WESTERN HEMISPHERE MIGRATORY SPECIES INITIATIVE
ESTABLISHING A CENTRAL AMERICA TRAINERS NETWORK
COMMUNITY SUSTAINABLE TOURISM AND BEST PRACTICES FOR MIGRATORY SPECIES.

WHMSI

Pronatura Chiapas, presented this proposal on behalf of the Alliance for Capacity Building in Natural Areas (ADESCAN), and as Mexico country affiliate to Birdlife International. The ADESCAN is an alliance of organizations with 15 years of experience in capacity building, training and graduate programs oriented to improve sustainable management of natural resources and conservation. Its members include research organizations and universities; El Colegio de la Frontera Sur (ECOSUR), Colorado State University (CSU), NGOs; Pronatura Chiapas, The Nature Conservancy and Conservation International, as well as governmental institutions, such as CONANP.

Identification of the capacity building needs was conducted as part of the project development, based on the information obtained from members of WHMSI. A Central America Trainers Network program was established to enhance capacity building strategies for communities, technicians and decision makers in conservation of migratory species. The network will be expanded based on topics and needs and a level of specialization will be achieved along the time. The first course was designed based on the need to integrated community development, and conservation of migratory species in Central America. The purpose is to support the development of tourism programs at community level, which can take advantage of the migratory species, while at the same time improving management and conservation of its habitats and populations. These might include observation of birds in bottle necks, sea turtles in nesting beaches, or marine mammals.

Participants selection, was made based on the following criteria:

ORGANIZATIONAL
1. Conservation groups with tourism activities
2. Ecotourism networks or organizations
3. Community development organizations with experience in adult education

INDIVIDUAL
1. Involved in community development or tourism development
2. Involved in migratory species conservation
3. With potential to become a trainer

A call for applications was distributed to WHMSI members, Birdlife contacts and other conservation networks. Pre-selected organizations were invited to nominate candidates. We received 25 applications and 17 participants were selected based on the criteria.

The training program was designed by Pronatura Chiapas, Colorado State University, and Conservation International. It included two training components; an online training program and a 5 day course and workshop that was conducted in Costa Rica.

On-line platform **http://formacion.pronatura-sur.org/**.

The course was conducted from March 2-18, 2009 with the following modules:
• **Topic 1:** Importance of migratory species • **Topic 2:** The sustainable use of migratory species through tourism • **Topic 3:** Ecotourism, challenges and opportunities for local communities • **Topic 4:** Best practices of tourism with migratory species • **Topic 5:** Development of ecotourism products with migratory species

The online training program included readings, exercises and chat sessions, with the support of a facilitator. Participants completed each topic/module, and present a report to fulfill the evaluation criteria.

The course-workshop was conducted in Reserva Trimbina, La Selva Biological Station and San José Costa Rica from March 23-27, 2009. The course content included: • Expert conferences on best practices on tourism and migratory species • Training skills and methodologies, including adult education principles, basic assessment of communities profiles, and design of training programs for community members • Design of tourism products using migratory species, basic introduction to interpretation and community involvement • Action plans for each organization/country for the establishment of a trainers network, and the implementation of a knowledge sharing platform for the network.

17 participants completed the On-line training and 15 completed the course-workshop in Costa Rica: Pronatura Península de Yucatán, CONANP, Pronatura Veracruz, Secretaría de Turismo, Morelos, Asociación Regional Campesina Chortí ASORECH-Guatemala. Sociedad Audubon- Belize, Salvanatura, CEPRODE (Parque Nac. San Diego La Barra) El Salvador, RENITURAL (Red de Turismo Rural) Nicaragua, Ceibas y Almendros Costa Rica, Sociedad Audubon Panamá, Autoridad Nacional del Ambiente Panamá, Conservación Internacional Asesores en Ecoturismo Genuino S.C. Pronatura Sur.

Participants will continue sharing experiences trough the establishment of an electronic network and a platform. Course materials, strategy and action plans are included as project products.

PROJECT PARTNERS:

ANALYSIS OF EFFECTIVENESS *(cont'd from page 4)*

This course assessed the opportunities of implementing three main environmental policies (Secretaria del Ambiente 2004)

— Land Use Planning policy in Municipalities and Departments.
— Environmental quality control related to the preservation, conservation, use and management of natural resources available and its uses in Municipal territory for the production of goods and services in the Department.
— Environmental impact assessment for environmental management decentralization that allows preservation, conservation, use and management of natural resources in a sustainable way.

In this course we used a bivariate analysis and selected two categories of ordinal variables: independent and dependent. The basic independent variables were the land cover, population, municipality income, environmental laws, and migratory birds species. Each independent variable had dependent variables, as shown in Table 1. Relationships were drawn by each independent variable with all dependents. Gamma was the statistical correlation coefficient used for measuring the association between the ordinal variables.

Finally, a spatial representation or mapping using a GIS application was used to graph the final outcomes or products. The course provided all technical assistance and computers to run Excel, Power Point and Arc View 3.3. Software. The 50 hour course consisted of five, 10-hour business days (Monday through Friday). An example is shown.

Map 1. Study Area

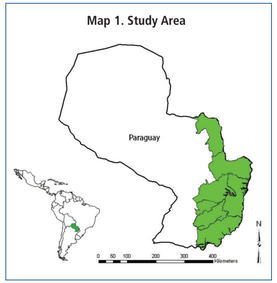
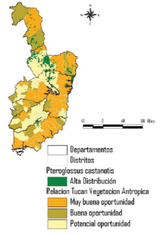


Table 1. Example of Independent Variables with Each Dependent Variable.

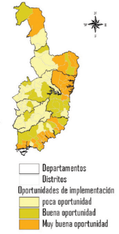
INDEPENDENT (X)	DEPENDENT (Y)
Ecosystems	Land use (agricultural, ranching)
Population	Poverty Illiteracy Level of Education Income
Migratory species distribution	Land use
Municipality Income	Municipality expenses Poverty
Legislation	Land Use Level of education

Opportunity of Implementation of Land Use Planning Policy
Prioritized Districts

Distribution Pteroglosus castanctis (Tucan fajado) and land use



Municipality income and land use



3. CONCLUSIONS AND RECOMMENDATIONS

The analysis of the implementation of environmental policy was very satisfactory, as evidenced in participants feedback. Students were motivated, participatory, and committed to WHMSI training opportunities. NatureServe greatly improved the course content, teaching method, organization, and logistics for this training course.

Participants were extremely motivated in the application of innovative statistical tools and GIS techniques for mapping environmental policy. As a result, the students went far beyond the planned training tasks.

Participants found the Aquifer Guarani topics interesting and challenging, particularly the practical exercises to identify the correlation between social, legal and economic values and biodiversity distribution. The evaluation of the course by participants was graded an average of 4 out of 5 points, indicating the course's replicability to a similar audience of decision makers in the future. The application of a Geographic Information Systems (GIS), the Arc View 3.3 in the spatial analysis of the statistical results, brought participants a comprehensive conceptualization of environmental policy analysis. These maps were very useful during the final presentations of each group and promoted discussion about similar policy analysis in other countries.

The participants expressed their commitment to participate and support training courses in conservation planning, species distribution modeling, climate change and environmental policy analysis by country in the future.

Western Hemisphere Migratory Species Initiative (WHMSI)

In response to a call from the Heads of State of the Western Hemisphere countries to "advance hemispheric conservation of plants, animals and ecosystems through…the development of a hemispheric strategy to support the conservation of migratory wildlife throughout the Americas", wildlife directors responsible for the management of flora and fauna and other senior officials have developed the Western Hemisphere Migratory Species Initiative (WHMSI). Encompassing 35 nations, this project addresses issues from several mandates, endorsements and resolutions by the countries in the Western Hemisphere, including the 1940 Western Hemisphere Convention, the 1996 Santa Cruz Sustainable Development Summit and Santa Cruz +10 Ministerial, and the 2001 Summit of the Americas.

WHMSI

WHMSI builds on migratory species efforts to significantly enhance the conservation of shared migratory species throughout the Americas by strengthening institutional and human capacity, political commitment, international cooperation, and public-private partnerships at regional, national and local levels.

WHMSI is building country capacity to conserve and manage migratory wildlife. It improves hemispheric communication on conservation issues of common interest and provides training in priority areas. WHMSI strengthens the exchange of information needed for informed decision-making, and provides a forum to address emerging issues such as new threats to migratory species, or the connections between wildlife disease and human diseases. Through WHMSI, all countries in the Western Hemisphere benefit from strengthened cooperation among nations and other stakeholders on migratory species conservation.

At the ministerial level, the agencies designated to protect wildlife have stated that the need to work collaboratively on a regional basis has escalated in the last century as threats to wildlife populations in the Western Hemisphere become more complex, with greater impacts on biodiversity operating across broader geographic scales. Modern threats to marine and terrestrial wildlife in the Western Hemisphere such as habitat loss and pesticide use, present challenges that can only be addressed effectively by the strategic alignment of stakeholders in wildlife conservation throughout North America, Latin America and the Caribbean.

From the Arctic to Antarctica, fish, birds, mammals, sea turtles, cetaceans, bats, insects and other migratory species provide ecological and economic services shared by the countries and people of the Western Hemisphere. They are sources of food, livelihood and recreation, and have important scientific, economic, cultural, aesthetic and spiritual value. Despite these benefits, many migratory wildlife species are increasingly threatened by uncoordinated national level management, habitat loss, invasive alien species, pollution, over hunting and fishing, by-catch, unsustainable aquaculture practices and illegal harvesting and trafficking.

GUIDING PRINCIPLES

WHMSI will operate in a transparent and open manner and will encourage participation by partners throughout the hemisphere. It will provide added value to existing

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ORGANIZATION OF AMERICAN STATES

conservation efforts, and will ultimately measure its success on the basis of on-the-ground conservation achievements. It will not duplicate other endeavors, and will build on past and ongoing accomplishments and initiatives throughout the hemisphere. Its efforts will be based on a commitment to conservation, applying the best available information, including indigenous and local knowledge. WHMSI joins other Hemispheric initiatives such as the Inter-American Biodiversity Information Network (IABIN). IABIN is an Internet-based forum for technical and scientific cooperation that seeks to promote greater coordination among Western Hemisphere countries in the collection, sharing, and use of biodiversity information relevant to decision-making and education. Member States exchange information within 5 Thematic Networks: Species & Specimens, Ecosystems, Protected Areas, Invasive Species and Pollinators.

Webpages:

www.fws.gov/international/DIC/WHMSI/whmsi_eng.html
www.oas.org/dsd/WHMSI/English/Indexv2.htm
www.eco-index.org/migratory/
www.iabin.net

SOCIETY FOR THE CONSERVATION AND STUDY OF CARIBBEAN BIRDS – WESTERN HEMISPHERE MIGRATORY SPECIES INITIATIVE PROJECT

LONG-TERM BIRD MONITORING IN THE CARIBBEAN – WHY, WHAT, WHERE, WHEN, AND HOW?

The Society for the Conservation and Study of Caribbean Birds (SCSCB) Working Groups (including Monitoring, Migratory Birds, Waterbirds and Seabirds) have been working since 2003 to identify gaps in regional monitoring strategies for birds. These include weaknesses in every step of the monitoring process, from the availability of trained field biologists to the use of the results of monitoring in regional and national policy and conservation and protected area management. The overall goal of this project is to initiate and promote a coordinated regional bird monitoring network as a means to improve science-based conservation planning and adaptive management of birds and habitats in the region. The emphasis is on providing practical training in simple, standard protocols for monitoring landbirds, waterbirds, seabirds and shorebirds (and their habitats) and promoting the formation of a coordinated regional monitoring network so that information can be shared and used to support local and regional conservation efforts.

The project is collaboratively developing a strategy for building capacity and has begun to implement it, starting with a regional Bird Monitoring Training Workshop held in Nassau, Bahamas, February 19-23, 2009. The objective of the training workshop was to provide persons from across the Caribbean with equipment, materials, training and skills to apply basic bird monitoring protocols, so that they can:

- Design and implement a long-term bird monitoring program in their own country
- Train and mentor others
- Form the basis of a regional monitoring network.

The workshop format included three tracks:

- **Background material** – introduction to the major considerations for designing, implementing and applying results of monitoring programs.
- **SCSCB protocols, field trips** and **analysis** – simple approaches to monitoring landbirds, seabirds, herons and egrets, waterbirds and habitats, and analyzing the results.
- **Clinics and participant presentations** – an opportunity for participants to get personal guidance and advice on their projects from experts in the field.

Twenty-six participants from eighteen West Indian islands and two Caribbean rim countries took part in the five-day Workshop held at the Bahamas National Trust Headquarters in Nassau. The participants included Executive Directors of NGOs in charge of protected areas, ornithologists, and conservation biologists employed to governments and NGOs, protected area wardens and volunteers. All shared a common interest in learning monitoring methodologies and how to use the results from monitoring to more effectively conserve and manage migratory and resident bird species.

The workshop included a complete introduction to designing, implementing, analyzing and reporting basic bird monitoring programs in the region. With the assistance of the team of facilitators and other experts in the field, SCSCB is developing simple standard protocols for monitoring landbirds, wetland birds, seabirds and shorebirds and their habitats. These were presented and tested during field sessions at the workshop. The participants committed to share their experiences and train others in their islands. To facilitate this process all the materials from the workshop are available online, and a training manual *"Caribbean Birdwatch - How to design and implement a bird monitoring program in the Caribbean"* is in preparation and will be available soon.

At the end of the workshop participants and presenters agreed that the workshop had been an overwhelming success and pledged to continue to work to promote its objectives.

Other products of the project include a capacity building strategy for bird monitoring in the region, a database summarizing on-going bird monitoring programs in the region, follow-up projects, and further training and strengthening of SCSCB's Monitoring Working Group at SCSCB's biennial Meeting in Antigua (July 14-18, 2009). Project news and the training workshop materials are available online at SCSCB's website (www.scscb.org) and a new workspace on ConserveOnline: *Caribbean Birdwatch: SCSCB-WHMSI Bird Monitoring Program* (**http://conserveonline.org/workspaces/caribbeanbirdwatch**).

A few comments made by workshop participants on the evaluation forms:

— *The workshop met my objectives and sparked my enthusiasm to return and commence monitoring programs to be managed by my organization.*
— *The wealth of information provided, including all the presentations and field protocols, was excellent.*
— *The equipment and materials received were of great quality.*
— *The workshop clarified my perception of the importance of monitoring. I also learned the importance of asking specific questions to inform conservation management, setting goals and objectives for my monitoring program, and then making sure that my methods answer my questions.*
— *Very well executed plans and very nice organizers (approachable and very pleasing).*
— *I learned a lot, and am inspired to design and carry out new monitoring programs.*
— *I will use what I learned this week to improve ongoing monitoring, share with others who monitor, develop new monitoring projects, and increase volunteer participation.*
— *The field exercises were excellent!*
— *Networking was great and having an idea pool like this will greatly benefit monitoring and conservation. The presentations will further help.*
— *All presenters were very knowledgeable of their respective topic.*
— *The facilitation team did a wonderful job. I know there is a lot more to learn, but the time factor was limited. But again, good job and continue the hard work.*
— *I intend to use what I learned about monitoring to capture more information for better analysis and ultimately better management and decision-making.*
— *This was an inspiring workshop: presenters and participants were top notch!*
— *Thank you all very much for putting so much time and energy into this important effort! I look forward to future workshops!*

Three capacity building case studies were supported by the Organization of American States FEMCIDI fund that provides financing for development projects to support OAS member states in their efforts to reduce poverty and inequity, to provide equality of opportunities, and to eradicate extreme poverty through capacity building of human resources and strengthening of institutions.

FEMCIDI

ANALYSIS OF EFFECTIVENESS OF THE IMPLEMENTATION OF ENVIRONMENTAL POLICY FOR CONSERVATION OF MIGRATORY SPECIES

NatureServe, in collaboration with the Conservation Data Center of Paraguay, as part of the environmental authority of the Secretaria del Ambiente (SEAM) and member of the Nature Serve's ARRIBA network of Latin America and the Caribbean and with support from the GIS Laboratory (CAE) of the Institute of Ecology of the Universidad Mayor de San Andres (UMSA), Bolivia for technical support in the Migratory Species Distribution Modeling, held a formal five-day training course at the Hotel Portal del Sol in Asuncion, Paraguay on March 9-13 of 2009. This training activity provided innovative concepts and tools to measure the effectiveness of the implementation of an existent environmental policy as a key factor for biodiversity conservation, particularly for migratory bird species. This training activity was developed for 17 "mid-level" decision-makers as focal points and delegates from Argentina, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, and Venezuela.

1. OBJECTIVES

The training activity accomplished the following objectives.

Objective 1: Train decision makers to use practical statistical tools to evaluate options for successful implementation of environmental policy.

The application of the methodology and analysis in this course was very useful for medium-level decision makers and policy advisors in the biodiversity conservation of migratory species of a specific country.

COMMENTS FROM THE COURSE EVALUATION SURVEY – CHILE
The statistics and tables used here were good to provide consistency and interpretation during the course work. At present, statistics is one of the key tools in the decision making process. In particular for environmental decisions that most technical services provide. Governments are developing new methods for decision making. The methodology taught in this course deserves my attention. It is easy and friendly to apply. It is logical.

Objective 2: Increase human resource capacity for effective wildlife conservation and management in Latin America by increasing conceptual understanding of the linkages between environmental policy, biodiversity conservation and information management.

Using a practical case study from Paraguay, this training activity demonstrated the complexity in the use of data and information management, and the integration of biodiversity data with social and economic information.

COMMENTS FROM THE COURSE EVALUATION SURVEY – ECUADOR
Of course, as indicated above, I will apply this methodology in the current program of census of wildlife traffic. This will be my first initiative within the regional scope of my work in Ecuador which I hope to accomplish during this year.

Objective 3: Contribute to the WHMSI initiative by providing a theoretical concept of the linkages between environmental policy, biodiversity conservation, and information management.

The purpose of teaching statistics was to give participants experience in performing similar operations multiple times on three selected environmental policies from the case study. Based on the experience in the application of correlation coefficients in other countries, the course educated participants to simply apply statistics in a geographic context and make a final interpretation of the results.

COMMENTS FROM THE COURSE EVALUATION SURVEY – VENEZUELA
Undoubtedly this training course has increased my knowledge, since my knowledge of GIS was very weak. I believe that the topics learned here, including the exercise to seek funding were useful not only as tools for conservation of migratory species, but to almost any environmental issue. In the short term, my goal is to implement it as part of the Bird Monitoring project that currently is being carried out by the Ministry of Environment.

2. METHODOLOGY

The core concept of this methodology was the implementation of efficient environmental policy to achieve sustainable development and biodiversity conservation of migratory species at municipality level, which vary according to the legal, social, economical, and environmental factors. We used a case study in the Guarani aquifer region in 108 municipalities within seven Departments of the eastern region of Paraguay: Amambay, Canindeyú, Caaguazú, Guairá, Caazapá, Alto Paraná, and Itapúa *(Map 1).*

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