



02/06/2017 12:54

18°C

SPYPOINT SOLAR



ITA  
›INKATERRA‹  
ASOCIACIÓN



Project: Bird Monitoring

## I. BIRD BANDING

**1.1. DATE:** From 29 to 31 May 2017

**1.2. PARTICIPANTS:** Noe Huaraca, Jan Brack

**1.3. OBJECTIVES:**

- 1.3.1.** To complement the Inkaterra Guides Field Station's underbrush birds diversity list.
- 1.3.2.** To establish the registered bird species' abundances parameters patterns.
- 1.3.3.** To understand the different bird species' migration tactics.

**2.1. SAMPLING AREA:** The study area was established at the private property of Reserva Amazónica. The Banding Station was located near the points where the nets were placed (map N°1). These points were also employed for the count points monitoring (yellow track line) on the last week of May. The white track line indicates the common walkthrough followed while surveying the nest mist operations.

**Map N°1: Mist nets' location points**



Source: Google Earth

The following information details the location of every net placed in the area.

Description	Coordinates	N° nets
• Banding station	495067 8614602	
• Net 1	495077 8614555	2
• Net 2	495066 8614506	3
• Net 3	495104 8614543	2
• Net 4	495113 8614543	3
• Net 5	495098 8614566	2

**1.4. METHODOLOGY:** 12 polyester Mist Nets were employed for this activity, all of them 12 meters long and 2.5 meters width. The nets were placed at 5 different points. Field work started at 5:30 am. At 11:00, all nets were closed and then re-opened from 14:30 pm to 17:00 pm. The nets were checked every 30 minutes. After recover the captured birds from the net, they were transported to the processing area in cloth bags, and then the birds were ringed and biometrically evaluated. To identify the captured species the book Birds from Peru (Schulenberg, et al. 2007) and the List of Birds from Peru (Plenge, 2016) were utilized.

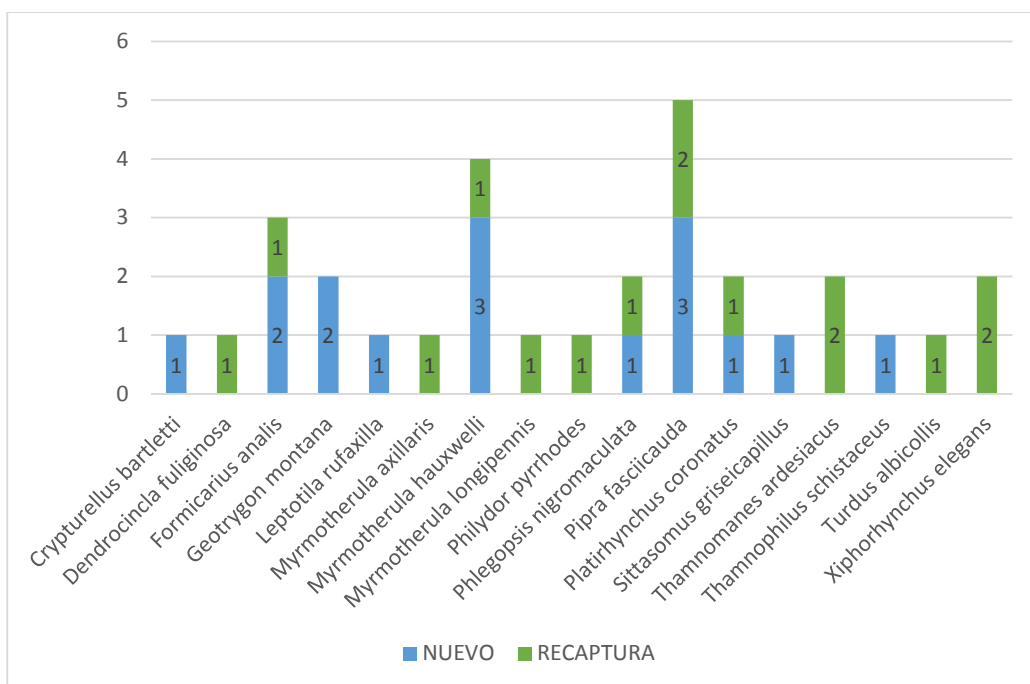
#### 1.5. RESULTS:

18 species were captured, all of them belonging to 9 families and 4 orders. 16 species were new captures (50%), 15 species were re-captures (46.9%) and 1 (3.1%) was a non-banded subject (Graphic 1). Families *Thamnophilidae* showed the highest richness rate with 6 species, *Furnariidae* with 4 species, *Columbidae* with 2 species, while other families only got one species captured for each one of them. Likewise, the highest relative abundant family was *Thamnophilidae* with 11 subjects captured, and *Furnariidae* and *Pipridae* with 5 subjects captured for each one of them. The species *Pipra fasciicauda* or Band Tailed Manakin was the most abundant one, with 5 subjects captured, 3 new captures and 2 re-captures. This indicates us its wide distribution range over all the IGFS station, due to the fact that it is captured during every banding activity.

It is important to highlight the capture of 1 subject from the *Isleria hauxwelli* species, which had left the nest recently, this was indicated by the presence of a very evident lip corner, downs and simultaneous-flight-growing feathers. This characteristics defined the subject as a FPJ (First year – Pre-molting – Juvenile); a subject going through its First Pre-basic molt or a subject molting to obtain the first basic plumage (First basic plumage = juvenile plumage) (Photo N°6). This capture is important because it would allow us to understand and compare the species' molt cycle through future re-captures.

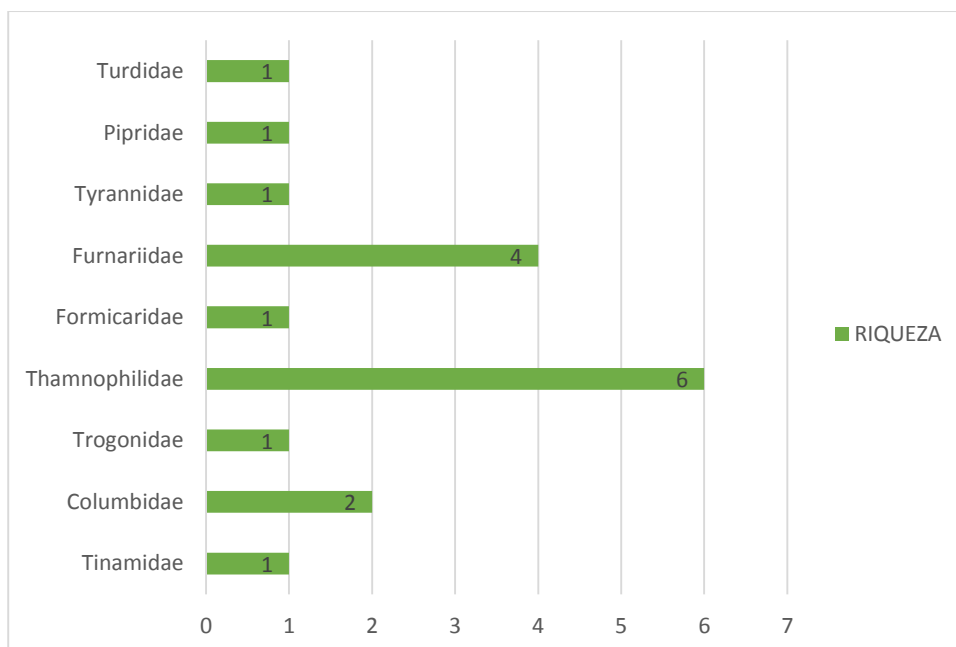
Finally, all captured species are listed as Least Concern according with the IUCN "International Union for Conservation of Nature".

**Graphic 1. Number of new captured and re-captured bird species**



Source: IGFS

**Graphic 2. Total number of bird species by taxonomical family**



Source: IGFS

**Chart 1. Taxonomical Classification of the bird species captured by Mist Nests**

N°	TAXONOMY/NOMINAL NAME	ENGLISH NAME	SPANISH NAME
<b>Order TINAMIFORMES</b>			
	<b>Family Tinamidae</b>	<b>Tinamous</b>	<b>Perdices</b>
1	<i>Crypturellus bartletti</i>	Bartlett's Tinamou	Perdiz de Bartlett
<b>Order COLUMBIFORMES</b>			
	<b>Family Columbidae</b>	<b>Pigeon/Doves</b>	<b>Palomas</b>
2	<i>Geotrygon montana</i>	Ruddy Quail-Dove	Paloma-Perdiz Rojiza
3	<i>Leptotila rufaxilla</i>	Gray-fronted Dove	Paloma de frente Gris
<b>Order TROGONIFORMES</b>			
	<b>Family Trogonidae</b>	<b>Trogons</b>	<b>Trogones</b>
4	<i>Trogon collaris</i>	Collared Trogon	Trogón Acollarado
<b>Order PASSERIFORMES</b>			
	<b>Family Thamnophilidae</b>	<b>Antbirds &amp; Allies</b>	<b>Hormigueros y Similares</b>
5	<i>Thamnophilus schistaceus</i>	Plain-winged Antshrike	batará de Ala Llana
6	<i>Thamnomanes ardesiacus</i>	Dusky-throated Antshrike	Batará de Garganta Oscura
7	<i>Myrmotherula axillaris</i>	White-flanked Antwren	Hormiguerito de flancos blancos
8	<i>Myrmotherula longipennis</i>	Long-winged Antwren	Hormiguerito de Ala Larga
9	<i>Iseria hauxwelli</i>	Plain-throated Antwren	Hormiguerito de Garganta Llana
10	<i>Phlegopsis nigromaculata</i>	Black-spotted Bare-eye	Ojo-pelado Moteado de Negro
	<b>Family Formicariidae</b>	<b>Antthrushes</b>	<b>Gallitos Hormigueros</b>
11	<i>Formicarius analis</i>	Black-faced Antthrush	Gallito-Hormiguero de Cara Negra
	<b>Family Furnariidae</b>	<b>Foliage-gleaners &amp; Allies</b>	<b>Limpia-Follajes y similares</b>
12	<i>Philydor pyrrhodes</i>	Cinnamon-rumped Foliage-gleaner	Limpia-Follaje de Lomo Canela
13	<i>Dendrocincla fuliginosa</i>	Plain-brown Woodcreeper	Trepador Pardo
14	<i>Xiphorhynchus elegans</i>	Elegant Woodcreeper	Trepador Elegante
15	<i>Sittasomus griseicapillus</i>	Olivaceous Woodcreeper	Trepador Oliváceo
	<b>Family Tyrannidae</b>	<b>Flycatchers</b>	<b>Atrapamoscas</b>
16	<i>Platyrinchus coronatus</i>	Golden-crowned Spadebill	Pico-Chato de Corona Dorada
	<b>Family Pipridae</b>	<b>Manakins</b>	<b>Saltarines</b>
17	<i>Pipra fasciicauda</i>	Band-tailed Manakin	Saltarín de Cola Bandeada
	<b>Family Turdidae</b>	<b>Thrushes</b>	<b>Zorzales</b>
18	<i>Turdus albicollis</i>	White-necked Thrush	Zorzal de Cuello Blanco



1.6. PHOTOGRAPHIC GALLERY:



Photo N°1: *Formicarius analis*



Photo N°2: *Phlegopsis nigromaculata*



Photo N°3: *Myrmotherula axillaris*



Photo N°4 *Thamnophilus schistaceus*



Photo N°5: *Turdus albicollis*



Photo N°6 *Myrmotherula hauxwelli* (juvenile)

## II. POINT COUNTS

**2.2. DATE:** 12 and 27 June 2017

**2.3. BEGINNING HOUR:** 5:50 am      **ENDING HOUR:** 7:28 am

**2.4. PARTICIPANTS:** Noe Huaraca

**2.5. SAMPLING AREA:** Samplig was performed at the private property of Reserva Amazónica, near to Inkaterra's Guides Field Station (IGFS) and the BioOrchard. Activities started at the IGFS premises (19L 0495057 8614723), and concluded at the BioOrchard.

**Map N°1: Sampling walkthrough**



Fuente: Google Earth

### **2.6. OBJECTIVES:**

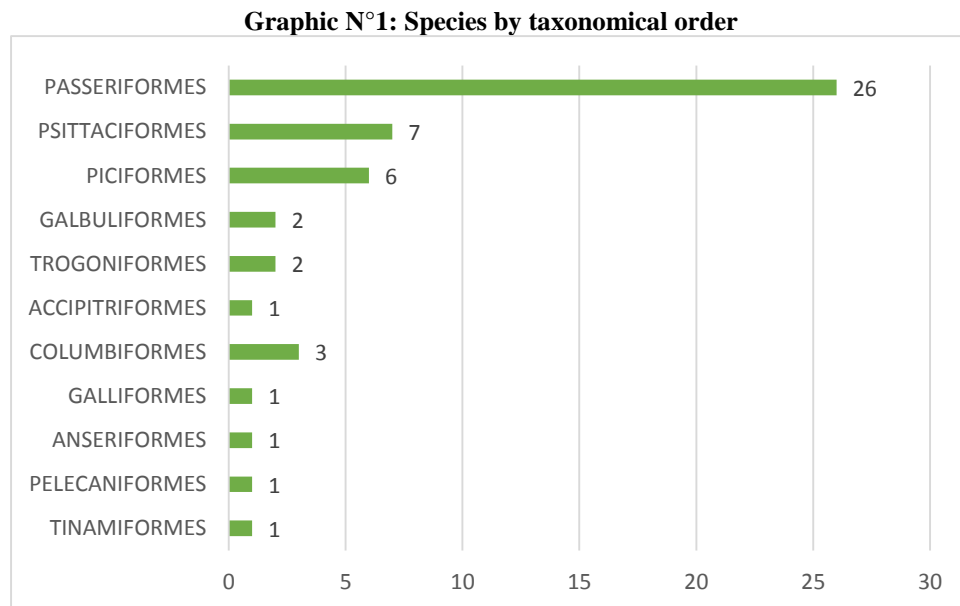
- 1.5.1. To complement the Inkaterra Guides Field Station's birds diversity list.
- 1.5.2. To establish the registered bird species' abundances parameters patterns.
- 1.5.3. To understand the differences between bird wildlife compositions according by its habitat.

### **2.7. METHODOLOGY:**

The Point Count method was employed, which consists in staying at a point station for 10 minutes, while recording all the birds seen and heard. The distance between points is 200 meters (Ralph et al., 1995; Ralph, 1996; MINAM, 2015). The book Birds of Peru (Schulenberg, et al. 2007) and the List of Birds from Peru (Plenge, 2016) were utilized in order to accurately identify the captured species. Bird sounds' tapes and binoculars were also employed.

## 2.8. RESULTS:

8 Point stations were evaluated (check Map N°1) during 2 sessions, the 12<sup>th</sup> and 27<sup>th</sup> of June 2017. 51 species belonging to 24 families and 11 orders were registered. The richest order was Passeriformes, with 26 species, followed by Psittaciformes with 7 species, Piciformes with 6 species, Columbiformes with 3 species, Trogoniformes y Galbuliformes both with 2 species each, and Tinamiformes, Pelecaniformes, Anseriformes, Galliformes and Accipitriformes with 1 species each (Graphic N°1).

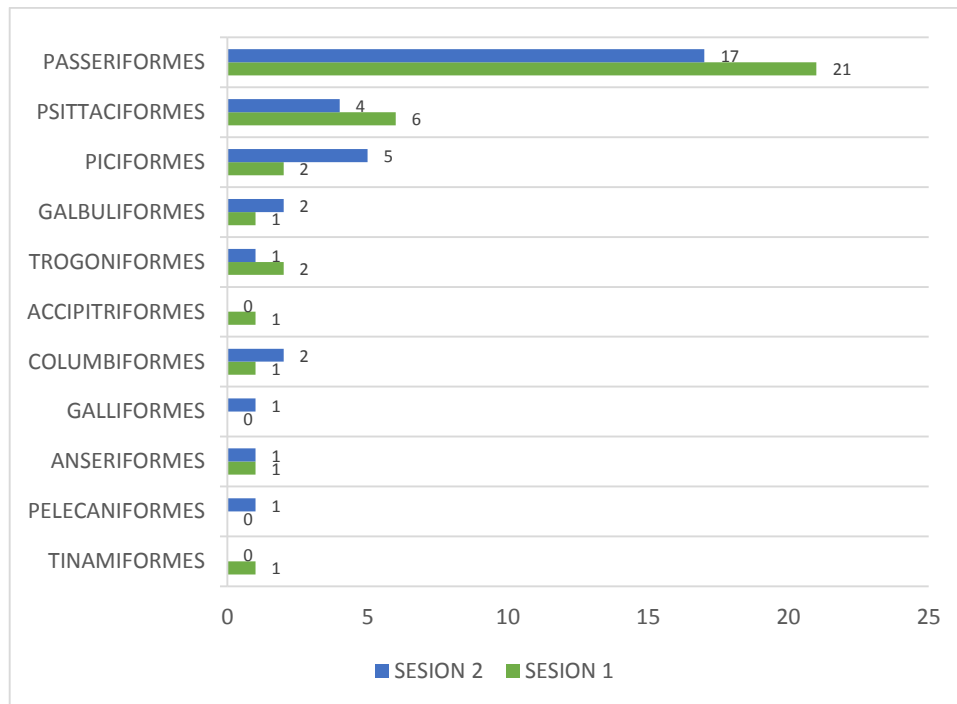


Source: IGFS

36 species were registered during the first point counts session, while during the second session 34 species were registered. Both sessions are very similar regarding total species number results, being the Passeriformes order the dominant one in both sessions. The Accipitriformes, Galliformes, Pelecaniformes and Tinamiformes orders were registered only in one of the sessions, while the other orders showed in both sessions (Graphic N°2).

**Graphic N°2: Species number per session**





Source: IGFS

The species that were registered at more than 4 sample points (chart N°1) were: *Campylorhynchus turdinus*, *Brotogeris cyanoptera*, *Myrmelastes hyperythrus*, *Cacicus cela*, *Formicarius analis* y *Lipaugus vociferans*, thus being the more conspicuous species at the study area. It is noted that the registries of the aforementioned species were achieved by listening to the loud and almost constant vocalizations the birds made, especially during the first morning hours.

Finally, according to the IUCN (International Union for Conservation Nature), the *Ramphastus vitellinus* y *Ramphastus tucanus* that were registered during these sessions are listed as Vulnerable; the *Amazona farinosa* is listed as Near Threatened, and the rest of species are listed as Least Concern.

Chart N° 1. Taxonomical classification of the species registered by Point Counts

N°	TAXONOMY/ NOMINAL NAME	COMMON ENGLISH NAME	COMMON SPANISH NAME	REGISTRY	POINT
<b>Order TINAMIFORMES</b>					
	<b>Family Tinamidae</b>	<b>Tinamous</b>	<b>Perdices</b>		
1	<i>Crypturellus undulatus</i>	Undulated Tinamou	Perdiz Ondulada	L	1
<b>Order PELECANIFORMES</b>					
	<b>Family Ardeidae</b>	<b>Egrets</b>	<b>Garzas</b>		
2	<i>Egretta thula</i>	Snowy Egret	Garcita Blanca	S	7
<b>Orden ANSERIFORMES</b>					
	<b>Family Anhimidae</b>	<b>Screamers</b>	<b>Gritador</b>		
3	<i>Anhima cornuta</i>	Horned Screamer	Gritador Unicornio	L	1,2
<b>Order GALLIFORMES</b>					
	<b>Family Cracidae</b>	<b>Guans</b>	<b>Pavas</b>		
4	<i>Penelope jacquacu</i>	Spix's Guan	Pava de Spix	L,S	2
<b>Order COLUMBIFORMES</b>					
	<b>Family Columbidae</b>	<b>Pigeon/Doves</b>	<b>Palomas</b>		
5	<i>Patagioenas subvinacea</i>	Ruddy Pigeon	Paloma Rojiza	L	4,6
6	<i>Patagioenas plumbea</i>	Plumbeous Pigeon	Paloma Plomiza	L	2,4
7	<i>Patagioenas speciosa</i>	Scaled Pigeon	Paloma Escamosa	L	7
<b>Order ACCIPITRIFORMES</b>					
	<b>Family Accipitridae</b>	<b>Hawks &amp; Eagles</b>	<b>Águilas y Gavilanes</b>		
8	<i>Buteogallus schistaceus</i>	Slate-colored Hawk	Gavilán Pizarroso	L,S	6
<b>Order TROGONIFORMES</b>					
	<b>Family Trogonidae</b>	<b>Trogons</b>	<b>Trogones</b>		
9	<i>Trogon melanurus</i>	Black-tailed Trogon	Trogón de cola negra	L	3,5,8
10	<i>Trogon curucui</i>	Blue-crowned Trogon	Trogón de Corona Azul	L	6,8
<b>Order GALBULIFORMES</b>					
	<b>Family Galbulidae</b>	<b>Jacamars</b>	<b>Jacamar</b>		
11	<i>Galbalcyrhynchus purusianus</i>	Purus Jacamar	Jacamar del Purús	L	4
	<b>Family Bucconidae</b>	<b>Nunbirds</b>	<b>Monjas</b>		
12	<i>Monasa nigrifrons</i>	Black-fronted Nunbird	Monja de Frente Negra	L,S	3,8
<b>Order PICIFORMES</b>					
	<b>Family Ramphastidae</b>	<b>Toucans</b>	<b>Tucanes</b>		
13	<i>Ramphastus vitellinus</i>	Channel-billed Toucan	Tucán de Pico Acanalado	L	4
14	<i>Ramphastus tucanus</i>	White-throated Toucan	Tucán de Garganta Blanca	L	4
	<b>Family Capitonidae</b>	<b>Barbets</b>	<b>Barbudos</b>		
15	<i>Capito auratus</i>	Gilded Barbet	Barbudo Brilloso	L	6
	<b>Family Picidae</b>	<b>Woodpeckers</b>	<b>Carpinteros</b>		
		Cream-colored			
16	<i>Celeus flavus</i>	Woodpecker	Carpintero Crema	L	3
17	<i>Melanerpes cruentatus</i>	Yellow-tufted Woodpecker	Carpintero de Penacho Amarillo	L	7
18	<i>Dryocopus lineatus</i>	Lineated Woodpecker	Carpintero Lineado	L,S	1
<b>Order PSITTACIFORMES</b>					

<b>Family Psittacidae</b>		<b>Macaws, Parrots &amp; Allies</b>	<b>Guacamayos, Loros y Similares</b>	
19	<i>Brotogeris cyanoptera</i>	Cobalt-winged Parakeet	Perico de Ala Cobalto	L,S 1,2,3,5,7
20	<i>Aratinga weddellii</i>	Dusky-headed Parakeet	Cotorra de Cabeza Oscura	L 4
21	<i>Pionus menstruus</i>	Blue-headed Parrot	Loro de Cabeza Azul	L,S 2
22	<i>Psittacara leucophthalmus</i>	White-eyed Parakeet	Cotorra de Ojo Blanco	L 7
23	<i>Orthopsittaca manilatus</i>	Red-bellied Macaw	Guacamayo de Ventre Rojo	L 4
24	<i>Amazona ochrocephala</i>	Yellow-crowned Parrot	Loro de Frente Amarilla	L 5
25	<i>Amazona farinosa</i>	Mealy Parrot	Loro Harinoso	L 3
<b>Order PASSERIFORMES</b>				
<b>Family Thamnophilidae</b>		<b>Antbirds &amp; Allies</b>	<b>Hormigueros y Similares</b>	
26	<i>Taraba major</i>	Great Antshrike	Batará Grande	L 2
27	<i>Thamnophilus schistaceus</i>	Plain-winged Antshrike	atará de Ala Llana	L 1,6
28	<i>Thamnomanes ardesiacus</i>	Dusky-throated Antshrike	Batará de Garganta Oscura	L 1,6
29	<i>Myrmelastes hyperythrus</i>	Plumbeous Antbird	Hormiguero Plomizo	L 2,4,6,7,8
30	<i>Cymbilaimus lineatus</i>	Fasciated Antshrike	Batará Lineado	L 5,6
31	<i>Cercomacra cinerascens</i>	Gray Antbird	Hormiguero Gris	L 7
<b>Family Formicariidae</b>		<b>Antthrushes</b>	<b>Gallitos Hormigueros</b>	
32	<i>Formicarius analis</i>	Black-faced Antthrush	Gallito-Hormiguero de Cara Negra	L 1,3,5,8
33	<i>Formicarius rufifrons</i>	Rufous-fronted Antthrush	Gallito-Hormiguero de Frente Rufa	L 1,2,6
<b>Family Furnariidae</b>		<b>Foliage-gleaners &amp; Allies</b>	<b>Limpia-Follajes y similares</b>	
34	<i>Sittasomus griseicapillus</i>	Olivaceous Woodcreeper	Trepador Oliváceo	L,S 2,6
35	<i>Xiphorhynchus elegans</i>	Buff-throated Woodcreeper	Trepador de Garganta Anteada	L 2,8
<b>Family Tyrannidae</b>		<b>Flycatchers</b>	<b>Atrapamoscas</b>	
36	<i>Platyrrhynchus coronatus</i>	Golden-crowned Spadebill	Pico-Chato de Corona Dorada	L 4
37	<i>Sirystes albocinereus</i>	White-rumped Sirystes	Siristes de Lomo Blanco	L 5
38	<i>Myiopagis gaimardii</i>	Forest Elaenia	Fío-Fío de la Selva	L 1,6
<b>Family Cotingidae</b>		<b>Cotingas, Fruitcrows</b>	<b>Cotingas, Cuervos-Fruteros</b>	
39	<i>Querula purpurata</i>	Purple-throated Fruitcrow	Cuervo-Fruterero de Garganta Purpura	L 3
40	<i>Lipaugus vociferans</i>	Screaming Piha	Piha Gritona	L 2,3,5,7
<b>Family Corvidae</b>		<b>Jays</b>	<b>Urracas</b>	
41	<i>Cyanocorax violaceus</i>	Violaceous Jay	Urraca Violácea	L 4
<b>Family Troglodytidae</b>		<b>Wrens</b>	<b>Cucaracheros</b>	
42	<i>Campylorhynchus turdinus</i>	Thrush-like Wren	Cucarachero Zorzal	L 1,2,4,5,6,7,8
<b>Family Donacobiidae</b>		<b>Donacobius</b>	<b>Donacobio</b>	
43	<i>Donacobius atricapilla</i>	Black-capped Donacobius	Donacobio	L 7,8
<b>Family Turdidae</b>		<b>Thrushes</b>	<b>Zorzales</b>	
44	<i>Turdus hauxwelli</i>	Hauxwell's Thrush	Zorzal de Hauxwell	L 1
<b>Family Thraupidae</b>		<b>Tanagers</b>	<b>Tangaras</b>	
45	<i>Ramphocelus carbo</i>	Silver-beaked Tanager	Tangara de Pico Plateado	L,S 3,8
46	<i>Tangara chilensis</i>	<b>Paradise Tanager</b>	<b>Tangara del Paraíso</b>	L,S 8
47	<i>Thraupis episcopus</i>	Blue-gray Tanager	Tangara Azuleja	L,S 3
48	<i>Saltator maximus</i>	Buff-throated Saltator	Saltador de Garganta Anteada	L 2
<b>Family Icteridae</b>		<b>Oropendolas &amp; Allies</b>	<b>Oropéndolas y similares</b>	
49	<i>Psarocolius decumanus</i>	Crested Oropendola	Oropédoa Crestada	L,S 6
50	<i>Icterus croconotus</i>	Orange-backed Troupial	Turpial de Dorso Naranja	L,S 8
51	<i>Cacicus cela</i>	Yellow-rumped Cacique	Cacique de Lomo Amarillo	L,S 3,4,5,6,8



L: Listened

S: Spotted

**Project: Wildlife monitoring**

**III. CAMERA TRAPS**

**3.1 Activities performed**

Through the current month, CAM ITA 03 was placed at the artificial salt lick, from where it provided data and video records since March. Also, data was provided from trap cams Smithsonian's Reconyx PC800 Hyperfire, brought for the BMAP course at IGFS, and CAM ITA 04-solar (Spypoint Solar) placed at the Canopy Walkway, during 4 to 5 days.

The following information comprehends the results obtained by the aforementioned cameras:

**I. CAM ITA 03**

Camera ITA-03 was placed on May 1<sup>st</sup> and had its internal memory changed the May 31<sup>st</sup>, while checking on the functionality of the cam. The camera is located near the swamp area, at a trail behind IGFS which animals often use as pathway. The following data was obtained from this camera:

- **LOCATION:**

The camera is monitoring an artificial salt lick located at the UTM coordinates: Zone 19L, X: 494873 Y: 8614535, at 286 meters from IGFS.



Image N° 01: Location of the monitored artificial salt lick

### 3.2 METHODOLOGY:

- *Data gathering*: registries were obtained through trap cameras. For this purpose, Bushnell Nature View cameras were employed, all programmed on hybrid mode (photo and video), 24-hours a day, with its infrared sensor on. The cameras were placed at the artificial salt lick where a bait made of tuna oil was also placed to test its effectiveness to draw wildlife from the surroundings of IGFS.
- *Data analysis*: The collected data were digitalized to an Excel sheet. The species identification was based on:
  - The book Birds of Peru.
  - The Field Museum's guides:
    - Mammals of the *Amarakaeri* Communal Reserve
    - Big mammals from the Peruvian Amazonian southeast.

### 3.3 RESULTS:

**DATE: From 01 to 31 May.**

After 31 days of sampling (744 hours by camera), 321 photos were obtained, 192 of them useful (59% of effectiveness). The other photos depicted no wildlife (wind, leaves falling, plants movement, etc).

113 registries were obtained from a total of 8 mammal species; 36 registries from a total of 9 bird species, including 2 registries of an unknown bird species. It is relevant to point out that there were no registries of reptiles during the month. Chart N°2 shows in detail the data gathered.

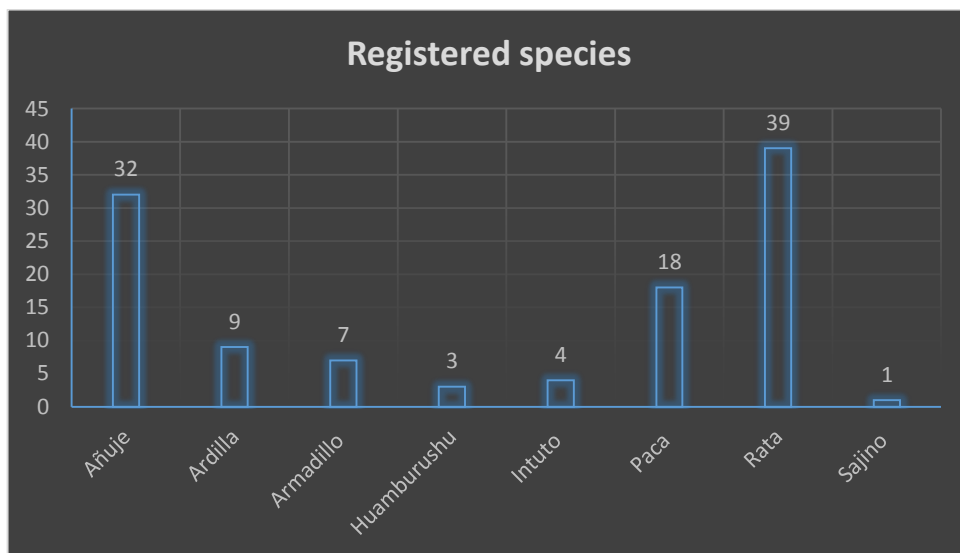
Chart N° 02. May 2017 registries - CAM ITA 03

Resumen de registros - Mayo 2017					
N° Cámara	Nombre común	Nombre científico	Familia	Registros	Horario
CAM-ITA 03	<b>Mamíferos</b>				
	Añuje	<i>Dasyprocta variegata</i>	Dasyproctidae	32	5:43-17:27
	Ardilla	<i>Sciurus spadiceus</i>	Sciuridae	9	9:01-16:11
	Armadillo	<i>Dasybus sp.</i>	Dasyproctidae	7	1:04-22:00
	Huamburushu	<i>Leopardus wiedii</i>	Felidae	3	4:36-21:07
	Intuto	<i>Didelphus sp.</i>	Didelphidae	4	18:48-23:41
	Paca	<i>Agouti paca</i>	Cuniculidae	18	0:43-23:29
	Rata	NN	NN	39	0:11-23:55
	Sajino	<i>Pecari tajacu</i>	Tayassuidae	1	6:13
	<b>Aves</b>				
	Ave NN	NN	NN	2	14:16-14:22
	Gallito-Hormiguero de cara negra	<i>Formicarius analis</i>	Formicariidae	2	13:22-16:22
	Ojo-pelado moteado de negro	<i>Phlegopsis nigromaculata</i>	Psittacidae	2	14:06-14:18
	Paloma	<i>Leptotila sp.</i>	Columbidae	8	7:34-16:15
	Perdiz	<i>Crypturellus sp.</i>	Tinamidae	4	6:13-15:38
	Perdiz grande	<i>Tinamus major</i>	Tinamidae	13	5:54-16:09
	Pucacunga	<i>Penelope jacquacu</i>	Cracidae	3	6:07-16:01
	Trompetero de ala blanca	<i>Psophia leucoptera</i>	Psophiidae	1	12:58
	Zorzal	<i>Turdus sp.</i>	Turdidae	1	16:10

According to chart N°2, the registry of the *Leopardus wiedii* – Margay is very important, due to the fact that this animal has been registered few times; this month it has only been registered three times. It was spotted by a camera two times the same day, and following the same trail twice. However, after analyzing the pattern of the streaks on the animal it was concluded that there were different subjects. The *Leopardus pardalis* – Ocelot, has longer more separated stripes, besides having a longer tail in contrast to the proportion of its body. This last trait is due to its tendency to climb trees, therefore a longer tail provides more equilibrium.

The daytime species registered were the agouti (it registered the highest range of hours being active, from dawn to dusk), the squirrel, the peccary and all bird species. The species registered during the night were the armadillo (high recurrent use of the salt lick at midnight), the margay, the opossum, the lowland paca and the rat.

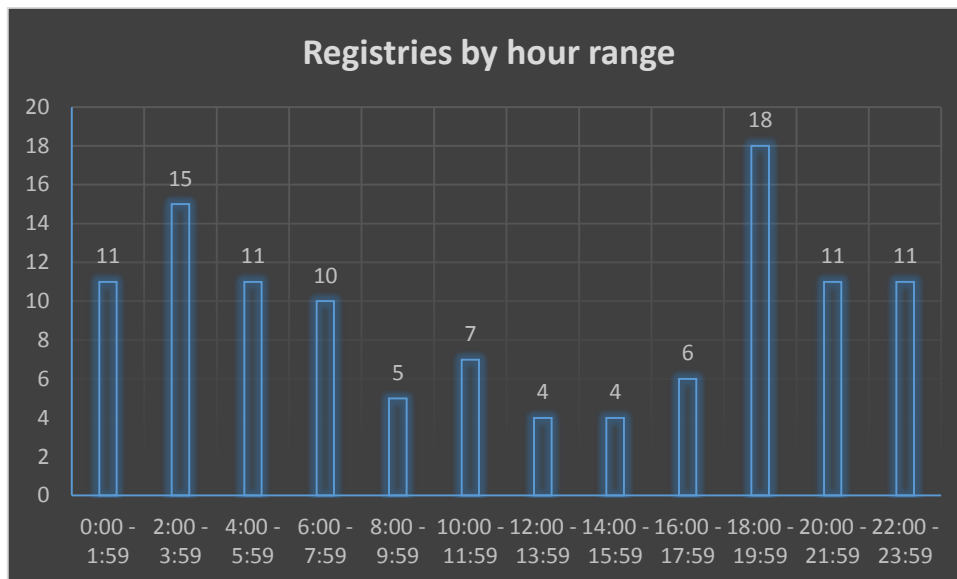
○ **Mammals:**



Graphic N° 01: Monthly mammals abundance (May)

Tuna oil bait has been no longer employed, and a decrease at the rodents' registry has been noted: agouties and rats, in comparison to the previous month (April), when sampling results were more balanced (the whole month). Sampling during March was also low. In general terms, total animals and species numbers have decreased.





Graphic N° 02: Mammals spotted by hour range (March)

Graphic N°2 depicts mammals activity by hours range, indicating two peaks of activity between 2:00 – 4:00 h (15 registries: 46.6% rats, 33.3% lowland paca, 20% armadillos) and 18:00 – 20:00 h (18 registries: 55.5% rats, 33.3% lowland paca, 11.1% opossum), being rats the more active subjects. In addition to the previous data, a gradual decrease on wildlife activity is noticed up to 12:00 h, increasing afterwards. These activity peaks are similar to those during the previous month (April). On the other hand, March showed a different trend regarding the previous results, indicating a peak of activity from 10:00 h to 12:00 h, which may be linked to the low sampling (11 days, 264 h-camera), compared to April (30 days, 720 h-camera) and to March (31 days, 744 h-camera), being March not representative in order to define those patterns.

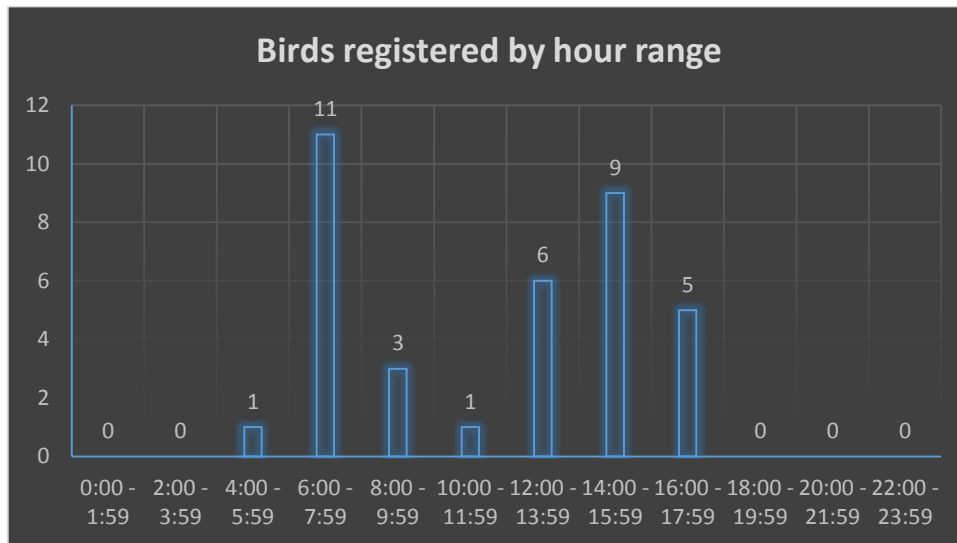
○ **Birds:**



Graphic N° 03: Bird abundance in May

Bird registries had showed a decrease in the total number of species (March: 14 species, April: 10 species, May: 09 species). The great tinamou and the dove have been registered many times.

Owls have been registered the previous two months, its notoriety may be linked to the decrease of rats in the area. Likewise, the three times the Spix's guan has been registered are steady regarding the previous month, and indicates the forest is in fine conservation condition.



Graphic N° 04: Mammals spotted by hour range (May)

Graphic N°4 indicates all registered activity happens during daytime (excluding owls). Besides, the highest number of birds spotted happened between 6:00-8:00 h (11 registries: 9.1% dove, 18.2% Spix's guan, 18.2% tinamou and 54.5% great tinamou), then decreasing during midday before increasing again during 14:00-16:00 h (10 registries: 20% unknown bird, 20% black-spotted bare-eye, 30% dove, 10% Spix's guan, 10% tinamou, 10% great tinamou). In contrast to the previous month, activity peaks happen during 10:00-14:00 h, in April.

## II. Smithsonian course: Reconyx PC 800 Hyperfire

**DATE: From 14 to 20 May**

- **PLACE:**

The cameras are located at the surroundings of IGFS, in strategic places like wildlife trails and the artificial salt lick (same place as CAM ITA 03) located at the UTM coordinates Zone 19L.

- Peru112: X: 494754 Y: 8614288, at a distance of 559 m from IGFS.
- Peru140: X: 494871 Y: 8614511, at a distance of 308 m from IGFS
- Peru169: X: 495354 Y: 8614834, at a distance of 296 m from IGFS
- Peru198: X: 494873 Y: 8614535, at a distance of 286 m from IGFS
- Peru223: X: 495174 Y: 8615140, at a distance of 403 m from IGFS
- Peru231: X: 495348 Y: 8614824, at a distance of 287 m from IGFS
- Peru233: X: 494960 Y: 8614744, at a distance of 110 m from IGFS



Image N° 02: Location of the Smithsonian trap cameras

- **RESULTS:**

After 26 days of sampling, using 07 trap cameras, from which 02 of them registered nothing but leaves moving (624 hours by total cameras, considering only 05 cameras), 1997 photos were obtained. However, effectiveness will not be considered, due to the fact that many registries were made by participants of the course, and the manipulation and test performed on photos to use them for demonstration regarding how to place trap cameras. Besides, many photos resulted empty or got taken due to falling leaves, insects, or other factors that triggered the camera's movement and thermal sensor.

34 registries were obtained, from 7 mammals' species, 1 reptile species, but no bird species.

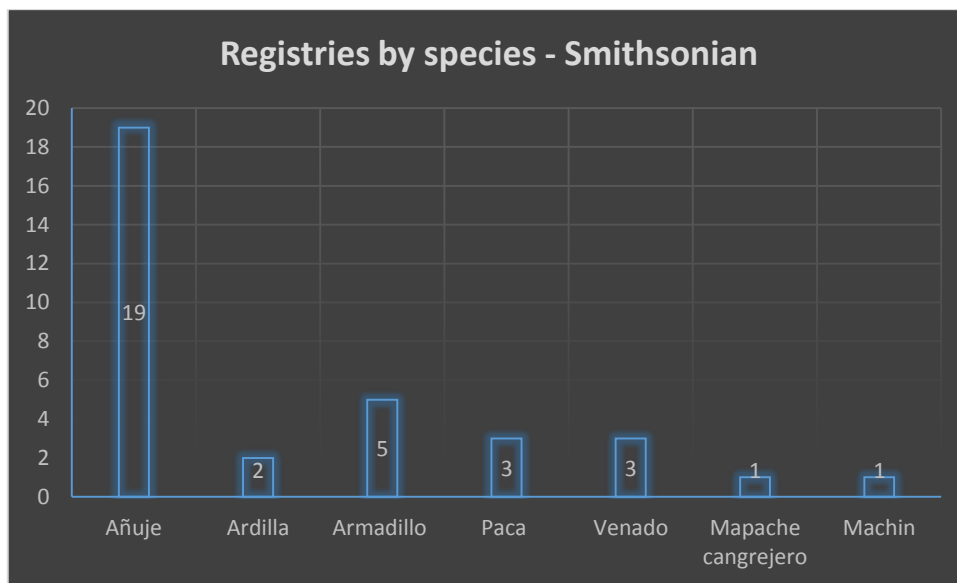
Chart N° 03. May 2017 registries – CAM Smithsonian

Resumen de registros Smithsonian- Mayo 2017					
Nº Càmara	Nombre común	Nombre científico	Familia	Registros	Horario
CAM-ITA 03	<b>Mamíferos</b>				
	Añuje	<i>Dasyprocta variegata</i>	Dasyproctidae	19	5:44-17:45
	Ardilla	<i>Sciurus spadiceus</i>	Sciuridae	2	9:36-12:10
	Armadillo	<i>Dasypus sp.</i>	Dasypodidae	5	18:39-2:24
	Paca	<i>Agouti paca</i>	Cuniculidae	3	13:11-23:04
	Venado	<i>Mazama sp.</i>	Cervidae	3	3:55-5:30
	Mapache cangrejero	<i>Procyon cancrivorus</i>	Procyonidae	1	20:21
	Machin	<i>Cebus albifrons</i>	Cebidae	1	9:16
	<b>Reptiles</b>				
	Iguano	Tupinanbis sp.	Teiidae	1	9:13



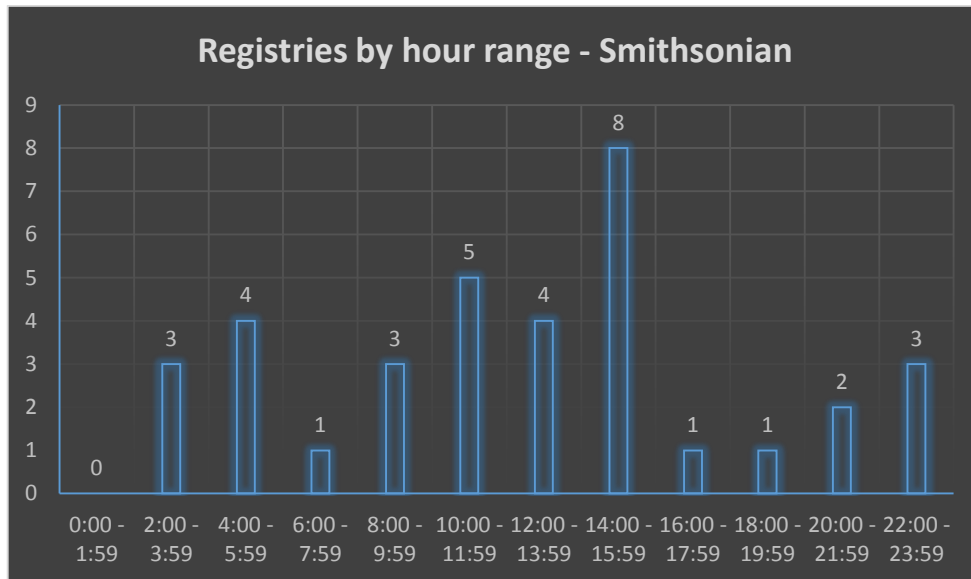
According to chart N° 03, and in contrast to the aforementioned information, some excellent registries were obtained: 03 registries of the red brocket, and animal that was registered before but not so frequent lately; 01 crab-eating raccoon, the first sighting of this evasive-nocturnal animal during the season. It does not tolerate anthropomorphic activity, but is a good sign of the forest's condition. 01 white-fronted capuchin registry, being spotted drinking water from the salt lick, a rare event regarding hoe difficult is to get a photo of this animal.

This three registered mammals are not so frequently encountered during these activities, although they are good signs regarding the conservation status of the forest (crab-eating raccoon, white-fronted capuchin and the red brocket).



Graphic N° 05: Mammals' abundance – Smithsonian

Graphic N° 05 indicates the agouti was the most common animal being spotted, followed by the armadillo, lowland paca and red brocket. It is relevant to mention that all the registries on the agouti were obtained in one single salt lick, where it spent long periods of time collecting seeds from one side of the salt lick, and taking them to the other side of the place and burying them after that. This behavior demonstrates the importance of the agouti to the forest, by dispersing and propagating forest's species. It seems it was the same subject performing these actions for many days when sampling activities were performed.



Graphic N° 06: Mammals' registries by hour range - Smithsonian

Graphic N° 06 indicates that the highest peak of activity happened from 14:00 to 16:00 h, when 8 registries on agouties were obtained. In contrast to other months, there is no traceable activity pattern, but one that changes constantly.

### III. CAM ITA 04-solar: Canopy

**DATE: From 04/05 to 01/06:**

- **PLACE:**

CAM ITA 04-solar was placed at the Canopy, in the pathway 04, with view to a *Erythrina sp* tree which was on blossoming stage. To install the camera, it was necessary to climb from the platform using ropes to the chosen limb, at a 10 meters height. The coordinates are the following: Zone 19L, X: 494669, Y: 8614189, from a distance of 693 meters. Next is a map pointing the location:



Image N° 03: Canopy's trap cameras location

- **RESULTS:**

After a sampling period of 28 days (672 hours-camera), 54 photos were obtained, from which only 4 registered the red howler monkey; 2 photos only show the body, the other ones the tail. All other photos are empty due to the camera being triggered by the limbs and leaves' movement. In addition, it was noted that the limb where the camera was installed was used by the monkeys to pass through the trees. The camera was shaken by one of the monkeys, thus photographing the tail of the monkey passing through.

Chart N° 04. Registries of May 2017 – CAM ITA 04-solar

Resumen de registros Canopy- Mayo 2017					
Nº Càmara	Nombre comùn	Nombre científico	Familia	Registros	Horario
CAM-ITA 04-solar	<b>Mamíferos</b>				
	Mono coto	<i>Alouatta seniculus</i>	Atelidae	1	7:46

The chart indicates only one mammal species was spotted, the red howler monkey. This demonstrates this method is mostly ineffective obtaining wildlife subjects' registries. This is mainly caused by the movement of limbs and leaves, and an articulated base is need to increase the efficiency of the camera. To solved this issue, the Smithsonian has created a very easy way to build a base using PVC pipes, and it will be used in future samplings at the Canopy. The lack of registries notwithstanding, we were able to get evidence of the presence of some animals that only inhabit the Canopy like monkeys, hedgehogs, underbrush birds, among others. To conclude, this experience is our first intent using this method, and we will improve it.

Photographic gallery:

- CAM ITA 03:



Photo N° 04: Pale-winged trumpeter – *Psophia leucoptera*



Photo N° 05: Lowland paca – *Cuniculus paca*





Photo N° 06: Collared peccary – *Pecari tajacu*



Photo N° 07: Opossum – *Didelphus sp.*



Photo N° 08: Great Tinamou – *Tinamus major*



Photo N° 09: Armadillo – *Dasypus sp.*



Photo N° 10: Margay – *Leopardus wiedii*

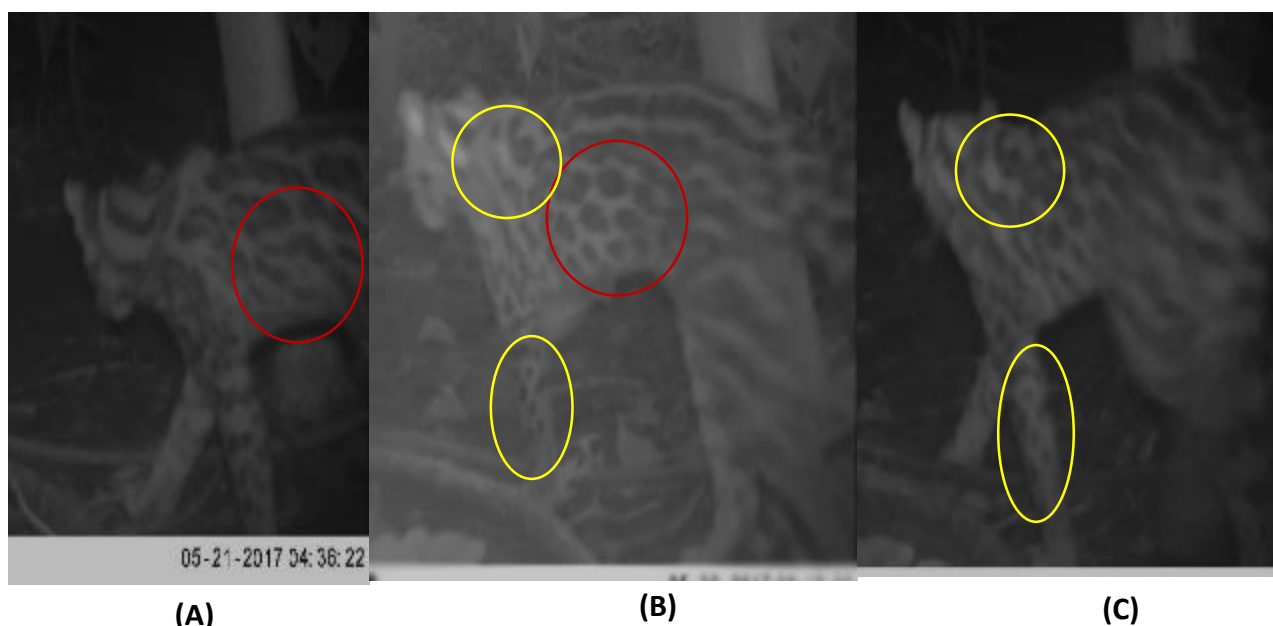


Photo N° 11: Row pattern analysis of the Margay – *Leopardus wiedii*. The cam record three subjects, though analysis shows they are two subjects instead. B and C are the same subject.

- Smithsonian - Reconyx PC 800 Hyperfire:



Photo N° 12: Armadillo – *Dasyopus sp.*



Photo N° 13: Southern Amazon red squirrel – *Sciurus spadiceus*





Photo N° 14: White-fronted capuchin – *Cebus albifrons*



Photo N° 15: Crab-eating raccoon– *Procyon cancrivorus*



Photo N° 16: Red brocket – *Mazama americana*



Photo N° 17: Lowland paca – *Cuniculus paca*





Photo N° 18: Agouti – *Dasyprocta variegata*