 Niceforo's bat (*Trinycteris nicefori*)
- 1 Great Fruit-eating bat (*Artibeus lituratus*)
- 3 Heller's Broad-nosed bat (*Platyrrhinus helleri*)

21st March

Today we surveyed **Nariva swamp forest**; we walked the main trail finding several bats roosts:

- A roost of 3 *Sturnira* spp. in a termite nest. The roost was likely created by Pygmy round eared bats (*Lophostoma brasiliense*) so we were very surprised to find the second *Sturnira* spp. roost of the trip.
- We found a single Jamaican fruit-eating bat (*Artibeus jamaicensis*) roosting in a palm frond tent.
- 10 Greater White-lined bats (*Saccopteryx bilineata*) in a hollow tree; we caught one breeding male with large wing sacs and watched as the males "fanned" the females.
- A fallen hollow tree stump contained a roost of 7 Common big-eared bats (*Micronycteris megalotis*) and 1 Seba's short-tailed bat (*Carollia perspicillata*).
- An individual Lesser white-lined bat (*Saccopteryx leptura*) very high up on a ficus.
- One Spix's disk winged bat (*Thyroptera tricolor*) in a furled heliconia leaf.
- A very narrow hollow tree with a small rot hole contained two Jamaican fruit eating bats (*Artibeus jamaicensis*). The entrance was incredibly small for this species so it was an unusual find.

In the evening we set nets close to the forest edge and caught:

- 3 x Heller's broad-nosed bats (*Platyrrhinus helleri*)
- 2 x Macconnell's bats (*Mesophylla macconnelli*)



- 1 x Davy's naked-backed bats (*Pteronotus davyi*)
- 2 x Common vampire bats (*Desmodus rotundus*)
- 1 x Niceforo's bat (*Trinycteris nicefori*)
- 4 x Seba's short-tailed bats (*Carollia perspicillata*)
- 1 x Common mustached bat (*Pteronotus parnellii*)
- 3 x Pygmy round-eared bats (*Lophostoma brasiliensis*)
- 2 x Tiny big-eared bats (*Micronycteris minuta*)
- 1 x Striped hairy-nosed bat (*Mimon crenulatum*)
- 1 x Lesser mustached bat (*Pteronotus personatus*)

22nd March

In the morning we visited Knolly's Tunnel in Tabaquite and found the following species:

- Common long tongued bats (*Glossophaga soricina*)
- Seba's short tailed fruit bats (*Carollia perspicillata*) - 1 individual was leucistic with white fur and black membranes and eyes.
- Common moustached bats (*Pteronotus parnellii*)
- Lesser mustached bat (*Pteronotus personatus*)
- Davy's naked-backed bats (*Pteronotus davyi*)
- Ghost faced bats (*Mormoops megalophylla*)
- Geoffroy's hairy legged bats (*Anoura geoffroyi*)
- Greater Spear-nosed bat (*Phyllostomus hastatus*)

In the afternoon we headed to **Aripo Savannah** one of the University of West Indies Study sites. Several ground mist nets and one triple high was set and caught:

- 13 Jamaican Fruit-eating bats (*Artibeus jamaicensis*)
- 3 Gervais's Fruit-eating bats (*Artibeus cinereus*)
- 6 Seba's Short-tailed Fruit bats (*Carollia perspicillata*)
- 5 Common Tent-making bats (*Uroderma bilobatum*)
- 4 Heller's broad-nosed bats (*Platyrrhinus helleri*)
- 9 Hairy big-eyed bats (*Chiroderma villosum*)
- 1 Greater spear-nosed bat (*Phyllostomus hastatus*)
- 1 Striped hairy-nosed bat (*Mimon crenulatum*)
- 1 Common mustached bat (*Pteronotus parnellii*)
- 3 Common vampire bats (*Desmodus rotundus*)
- 1 Great fruit eating bat (*Artibeus lituratus*)

23rd March

In the morning we visited Fort Reid Ice house which contained:

- Common Long-tongued bat (*Glossophaga soricina*)
- Seba's Short-tailed Fruit bats (*Carollia perspicillata*)
- Greater Spear-nosed bat (*Phyllostomus hastatus*)
- Common Mustached bats (*Pteronotus parnellii*)
- Ghost-faced bats (*Mormoops megalophylla*)
- 9 x Common vampire bats (*Desmodus rotundus*) 9 adults and 3 with pups.

In the evening we headed to Simla research station and netted around the station and along the ridge towards the dilapidated bat building. We caught:

- 8 Jamaican Fruit-eating bat (*Artibeus jamaicensis*)
- 9 Gervais's Fruit-eating bat (*Artibeus cinereus*)
- 3 Seba's Short-tailed Fruit bat (*Carollia perspicillata*)
- 8 Common Tent-making bat (*Uroderma bilobatum*)
- 1 Common big eared bat (*Micronycteris megalotis*)
- 2 Heller's broad-nosed bat (*Platyrrhinus helleri*)
- 1 Niceforo's bat (*Trinycteris nicefori*)
- 1 Hairy big-eyed bat (*Chiroderma villosum*)

24th March

In the afternoon we set off to Sangre Grande to see a colony of the rare White winged vampire bats (*Diaemus youngi*). On entering the hollow we could several species roosting:

- ~30 White winged vampires (*Diaemus youngi*) we hand netted one female that was heavily pregnant.
- ~200 Pale spear-nosed bat (*Phyllostomus discolor*)
- Seba's Short-tailed Fruit bat (*Carollia perspicillata*)
- Common Long-tongued bat (*Glossophaga soricina*)
- Greater spear-nosed bat (*Phyllostomus hastatus*)
- Lesser white-lined bat (*Saccopteryx leptura*)



We returned to Hacienda and sets nets around lodge 4 and caught four species:

- 2 Common Long-tongued bats (*Glossophaga soricina*)
- 5 Seba's Short-tailed Fruit bat (*Carollia perspicillata*)
- 3 Common Tent-making bats (*Uroderma bilobatum*)
- 1 Riparian myotis (*Riparian myotis*)

25th March

At dawn we counted 6 Little Mastiff bats (*Molossus molossus*) return to the bat box that we installed last year on lodge 4 at Hacienda Jacana. We also found 7 Proboscis bats (*Rhynchonycteris naso*) and 4 Lesser white-lined bats (*Saccopteryx leptura*) roosting on lodge 4. One Little Mastiff bats (*Molossus molossus*) returned to lodge 1 along with 5 Lesser white-lined bats (*Saccopteryx leptura*).

Following lunch we headed to Tamana Hill and explored the main cave. The first chamber (section 1) was devoid of bats which was unusual as it is normally home to clusters of Geoffroy's hairy legged bats (*Anoura geoffroyi*); (sec. 2) was almost dry and the Geoffroy's bats appeared to be roosting in this chamber instead; we found one albino Geoffroy's Hairy-legged bat (*Anoura geoffroyi*). This chamber also contained Trinidadian Funnel-eared bats (*Natalus tumidirostris*) and a few individual Ghost-faced bats (*Mormoops megalophylla*) and Common moustached bats (*Pteronotus parnelli*). Through the crawl hole to the main chimney (sec. 4, 5, 6 & 7) we found numbers of Greater Spear-nosed bats (*Phyllostomus hastatus*). Under the main chimney were small clusters of Geoffroy's Hairy-legged bats (*Anoura geoffroyi*) and in the chamber up the scramble we found Common mustached bats (*Pteronotus parnellii*) and Davy's naked backed bats (*Pteronotus davyi*). At dusk we watched the bats emerge for around 60 minutes before descending the hill as it started to rain.



Participant list

Organisers:

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

Luke Rostant, University of West Indies

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

Participants:

Jane Sedgely-Strachan

Denise Foster

Penny Lewns

David Lewns

Clare Rawcliffe

John Ratcliffe

Dot Howes

Ken Anstey

Sonia Reveley

Daniel Whitby

Peta Marshall



Trip Species List 2015

Total list of the 39 bat species identified:

Family: Emballonuridae / Sac-winged Bats

1. Proboscis Bat - *Rynchonycteris naso*
2. Greater White-lined Bat - *Saccopteryx bilineata*
3. Lesser White-lined Bat - *Saccopteryx leptura*

Family: Mormoopidae / Leaf-chinned Bats

4. Ghost-faced Bat - *Mormoops megalophylla*
5. Common Mustached Bat - *Pteronotus parnellii*
6. Lesser Mustached Bat - *Pteronotus personatus*
7. Davy's Naked-backed Bat - *Pteronotus davyi*

Family: Phyllostomidae / Leaf-nosed Bats

Subfamily: Phyllostominae / Leaf-nosed Bats

8. Tiny Big-eared Bat - *Micronycteris minuta*
9. Common Big-eared Bat - *Micronycteris megalotis*
10. Niceforo's Bat - *Trinycteris nicefori*
11. Sword nosed bat – *Lonchorina aurita*
12. Stripe-headed Round-eared Bat - *Tonatia saurophilia*
13. Pygmy Round-eared Bat - *Lophostoma brasiliense*
14. Striped Hairy-nosed Bat - *Mimon crenulatum*
15. Pale Spear-nosed Bat - *Phyllostomus discolor*
16. Greater Spear-nosed Bat - *Phyllostomus hastatus*
17. Tricolored bat – *Glyphonhycteris sylvestris*
18. Spectral bat – *Vampyrus spectrum**2

Subfamily: Desmodontinae / Vampire bats

19. Common Vampire bat – *Desmodus rotundus*
20. White winged vampire bat – *Diaemus youngi*

Subfamily: Glossophaginae / Nectar feeding bats

21. Common Long-tongued Bat - *Glossophaga soricina*
22. Geoffroy's Hairy-legged Bat - *Anoura geoffroyi*

Subfamily: Carolliinae / Short-tailed bats

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

Subfamily: Stenodermatinae / Tailless bats

24. Little Yellow shouldered Bat - *Sturnira lilium*
25. Tilda's Yellow shouldered Bat - *Sturnira tildae*
26. Great Fruit-eating Bat - *Artibeus lituratus*

- 27. Jamaican Fruit-eating Bat - *Artibeus jamaicensis*
- 28. Gervais's Fruit-eating Bat - *Artibeus cinereus*
- 29. Common Tent-making Bat - *Uroderma bilobatum*
- 30. Heller's Broad-nosed Bat - *Platyrrhinus helleri*
- 31. Hairy Big-eyed bat - *Chiroderma villosus*
- 32. MacConnell's bat - *Mesophylla macconnelli*

Family: Noctilionidae / Fishing bats

- 33. Greater Fishing bat - *Noctilio leporinus*

Family: Natalidae / Funnel-eared Bats

- 34. Trinidadian Funnel-eared Bat - *Natalus tumidirostris*

Family: Vespertilionidae / Plain-nosed Bats

- 35. Riparian Myotis - *Myotis riparius*
- 36. Thomas's Yellow bat - *Rhogessa io*
- 37. Brazilian Brown bat - *Eptesicus brasiliensis*

Family: Thyropteridae / Disk-winged Bats

- 38. Spix's Disk-winged bat - *Thyroptera tricolor*

Family: Molossidae / Free-tailed Bats

- 39. Little Mastiff Bat - *Molossus molossus*

*2 *Vampyrus spectrum* was a new species for the Trinibats expeditions. We caught an adult parrous female which we radio tracked back to a roost. We spent the next five nights documenting the colony size and observed the prey that were captured and brought back to the roost. This is the first roost of this species to be found in Trinidad in the past 30 years and as such we will keep the location secret in order for us to continue to monitor the roost and hopefully discover more.