

## Ecotourism as a tool for the conservation of endangered species in the coastal region of Santa Catarina, Brazil.

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### ABSTRACT

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The River Otter Project ([www.cttmar.univali.br/~projetoLontra](http://www.cttmar.univali.br/~projetoLontra)) was created in 1999. The main objective is the study and preservation of the otter specie in the Santa Catarina state. A partnership with the Ecovolunteer Program from Holland was created in 2001 when the Project started to have the participation of ecovolunteers from United States, Europe and Brazil. In addition to the financial support resulted from this partnership, the preservation of the otter raises interest within local media and community. As a result, this detailed studied was created to characterize the ecovolunteers at the Project, in addition to the potential benefits and impacts related to the increase of ecotourism activities.

**ADDITIONAL INDEX WORDS:** *Ecotourism, Otter, Ecovolunteer.*

### INTRODUCTION

Since 1999, the River Otter Project has been conducting research on the otter's conservation in Santa Catarina State. The study areas are located in João da Cunha Island (Porto Belo-SC) and in the south of Santa Catarina Island at Lagoa do Peri, Lagoinha do Leste and Naufragados beach.

In December 2001, the Project established a partnership with an international organization, the *Ecovolunteer Program*. This organization works together with research projects in different parts of the world. The *Ecovolunteer Program* is responsible for organizing and sending people to research projects that match their interests. The participants (ecovolunteers) pay a percentage of the total price to the Ecovolunteer Program, and the remainder goes to the project in which the ecovolunteer participates.

In Brazil, this kind of partnership between ecovolunteer and the research project is quite new. Nowadays, only a few projects accept ecovolunteers on a regular basis: the Jaguar in Pantanal, the Jubarte Whale in Bahia, and the Sotália (Tucuxi) in Rio de Janeiro. The small participation of ecovolunteers in research projects in Brazil results from the idea that people with lack of experience could prejudice the research.

The concept of an ecovolunteer is not well defined, which makes it hard to classify. One might define the participation of ecovolunteers in research as ecotourism or sustainable tourism. In any case, the volunteer takes an active part in the research activities (PIRES, 2002).

Due to the lack of information, it is important to characterize the ecovolunteers who participate in a research project. Characterization of the ecovolunteer includes answering questions such as: who they are, where they come from, what are the motivation, what is the impact on the research, what is the impact

on the surrounding community. Perhaps the main contribution of the ecovolunteers is on the field, collecting data that helps on the knowledge and conservation of the specie.

As a result of this active participation, a unique experience for many, ecotourism is experiencing an impressive increase in the last years. The main reason for this increase on the ecotourism is the search for a greater interaction with the nature, desire to participate in alternative tourism and the limited number of participants.

The impact of ecotourism needs to be evaluated in order to determine if the presence of these tourists result in negative changes to the environment. It is also important to know if the sustainable techniques applied to the surrounding communities are getting the expected results.

With the increase in participants at the River Otter Project, an additional research project has been initiated to look for answers related to the ecovolunteer profile and to define the positive and negative impacts related to this participation.

In addition to the financial aid, another result of the ecovolunteer participation is an increase in the number data sets that feed the research. This is a consequence of the additional hours and frequency on the field. In parallel, the increased number of researchers and ecovolunteers in the field leads to augmented information exchange with the communities located at the studied area.

In addition to regular project activities, local environmental education is important to obtain the participation of the local communities. It is critical to develop methods and techniques that include members of the community in the research work, in order to achieve and fulfill the desired goals of the project.

## METHODOLOGY

The participation of the ecovolunteer is evaluated through a questionnaire. It is organized in multiple choice questions organized in four sections: personal data, perception of Brazil and Santa Catarina Island, impression of the River Otter Project, and the facilities of the research base. The questions are in English because the majority of the participants are from Europe and USA.

It is important to point out that the questionnaire is applied at the end of the ecovolunteer participation. This ensures the feedback from each ecovolunteer, which can reflect on future statistical treatment. In addition to the questionnaire, the ecovolunteer also completes a technical report about the activities participated in, and a guest book where they can relay their personal feelings. This additional information helps to interpret the data obtained from the questionnaire. The results are analyzed in form of graphs and tables.

The ecovolunteers are always in the field with a researcher from the project. These field trips are important in order to acquire information about how the ecovolunteer adapts and performs in relation to the research activities.

## RESULTS AND DISCUSSION

With the results obtained from the questionnaires, it is possible to do a preliminary characterization of the people who come to the Project. The predominant age interval is between 30 and 39 years old (Figure 1). The great majority has a university degree and is self-employed.

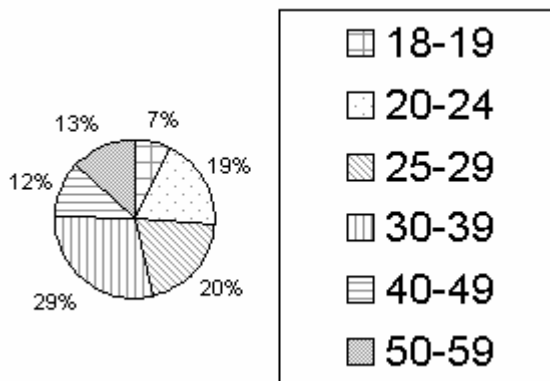


Figure 1. Age distribution from 2001 to 2003.

Since the beginning of the partnership with the Ecovolunteer Program, the River Otter Project has had 69 ecovolunteers (December 2001 to December 2003). These ecovolunteers are from all parts of the world: USA (11), Brazil (13), Germany (7), Australia (1), Ireland (1), Spain (3), England (6), Holland (6), Switzerland (5), Canada (5), Hungary (3), Italy (1), South Africa (1), Belgium (2), Japan (1) and France (2) (Figure 2).

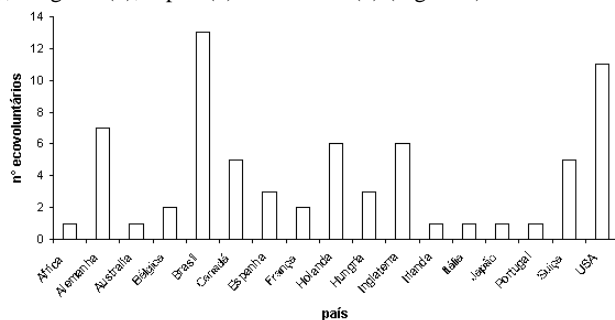


Figure 2. Origin of the ecovolunteer at the River Otter Project, from December 2001 to December 2003.

Of the total ecovolunteers who have visited the Project, 65% were female and 35% were male. According to the income per

year, 36% has an income below US\$10.000,00 and only a minority (14%) shows an income above US\$36.000,00. The two larger groups of professionals were self-employed (46%) and students (32%). Brazilians only account for 19% of the total, while international visitors represent 81%.

An overall profile can be seen in Table 1. A typical ecovolunteer is between 30 and 39 years old, is self-employed, has an income below US\$10.000,00 per year and is from overseas.

Table 1. Profile of the ecovolunteers at the River Otter Project.

Profile	Group	%	N° ecov.
Age	30-39	29%	20
Profession	Self-employed	46%	31
Income per yr	>10.000,00	36%	10
Origin	International	81%	56

The data sets gathered during field work have shown an increase in number and quality. For example, otters were sighted 13 times in 2003, while in 2002 they were only sighted 6 times. This is due to the increase in hours of fieldwork, otter watching activity, collection of feces, and analysis of frequency. Additionally, the presence of the ecovolunteers impacts the communities present in the study areas.

At the Lagoa do Peri, the local community is very small. The majority of inhabitants works as fishermen or do temporary work in town. Tourism in the region is still small and not planned. The development of ecotourism is an economic option for the region, but it implies an increase of visitors, even if the increase is smaller than traditional tourism. The activity must be based on sustainable techniques. In the case of the River Otter Project, some return, whether it is financial, educational or cultural, needs to be directed to the surrounding community (MEFFE, et al 2002).

With the results obtained from the ecovolunteer participation, new activities have been created. They are related to the community of the area and include the participation of the local children. The majorities of the children come from poor families and are studying at the local school near the fishermen's village of Armação. A special area was built for classes in ecology, arts, crafts, computers and English at the base of the project. The ecovolunteers take part in these classes and learn and teach with the children. The interaction between different realities and cultures create a rich environment based on discussion of ideas and suggestions.

The participation of ecovolunteers is an integral part of ecotourism, or sustainable tourism. In fact, the participation of ecovolunteers can be defined as part of the ecotourism or sustainable tourism. It is important to point out that this cannot be seen only from an economic perspective or as a financial alternative. According to LINDBERGH(1999), ecotourism includes direct contact with people that live in the conservation area, looking for the reservation of the environment, and promoting the welfare of the local communities.

A special attention has to be given to the potential impacts of ecotourism activities on the environment and community. The sustainability of ecotourism is closely related to maintaining biodiversity within the preservation area. This is important in order to recover wildlife areas that are important from an ecological point of view (MORRISON, 2002). Community, ecotourism and environment protection, and environmental management, when effectively used together, can promote social and economic development with conservation of endangered species such as the river otter. Community participation is a key on the process as government begins to understand that it cannot be responsible alone for conservation.

Any proposal has to be followed by the acceptance and understanding of the local communities. Most important is if this proposal comes from the community itself. However, for this to

happen, education is far more important and this implies on long-term results. Within this context, the multiple use principle seems to be a logical alternative to be taken into account. In result, it means that any activity that can be harmful to another activity needs to be avoided. Who decide the matter? This is a key question that can be answered by the Mamirauá experience, where the sustainable reserve has an active participation of the local communities. This can be achieved with a political organization based on community leaders of each village. Regional decisions are taken during regional meetings when all are present. Each time, this kind off meeting happens in a different village.

The need of an active social inclusion from the local communities into environmental management proposals is also discussed by MEFFE, *et al.* (2002). The author defines the success of resource planning and managing as a result of education and participation of the community.

As our world becomes increasingly global, it is imperative to promote interaction between different countries and cultures. Welfare is not a right reserved for developed countries; it should apply to all. Ecovolunteer participation promotes interaction, knowledge, and good will to help teach and learn. It is a way of thinking globally, acting locally, and moving ahead based upon results.

#### **LITERATURE CITED**

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