



ECOSARA
Estación Ecológica de San Rafael

Boletín N° 2

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Salvando el Parque Nacional San Rafael

NEW SPECIES OF SNAKE TO SCIENCE DISCOVERED IN SAN RAFAEL

The description of a new species of snake to science, named *Atractus kangueriensis*, has been published in the **South American Journal of Herpetology**. The species was described by Pier Cacciali, member of the **ECOSARA** scientific team, jointly with authors from other institutions (**Cacciali et al. 2007**). The specimen was collected in the area of Kanguery (from where its scientific name is taken), located in the south-west of the San Rafael reserve and forming part of the more than 6000ha that have been acquired for perpetual conservation in the name of the “**Alianza para la conservación de San Rafael**” of which Pro Cosara is a founding member.

SAN RAFAEL NATIONAL PARK: OFFICIALLY THE SITE WITH THE GREATEST AVIAN BIODIVERSITY IN PARAGUAY



Aramides ypecaha (Hans Hostettler: camera trap).

As a result of the ongoing biological inventories being performed by the **Estación Ecológica de San Rafael (ECOSARA)** new species of vertebrates not previously recorded in the park continue to be discovered with regularity in **San Rafael**. The latest addition to the avifauna is the Giant Wood-Rail *Aramides ypecaha*, which was recorded by **Hans Hostettler**, through a photograph captured in one of his camera traps.

The addition of this species to the locality list means that an astonishing total of **414 species of birds** have now been documented as occurring in **San Rafael**, making it officially the site with the greatest avian diversity in Paraguay and representing 58,5% of all the species recorded in the country.

NEW AMPHIBIAN RECORDS FOR SAN RAFAEL

During the faunal inventories performed by ECOSARA two new amphibian species have been recorded within the park in the last few months. The number of amphibians documented for San Rafael NP is now 34:

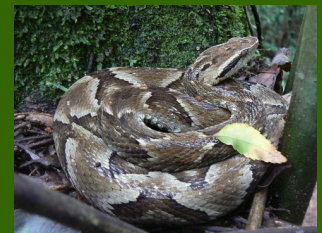


Proceratophrys avelinoi
(Alberto Esquivel M.)

1. A new frog, the Orange-bellied Escuerzo, *Proceratophrys avelinoi*, was recorded for the first time in November 2007. This record is of great importance being only the second record of the species in Paraguay, the only previous record coming some 30 years ago. More details of the record are available in the publication in the Revista Científica de Zoología Paraguaya Bellbird (www.faanaparaguay.com/journal.html).
2. The first Caecilian **Caeciliidae** recorded in San Rafael National Park was also discovered in Noviembre de 2007, a dead specimen being found within the forest. The individual belongs to the species *Siphonops paulensis*, and is only the second ever record of the species in Paraguay. The only previous record is from Departamento Amambay, the new record representing a southerly extensión of more than 500km of its Paraguayan range. *Siphonops paulensis* is a rare species that also occurs in the Provincia of Misiones in Argentina.

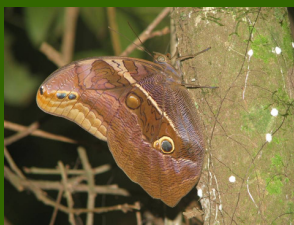
NEW REPTILE RECORDS FOR SAN RAFAEL

In addition to the newly described species *Atractus kangueriensis*, two additional reptile species have been added to the reserve list in the last few months. **David Gill** (University of Newcastle, England) has been collaborating on herpetological inventories at ECOSARA, and in addition to gathering other important data through census work he has succeeded in adding both *Bothrops jararacá* and *Sibynomorphus ventrimaculatus* to the list of the park's fauna. The number of reptiles now recorded in San Rafael stands at 34 species.



Bothrops jararaca
(Laura Tensen)

SAN RAFAEL BUTTERFLY LIST GROWING FAST



Eryphanis reevesii
(Bernard Oosterbaan)

The ECOSARA butterfly and moth inventories continue, and during the month of March received the assistance of **Moriz Stiefel**. During the month a further **31 new butterfly species** were added to the park list, as well as important data on the phenology and abundance of the butterfly fauna. To date in a relatively short time **155 species** have been recorded as present in the park and the number is expected to grow exponentially in coming months. Additionally a further nine moth species have been recorded - with current work concentrating on the Hawkmoths (Sphingidae) and Emperor Moths (Saturniidae). To date 11 Sphingids and 15 Saturniids have been documented **as present in San Rafael**.

A STUDY ON THE HABITAT PREFERENCE OF SMALL FELINES



Footprint trap
(Alberto Esquivel M.)

During the first few months of 2008 a study of the microhabitat preference of small felines in **San Rafael National Park** is being performed at **ECOSARA**. The project is being carried out by interns **Laura Tensen** and **Esther Van Nes** of the Van Halle Institute, Holland with the objective to identify any preferences of felines between the distinct ecological zones that occur in the park - undisturbed forest, secondary forest, scrub and agricultural areas. They are using a combination of footprint traps, camera traps and interviews to reveal the presence of felines and their major prey species.

MICROMAMMALS OF SAN RAFAEL

In an attempt to learn more about the **diversity of small rodents** in San Rafael, and at the same time identify possible prey species for small felines in differing ecological zones, **Ashley Hillman** is carrying out a study of the species present. The data gathered is being used to supplement data gathered on the feline Project.



Akodon montensis
(Ashley Hillman)

TWO NEW INSECT SPECIES FOR PARAGUAY RECORDED IN SAN RAFAEL NATIONAL PARK

Amongst the species of Hawkmoths (Lepidoptera: Sphingidae) recorded in the last few months during the **ECOSARA faunal inventories**, was a **new species for Paraguay**. The species in question belongs to the genus *Manduca*, but its identification to species level is still under consideration by world experts **Dr. Ian Kitching** (Natural History Museum London) and **Jean Haxaire**, who have confirmed the individual is either *M. janira* or *M. brasiliensis*, both previously considered endemic to Brazil. The measurements of the specimen are consistent with the former.



Manduca sp.
(Paul Smith)



Phenax variegata
(Paul Smith)

The other new species of insect for Paraguay documented during the **ECOSARA faunal inventories** in the last two months is a relative of the cicadas (Cicadidae), though it belongs to a different family, the **Fulgoridae (Homoptera: Auchenorrhyncha)**. When touched the insect responded by opening its wings suddenly and producing a rattling noise similar to the warning sounds produced by a rattlesnake. The individual has been identified as *Phenax variegata* (Olivier 1971) by world expert on the group **Lois O'Brien**. With this addition to the species list, a total of just **three species have been documented in Paraguay** in this charismatic and fascinating family.

NEW SIGNS AND MAPS OF THE PRO COSARA PROPERTY

An invaluable collaboration in the last three months has been provided by volunteers **Suzanne Morton, Ivan Saxelby y Bernard Oosterbaan** (Van der Goes en Groot Ecological Bureau, Holland). Suzanne and Ivan have designed and built a series of signs for the Sendero Chachi trail, whilst Bernard has used his knowledge of geoprocessing of images to produce a detailed GIS map of the Pro Cosara property detailing the trails and major ecosystems present.



INSTITUTIONAL STAFF DEVELOPMENT

Pier Cacciali, Coordinator of Investigations of the Programme **ECOSARA**, has just returned from a course at the **Smithsonian Institution** in Washington D.C. With a duration of 6 weeks the course invited professionals from different countries in Latin America and the Caribbean to receive training in the professional techniques of conservation and management of museum collections. This was made possible thanks to a grant obtained by Pier through the **Museo Nacional de Historia Natural del Paraguay** which allowed him to benefit and develop professionally under the tuition of some of the world's most recognised experts in their fields.

IMMINENT THREATS WITHIN SAN RAFAEL NATIONAL PARK

Approximately **2000 head of cattle and large areas of transgenic soya plantations** are threatening the the biodiversity and ecosystems of the grasslands, wetlands and forests in the south-western portion of the San Rafael Reserve. To date little has been done to control the impact of the increasing agricultural activity in the area and provides an idea of the potentially catastrophic effects that would result from the proposed reduction of the status of San Rafael from “**National Park**” to “**Managed Resources Reserve**”.



Strengthening of the “Alianza para la conservación del Parque Nacional San Rafael”



A new period of activity has begun amongst the NGOs which for the last 10 years have been working to protect and conserve one of the last large remnants of Atlantic Forest in Eastern Paraguay - San Rafael National Park. In an effort to strengthen the “Alianza” and to ensure the protection of this ecological treasure, two more organisations have been invited to join the Alliance - the **Fundación Moisés Bertoni** and **Asociación Promotores de San Rafael**. The great experience in conservation of natural areas in Paraguay possessed by **FMB** jointly with the enthusiasm of the newly-formed **Asociación Promotores de San Rafael** contribute to a real feeling that the coming years the achievements of the “Alianza” will increase and **Parque Nacional San Rafael** will finally be saved to be appreciated by future generations.

Goodbye to a Great Guard

A huge thanks for the efforts of Forest Guard **Roque Martínez** who recently left the organisation. Roque made great strides in Environmental Education and was instrumental in the formation of a group of young environmentalists “**Jovenes Ambientales Colonias Unidas JACU**”, borne out of his own initiative and love for the area.

We hope to welcome Roque back soon and that in the meantime he continues to develop his valuable work to conserve San Rafael NP.

New Pro Cosara Project Given Green Light

Thanks to funding provided by **UICN Holland, Pro Cosara** launches a new project in April with the objective of analysing the current situation amongst the property owners in the park, understanding their interests and fears, and at the same time continuing activities of vigilance and control of illegal activities within the park boundaries. This is the first conscious attempt to understand the different points of view held by the people directly affected by the current uncertainty over the reserve’s future and a way in which future strategies and plans can be more effectively designed to ensure that the needs of all are met whilst continuing to conserve **Parque Nacional San Rafael**.

Thanks

Dr. Ian J. Kitching (The Natural History Museum), Jean Haxaire, Lois O’Brien, Ezequiel Osvaldo Nuñez Bustos, Andrés Contreras (Univ. de Pilar), Bill Oehlke (World’s Largest Saturniidae Site), Dr. Robert Owen (Centro de Mastozoología del Paraguay).

Donation or Contributions

If you would like to help the conservation of San Rafael National Park by joining our efforts, communicate with us by email to ecosaraparaguay@gmail.com or procosara@itacom.com.py and we will send you details of the membership schemes and other ways in which you can contribute in a positive way to Pro Cosara. Learn more about ECOSARA at (www.faunaparaguay.com/ecosarahome.html) and Pro Cosara at (<http://procosara.org>).

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