



*Saguinus leucopus* Conservation Program  
2006-2010  
Report 2008



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## In-Situ Projects

### 1. Densities of *S. leucopus* in Colombia (several localities).

Coordinator: Alba Lucia Morales Jiménez. Fundación BioDiversa Colombia

The objective of this research is to identify forest areas where this species still occurs and to estimate the density in those forests. Population status of *S. leucopus* is not known, and this is a priority research topic for conservation purposes. We have done surveys in La Victoria (Caldas) and Maceo (Antioquia). We tried surveying Barbacoas (Antioquia) and we confirm the presence of this species in the area but due to an extended rainy season, it was not possible to survey the area. Now we are surveying Mariquita, Falan and Fresno (Tolima) and we hope to get results very soon to have a better understanding of the species situation in Colombia (figure 1.).



Figure 1. Surveying sites for population densities

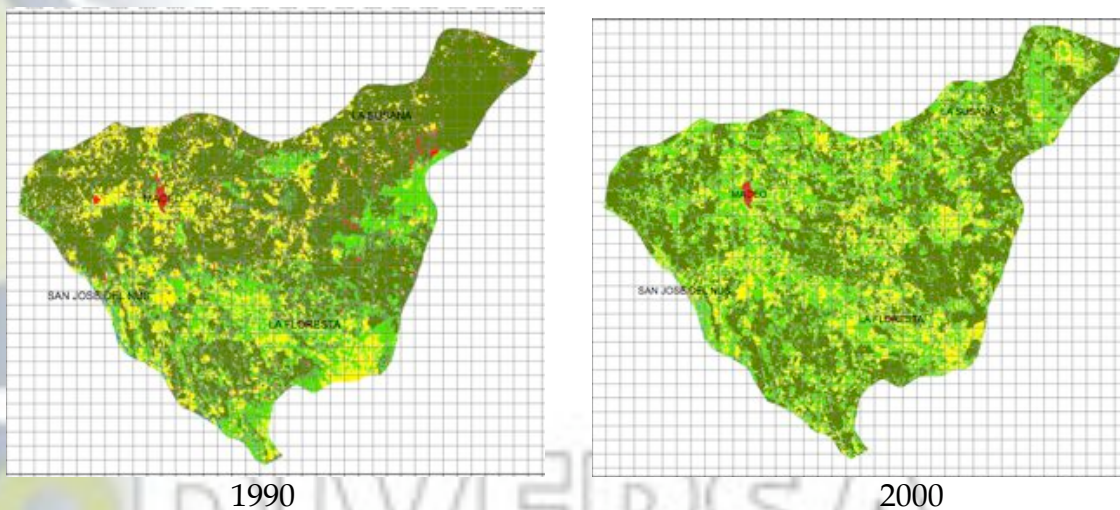
### Density results

*Maceo, Antioquia:* In this area we were able to record data for four months in March, May, July and August. We open three transects 950 m, 1025m, and 2025m. These transects were visited during four months and data was collected on all species of primates that were seen on or around the transects. *Saguinus leucopus* was the only species of primates that was seen on transects almost every day and therefore we were able to do some analysis in the program Distance. The density estimated for this species in Maceo is 114.33 ind/km<sup>2</sup>, much higher than the density reported for other *Saguinus* (3.4- 19.6 indv/km<sup>2</sup>) (Castillo-Ayala and Palacios, 2007). This could be a result of the reduction of the forest area or maybe less competition from other primate species that are disappearing in this location.

*Ciénaga de Barbacoas, Antioquia:* In this locality we were not able to collect any data due to the weather conditions and the flooded terrain. We did two visits to this area without luck. We have seen this species in this locality but could not do the surveys.

### Threats

*Maceo, Antioquia:* This area is highly fragmented and has diminished the forest cover from 1990 to 2000. The forest was reduced around 16%, the area of shrubs increased 79% during this period of time and the fragmentation increased considerably (Figure 2). The main conservation problems on this location are the destruction of the forest due to the extraction of wood and the opening of areas for the introduction of livestock (Figure 3). Hunting of primates, especially spider monkeys, was reported in the area in 2004 and 2008 for food and as a remedy for paludism.



1990

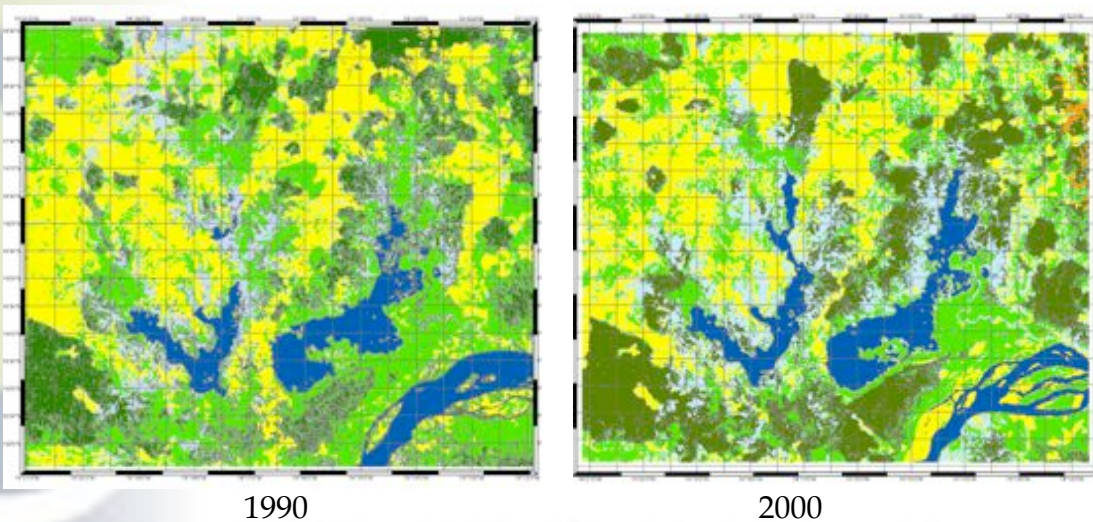
2000

**Figure 2.** Change of land cover in the Municipio of Maceo, Antioquia. Dark green represents forests, Light green represents shrubs; Yellow represent grass; and red represents populated areas and degraded soils.



**Figure 3.** Forest area and extraction of wood in Maceo, Antioquia.

*Cienaga de Barbacoas, Antioquia.*: Surprisingly the forest area for this location has increased between 1990 and 2000 around 37%. The shrubs and grass areas decreased during this period of time 13% and 18% respectively (Figure 4). The patches of forest in the area increased in size and recover during this decade; unfortunately nowadays is being destroyed due to the extraction of wood and introduction of cattle (Figure 5). Wildlife hunting is practice in the area (Figure 6). The people working in the ranches in the area recognize the brown spider monkey as a species less abundant than *Saguinus leucopus*, *Cebus albifrons* and *Alouatta seniculus*.



**Figure 4.** Change of land cover in the Barbacoas area, Municipio of Yondo, Antioquia. Dark green represents forests, Light green represents shrubs; Yellow represent grass; and red represents populated areas and degraded soils.



**Figure 5.** Forest area and extraction of wood in Barbacoas-Yondo, Antioquia.



**Figure 6.** Recent evidence of hunting in the area Barbacoas-Yondo, Antioquia. This jaguar was hunted in August 2008.

## 2. Habitat use of *S. leucopus* in La Victoria, Caldas

Due to delays getting the money for the conservation program, this part of the Action Plan was delay as well. We have bought the necessary equipment to start this project and we are waiting for this equipment. We are going to start collecting ecological data about the way *S. leucopus* use their habitat. This information is crucial as most of the actual distribution area for this species is highly fragmented. In the future we will design corridors between patches to maintain viable

populations and therefore this ecological information is very important. We will follow two groups of silvery brown tamarins.

### Ex-situ Projects

#### 1. Captive breeding program of *Saguinus leucopus*

At this moment we have built 16 enclosures and we have 18 breeding pairs (including the pairs in exhibition) as follows:

Institution	Pairs on breeding cages	Pairs on exhibition	Total pairs
Piscilago	3	0	3
Santacruz	4	1	5
Santa Fe	4	1	5
Cafam	4	1	5
<b>Total</b>	<b>15</b>	<b>3</b>	<b>18</b>

So far we have had offspring as follows:

Institution	Number of offspring
Piscilago	6 (-1)
Santacruz	9 (-4)
Santa Fe	4
Cafam	4 (-1 dead)
<b>Total alive</b>	<b>17</b>

The F1 is growing and the mortality is decreasing dramatically. We expect to have siblings helping their parents raising new babies. In Santafe zoo we have this

situation where the pair living in the exhibition enclosure are helping raising their siblings (Figure 7).

ACOPAZOA wanted to update the studbook for this species during 2008. They have collected the information and probably in April will enter the information into sparks.



Figure 7. Newborn at Cafam Zoo

### 3. Mortality causes in captive *Saguinus leucopus* (Second year)

This project is being lead by Carolina Falla and has the participation of 5 other Zoos (Santa Fe, Santacruz, Cafam, Cali, Barranquilla). Carolina Falla developed a quarantine protocol for the animals that enter the zoological collections and rescue centers (Figure 8). This protocol is available to all the institutions that manage this species in the country.



Figure 8. Quarantine protocol for the silvery brown tamarin (*Saguinus leucopus*)

3. Third Workshop on Captive Management of the silvery brown tamarin (*Saguinus leucopus*) in Colombia - Nutritional aspects and welfare of *S. leucopus* in captivity

The workshop this year was in Barranquilla Zoo, from June 2<sup>nd</sup> - 4<sup>th</sup>. We began the organization of this workshop in December of 2006 with the preparation of the



program, the conferences, and establishing contacts with the speakers and participants. Dominic Wormell, Kimberly Ange-van Heugten and Erin Kuhn participated as international speakers. We also had eight national speakers that presented their experiences with the species (Figure 9).



**Figure 9. Fieldwork experience during the third workshop**

The workshop counted with the participation of 22 people from 17 institutions. The institutions were: SantaCruz Zoo, Santa Fe Zoo, Cali Zoo, Piscilago Zoo, CAFAM Zoo, Barranquilla Zoo, Matecaña Zoo, CDMB, CORPOCALDAS, URRAS, DAMA, CRFSOC, Bioparque La Reserva, Durrell Wildlife Jersey Zoo, Saint Louis Zoo, North Carolina State University and Fundación BioDiversa Colombia (Figure 9). We agreed to publish papers in a book with all the research done so far on this

species, including not only the nutritional aspects but also veterinarian, behavior and research that is being done in the wild.

#### 4. Support to rescue center in Caldas

The program has signed an agreement with CORPOCALDAS and built two rehabilitation cages at their rescue center (Figure 10). CORPOCALDAS continues with a specialized rescue center with mostly individuals of *S. leucopus*.



Figure 10. Rehabilitation enclosure at CORPOCALDAS rescue center.

## Education Project

### 1. Campaign to reduce pet trade

Coordinators: Sandra Correa

We have supported the season of the Silvery Brown Tamarin in all zoos participating in the program. Sandra Correa developed games and activities for parents and kids that were recreated in all the zoos during the months of November, December and January. The campaign also included the design of large signs posted in airports and bus terminals within *S. leucopus* distribution. These are the months where pet trade increases and we hope with this activities people will be less likely to buy wildlife (Figure 11). This is the first national campaign organized around the protection of the silvery brown tamarin.





**Figure 11. The season of the Silvery Brown Tamarin in Matecaña Zoo.**

### **Events, divulgation and International Meetings**

#### **1. Participation on the second Colombian Primatological Conference. June 26<sup>th</sup> - 28<sup>th</sup>, 2008. Bogotá, Colombia**

Alba Lucia Morales Jimenez was invited by the Colombian Asociation of Primatologist to participate on the Second Primatological Conference. Alba Lucia presented the advances of the Silvery Brown Tamarin Conservation Program to other primatologists as well as representatives of the ministry of environment and other environmental organizations (Figure 12).



Figure 12. Keynote speakers at the Second Primatological Conference in Colombia.

#### **4. Participation on the International Primatological Society Conference and pre-congress workshop in Edinburgh, Scotland. July 28<sup>th</sup> to August 8<sup>th</sup> 2008**

Alba Lucia Morales Jimenez presented the Silvery Brown Tamarin Conservation Program in the conference. Previous to this conference she participated on a pre-congress workshop on techniques to estimate primate densities. This workshop was very important to analyze all the data we have collected to date (Figure 13 & 14).



Figure 13. During the workshop: Collection and analysis of field data for estimation of primate density or abundance

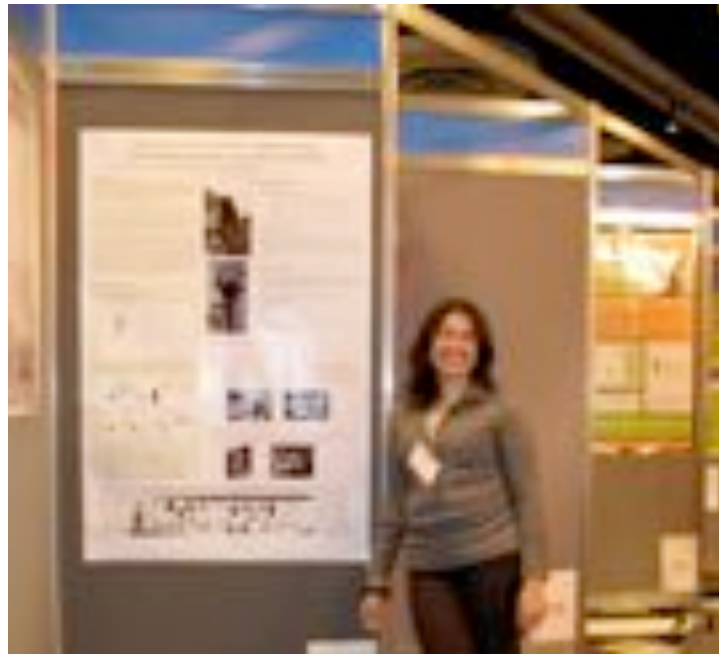


Figure 14. Poster presentation during the XXII International Primatological Society Conference

## Publication

### 1. National Action Plan for the conservation of the Silvery Brown Tamarin.

We have published in partnership with the Ministry of Environment, Government agencies, Zoos, Rescue centers and NGO's the action plan for the preservation of this endemic and endangered Colombian species (Figure 14). This document will be available for all the people interested in working with this species. This is the result of a national workshop sponsored by the Ministry of Environment in 2007.



Figure 15. National Action plan for the Conservation of the silvery brown tamarin (*Saguinus leucopus*)