

ECOLOGICAL REPORT
ITA – PEM
MAY 2014



Juan Chillihuani C., Noe Huaracca C., Helmut Rengifo N. y Ruth Torres T.

ITA
>INKATERRA<
ASOCIACIÓN

The background image is a close-up photograph of a pink, fibrous plant stem, possibly a sugarcane. The stem is the central focus, with several ants and a wasp visible. One large ant is on the left, another is in the middle, and a wasp is on the right. The stem shows signs of damage, with small holes and a dark, circular mark. The text is overlaid on this image.

ECOLOGICAL REPORT

MAY 2014

AGROFORESTRY STATION

CHACRA GAMITANA

ECOLOGICAL REPORT OF A.S. CHACRA GAMITANA

INTRODUCTION:

The Agroforestry station Chacra Gamitana is located on the left bank of the Madre de Dios River, a 45 min boat ride from the city of Puerto Maldonado, right at the mouth of the creek Gamitana, which is also where the island with the same name, Gamitana, ends.

Chacra Gamitana is a station where resource are used in a sustainable and organic way through the installation of an agroforestry system, where the goal is to be a model farm to be replicated by neighboring populations. It is also visited by tourists from Reserva Amazónica, and teaches them cultivation techniques and exploitation of resources (ornamental, fruit, medicinal timber) in a sustainably way.

METHODS:

All species were recognized by direct sightings (seen and / or heard) and indirect (tracks, feces, etc.). The sightings were occasional, and were recorded while performing daily work inside the agroforestry station.

RESULTS:

1. Reptiles:

A *Plica plica* (Photo 3) of about 35 cm whose habitat is the bathroom of tourists was found. It is always observed in this month in which it was sighted. On sunny days occasionally the species *Plica umbra* (Photo 2) and *Mabuya bistrriata* (Photo 1) have been seen. A species that is always found is *Ameiva ameiva*, which is widely distributed so it is easy to find just as the *Gonatodes humeralis*, you always get to see both at the agroforestry system and the facilities where the staff lives. At the other end of the harbor, at the mouth alligators are seen daily, always one or two, but hide when you try to get closer, we assume they are white alligators.

2. Mammals:

The presence of opossums (*Aotus nigriceps*) remains constant in this station, like the brown agouti (*Dasyprocta variegata*).

By mid-afternoon this week, a group of 4 *Sciurus spadiceus* (Photo 4) was sighted playing in the middle of the agroforestry system.

By indirect observations, we are also assured of the presence of Tapir (*Tapirus terrestris*) (Photo 7), deer (*Mazama sp.*), peccary (*Tayassu tajacu*) and paca (*Agouti paca*). These walk by the agroforestry system 2 but fail to approach the agroforestry system 1 and if they do it is only where this ends.

3. Birds:

Some of the fruits produced by Chacra Gamitana are being eaten by birds. In the past month Icteridaes and parrots were sighted feeding from peach-palm, many of the tourists were able

to see this, all this done in a natural way. Now, in this month peach-palm came to an end, so most Icteridae are consuming citrus, such as tangerines, oranges and grapefruits, which still have not mature fully. Some species of tanagers, such as *Ramphocellus carbo* were observed feeding coffee. Also in this area where the coffee plants are the presence of a pair of *Galbula cyanescens* (Photo 5) was noticed, they land on the dead plants branches due to flooding.

In addition other species that were observed:

Tinamiformes:

Tinamus major, Crypturellus undulatus

Galliformes:

Penelope jacquacu, Ortalis guttata

Ciconiformes:

Butorides striata, Philerodius pileatus

Cathartiformes:

Cathartes aura, Cathartes melambrotus, Coragyps atratus

Columbiformes:

Columbina talpacoti, Patagioenas cayennensis, Patagioenas plumbea, Leptotila rufaxila, Geotrygon montana

Accipitriformes:

Ictinia plúmbea, Rupornis magnirostris, Spizaetus tyrannus

Gruiformes:

Aramides cajaneus

Apodiformes:

Phaethornis hispidus,

Trogoniformes:

Trogon melanurus, Trogon collaris,

Coraciformes:

Megaceryle torquata, Chloroceryle amazona, Chloroceryle americana, Chloroceryle inda, Momotus momota.

Galbuliformes:

Galbula cyanescens, Monasa nigrifrons

Piciformes:

Ramphastus tucanus, Pteroglossus castanotis, Melanerpes cruentatus, Ceuleus elegans, Ceuleus flavus, Dryocopus lineatus.

Falconiformes:

Herpethoteres cachinnans, Micrastur ruficollis, Daptrius ater, Falco ruficularis,

Psittaciformes:

Ara ararauna, Ara severus (Photo 6), Aratinga weddellii, Brotogeris cyanoptera, Pionus menstruus, Amazona ochrocephala, Amazona farinosa.

Passeriformes:

Thamnophilus doliatus, Thamnomanes ardesiacus, Formicarius analis, Sittasomus griseicapillus, Dendrocincla merula, Myarchus ferox, Pitangus lictor, Tityra cayana, Tachycineta albiventer, Riparia riparia, Troglodytes aedon, Campylorhynchus turdinus, Turdus hauxwelli, Paroaria gularis, Saltator maximus, Thraupis espiscopopus, Thraupis palmarum, Ramphocellus carbo, Tyrannus melancholicus, Psaracolius angustifrons, Psaracolius decumanus, Cyanocorax violaceus, Cyanocorax cyanomelas, Cacicus cela, Icterus cayanensis, Molothrus oryzivorus.

4. Invertebrates:

In both ports (tourists and staff) sometimes there is a concentration of butterflies in the family *Pieridae* (Photo 9). The species *Phoebis philea* and *Protesilaus gaulcolaus* were recognized.

5. Flora

In regard to flora the following species have bloom: Copoazú (Photo 8), cashew, starfruit, arazá, tahitian gardenia, key lime, lemon and abiu. The species we have in production are: mandarin, grapefruit, rough lemon, lime, coffee, mocambo and arazá.

ANNEX:

Photo 1. - *Mabuya bistrata*



Photo 2. - *Plica umbra*



Photo 3. - *Plica plica*



Photo 4. - *Sciurus spadiceus*

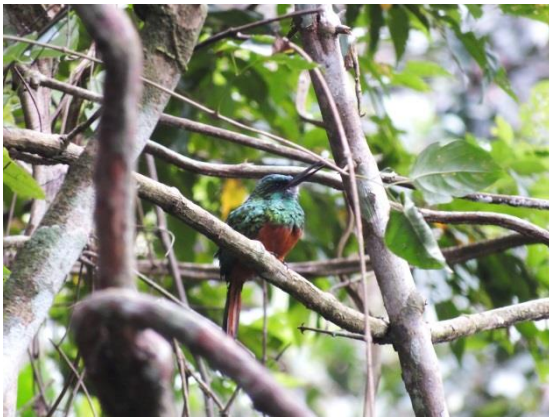


Photo 5. - *Galbula cyanescens*



Photo 6. - *Ara severus*



Photo 7. - *Tapirus terrestris* (huella)



Photo 8. - Copoazú (flor)



Photo 9. - Butterflies (*Pieridae*)



Photo 10. - Lettuce

A photograph of a bird, possibly a species of heron or egret, perched on a dark, horizontal branch. The bird has a long, pointed beak and is looking downwards. The background is a shallow, greenish-brown body of water with some reeds and other vegetation. The overall scene is a natural, wetland habitat.

ECOLOGICAL REPORT

MAY 2014

LAKE VALENCIA STATION

ECOLOGICAL REPORT OF LAKE VALENCIA STATION

INTRODUCTION:

Lake Valencia station in Madre de Dios has been developing research, conservation and environmental education in Lower Madre de Dios contributing to scientific field research to generate more knowledge about the exceptional biodiversity of this area.

METHODS:

All species were recognized by direct sightings (seen and / or heard) and indirect (tracks, feces, etc.). The sightings were occasional, and were recorded as daily tasks were being performed inside the station and when creating boundaries.

RESULTS:

6. Reptiles:

During daily cleaning and monitoring of the roads a atlantic bushmaster (*Lachesis muta*) of approximately 2 meters was observed near the house staff. At night near the port of the station a very common sighting is that of black caimans which go from small to regular size. However this time a large one was observed, it was estimated approximately 6 meters.

7. Mammals:

The presence of tamarin monkeys (*Saguinus fuscicollis*) is always noticed in the routes, and it was no exception with the work of creating boundaries that is been done. Stumps monkeys (*Callicebus moloch*) were also recorded; they are not seen but heard almost daily near the station. The presence of opossums (*Aotus nigriceps*) and brown agouti (*Dasyprocta variegata*) are also common.

A female tapir was also sighted near one of the roads to the chestnut tree. While resting one afternoon after culminating the daily work a noise was noticed in the middle section of a tree, something began to fall, after sneaking up to it a southern tamandua (*Tamandua tetradactyla*) was spotted scratching a termite mound to feed of it.

A very interesting sighting was the presence of a giant otter (*Pteonura brasiliensis*). It was a single individual, a loner, as it is called in these cases.

8. Birds:

The presence of birds here is varied and frequent, due to the lake. Interesting observations was that of a harpy eagle, as manifested by fieldworkers from the eco Hotel station.



ECOLOGICAL REPORT

MAY 2014

ITA BIRD BANDING STATION

ITA BIRD BANDING STATION

INTRODUCTION:

Inkaterra Association (ITA) develops research, conservation and education activities in the low basin of the Madre de Dios River, contributing to the knowledge of the current state of the biodiversity.

In 2012, with the support of CORBIDI (Center of Ornithology and Biodiversity), a bird banding station was installed, based in the ITA Field Station. This work has been done periodically during 2012 and 2013. However, in 2014 the bird banding work is extended to ITA's different field stations and forest concessions. This report shows the results of the work made thanks to the aid of specialized volunteers.

Banding consists in attaching a small metal or plastic tag around the leg or wing of a wild bird. Each band contains a unique code that is registered for the banding station. When you capture a banded bird you can easily identify it by the code where it was last banded. This tells us a lot about diversity of bird species such as: migration, longevity, mortality, population studies, territoriality, feeding behaviour, and other aspects that are studied by ornithologists.

OUR GOAL:

Collect information to have a better understanding of the ecology and dynamics of the diversity of the birds in the low basin of the Madre de Dios River.

METHODS:

The capture methodology employed currently is to capture the birds with mist nets. These are 12 meters wide, 2.50 meters high, dark and are located at strategic points in the middle of the dense vegetation. Each net is installed 30 cm. above the ground, thereby growing to a maximum height of 3 m. allowing us to capture the birds moving at the same area. When birds are trapped quick tapping practices and techniques are required to prevent damage. The banding is recorded every day in registration sheets. Apart from the ringed species we also take into account data on the day such as: day, time, evaluation points, network number and weather conditions. In other record we note the following:

- Codes of the band and the acronym from the first letters of the name and surname of the person.
- Scientific name of the species, in addition to a code of the specie of the first three letters of both the genus and the specie to facilitate the computerization of data. Ex. *Pipra fasciata* PIPFAS.
- Age of the bird and old code as determined by the patterns and classification system cycles.
- Gender and sex code when identifiable, but if not use codes according to the characteristics found are used.
- The maximum chord length of the wing, in millimeters using a Vernier scale.

- Weight in grams.
- Level of fat accumulation.
- Features of the incubation patch, evaluated by the codes handled by PAC.
- State of moulting in the body coverts and flight feathers(primary, secondary, tertiary and the one that coverts them).
- Wear flight.
- Juvenile Plumage, if it still haves feathers that have developed in its first cycle.
- Ossification of skull, according to their codes according to the development of the bird.
- Finally we detail the state of the bird once it is ready to be released, in addition to data such as date, number of net and the net pocket. If you would have more observations these are recorded in the back of the card.

For the bird banding the following materials are utilized:

MATERIALS	QUANTITY	STATE	OBSERVATIONS
Mist net of 12 m	6	Bad	Donated by PAC
Mist net of 6 m	2	Good	ITA
Cloth bag	20	Good	ITA
Banding kit	1	Good	Donated by PAC
Aluminum rings with different measurements	1	Good	Donated by PAC
Small digital scale	1	Good	ITA
Metal ruler	2	Good
Caliper	1	Good
Plastic Bottle	4	Good
String of different measurements	16	Good	ITA

Results:

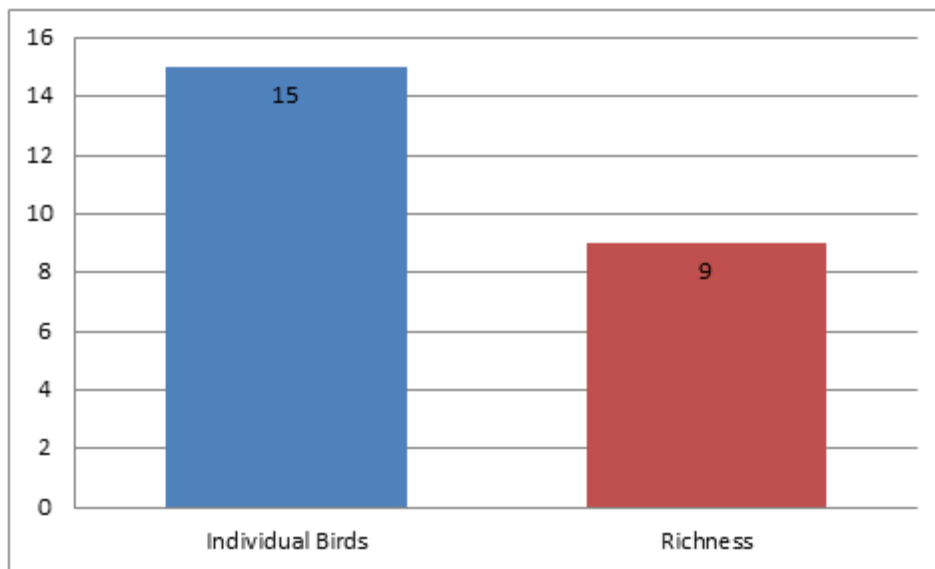
The banding season took place in casa ITA field station from the 13th to the 15th of May 2014. The results were collected thanks to the help of specialized volunteers. In this season 15 individual bird were captured, there were 12 species and 5 recaptured birds (Table 1).

SPECIES	BANDING CODE	N° OF INDIVIDUALS
<i>Dendroplex picus</i>	N	1
<i>Myrmotherula longipennis</i>	N	2
<i>Onichorhynchus coronatus</i>	N	1
<i>Philydor pyrrhodes</i>	R	2
<i>Pipra fasciicauda</i>	N	2
	R	2
<i>Platyrinchus coronatus</i>	N	2

SPECIES	BANDING CODE	N° OF INDIVIDUALS
<i>Sittasomus griseicapillus</i>	N	1
<i>Turdus hauxwelli</i>	N	1
	R	1
<i>Xiphorynchus elegans</i>	R	1
<i>Dendroplex picus</i>	N	1
<i>Myrmotherula longipennis</i>	N	2
<i>Onichorhynchus coronatus</i>	N	1
TOTAL		15

Table 1. - List of the captured species in the casa ITA field station from 13th – 15th of May 2014. N = New registration. R = Recaptured bird.

As we can see in Table 1 the recaptured species were: *Philydor pyrrhodes*, *Pipra fasciicauda* (Photo 2), *Turdus hauxwelli* (Photo 6), *Xiphorhynchus elegans* (Photo 3). They were banded in December 2013 and march 2014.



Graph 1. – The abundance and richness of the captured birds in the casa ITA field station from 13th -15th of May 2014.

There was two rare captures: *Buteo magnirostris* “Hawk” y *Pterogloss beauharnaesii* “Curled Toucan”.

Annex:



Photo 1. - *Myrmotherula longipennis*



Photo 2. - *Pipra fasciicauda* ♂



Photo 3. - *Xiphothynchus elegans*

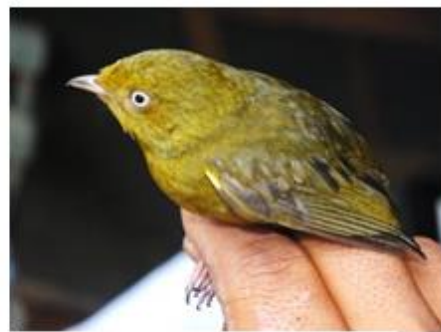


Photo 4. - *Pipra fasciicauda* ♀



Photo 5. - *Oxychotynchus serenatus*



Photo 6. - *Turdus hawwelli*



Photo 7. - *Sittasomus griseicapillus*



Photo 8. - *Phylidor byrnoides*

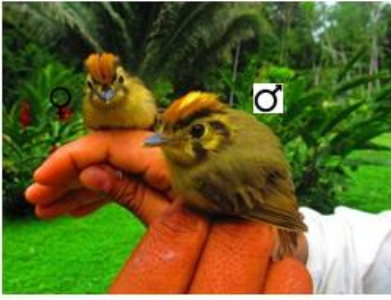


Photo 9. - *Platyrinchus coronatus pyrrhodes*

A black butterfly with red markings on its wings is perched on a red flower. The background is a lush green environment with various plants and leaves. The text "ECOLOGICAL REPORT" is overlaid in yellow, bold, serif font.

ECOLOGICAL REPORT

MAY 2014

DIVERSITY OF FRUGIVOROUS
BUTTERFLIES IN BIOLOGICAL
STATION ITA

DIVERSITY OF FRUGIVOROUS BUTTERFLIES IN BIOLOGICAL STATION ITA

INTRODUCTION:

The biological station of ITA develops research, conservation and education activities in the low basin of the Madre de Dios River, contributing to the knowledge of the current state of the biodiversity.

Butterflies are an extremely important group due to their help in investigations for many areas of biological research, including such as population dynamics and biodiversity conservation. Also helping in other investigation such as climate changes.

METHODS:

Eight butterfly traps were hung around house ITA and were checked every 3 days. The work was done with the support of volunteers of house ITA who were instructed in the trapping and handling of these insects (Photo 1). There was only photographic record of the captured individuals.



Photo 1. – Volunteer preparing the butterfly trap.

RESULTS:

From the 8th to the 15th of May the first sampling of frugivorous butterflies around house ITA was performed. During this first season 15 individuals distributed in 4 subfamilies and 9 species were captured.

FAMILY: NYMPHALIDAE	N° OF INDIVIDUALS
SubF. Charaxinae	
<i>Archaeoprepona demophon</i>	2
SubF. Biblidinae	
<i>Catanophele acontius</i>	1
<i>Hamadryas feronia</i>	1
<i>Hamadryas laodamia</i>	
<i>Pyrrhogira</i> sp	2
SubF. Morphinae	
<i>Morpho helenor</i>	1
SubF. Nymphalinae	
<i>Coloboura dirce</i>	5
<i>Coloboura annulata</i>	1
<i>Tigridia acesta</i>	1
Total	15

Table 1. – List of the species registered from the 8th to the 15th of May 2014 in house ITA.

ANNEX:



Photo 2. - *Coloboura dirce*



Photo 3. - *Coloboura annulata*



Photo 4. - *Archaeoprepona demophon*



Photo 5. - *Pyrrhogyra* sp.



Photo 6. - *Catanophele acontius*



Photo 7. - *Hamadryas laodamia*



Photo 8. - *Morpho helenor*