

Macaw Conservation and Management in Tambopata, Peru IV: Work With the Native Community of Infierno

September 2001

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Introduction

Throughout the Neotropics nearly all macaw species are suffering from serious population declines (Juniper and Parr 1998). These declines are due to a variety of activities including habitat loss, hunting, and collection for the pet trade (Snyder et al. 2000, Wright et al. 2001, Hess 2000). While the ultimate forces driving the exploitation are varied, the people having the greatest impact on the birds are usually the members of the local communities that live and work within the ranges of these birds. As a result, the fate of nearly all conservation plans ultimately lies in the hands of the local people. In this report I discuss the expansion of the Tambopata Macaw Project (Brightsmith 2000a, b, c, Brightsmith 2001) to the lands of the Native Community of Infierno and the new conservation initiatives within this community.

Due to the declines in macaws 9 of the 16 species are currently considered endangered in at least part of their range (Juniper and Parr 1998, BirdLife International 2000, Snyder et al 2000). The grave state of many macaw populations shows that we must work with local communities to make it in the best interests of the communities to conserve macaws and keep them flying in the wild instead of capturing them for food or pets. One effective way to make macaws valuable to the local people is through community based ecotourism activities that feature large macaws (Munn 1992). The current state of macaw populations also indicates that we must develop and test management techniques that can be used to help these populations recover rapidly.

This project will work with the Native Community of Infierno to teach and show them that managing and preserving macaws is a good short-term plan and is in the best long-term interests of the community as a whole. This study will also evaluate and refine techniques for increasing reproductive output of wild macaws that have been developed at the nearby Tambopata Research Center (Nycander et al 1995 and Brightsmith 2001).

The Native Community of Infierno and ecotourism

The Native Community of Infierno is located at the edge of the buffer zone of the Tambopata National Reserve and Bahuaja-Sonene National Park in the Department of Madre de Dios in Southeastern Peru. The community consists of about 80 families, a mixture of Ese'jeja Indigenous people and colonists who have moved in from the highlands (Stronza 2000). The community owns about 10,000 ha straddling both sides of the Tambopata River, 4,000 ha of which the community designated as an ecological reserve. The area boasts some of the highest diversities of birds, frogs, butterflies and trees in the world making it a desirable tourism destination and a biodiversity hotspot worth protecting (Kirkby et al 2000).

Since the early 1990's individual members of the Native Community of Infierno have been working with members of the Peruvian owned and operated ecotourism company Rainforest Expeditions on a variety of research and ecotourism projects. In 1998 the company Rainforest Expeditions and the Native Community opened a new ecotourism lodge Posada Amazonas allowing the community to begin to benefit from the great tourism potential of the area (Piana 2000, Stronza 2000). The management of the lodge is split 50-50 and 60% of the profits go to the community. After 20 years this lodge will become the exclusive property of the

community and the community can choose to continue or terminate their association with Rainforest Expeditions.

Macaw exploitation in the region

The department of Madre de Dios contains two large protected areas the Bahuaja-Sonene National Park/Tambopata Reserve Zone complex and Manu Biosphere Reserve. Even outside the parks there is still a large amount of forest that harbors populations macaws and top predators like Giant Otters, Harpy Eagles and Jaguars (Piana 2000; Stronza 2000). To date there seems to have been little collection of macaws for pets and little commercialization of their feathers (L. Pautrat pers com, pers obs). From interviews conducted by the author with the members of the Native Community of Infierno it seems that the most common use of macaws in this area has been for food. Chicks have been historically collected from nests at the age of 2-3 months and adults are occasionally shot as well. This hunting along with logging and agriculture are probably responsible for the lower densities of macaws in the Native Community of Infierno when compared to the areas within the adjacent national park. One goal of initiating a macaw conservation project in this area is to provide a buffer on the edge of the protected areas to help maintain the region's macaw populations and increase their long-term survival probabilities.

The Project

The current project uses the intimate association between Rainforest Expeditions and the Native Community of Infierno and the existence of their lodge Posada Amazonas Lodge as the basis for a community level project aimed at conserving and managing populations of Blue-and-yellow Macaws (*Ara ararauna*), Green-winged Macaws (*A. chloroptera*) and Scarlet Macaws (*A. macao*) on the community's lands. The project has the goal of helping the members of the community and insuring the long-term conservation of macaws on their lands. The project is working under the basic assumption that increasing the number of macaws in the lands of the Native Community (especially in the areas surrounding Posada Amazonas Lodge and the nearby clay lick) will be beneficial to the long-term success of the lodge. In turn the increased success of Posada Amazonas Lodge will benefit the community as they receive 60% of current profits and will receive 100% of profits starting in 17 years. If this connection is fully understood by the members of the community it will provide them the desire to conserve and protect macaws throughout their lands for the long-term.

The project has been constructed to provide environmental education, community involvement and a mix of short-term and long-term benefits to the community, while aiding macaw conservation and increasing our understanding of basic macaw biology. The short-term benefits are designed to build immediate support for the project while the education and involvement help show the community members the long-term benefits of the work. This will hopefully solidify support for the project.

Over the short-term the project will provide employment as we hire approximately 4-5 community members per year to work as project assistants. This will provide much needed employment and training in climbing techniques and data collection that will qualify them for future work with scientists, filmmakers and possibly ecotourism. It will also produce community members trained in the techniques needed to manage large macaws and help build the core of the constituency supporting the project in the community. Other direct short-term benefits will be spread more widely among the community members, as we will provide small cash awards for people that find natural macaw nests and families that agree to host macaw nest boxes on their lands. Through these initiatives we will greatly expand the number of people directly involved in the project. For both nest box hosting and natural nests, one-half of the payment will be given up front (about \$25) and the other half will be given only if the nest is successful and one or more chicks fledge. It will provide a financial incentive to members to make sure that the birds survive to fledge. As a result it will hopefully dissuade community members from collecting the chicks in the nests they have discovered. It will also maintain interest in the

progression of the study throughout the nesting season. In addition as the research team visits the natural nests and the nest boxes they will talk with the community members living nearby and help deliver the central conservation messages of the project.

These central environmental messages of the project will also be delivered in a variety of other ways to help ensure that the community knows what the project is doing and how this will benefit the macaws and the community as a whole. This July we began the environmental campaign. I formally presented the project to the community's monthly assembly meeting. In addition the community's high school students dedicated a morning to help us construct wooden macaw nest boxes. During this activity I explained to the students about the project and why it is important to conserve macaws. I also explained that these same boxes would end up hanging in the lands of their community and I asked them to help me protect them from anyone that might want to harm the macaws or their young. In the coming months the project personnel will give lectures and demonstrations to the primary and secondary school children of the community and bring them to Posada Amazonas to see the lodge and go with the researchers to see nests and the climbing techniques we use. The project will also maintain a high profile through brief presentations at the monthly assembly meetings. These activities will hopefully strengthen the support for the project and convince the community that conserving macaws is in their best interest.

In order to help the long-term success of the Posada Amazonas Lodge and the community, the work must increase the quality and quantity of macaw sightings by tourists. This will be done by increasing the reproductive success of macaws in the area to help increase the number of birds visiting the local clay licks along the lower Tambopata River and by encouraging macaws to nest in areas where they can be observed by tourists. We will attempt to accomplish both of these goals using nest boxes. Fourteen nest boxes of 4 different designs have already been hung on the lands of the community in the hopes that Scarlet and or Green-winged Macaws will nest in them. These boxes should alleviate the shortage of nest sites experienced by many populations of macaws in this region of Peru (Nycander et al 1995). Nest boxes are also a viable way to bring nesting macaws to areas where they can be easily observed by tourists (Munn 1992, and personal experience at Tambopata Research Center, Brightsmith 2000c). During March and August of this year 9 nest boxes were hung in the vicinity of Posada Amazonas Lodge. It is hoped that they will attract nesting pairs during the 2001-2002 nesting season. The good thing about this technique is that tourist traffic at the lodge is constantly present so macaws that choose to nest in the area are already accustomed to the presence of humans.

In addition to the conservation goals discussed here, this work with the Native Community of Infierno will help provide a critical test of the techniques developed at Tambopata Research Center and provide new information about the natural history of macaws in low-density populations (Nycander et al 1995, Brightsmith 2001).

If you would like more information on the project or would like to visit Tambopata Research Center and Posada Amazonas Lodge and see first hand the research that is being conducted please contact Rainforest Expeditions and Dr. Brightsmith at Parrots@rainforest.com.

Acknowledgements

This research is supported by Rainforest Expeditions (www.perunature.com), Duke University (www.duke.edu), The EarthWatch Institute (www.earthwatch.org), The Conservation Food and Health Foundation (www.grantsmanagement.com/cfhguide.html), The Raleigh-Durham Cage Bird Society, and donations from private individuals.

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