

Final Report for Small Grant from Sirenian International

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I. Overview

The First Symposium for the Biology and Conservation of the Antillean Manatee (*Trichechus manatus manatus*) in Mesoamerica was held in Antigua Guatemala on the 1st and 2nd of November, 2006. The symposium was held during the XI Annual Congress of the Mesoamerican Society for Biology and Conservation.

The organizers of the symposium were Daniel Gonzalez-Socoloske (Loma Linda University, Loma Linda, California, USA), Dr. Leon David Olivera-Gomez (Universidad Juarez Autonoma de Tabasco, Villahermosa, Tabasco, Mexico), and Dr. Ester Quintana-Rizzo (Mote Marine Laboratory, Florida, USA)

The symposium was primarily sponsored by Sirenian International, with additional money provided by a grant to Dr. Robert E. Ford (Loma Linda University, California, USA).

The primary purpose of this symposium was to update the current knowledge about the status and distribution of Antillean Manatee in Mesoamerica (Mexico, Guatemala, Belize, Honduras, Nicaragua, Costa Rica, and Panama). Representatives from each country were invited to present a 20 min presentation on the current status and distribution of manatees within their country.

The second purpose of the meeting was to provide a time and place for those working with manatees in Mesoamerica to present results from their current work, to meet and begin to collaborate in larger, region-wide projects such as fine scale DNA collection and coordinated aerial surveys.

Finally, the symposium provided a location where new students and scientists in the Sirenian field could interact with more experienced scientists and learn from their experiences.

A detailed list of participants is provided separately. A total of 14 individuals participated in the symposium representing every Mesoamerican

country and Venezuela. Of the 28 scheduled presentations (oral and poster), 22 were given at the symposium.

Participants were given a certificate of participation and a CD containing various documents including: the symposium program, a list of participants with their contact information, and the manatee necropsy manual both in English and Spanish.

The number of attendants fluctuated from 50 to 30 depending on the day and the presentation.

After the presentations, a round table was held to discuss collaboration between countries. The primary outcome of the roundtable was the formation of the “Mesoamerican Manatee Research Workgroup”. Representatives from each country were selected to be in the workgroup (Table 1). The purpose of the workgroup is to coordinate region-wide efforts for the study and conservation of manatees in Mesoamerica.

One of the first proposed projects for the workgroup was to coordinate a finer scale DNA study for manatees in the Mesoamerican region. At the moment a lab is being selected to do the analyses once the samples are collected. Because both Mote Marine Laboratory and the USGS Sirenian Project Laboratory have been working in the region, collaboration between the two might be asked for.

Table 1. Current member of the Mesoamerican Manatee Workgroup.

Name	Country	Email
Benjamin Morales-Vela	Mexico	benjamin@ecosur-groo.mx
Leon D. Olivera-Gomez	Mexico	leon.olivera@dacbiol.ujat.mx
Enrique Portilla	Mexico	eportilla@uv.mx
Nicole E. Auil	Belize	auil@wildlifetrust.org
Ester Quintana-Rizzo	Guatemala	equintan@marine.usf.edu
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Alexander Gomez-Lepiz	Costa Rica	gmanatusl@gmail.com
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Rafael Samudio	Panama	samudior@si.edu
Adda G. Manzanilla-Fuentes	Venezuela	aeseijas@yahoo.com

II. Abstracts

A copy of the program and all of the abstracts are provided in a separate document. Due to a miscommunication within the Mesoamerican society, the majority of the abstracts for this symposium did not appear in print in the abstract book for the congress. However, they will be printed in the next volume of *Mesoamericana*.

III. Feedback

I found that the symposium fulfilled all of its objectives. The participants and attendants walked away with the latest information on the status and distribution of manatees in Mesoamerica, Most of the data presented has not been published yet.

In addition, students were able to interact with scientist working with manatees and see the realities of the work. New technologies were presented, such as a relatively passive form of DNA extraction using a metal scraper and the use of sonar to detect manatees.

Finally, the round table produced a research workgroup that can better coordinate research and conservation efforts in Mesoamerican. Instead of every country reinventing the wheel, material and techniques from one country can be used in the neighboring country. On example is the conservation work that has been done in the Mosquita region of Nicaragua. Scientist has been produced coloring books designed for kids to understand why manatees are in danger and how to protect them. They are written in the local language (Misquito). These same materials can be used in the Mosquitia region of Honduras.

This workgroup will provide a forum so that scientist working with manatees in Mesoamerica can come together for the first time! The workgroup plans to meet at least once a year during the Mesoamerican congresses. All members are in email contact.

--Daniel Gonzalez

At this symposium, all those working with manatees in Mesoamerica brought with them the current “up-to-date” knowledge of the status and distribution of manatees, as well as the current conservation strategies in their countries. A great deal of unpublished material was shared with the attendants.

Many aspects of the conservation and biology of manatees were examined through the various presentations, from new techniques to community perception about manatees and the work that managers are doing to change it.

We learn about the similarities of all countries in the Mesoamerican region about the threats to manatee conservation and the need to share techniques and practices to advance in knowledge in areas where the conditions preclude the use of standard methods, like aerial surveys.

The round table led us to a more region-wide concept and to see manatees in a particular country as part of a metapopulation. On this manner, a regional Workgroup was formed with representatives of each country to follow up with the idea of a regional DNA survey project and strengthen the collaboration and communication of individuals working with manatees in Mesoamerica.

With this all in mind, I think the symposium accomplished its objectives well and served as a seed to future regional work and conservation of manatees in the region.

-- Leon Olivera

One of the objectives of the symposium was to bring researchers together so that they could discuss ideas and research opportunities for the region. The symposium was very successful in accomplishing this objective. An initiative to do regional work started with the creation of a collaborative group of manatee researchers working in Mesoamerica. The objectives of the group are to develop research projects and conservation initiatives in the region, which includes the area from central Mexico to Panama. The group is composed of 2-3 local researchers from each Mesoamerican country plus an additional invited researcher from Venezuela. The group intends to standardize research protocols in the region and assist each other in the use of field techniques whenever possible.

Since some countries have a stronger background in certain techniques such as radio-telemetry, researchers from these more technologically advanced countries can help train researchers in other countries interested in using the same or similar techniques. This type of collaboration should be applied in other areas of the Caribbean, as the main goal of manatee conservation work is to study, protect, and conserve the species throughout the entire region.

This type of regional effort is of great value for the species. Animals do not follow political boundaries and this makes regional work very important. Indeed, the problems that manatees may face in one country could affect adjacent populations if, for example, animals are protected in one country but are hunted in a neighboring country.

--Ester Quintana



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CONSERVACION Y EL AMBIENTE, S. C.
GUATEMALA, C. A.

SELLO

[Handwritten Signature]

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Figure 1. Receipt for \$500 to the Mesoamerican Society for Biology and Conservation for the Manatee Symposium.