



Barba Azul Nature Reserve

Asociación Armonía

Asociación Armonía is the leading non-profit bird conservation NGO of Bolivia, whose mission is to protect the most threatened Avifauna through reserve creation, education, improved livelihood and scientific research.

Armonía has 14 conservation programs all over Bolivia that couple environmental protection with improved livelihood. Through land protection more than 11,150 ha of Endangered ecosystems with their interdependent animal and plant life are safeguarded. Check out the Armonía website for further information on our projects:

Armoniabolivia.org

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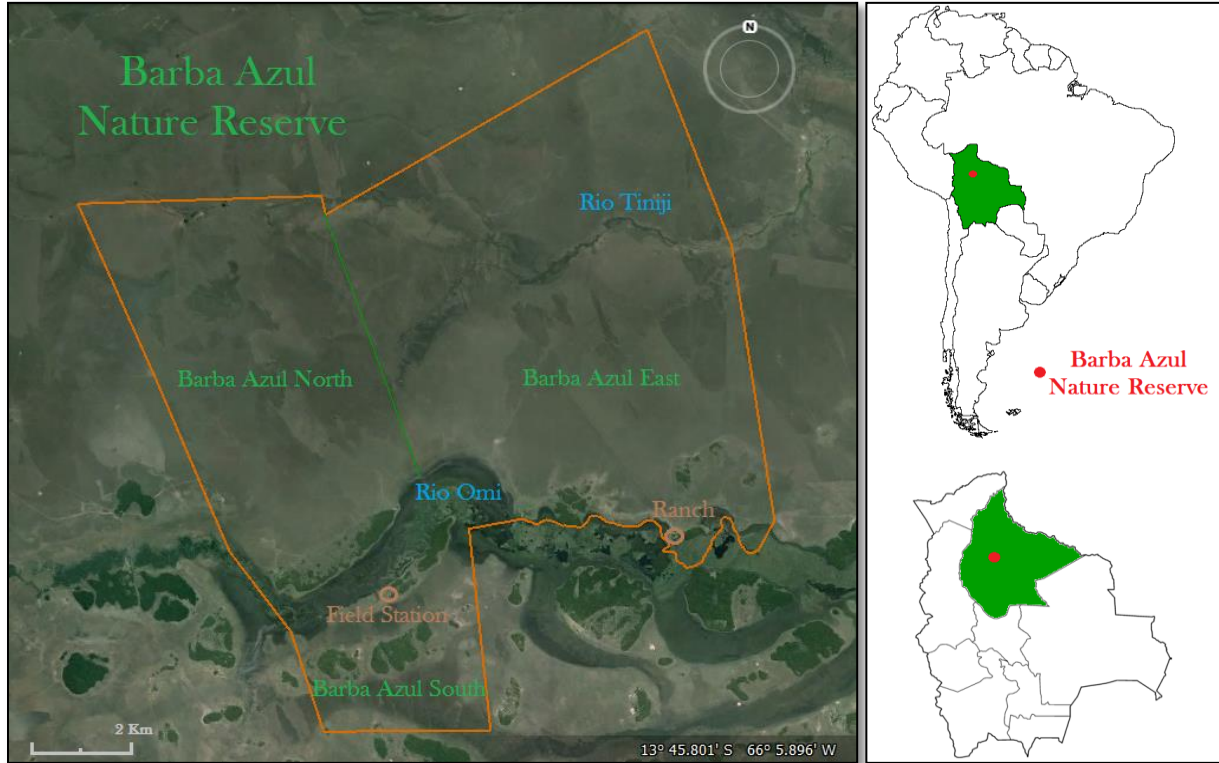
One of our main projects is the Barba Azul Nature Reserve, the only private reserve protecting the Endangered Beni savanna ecosystem. This hyper-seasonal savanna eco-region, combined with raised forest islands, is characterized by 8 months of complete inundation followed by a severe dry period. It is the habitat of the endemic and Critically Endangered Blue-throated Macaw (*Ara glaucogularis*).

Between 200 and 250 individuals are left in the wild, of which up to 100 forage at Barba Azul, making this reserve the population stronghold for the species. Not only is it important for the macaws, but Barba Azul also provides refuge for many other threatened birds, mammals and plants.



Location

Barba Azul Nature Reserve encompasses 11,000 ha (27,180 acres) and is located in the heart of the Beni Department in Bolivia (field station coordinate in map).



Research Opportunities

Blue-throated Macaw monitoring studies

Armonía has placed over 50 artificial nesting cavities for the Blue-throated Macaws at small Motacu Palm dominated forest islands that have to be monitored. Very little is known about their local migration during their breeding season and movement patterns are of high importance to better understand this species for future protection.

Savanna age-class studies

Fire and water are the two main factors forming the Beni savanna ecosystem. An additional man-made impact, cattle ranching, is now another factor influencing the savanna ecosystem. But how serious is this? Barba Azul East will be a cattle management area where experiments related to cattle pressure can be studied. Barba Azul North, free of cattle, is open for controlled fire experiments to study species diversity in different savanna age-classes.



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Forest composition studies

150 years of extensive cattle ranching, grassland burning by farmers and deforestation have altered the state of the Beni savanna. Very little is known about the original state of local forest types and palm forest islands, dominated by Motacu Palm (*Attalea phalerata*). Several of these palm forest islands are devoid of regenerating trees as they all get consumed by free roaming cattle and are now being reforested with samplings from a natural nursery in Barb Azul North.

Extensive research on the existing forests is needed in order to model the original state and a close study of the Motacu Palm is necessary to get a better view on the species morphology. Forest islands will function as permanent forest sample plots.

Pre-Hispanic raised island

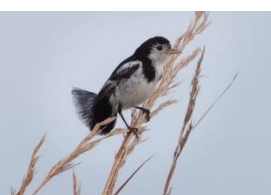
The Beni savanna, also known as the llanos de Moxos is natural in origin though formed and shaped by landscape modification of pre-Hispanic indigenous peoples for centuries. Within the vast savanna landscape of Barba Azul, a total of 24 raised islands can be found, sufficiently high to support trees as



these islands don't get flooded during the wet season. How old are these islands, what are the soil structures and why are they dominated by Motacu palm?

Beni savanna biodiversity studies

As Barba Azul North and South are now protected for over 8 years, animal and plant diversity and abundance is clearly changing as no hunting is allowed and little by little free roaming cattle, owned by neighboring ranches are removed. Up to 30 different mammals are captured by camera traps, 288 birds are documented and a river system that holds both lake as well as river dependent fish and plant species make this reserve wild in many aspects. Very few thorough studies have been executed in the Beni savanna so all biodiversity related studies will be of valuable information.



Logistics

Flights from Europe to Santa Cruz de la Sierra, Bolivia

Return flights from Europe to Santa Cruz Bolivia range between 850 USD and 1,400 USD, depending on the route and season.

A direct flight to Santa Cruz de la Sierra (Viru Viru Int. Airport) leave from Madrid (Spain), which takes between 11 and 12 hours and costs around 1,400 USD return flight (prices do fluctuate).

Visa

Most European, Canadian and Australian citizens don't need a tourist visa and can stay for 90 days. You do have to present a passport that is valid for at least 6 months, yellow fever shot, and a return ticket. If you wish to stay longer than 3 months, you have to apply for a Student or Volunteer visa. Citizens from the United States have to apply for a Tourist Visa. Visa information can be found here:

<http://www.embassyofbolivia.nl/node/907>

Travel insurance

Make sure you have travel insurance as you are working in an area far from modern medical facilities with tropical animals and possible tough conditions.

Vaccinations & diseases

Check your local vaccination center for updated information on vaccinations needed for Bolivia. Yellow fever is compulsory to enter Bolivia. No malaria is present in the Barba Azul Nature Reserve. Though rabies has not been observed in the area, if you handle wild animals think of having these shots (just to be sure, because it's nasty).

Wageningen students: <http://www.vaccinatiecentrum.nl/index.php/en/>

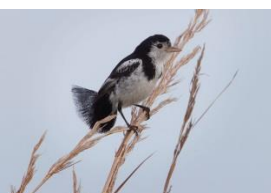
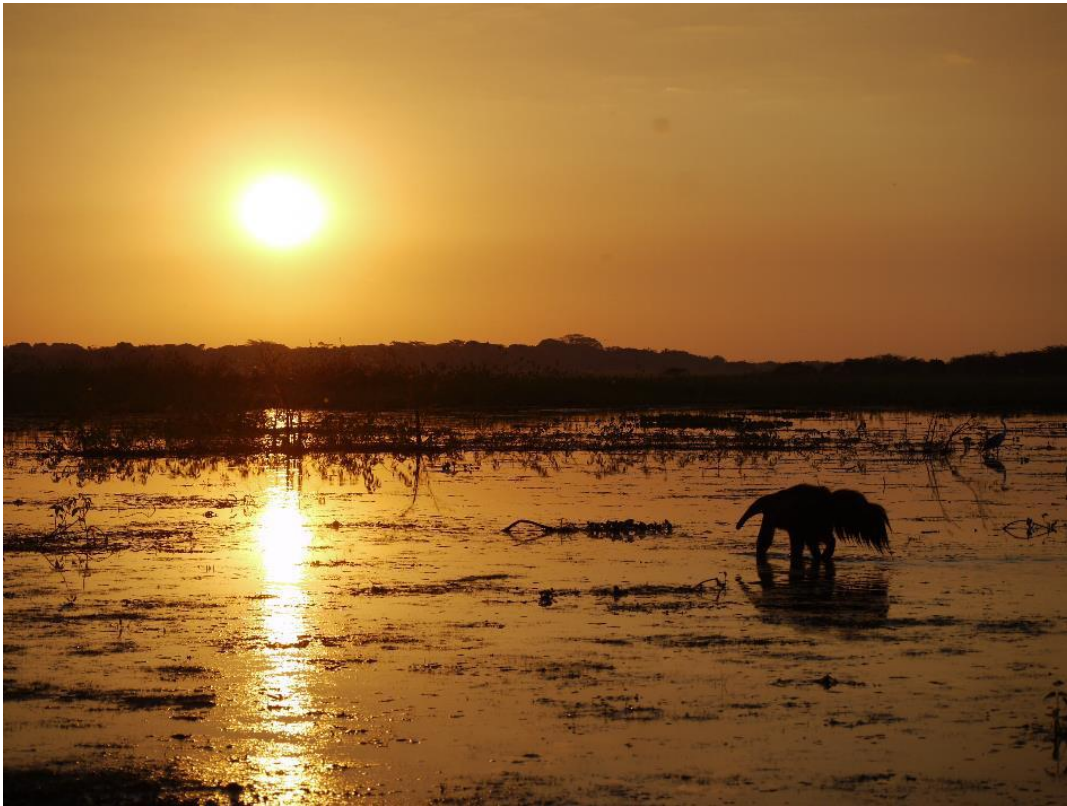


Weather conditions

The wet season is from November until May (flooding can continue until July). During this period the savanna habitat will be flooded and you can expect full days of rain. This is also part of the southern summer and temperatures can reach 35 degrees Celsius (95 Fahrenheit). The dry season is from May until November, with cooler temperatures depending on wind direction. Keep in mind that you work in open savanna, with strong sun and high temperatures.

Be aware

You will be in a hot tropical climate where you can expect many bugs and critters like loads of mosquitos, ticks, spiders and many others. This is not to scare you, it is just reality as some people can react strong and even allergic to insect bites. Make sure you bring repellent and anti-histamines to be prepared for sudden and unexpected physical reactions.



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Costs for staying at Barba Azul Nature Reserve

Foreign Visitors	Period	USD/day
Professionals	Up to 7 days	\$ 50,-
Professionals	Less than a month	\$ 25,-
Professionals	More than a month	\$ 15,-
Students	Up to 7 days	\$ 15,-
Students	Less than a month	\$ 10,-
Students	More than a month	\$ 5,-

These prices include a bed in a shared room at the field station, shared bathroom, cook that prepare your food (you have to bring your own food) or use of cooking facilities, boat-rides to reach possible study plots, and other reserve facilities. These prices don't include food, transport to and from the reserve and use of horses. The reserve does not have internet yet. Contact Tjalle Boorsma (details below) for additional information.

Local transportation

Your starting point is Santa Cruz de la Sierra as all international flights will arrive there and where the main Armonía office is located. Visit the main office first before planning to get to Barba Azul Nature Reserve.

From	To	Type of transport	Costs (One-Way)
Santa Cruz	Trinidad	Night bus	\$ 22,- / person
Trinidad	Santa Ana	Air Taxi	\$ 50,- / person
Santa Ana	Barba Azul	Cessna plane	\$ 225,- / plane
Trinidad	Barba Azul	Cessna plane (direct)	\$ 585,- / plane
Trinidad	Barba Azul	Armonía vehicle	\$ 75,- / person

The cheapest route to take to reach the reserve by air is first to fly to Santa Ana de Yacuma with an air-taxi that leave when they have sufficient passengers (3-5). In Santa Ana you can coordinate through Armonía an entire Cessna plane (3 people with moderate luggage; total of 350 kilo). Direct flights can be organized from Trinidad to Barba Azul though will be more expensive. In the dry season possible vehicle entrances can be coordinated with Armonía.



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Armonía office

Armonía offices can be used for report writing and preoperational work if room is available.

- Maine office: **Asociación Armonía**
Av. Lomas de Arena #400
Santa Cruz de la Sierra, Dept. Santa Cruz, Bolivia
Tel: 591 -3- 3568808
- Trinidad office: **Asociación Armonía**
Avenida 18 de Noviembre #461
Trinidad, Dept. Beni, Bolivia

Local supervisor and Contact person



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