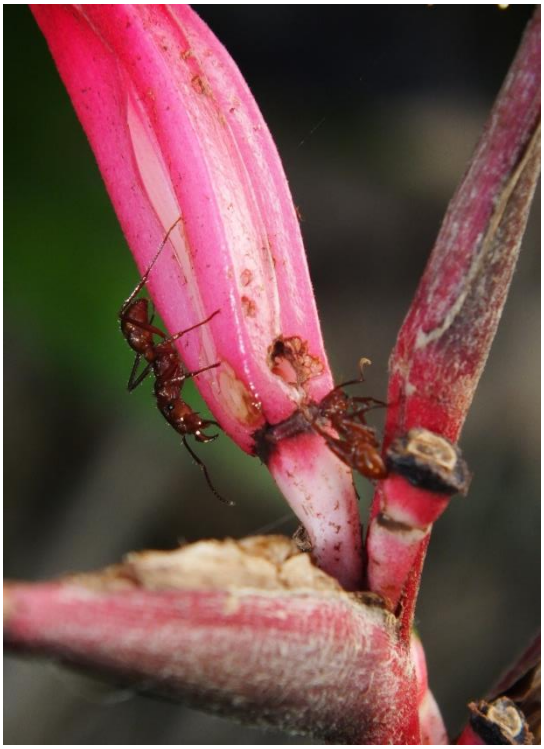
ECOLOGICAL REPORT
ITA – PEM
JULY 2014



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

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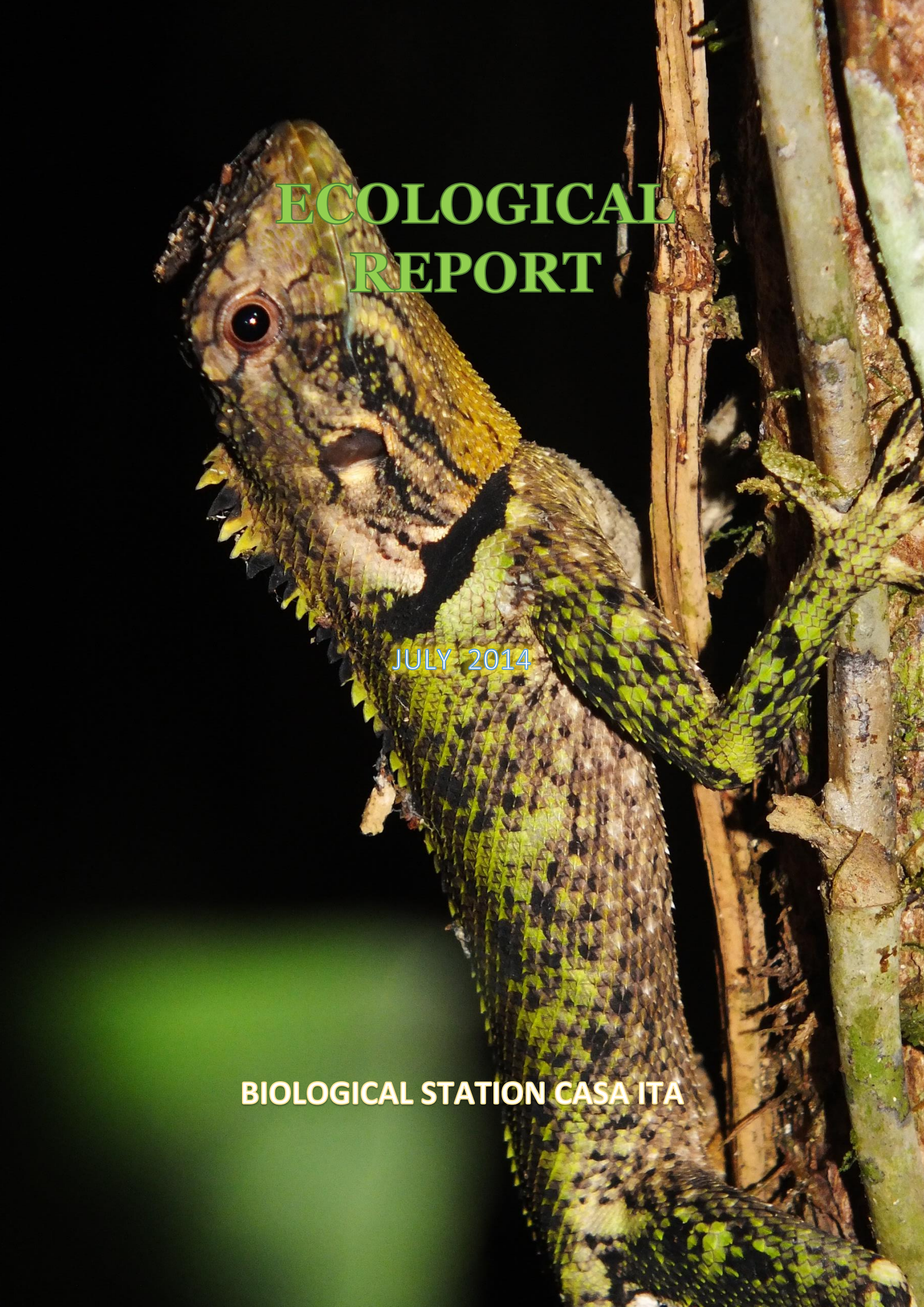


ECOLOGICAL REPORT

JULY 2014

BIOLOGICAL STATION CASA ITA

ECOLOGICAL REPORT OF B.S. CASA ITA

By: Noe Roger Huaraca Charca
Agroforestry Station Chacra Gamitana Coordinator

INTRODUCTION

Biological Station Casa ITA is located on the left bank of the Madre de Dios River approximately 40 min outboard ride from the city of Puerto Maldonado, it is passed the Rolin Island and near the port of the Station is a small stream named Carachamayoc.

METHODS

All species named in this document are acknowledged by direct (seen and / or heard) and indirect (tracks, feces, etc.) sightings. Most sightings were occasional however in some cases hikes were done with visitors to search for animals. The areas where the species were recorded were: the staff track gauge, Track gauge A, Track gauge D, Anaconda Walk, Canopy Walk and close to Casa ITA.

RESULTS

Reptiles:

During the night walks, sometimes performed with the CECCOT group, some interesting and dangerous species were found. *Imantodes cenchoa* and *Dipsas catesbyi* are nocturnal and harmless species, these are 2 of the most common species and relatively easy to find and/or see, yet they are very thin and quiet almost always going unnoticed. Sometimes when you try to grab them these species release a 'liquid "(urinate) a rather unpleasant smell and if that is not sufficient some defecate, that's not a pleasant experience, but it is an unforgettable experience. In addition, when you first arrive to the jungle, always ask: What is the most venomous snake? And we who live in the jungle and work in this station will answer shushupe of course. It is not very easy to find, it is very difficult to see, however late last month while hiking at night something unexpected happened, both for our visitors and us who work here, we found in one night 2 individuals of the most venomous snake in the Amazon, the shushupe (*Lachesis muta*). The first meeting was very exciting for me but also very scary, while others panicked as we were not facing any snake. We found it 2 meters within a contiguous forest trail and watching we were able to assume that it would measure about 3 meters. This encounter took place as we walked to the bridge of the swamp, though we had already passed the place where he saw the shushupe the most terrible thing is that we had to return through the same road where we had found it. The

second meeting took place very close to the station and was on the same track gauge, this was a bit smaller than the first, but equally very poisonous way. This snake remained motionless for several minutes rolled on the trail, because there was no need for her to escape. We were the ones who had to go through the side of the trail to get to the station. This was one of the most exciting yet dangerous experience, we always have to be careful and respectful of the forest.

From climbing reptiles, which are arboreal, we found the *Plica plica* and the *Plica umbra*. These are the easiest species to find, both found in the swamp bridge the first during the night and the second during the day. Also around the Station we always find the *Ameiva ameiva* and *Gonatodes humeralis*.

Mammals:

One morning while we conducted a census of birds using the method of counting points with CECCOT group, we observe at a height of 25 meters approximately one of the most charismatic mammals the ant-eater (*Tamandua tetradactyla*) it began to move through the branches in search of their food (termites), this caught everyone's attention for several minutes. A pelejo (*Bradypus variegatus*) was also sighted by the same area where we saw the ant-eater. Both mammals were observed in the track gauge that goes to the port of the station. During the visit to the canopy we also noticed the presence of a family of howler monkeys (*Alouatta seniculus*) remaining very still and quiet. On the other hand, some of the species that are frequently sighted are always squirrel (*Sciurus spadiceus*), agouti (*Dasyprocta variegata*) that we always visitsn us at any time of day near the dining room and musmuqui (*Aotus nigriceps*).

Birds:

While classes, discussions and research was being done by the students of CECCOT we took advantage of the opportunity to observe birds around the station.

Following is the list of all the birds that we could see and hear:

Tinamiformes:

Tinamus major, Crypturellus undulatus

Galliformes:

Penelope jacquacu, Ortalis guttata

Ciconiformes:

Philerodius pileatus, Ardea cocoi.

Cathartiformes:

Cathartes aura, Cathartes melambrotus, Coragyps atratus

Columbiformes:

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

Accipitriformes:

Rupornis magnirostris, Spizaetus tyrannus

Gruiformes:

Aramides cajaneus

Apodiformes:

Phaethornis hispidus,

Trogoniformes:

Trogon melanurus, Trogon collaris,

Coraciformes:

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

Galbuliformes:

Galbula cyanescens, Monasa nigrifrons

Piciformes:

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

Falconiformes:

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

Psittaciformes:

Ara ararauna, Ara severus, 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 espiscopus, Thraupis palmarum, Ramphocellus carbo, Tersina viridis, Tyrannus melancholicus, Psaracolius angustifrons, Psaracolius decumanus, Psaracolius bifasciatus, Cyanocorax violaceus, Cyanocorax cyanomelas, Cacicus cela, Icterus cayanenesis, Molothrus oryzivorus.

Invertebrates:

Overnight is a very good opportunity to explore all the species of invertebrates.

In a quick visit we found: the leaf mimetic crickets. Some of them mimic dead leaves and others seem to be leaves that are alive. Every time we met one of them their behavior was to extend the legs and glue the body to the surface where their “wings” modified into the shapes of leaves were to appear just like a leaf.

One of the bugs that appear to be very dangerous is the scorpion spider as they are very large and have very large jaw and are full of "thorns", but this bug is harmless, we locate a place to see it every night with our visitors.

We also found three Scorpions (black scorpion) which are poisonous.

Amphibians:

Because of the dry season it is not easy to find amphibians but we did. A walk over the bridge of the swamp at night is perfect to locate amphibians. Yet it also is a little difficult to see them due to their size, camouflage, stillness, among other things. We could hear a lot of them, but it was very difficult to see them.

ANEX

Photo N°1.-*Dipsas catesbyi*

Photo N°2.-*Imantodes cenchoa*

Photo N°3.-*Plica plica*

Photo N°4.-*Plica umbra*

Photo N°5.-Grillo hoja

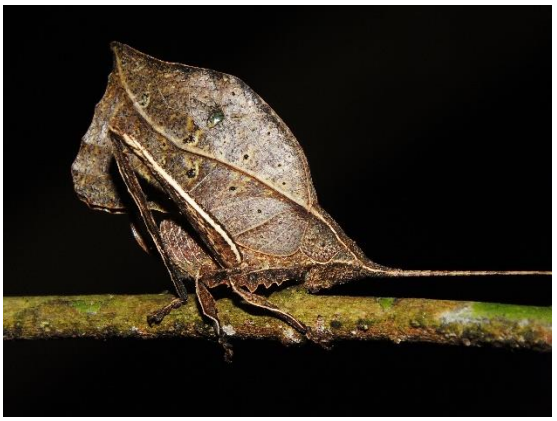


Photo N°6.-grillo hoja

Photo N°7.-grillo hoja

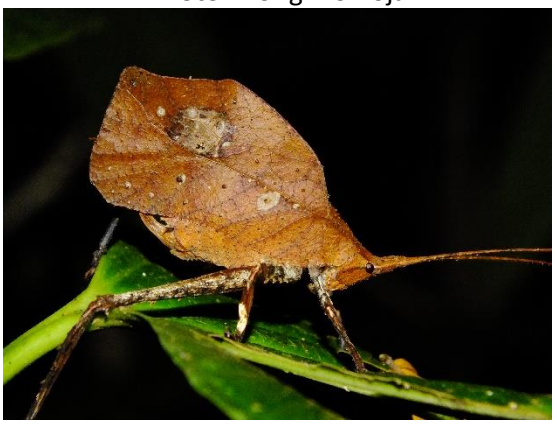


Photo N°8.-Grillo hoja

Photo N°9.-*Thraupis episcopus*

Photo N°10.-*Monasa nigrifrons*

Photo N°11.-*Dryocopus lineatus*

Photo N°12.-*Capito auratus*

Photo N°13.-*Scinax pedromedidae*

Photo N°14.-*Osteocephaulus taurinus*

Photo N°15.-*Tamandua tetradactyla*

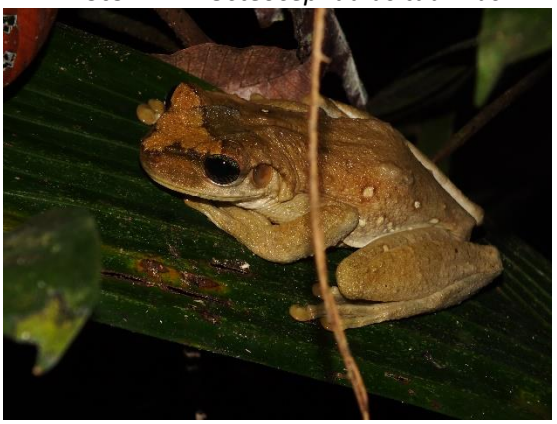


Photo N°16.-anmphibian

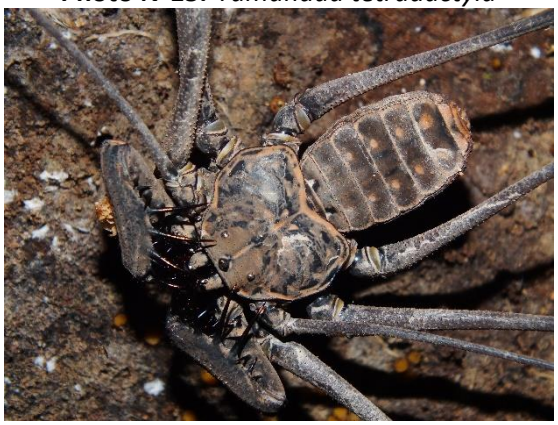
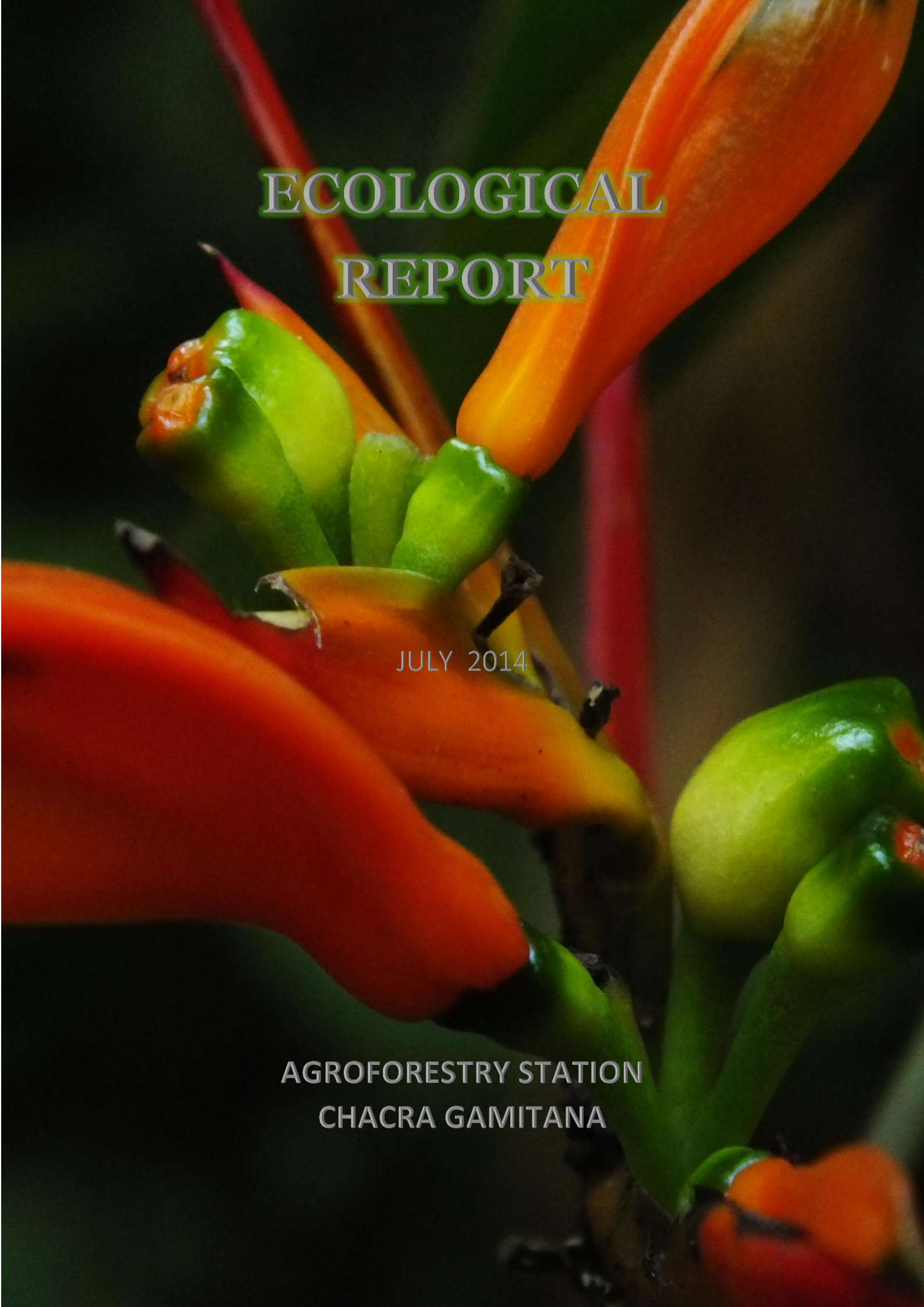


Photo N°17.- Scorpion spider

Photo N°18.-Black scorpión

Photo N°19.-*Lachesis muta*

Photo N°20.-*Lachesis muta*



ECOLOGICAL REPORT

JULY 2014

AGROFORESTRY STATION
CHACRA GAMITANA

ECOLOGICAL REPORT OF A.S. CHACRA GAMITANA

By: Noe Roger Huaraca Charca
Agroforestry Station Chacra Gamitana Coordinator

INTRODUCTION

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

Gamitana Chacra is a station where sustainable and organic resources from the installation of an agroforestry system are used, where the goal is to be a model farm that can be replicated by neighboring populations. In turn, it is also visited by tourists of Reserva Amazonica which teaches them through environmental performers the cultivation techniques and exploitation of resources (ornamental, fruit, medicinal timber) in a sustainable way. Also here tasting of the fruits of the season is done and due to the many different species of fruits it has, this place becomes a natural center of attraction for birds to mammals, thereby increasing the value of this place.

METHODS

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

RESULTS

Reptiles:

In addition to the commonly reptiles found in the area in this season, like: *Plica plica, Plica umbra, Mabuya bistriata, ameiva Ameiva, Gonatodes humeralis*, two alligators were observed at the mouth of the creek small to medium size. In two cases the presence of a common lancehead was noticed while clearing work at the end of the A.S. 2.

Mammals:

During the visit with the CECCOT group, while it was beginning to tour the station, we noticed the presence of an animal that crossed the river. At the beginning it seemed to be an alligator, but it was almost impossible because we noticed that there were several of them crossing the middle of the river and not at a very reasonable hour, as they were very

easy to see. Finally when after a few small assumptions we were sure that it was a mammal. Due to its size and color they could be huanganas or peccaries, there were four fortunately it seemed that they got to the other side of the river. But that was not the only time this happened a couple of months ago, 6 huanganas were watched very closely by the staff while performing their job cleaning the trail that goes along the river, apparently as witnessed they had crossed from the other side of the river. The two times this occurred, the number that formed the herd was little, did not exceed 10 individuals, this would suggest that because of the presence and pressure of humans, populations of these mammals are forced to be fragmented, forming this small groups so as if seen on Chacra Gamitana.

Similarly a one-armed (*Eira barbara*) crossing the agroforestry system 1 also was recorded while working in the agroforestry system 2.

On the other hand, some of the species that are frequently sighted are always: squirrel (*Sciurus spadiceus*), agouti (*Dasyprocta variegata*) and musmuqui (*Aotus nigriceps*).

By indirect observations the presence of tapir (*Tapirus terrestris*), deer (*Mazama sp*.) and paca (*Agouti paca*) are noticed.

Birds:

Many of the fruits that are produced in Chacra Gamitana are exploited by birds. During this month and last month blackbirds were always observed feeding on citrus, such as tangerine, grapefruit and orange. Of these 3 the mandarin appeared to be the favourite one, many of the tourists were able to see this in a natural way. In addition the trees that died and left exposed branches, became perfect sites for those birds who catch the flies like jacamares, bienteveos, nuns, and others of the family Tyrannidae, even some hummingbirds did the same.

Also the other species that were observed are the:

Tinamiformes:

Tinamus major, Crypturellus undulatus

Galliformes:

Penelope jacquacu, Ortalis guttata

Ciconiformes:

Butorides striata, Philerodius pileatus, Agami agami.

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, Celeus elegans, Celeus flavus, Dryocopus lineatus.

Falconiformes:

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

Psittaciformes:

Ara ararauna, Ara severus, 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 espiscopus, Thraupis palmarum, Ramphocellus carbo, Tersina viridis, Tyrannus melancholicus, Psaracolius angustifrons, Psaracolius decumanus, Psaracolius bifasciatus, Cyanocorax violaceus, Cyanocorax cyanomelas, Cacicus cela, Icterus cayanenesis, Molothrus oryzivorus.

Agroforestry production:

The fruit harvest this month was focused on citrus, the following species were collected: mandarin, orange, white grapefruit, rough lemon, and casharana carambola.

The casharana, better known as taperiba in the north of the Amazon, is a peculiar fruit. This is because if you do not know how to eat it you would try one of the most acidic fruits you will ever have because under the shell you have a thin layer of acid taste, however exploring a little more inside it stores a very sweet and juicy pulp with a pleasant aroma.

In the dry season, many of the plants stop flowering, some flourished before the start of this season, there are different forms each plant adopts for a successful survival and proliferation. In the case of the copoazú for example they flourished in the last months of the rainy season. To date they have formed small fruits. Other plants flourished when the rainy season started, this is the case of the uvilla. To date the fruits are almost formed and probably in a few months, maybe in September come to be fully mature. For animals that eat mostly fruit, for exmaple the case of a monkey, it is not very easy to find juicy fruits during the dry season. If a plant that produces this kind of fruit reaches maturity in the dry season as the uvilla's case, then your chances of dispersion will increase greatly. The same happens with other fruit such as star apple. These two species (caimito and uvilla) often do not reach full maturity during the day and are eaten by some birds and some nocturnal mammals like musmuqui at night.

ANEX

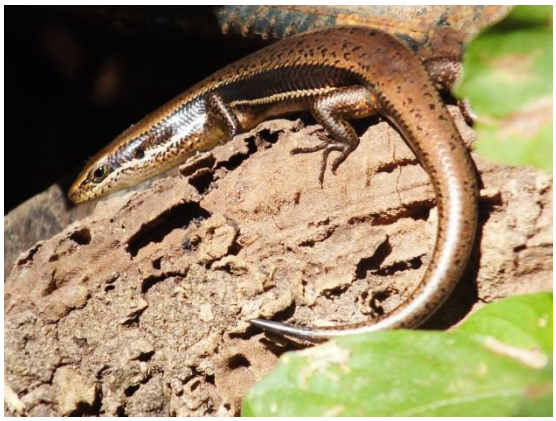


Photo N°1.-*Mabuya bistriata*

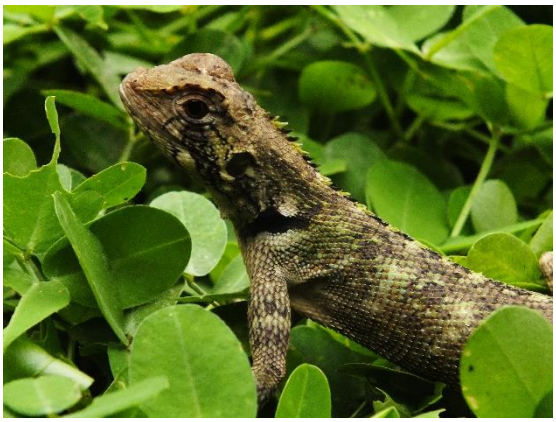


Photo N°2.-*Plica umbra*

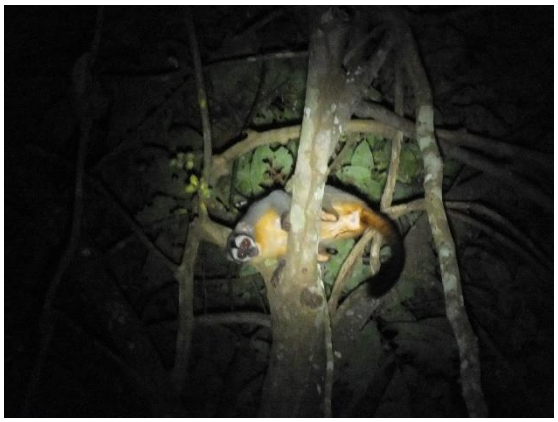


Photo N°3.-*Aotus nigriceps*

Photo N°4.-*Sciurus spadiceus*

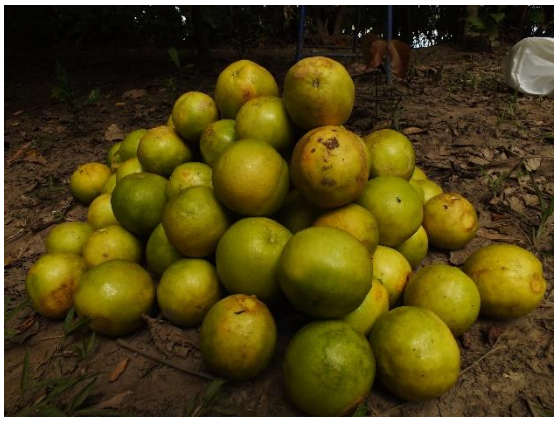


Photo N°5.-lime

Photo N°6.-lime

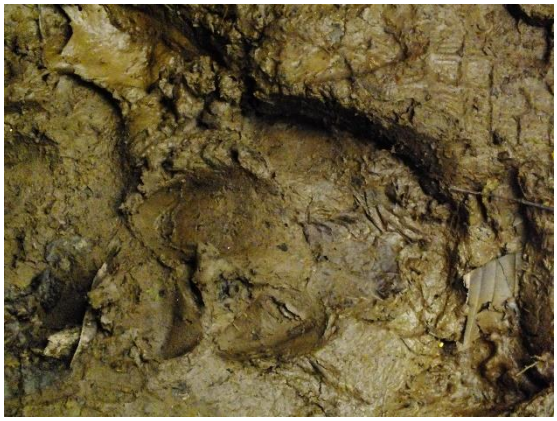
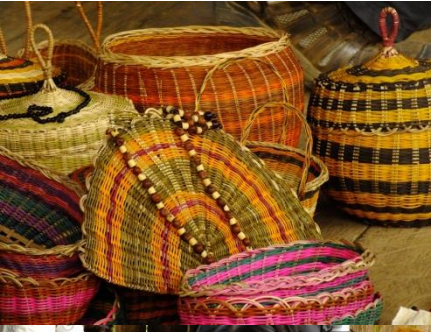


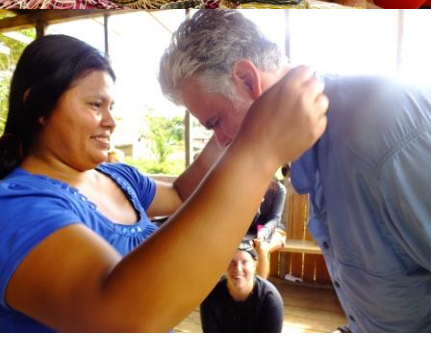
Photo N°7.-*Tapirus terrestris* (footprint)

Photo N°8.-Carambola

Photo N°9.-casharana

Photo N°10.-Casharana





ITA Volunteers perform Social Work in Native Community Palma Real in the lower Madre de Dios

By: Helmut Rengifo

From the 14th to the 18th of July a group of 22 freshmen from the University of Indiana along with the team of Inkaterra Association (ITA) performed social work in the Native community of Palma Real which is located in lower Madre de Dios where they lived with villagers for a week.

The aim of the study was to renovate one of the classrooms of the community's school, as well as placing meshes on the second floor of the craft women's house. This work was conducted in conjunction between the ITA team and Families of the community. During their stay the students learned to make crafts with the local artisans committee.

Furthermore ITA and Markham College have been developing together since 2013 a social project in the community of Palma Real. This project aims to establish a pilot school for the region of Madre de Dios, rescuing the language, culture and values from the Ese'Eja Nation. To do this they must:

- Do maintenance of general infrastructure of the school
- Refurbish school furniture
- Review and support the use of educational materials
- Promote and assist through language recordings of Ese'Eja
- Support community Ese'Eja social development through interaction with Markham school students from Lima.
- Assist with the promotion of craft industry of Ese'Eja

At the end of the hard work the classrooms were renovated, the ceilings were placed and painted as well as the meshes. All the environments that were worked now look more comfortable and ready to be used.

ANEX

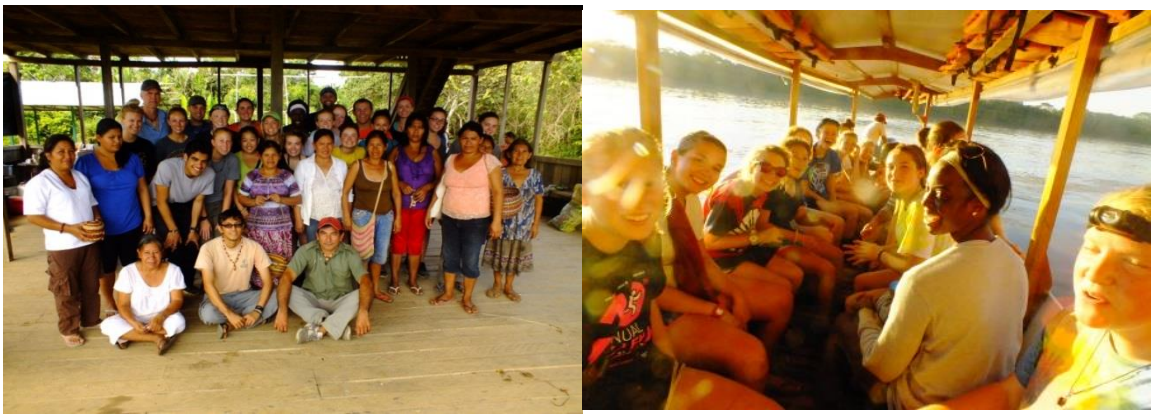


Photo N°1.- Volunteers with the community

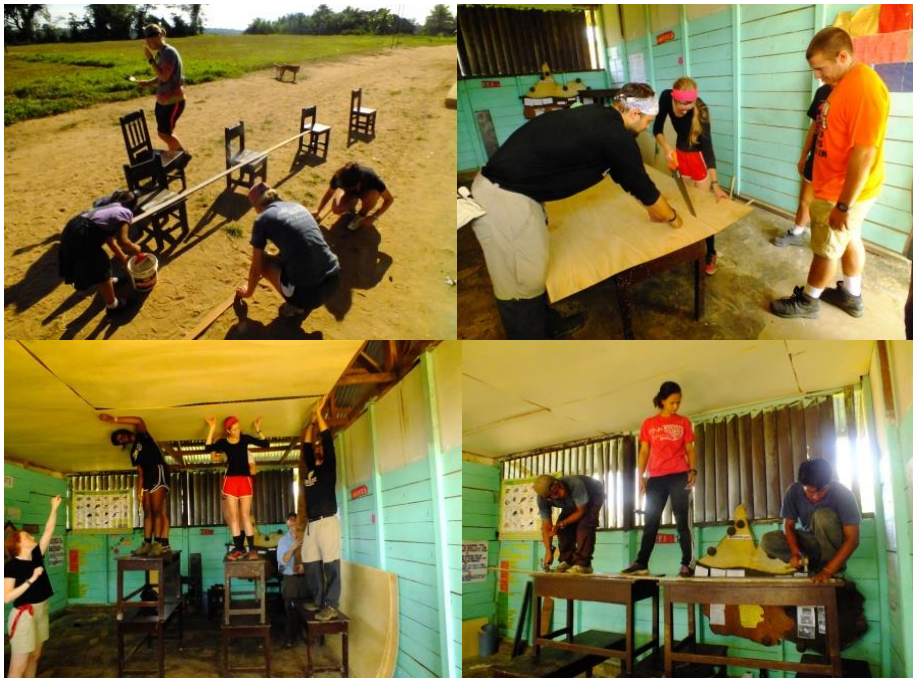


Photo N°2.- Volunteers in full Faena

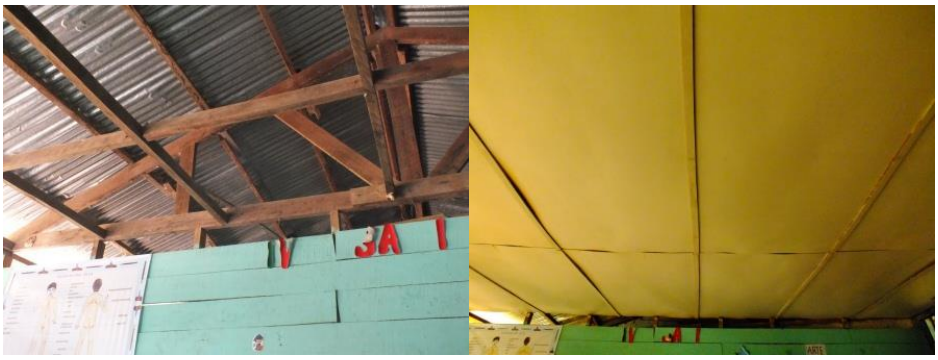


Photo N°3.- Before and after