ECOLOGICAL REPORT

OCTOBER 2017 ITA-INKATERRA ASOCIACIÓN



Saimiri boliviensis – Black-headed Squirrel Monkey (with young)





I. Project: Trap Cameras – Phototrapping

1.1 Responsible: Jan Brack Faura

1.2 Objectives: Monitoring and registration of wildlife composition in areas and farms of Inkaterra.

1.3 Developed activities

In this month the evaluation continued in the IGFS property, until the 31/10. There were deployed 03 cameras located in the collpas manco, 01 and edge of aguajal, their coordinates detailed in Table 01.

1.4 Study methodology

- o *Equipment:* Three trap cameras were deployed:
- 04 Cameras Bushnell Trophy Cam HD Aggressor: CAM ITA 05, CAM ITA 06, CAM ITA 007, CAM ITA 08.
- 01 Camera Spypoint solar: CAM ITA 04-solar
- 01 GPS Garmin 64s map
- 01 Camera of photos Canon SX60HS
- O Data collection: The TCs (trap cameras) were programmed in hybrid mode: photographs and videos, 24 hours a day, infrared light detector, medium level motion sensor. They were placed at a height of 0.4 0.5 m from the ground to have images of small animals. The areas of greatest fauna activity were traversed and analyzed for their placement through indirect indications such as footprints, used roads, feeders, eaten fruits, among others.
- o *Information analysis:* The data collected were digitized in an Excel spreadsheet, the identification of the species was made based on:
 - Book: Birds of Perú
 - Field Guides of the Field Museum:

Mammals of the Amarakaeri Comunal Reserve

Mammals Mamíferos grandes del Sudeste de la Amazonía Peruana

1.5 Results

A. Generals: Inkaterra Guides Field Station

This month continued the monitoring in IGFS, 03 cameras were deployed in the property, 01 camera in the collpa manco, 01 camera in the artificial collpa (collpa 01) and 01 camera on the edge of the aguajal. The data obtained are presented with a total of 29 evaluation days (total of cameras) equivalent to a sampling effort of 696 h-camera.

The following results have been obtained: 7 species of mammals (01 species NN not identified by the quality of the image) in 04 orders and 07 families; 06 species of birds (01 species NN) in 04 orders and 05 families; as well as 02 species of reptiles.

The best results were obtained in collpa 01 and in the collpa manco, whereby Black-headed Squirrel Monkey - *Saimiri boliviensis* with young and in a numerous group.

1.5.1 Study area and location of cameras



Image N° 02. Location of Trap Cameras.

 $\label{location.} Location.\ Coordinates:$ Table N° 01: Location coordinates of the cameras.

| Location TC (trap cameras) - October 17 | | | |
|---|-------------|--------|---------|
| Tran camoras | Coordinates | | |
| Trap cameras | Zone | Х | Υ |
| CAM ITA 05 | | 494870 | 8614534 |
| CAM ITA 06 | 19 L | 494963 | 8614747 |
| CAM ITA 08 | | 494744 | 8614336 |

Table N° 02: List of total records.

| Registros Total IGFS - Octubre 2017 | | | | | | | |
|-------------------------------------|------------------------------|------------------------|---------------|------------|-------------|--|--|
| Nº Camera | Commun Name | Scientific Name | Family | Registries | Schedule | | |
| | Mammals | | | | | | |
| | Agoutie | Dasyprocta variegata | Dasyproctidae | 4 | 5:07-16:21 | | |
| | Red Squirrel | Sciurus spadiceus | Sciuridae | 1 | 13:39 | | |
| | Black-headed Squirrel Monkey | Saimiri boliviensis | Cebidae | 1 | 13:50-13:52 | | |
| | Spotted Paca | Cuniculus paca | Cuniculidae | 1 | 6:16-21:38 | | |
| | NN | NN | NN | 2 | 10:56-23:31 | | |
| | Rat | NN | NN | 7 | 1:25-23:17 | | |
| | White-collared peccary | Pecari tajacu | Tayassuidae | 1 | 5:03 | | |
| CANALTA OF | Opossum | Didelphis marsupialis | Didelphidae | 4 | 0:20-23:55 | | |
| CAM ITA 05 CAM ITA 06 | | Birds | | | | | |
| CAM ITA 08 | Bird NN | NN | NN | 1 | 16:13 | | |
| CAIVITIA UO | Black-Faced antthrush | Formicarius analis | Formicariidae | 2 | 2:29-7:44 | | |
| | Gray-Fronted Dove | Leptotila rufaxilla | Columbidae | 7 | 8:11-15:46 | | |
| | Undulated Tinamou | Crypturellus undulatus | Tinamidae | 3 | 8:27-14:46 | | |
| | Pale-Winged Trumpeter | Psophia leucoptera | Psophiidae | 2 | 8:29-14:41 | | |
| | White-Necked Thrush | Turdus albicollis | Turdidae | 1 | 14:14 | | |
| | | Reptiles | | | | | |

| Tupinambis | Tupinambis teguixin | Teiidae | 1 | 13:29 |
|---------------|---------------------|---------|---|-------|
| Common Ameiva | Ameiba ameiba | Teiidae | 1 | 10:29 |

In the table N° 02 in the table you can see the list of records recorded in the evaluation, number of records and range of records. Mammals have two unidentified records due to image quality. For birds there is also a record that could not be identified.

In comparison with the evaluation in IGFS of the months of March, April and May, the same number of species (8) of mammals has been obtained in all the months including the present evaluation. In all the previous months was registered the *gender Dasypus* sp., which was not registered in this evaluation, in contrast, *Saimiri boliviensis* was not registered for those months.

As for birds, the number of species has decreased considerably, from 10 to 14 species per month to the present 6 registered species.

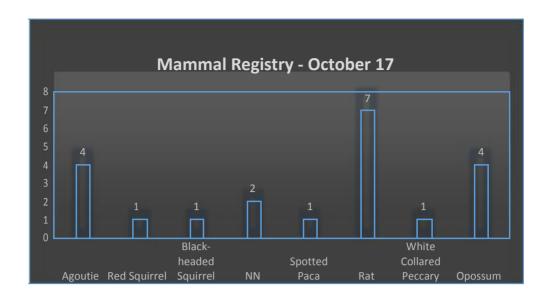
> MAMMALS

Table N° 03: Taxonomy of registered mammals – IGFS

| Registered Mammals in IGFS - October 2017 | | | | |
|---|----------------------------|-----------------------|---------------------------------|--|
| Order | der Family Scientific Name | | Commun name | |
| Artiodactyla | Tayassuidae | Pecari tajacu | White Collared Peccary | |
| Didelphimorphia | Didelphidae | Didelphis marsupialis | Opossum | |
| Primate | Cebidae | Saimiri boliviensis | Black-headed Squirrel Monkey | |
| | Dasyproctidae | Dasyprocta variegata | Agoutie | |
| Rodentia | Sciuridae | Sciurus spadiceus | Red Squirrel | |
| Rodentia | Cuniculidae | Cuniculus paca | Spotted Paca | |
| | NN | NN | Rat | |
| 4 | 6(7) | 6(7) | 7 | |

It's observed, the taxonomic ordering of mammals reported in this evaluation. The Rodentia order, as in the great majority of evaluations, had the highest number of families and species with 04 respectively; the remaining three orders presented one family and one species, each.

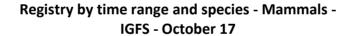
The register of the Black-headed Squirrel Monkey - *Saimiri boliviensis*, despite being registered in past evaluations, including last month, becomes very interesting observing a mother with her baby moving on the forest ground.

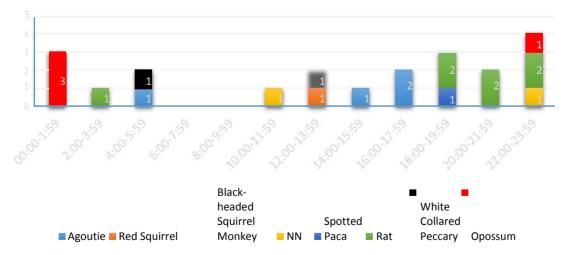


Graphic N° 01: Total of registered mammals - IGFS

The graphic No. 01 shows the abundance of mammal species, in total 21 records were obtained, the most abundant was the rat with 7 records representing 33.3% of the total, followed by agoutie and opossum with 4 records representing 19% of the total; the other species were registered in an opportunity.

In comparison with past evaluations in the area, the abundance per species has decreased in all cases due to the lower sampling effort and the dry season in which the present evaluation has been carried out. In the case of the agoutie in March, it was recorded in 38 opportunities, in April 54 and in May 32, in contrast it was now reported in 04 occasions.





Graphic N° 02: Registries by time range and species - IGFS

It can be observed of the graphic that the distribution of the registries by range of hours and species is almost constant in all ranges of hours, with the exception of the range from 6:00-10:00 h in which no species was reported. The species present in the largest range of hours has been the rat, followed by the Agoutie, in the range from 0:00 to 2:00 h only reported to the opossum.

BIRDS

Table N° 04: taxonomy of registered birds – IGFS

| Registered birds at IGFS - October 2017 | | | | |
|---|---------------|------------------------|-----------------------|--|
| Order | Family | Scientific Name | Common Name | |
| Columbiformes | Columbidae | Leptotila rufaxilla | Grey-fronted Dove | |
| Gruiformes | Psophiidae | Psophia leucoptera | Pale Winged Trumpeter | |
| Passeriformes | Formicariidae | Formicarius analis | Black Faced Antthrush | |
| | Turdidae | Turdus albicollis | White-Necked Thrush | |
| Tinamiformes | Tinamidae | Crypturellus undulatus | Undulated Tinamou | |
| NN | NN | NN | Bird NN | |
| 4(5) | 5(6) | 5(6) | 6 | |

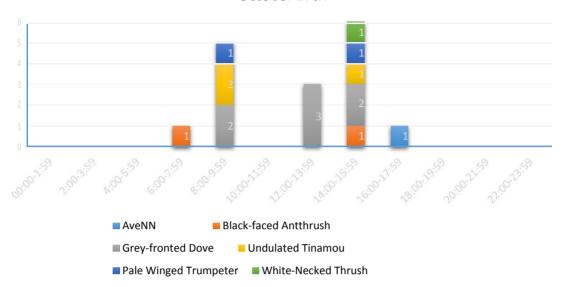
In the present evaluation have been reported for birds: 4 orders, 5 families and 5 species. The Passeriformes order was the most abundant with two families and two species, the other orders presented a family and a species. All registered species are those commonly reported for the IGFS area.



Graphic Nº 03: Total of registered birds - IGFS

In total, 16 registries bird were obtained, the most abundant was the gray-fronted dove with 7 reports representing 43.7% of the total, followed by the Undulated Tinamou with 3 registries and 18.7% of the total.

Registries by time range and species – Birds - IGFS - October 17th



Graphic N° 04: Registry by time range and species – Birds – IGFS

From graph No. 04 there is an unusual pattern in the evaluations in this area, with little activity at the beginning of the morning and end of the day; also a marked decrease in records for the half day. The range of greatest diversity of species at 14: 00-16: 00 h in which 5 species obtained in this study were reported. The gray-fronted pigeon was observed in three ranges of hours. The black-faced Antthrush was reported in the first hour range and last hour range of the day shift.

Photo Gallery:



Photo N° 21: Tupinambis – Tupinambis teguixin



Photo N° 22: Red Squirrel – Sciurus spadiceus



Photo N° 23: Undulated Tinamou – Crypturellus ondulatus



Photo N^o 24: Opossum – Didelphis marsupialis



Photo N° 25: Agoutie – Dasyprocta variegata



Photo N° 26: Black-headed Squirrel Monkey – $Saimiri\ boliviensis$



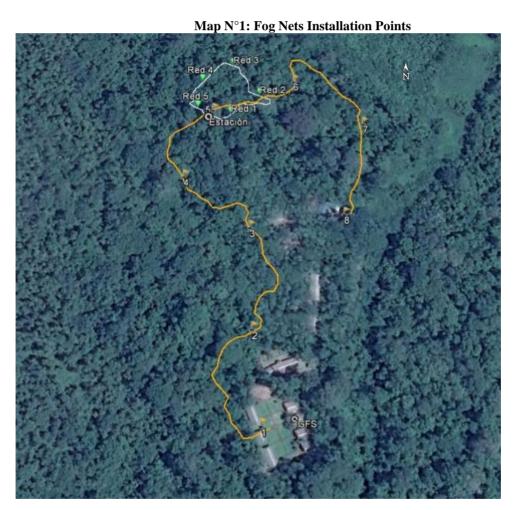
Photo N° 27: Black-headed Squirrel Monkey – Saimiri boliviensis

II. BIRD BANDING

- **2.1. DATE:** From September 23th to 25th of, 2017
- **2.2.PARTICIPANTS:** Noe Huaraca, Adolfo Schmitt, Raziel Vega, Mariana Paz, Gisela Marroquín

2.3. OBJECTIVES:

- **2.3.1.** To complement the Inkaterra Guides Field Station's list of underwater bird diversity.
- **2.3.2.** To establish patterns of abundance of recorded bird species.
- **2.3.3.** To understand the moulting strategies of different bird species.
- **2.4 SAMPLE AREA:** The study was made in the Reserva Amazónica area. The Banding Station was located near the points where the nets were installed (see map N°1), which are also within the monitoring by counting points scope (yellow line) of September.



The location of each network installation point is detailed below:

| Description | Coord | linates | N° of nets |
|--|--------|---------|------------|
| Estación de anillamiento | 494983 | 8615148 | |
| • Net 1 | 495012 | 8615152 | 2 |
| • Net 2 | 495050 | 8615180 | 3 |
| • Net 3 | 495014 | 8615228 | 2 |
| • Net 4 | 494973 | 8615204 | 3 |
| • Net 5 | 494968 | 8615164 | 2 |

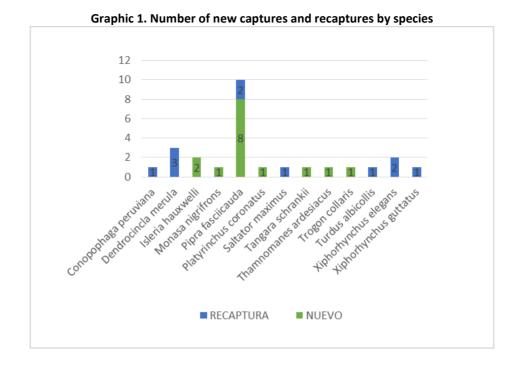
- **2.4. METHODOLOGY:** The method of "Capture with Nets" was used through which 12 polyester nets of 12 meters long and 2.5 meters wide are placed in 5 different points. Fieldwork began at 5:30 am until 11:00 am when the nets were closed and then reopened from 2:30 p.m. to 5:00 p.m.; the revision is done every half hour. Once the birds are removed from the net, they are transported in cloth bags to the Birding Station, where they are banded, biometric measurements, age and sex assignment are are taken. For the identification of the captured species, the Peruvian Birds Book (Schulemberg, et al., 2007) and the Peruvian Bird List (Plenge, 2017) were used as reference.
- **2.5. RESULTS:** A total of 26 individuals, of 13 species, belonging to 9 families and 3 orders were captured. Of the total captures, 13 were new captures (65%) and 7 were recaptures (35%) (Graph N ° 1). The Furnariidae family presents the greatest abundance with 3, while other families only had one species each (Graph N ° 2). Likewise, the family that presented the highest relative abundance was Pipridae with 10 individuals captured, Furnariidae with 6 individuals, Thamnophilidae with 3 individuals, Thraupidae with 2 individuals and the other families with only 1 individual captured (Figure 3).

Two species of the Trochilidae family were also captured, these were; *Glaucis hirsutus* and *Threnetes leucurus* which, being hummingbirds, did not ring.

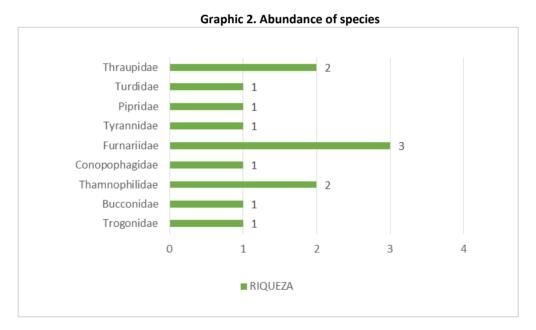
It was possible to identify the sex of 1 individual of *Saltator maximus* with ring number D005422, which was captured in the month of January near the area where it was initially captured. At that time, it did not present enough evidence to be sexed. However, in September with its recapture it was seen that it had a great cloacal protuberance deducing to be a male.

It is also recorded the continuous territorial use of one individual of *Turdus albicollis* with code D005453 which was captured for the first time during the banding session of June and was recaptured in the banding session of September. However, it did not show any significant change in moult and reproductive conditions. Both banding sessions were carried out in very contiguous territories.

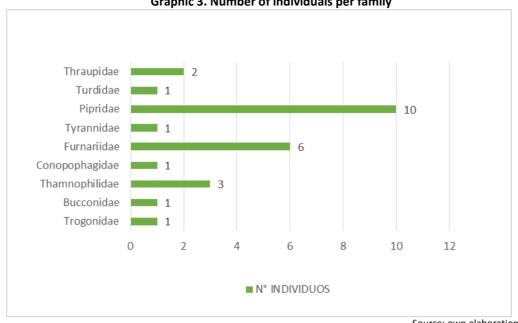
Finally, all species captured belong to the conservation status of Minor Concern according to the IUCN "International Union for Conservation Nature".



Source: Own elaboration



Source: own elaboration



Graphic 3. Number of individuals per family

Source: own elaboration

Table 1. Taxonomic Classification of Bird Species Captures with Fog Nets

| N° | TAXONOMY/SCIENTIFIC NAME | ENGLISH COMMON NAME | SPANISH COMMON NAME | | | |
|---------------------|--------------------------|---------------------------|--------------------------------|--|--|--|
| | APODIFORMES order | | | | | |
| | Familia Trochilidae | Hummingbirds | Colibríes | | | |
| 1 | Glaucis hirsutus | Rufous-breasted Hermit | Ermitaño de Pecho Canela | | | |
| 2 | Threnetes leucurus | Pale-tailed Barbthroat | Ermitaño de Cola Pálida | | | |
| | TROGONIFORMES order | | | | | |
| | Familia Trogonidae | Trogons | Trogones | | | |
| 3 | Trogon collaris | Collared Trogon | Trogón Acollarado | | | |
| | GALBULIFORMES order | | | | | |
| | Familia Bucconidae | Puffbird | Bucos | | | |
| 4 | Monasa nigrifrons | Black-fronted Nunbird | Buco Acollarado | | | |
| PASSERIFORMES order | | | | | | |
| | Familia Thamnophilidae | Antbirds & Allies | Hormigueros y Similares | | | |
| 5 | Thamnomanes ardesiacus | Dusky-throated Antshrike | Batará de Garganta Oscura | | | |
| 6 | Isleria hauxwelli | Plain-throated Antwren | Hormiguerito de Garganta Llana | | | |
| | Familia Conopophagidae | Gnateaters | Jejeneros | | | |
| 7 | Conopophaga peruviana | Ash-throated Gnateater | Jejenero de Garganta Ceniza | | | |
| | Familia Furnariidae | Woodcreepers | Trepadores | | | |
| 8 | Xiphorhynchus elegans | Elegant Woodcreeper | Trepador Elegante | | | |
| 9 | Xiphorhynchus guttatus | Buff-throated Woodcreeper | Trepador de Garganta Anteada | | | |
| 10 | Dendrocincla merula | White-chinned Woodcreeper | Trepador de Barbilla Blanca | | | |
| | Familia Tyrannidae | Flycatchers | Atrapamoscas | | | |
| 11 | Platyrinchus coronatus | Golden-crowned Spadebill | Pico-chato de Corona Dorada | | | |
| | Familia Pipridae | Manakins | Saltarines | | | |

12 Pipra fasciicauda Familia Turdidae

13 Turdus albicollis
Familia Thraupidae

14 Saltator maximus

15 Tangara schrankii

Band-tailed Manakin

Thrushes

White-necked Thrush

Tanagers

Buff-throated Saltator

Green-and-Gold Tanager

Saltarín de Cola Bandeada

Zorzales

Zorzal de Cuello Blanco

Tangaras

Saltador de Garganta Anteada

Tangara Verde y Dorada

2.6. PHOTO GALLERY:



N°1: Saltator maximus



N°2: Pipra fasciicauda



N°3: Conopophaga peruviana



N°4 Tangara schrankii



N°5:Trogon collaris



N°6 Xiphorhynchus elegans

III. STAFF

We have the following staff:

- **Field Assistant:** Sr. Juan Inuma.

Functions: Carry out field assistance volunteers, researchers and / or others who visit IGFS, support the execution of the programmed activities of the different projects that are being executed.

- Field Assistant: Máximo Miranda.

Functions: Carry out field assistance volunteers, researchers and / or others who visit IGFS, support the execution of the programmed activities of the different projects that are being executed.

- Field Assistant: Sr. Celso Ihuaraqui.

Functions: Carry out field assistance volunteers, researchers and / or others who visit IGFS, support the execution of the programmed activities of the different projects that are being executed.

- **Technical Assistant:** Noe Huaraca Charca.

Functions: Supervise and direct the work of field assistants and volunteers, schedule activities in the different projects under their responsibility.

- **Technical Assistant:** Mariana Paz Mendoza.

Functions: Supervise and direct the work of field assistants and volunteers, schedule activities in the different projects under their responsibility.

- **Technical Assistant:** Daxs Coayla

Functions: Supervise and direct the work of field assistants and volunteers, schedule activities in the different projects under their responsibility.

- **Projects Boss:** Jan Brack Faura.

Functions: Manager of the area, supervise and direct the work of the field assistants, technical assistants, volunteers and students, program activities in the different projects that have been executed, program personnel francs, as well as manage the different materials needed to the development of the projects.