



BULLETIN

PATO AQUI, ÁGUA ACOLÁ

BULLETIN 1 - FEBRUARY 2009

:: THE BULLETIN

The Pato Aqui, Água Acolá Bulletin is the new quarterly electronic bulletin of the Terra Brasilis Institute for informing news and novelties on the Pato Aqui, Água Acolá Program, developed in the region of the Serra da Canastra since 2001. The bulletin intends to inform about the program's main actions, as well as stimulating the involvement of all in the conservation of the natural resources of this region.

This program mainly has the objective of conserving water resources and regional biodiversity, and is made up of several action fronts. It acts in the development of awareness and environmental education activities and also the study of the distribution and biology of the Brazilian Merganser (*Mergus octostaceus*), a Critically Endangered species, in the region of the Serra da Canastra. The survival of the Brazilian Merganser is associated to the maintenance of conserved environments that, in turn, depend on the use of best management practices and use of the soil.



Adriano Gambarini

Brazilian Merganser

:: Information Center in São Roque de Minas is a success

Flávia Ribeiro

Mosaic Workshop

More than three thousand people have already taken part in activities developed by the Center.



Acervo Terra Brasilis

Shadow Theater Workshop

Seeking to contribute to the community of the region of the Serra da Canastra becomes more informed, integrated and participative in relation to environmental themes, the Terra Brasilis Institute created the Pato Aqui, Água Acolá Information Center in the city of São Roque de Minas, MG. The Center's function is to make socio-environmental information available in the region and, at the same time, to promote the exchange of information and also the consolidation of the image of the Brazilian Merganser as symbol of the region's ecosystem conservation.

Open since September 2007 to the São Roque de Minas community and its visitors, it maintains an extensive free programming for the public in general, reaching, without distinction, any social class, scholastic level, age, gender, origin and diverse interests. The activities also include presentations, workshops, contests, chats, movie and cartoon sessions, games and other activities. To this end, the Center has a cinema and cartoon film projection, a space for fun activities, in addition to maintaining an exhibition about environmental conservation in the Serra da Canastra region and distributing technical and scientific publications about ecology and conservation, mainly about the Cerrado biome.

Since its inauguration, the space has been a success. More than three thousand persons have taken part in activities developed at the Center, such as workshops of Radio Programs, Doll Making, Shadow Theater, Drawing, Origami, Papier Mache and Mosaic of Animals from Canastra and Crafts with Newspaper. The result of the activities has been quite positive, including some of which that were adopted by schools, taking whole classes to participate, such as, for example, the child drawing contest, the story telling sessions and chats about Consumer Awareness.

The Terra Brasilis Institute hopes that this work translates into stimulus, maturation and trust to carry out socio-economic issues of the region and the awareness about the importance of the natural resources of the region of the Serra da Canastra.

:: Study of the biology of the Brazilian Merganser

The Brazilian Merganser population presently known in the region of the Serra da Canastra, including the area of the Serra da Canastra National Park and surroundings, is around 50 families, a number that, in spite of being larger in relation studies prior to Terra Brasilis is not conclusive, because there are areas still not sampled in the region.

Seeking to survey aspects related to the biology of the species and to the structuring of actions and proposal of measures for its conservation, in 2008, the marking of individual specimens began with the use of banding, in addition to the use of radio telemetry method. This method allows conducting a more precise study about bio-ecological parameters, making it possible to the territoriality, standards of use of the habitat, dispersion and population size.

Nineteen individuals were captured, of which 17 were ringed and seven received radio transmitters. The data obtained until the moment through monitoring of these specimens indicate that there is much more to discover about the biology of the species and about the key requirements for their survival in the region.

This year, the Terra Brasilis Institute intends to continue the monitoring of the Brazilian Merganser population and, from the data gathered, contribute to the definition of priority actions for conservation of the species. Additionally, Terra Brasilis is searching for new partners to expand the Pato Aqui, Água Acolá Program and act in a wider manner in the conservation of the natural resources of the region of the Serra da Canastra.



Renata Andrade

Serra da Canastra

19 specimens were captured, of which 17 had bands placed and seven received radio transmitters.



Adriano Gambarini

Marking of specimens

The **TERRA BRASILIS INSTITUTE** is a non-profit, non-governmental organization founded ten years ago with the objective of promoting the conservation of the ecosystems and sustainable use of natural resources, conciliated to equitable economic and social development.

Learn more about the Institute and its projects by sending an e-mail to contato@terrabrasilis.org.br.


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Sponsor:

 IEF
INSTITUTO ESTADUAL DE FLORESTAS


 GOVERNO
DE MINAS

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BULLETIN 2 - MAY 2009

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Adriano Gambarrini



Publication cover

More than 80 people were present at the presentations on Agro-silviculture and Legal Reserve.



Presentation on Legal Reserve

:: CARING FOR THE EARTH: environmental tips for rural producers in the region of the Serra da Canastra

The Terra Brasilis Institute launched the publication CARING FOR THE EARTH (CUIDANDO DA TERRA) in São Roque de Minas, MG. It includes environmental tips for the rural producer in the region of Serra da Canastra, sponsored by the State Forestry Institute and the U.S. Fish & Wildlife Service.

In addition to environmental education activities and research already developed, Terra Brasilis perceived that, in order to act more effectively in the region, it should involve the rural producers, who are agents in the transformation of the region, and who can act as facilitators and multipliers of good environmental practices, thus contributing to the preservation of the local biodiversity.

CARING FOR THE EARTH contains up-to-date, useful, interesting information related to the environmental preservation and development of activities in rural properties. The topics are varied, including tips on how to protect the soil, prepare compost, information on conscious consumption and global warming. It also presents useful information on the fauna and flora in the Serra da Canastra region.

The publication reflects the region's reality, and its preparation has the participation of people from the community, representatives of governmental agencies from the region and from private organizations.

The publication's launch event, which occurred at the Pato Aqui, Água Acolá Information Center, in São Roque de Minas, was a success. More than 80 people, among rural producers and local institutional representatives, were present to hear the presentations on Agro-silviculture and Legal Reserves, given by professors Cássio Noronha and Eriks Vargas, from the Forestry Institute, Bambuí Branch. All received a copy of the publication afterwards.

The publication is being distributed to rural producers in the region in visits to the properties and by means of the cooperative, association, EMATER (State Agricultural Agency), IEF (Forestry Institute) and other institutions connected to rural production.

:: Monitoring of Brazilian Merganser in the region of Serra da Canastra

Since October 2008, the monitoring of Brazilian Merganser individuals marked with bands and radio transmitters is being conducted.

It has been possible to see the colored and metal rings as long as the mergs are on top of rocks, sometimes when they are flying and even sometimes when they are swimming due to the water's transparency.

The monitoring of these marked individuals has made it possible to observe two distinct behaviors, also unheard for the species. In the family of a small tributary, three nine-month old ducklings continue in the company of their parents in spite of being close to the reproductive stage; the couple has already been seen copulating. The average known permanence of juveniles with their parents was around six months.

In the São Francisco River from October to February, a large group of mergs was observed, made up of a couple and around 15 ducklings, a behavior that has not yet been described for the species. Some of the juveniles were banded and with radio transmitters, which allows confirming to be dealing with a group made up of young from different families.

With these still preliminary results, it is possible to conclude that the continuation of marking activity is essential to better understand these patterns of behavior and other innumerable aspects of the biology of the species. These and other monitoring results will be presented at the [XVII Brazilian Ornithology Congress](#) next month in Vitória, ES.



Couple copulating

These and other monitoring results will be presented at the XVII Brazilian Ornithology Congress.



Group of Brazilian Mergansers

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PATO AQUI, ÁGUA ACOLÁ

BULLETIN 3 - AUGUST 2009

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Adriano Gambarini



Photographic exhibition



Distribution of reusable bags

:: World Environment Day at the Pato Pato Aqui, Água Acolá Information Center

In commemoration of World Environment Day the Pato Aqui, Água Acolá Information Center held a Photographic Exhibition Workshop, directed toward children and young people from 9 to 12 years of age from the São Roque de Minas community. The workshop sought to highlight the environmental problems found in the region through a photographic exhibition.

The workshop was divided into two stages. In the first, a debate was held about environmental problems and their consequences; cameras were distributed so that the participants could go out and capture images of the problems existing in the city. The second stage involved the construction of texts and legends about the theme and the final set up of the exhibition.

The exhibition, named by the participants as "Environment: everything that is around us", received many visits from the community and had the role of making all aware and mobilizing persons to seek solutions to improve the quality of living, making its citizens more alert and critical about local problems and their role in transforming this reality.

Another activity held was an informal conversation on Conscious Consumption, which basically dealt with the importance of sustainable usage of natural resources. Among the 80 participants were teachers, middle school students and the community on the whole. At the end of the talk, reusable bags were distributed, stimulating the reduction, reused and recycling of materials, contributing to acquiring new habits.

:: Duckling season of the Canastra Brazilian Merganser

The reproductive season in 2009 is coming to an end, and, with it, the couples of Brazilian Mergansers can be observed accompanied by their ducklings in the rivers in Serra da Canastra region.

Reproduction of the Brazilian Merganser occurs in the winter, which corresponds to the dry season in the Serra da Canastra region, when the rivers are at a low level, with transparent, calm waters, which facilitates the capture of fish and survival of the ducklings.

This year, it was possible to follow up five active nests in three rivers of the region. This is the largest number of nests monitored to date by Terra Brasilis in a single reproductive season. Four of these nests had already been registered in previous years, and one of them was found only this year.

With the monitoring, it was possible to confirm the birth of 20 ducklings. It is important to note that, among these, 17 ducklings came from three couples that had been banded by Terra Brasilis team in 2008. This is an extremely important result, indicating that these individual specimens have not altered their behavior, which encourages us to continue to mark new specimens.

The next steps of the survey about the biology of the Brazilian Merganser involve the follow up of the development of the ducklings, in addition to planning a new phase of capture and banding of new specimens. The objective is to obtain data that allow us to support conservation strategies of the species.



Female with ducklings



Diving duck ducklings

:: New partnerships

The *Pato Aqui, Água Acolá* Program has new partners. They are CEPA - Conservation des Espèces et des Populations Animales together with ZGAP - Zoologische Gesellschaft für Arten- und Populationsschutz. Their support has arrived in a crucial moment, allowing our team to continue the nest monitoring in the present reproductive season.

Águas Claras, Águas Raras (Clear Waters, Rare Waters) is the new agreement signed with the IEF-MG, the State Forestry Institute of Minas Gerais, which will allow the continuity of conservation actions of the water resources of the Serra da Canastra region, including activities directed towards the work of rural producers.

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BULLETIN 4 - NOVEMBER 2009

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Adriano Gamberini



Farmer



Mapped property

:: Working with the farmers

One of the main lines of action of the Águas Claras, Águas Raras project is the work done with farmers as transforming agents of the regional environment and key stakeholders in the recovery and conservation of the region's natural resources. These individuals, when well informed, can also act as facilitators and disseminators of good environmental practices in the field.

Terra Brasilis began by conducting an environmental diagnosis of the rural properties along the Peixe River which is a pilot area, so that the work can eventually be replicated throughout the region. The Peixe River, with 30 km long, is a tributary of the São Francisco River, with its sources within the boundaries of Serra da Canastra National Park and flowing within the city of São Roque de Minas.

The environmental assessment of the rural properties includes the characterization and preliminary mapping of the rural properties, specifically considering water resources, the existing impacts and main conservation threats to the Permanent Preservation Areas. These and other such information will serve as support to proposing measures for the conservation of water resources, including actions such as recovering degraded areas and encouraging less impacting management alternatives.

:: Third campaign of the capture and marking of the Brazilian Merganser

Continuing the monitoring activities and the biological study of the Brazilian Merganser, the third campaign of capture and marking of the species was initiated in September, 2009.

Eight individuals from two different families were captured in the São Francisco River, three of which had already been captured and banded last year. The others were young birds of about 70 days of age. Two of these birds received radio transmitters and are being monitored. The recapture of these individuals was extremely important to assess the general state of the birds, since one of the goals of the third year was to perform this assessment after a year of using the band.

Fortunately, we evidenced that the three individuals recaptured were in good physical conditions, with their weights similar to that of the previous year. The tarsus, where the bands are located, was also in perfect conditions.

Such favorable results solidify the ongoing marking activity of the Brazilian Merganser, which seeks even more important information for the conservation of the species.

Terra Brasilis is monitoring and will continue the capturing and marking of the Brazilian Mergansers at São Francisco and Peixe Rivers, where the mergs are mischievously playing tricks on the team.



Radio transmitters



Checking the bands



Happy Anniversary Event



Crafts Workshop



Design contest

:: Two-year anniversary of the "Pato Aqui, Água Acolá" Information Center

In commemoration of the second anniversary of the Information Center "Pato Aqui, Água Acolá", a "Happy Anniversary" event was held in October of this year. It was open to the community of São Roque de Minas and had the participation of 90 people of all ages. An institutional presentation by Terra Brasilis was held at the opening event that paid homage to all who took part in the history of the Information Center. The BBC documentary "Planet Earth" was also shown, with the theme; Fresh Water, whose awareness goal was to inform and involve everyone on conservation and common use of water resources.

During these two years of operation, various activities targeting different audiences were conducted at the Information Center, such as workshops, talks, group dynamics, competitions, photo exhibitions, book launching campaigns, games and other activities. Thus far, 18 workshops have been held for more than 450 participants, who informally performed different techniques and various approaches within the socio-environmental theme. The informal talks have gathered more than 1600 people so far. More than 300 people have taken part in the competitions and group dynamics. As for the visitors, nearly 350 people from different Brazilian cities and from abroad have visited the Information Center. Most were interested in knowing more about the project and/or participating in some activity.

The Information Center involves the community surrounding Serra da Canastra, always promoting mobilization and awareness by discussing the importance of water and local biodiversity conservation. This is an instrument that enables reflection, clarifies values and promotes individual and collective practices.

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