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## UPDATES FROM SIRENIA SPECIALIST GROUP REGIONS

The 2013-2016 IUCN quadrennial cycle prompted a re-organization of the Sirenia Specialist Group (SSG) at the request of the SSG Co-Chairs, Drs. Helene Marsh and Benjamin Morales. As part of the re-structuring, six regions were identified and Regional Vice-Chairs were appointed and have subsequently developed goals and objectives in their regions. Below please find updates from the South American, Meso-American, and Southeast USA regions.

### South American Regional Group

Drs. Miriam Marmontel and Nataly Castelblanco were appointed Vice-Chairs of the SSG South American Regional Group. The goals and objectives of the group are outlined below.

**Main Goal:** To work in coordination for the study and conservation of Amazonian Manatees (*Trichechus inunguis*) and Antillean Manatees (*T. m. manatus*) in South America.

#### Objectives:

1. To review and update the conservation status of the Amazonian Manatee and Antillean Manatee in South America;
2. To be an expert resource panel for the IUCN and other stakeholders;

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UNION INTERNATIONALE POUR LA CONSERVATION DE LA NATURE ET DE SES RESSOURCES

INTERNATIONAL UNION FOR CONSERVATION OF NATURE AND NATURAL RESOURCES

Commission de la sauvegarde des especes - Species Survival Commission



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3. To collaborate in building local capacities for research and conservation of manatees in South America;
4. To promote and facilitate communication and collaboration among manatee researchers;
5. To identify research, conservation and education priorities for manatees and their habitats and to identify regional gaps;
6. To help to fill up conservation needs by identifying potential sources of funding and technical/scientific advice;
7. To raise and debate issues on manatee conservation and generate recommendations to organizations and governments;
8. To promote educational outreach to multiple stakeholder groups including decision makers, local communities and the public.

To facilitate communication a dedicated South American Region email address is now available: southamerican.ssg@gmail.com. **-Miriam Marmontel and Nataly Castelblanco**

### Sirenia Specialist Group South American Region Membership List 2013

Name	Qual.	Role	Country	Affiliation	Position	Email
<b>Miriam Marmontel</b>	PhD	Regional co-chair	Brazil	Instituto Mamirauá	Wildlife researcher	marmontel@mamiraua.org.br
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<b>Jorge Calvimontes</b>	PhD student	Member	Peru / Brazil	Núcleo de Estudos e Pesquisas Ambientais (NEPAM) – Universidade Estadual de Campinas.	Collaborator researcher	jorge.calvimontes@gmail.com
<b>Javier Velazquez</b>	MSc student	Member	Peru	Acobia	Director	javi_vv@hotmail.com
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Name	Qual.	Role	Country	Affiliation	Position	Email
				de Parques Zoológicos y Acuarios (ALPZA)	Manatíes ALPZA	
<b>Caryn Self-Sullivan</b>	PhD	Add'l member	USA	Nova Southeastern University/Sirenian International	Faculty/President & Co-founder	cselfsullivan@gmail.com, cselfsullivan@sirenian.org
<b>Ester Quintana</b>	PhD	Add'l member	Guatemala	University of South Florida	Adjunct Professor	tetequintana@comcast.net

### **Meso-American Regional Group**

The Meso-America Regional Group of the Sirenia Specialist Group is happy to confirm its membership of 19 Sirenia experts from nine countries. The group members are: Alejandro Ortega Argueta, Anmari Alvarez Aleman, Antonio Mignucci, Benjamin Morales Vela, Caryn Self-Sullivan, Claudia Tippett, Coralie Nourisson, Daniel Gonzalez, Daniel H. Slone, David Murphy, Ester Quintana Rizzo, Fabia Luna, Haydee Dominguez Tejo, James Powell, John E. Reynolds, Leon David Olivera, Nataly Castelblanco, Nicole Auil Gomez and Robert Bonde.

Together, through a participatory process, the Group has charted six objectives under which it will function:

1. Further determine the conservation status of the Antillean Manatee in Meso-America to contribute to the review of its IUCN List Status and country assessments.
2. Provide information to the Sirenia Specialist Group Co-Chairs and IUCN on Antillean Manatee assessments and diagnostics on conservation needs and actions in Meso-America.
3. Foster communication and collaboration among group members for effective research and conservation of the Antillean Manatee in Meso-America.
4. Guide and advise interested parties on information sources, learning opportunities, research, conservation and management issues of the Antillean Manatee in Meso-America.
5. Strengthen regional conservation initiatives of manatees and their habitat, particularly, but not limited to, coordination of marine protected area systems with key manatee sites.
6. Facilitate and undertake actions for the effective conservation of the Antillean manatee in Meso-America.

We will strive to achieve these objectives through the implementation of an action strategy that will be developed by October 2013. We welcome the support from all managers, researchers, students, and educators who work towards the recovery of manatees in Meso-America. The Group Vice-chairs, Nicole Auil Gomez and Haydee Dominguez Tejo, can be contacted at: mesossg@gmail.com. **-Nicole Auil Gomez and Haydee Dominguez Tejo**

### **United States Regional Group**

The membership for the United States Regional Group is still being developed, but Drs. Christopher Marshall and Graham Worthy have been appointed Vice-Chairs. Objectives of the group include:

1. Promote policies that protect and conserve Florida manatees and their critical habitats in the southeast USA at the state and Federal levels.
2. Assist in bringing attention to rehabilitation efforts and investigations regarding manatee mortality events.
3. Assist in bringing attention to the potential impacts of climate change on the distribution of manatees in the southeast USA.
4. Promote educational efforts regarding sirenian conservation in the region to a broad array of stakeholders.

5. To be an expert resource panel for the IUCN and other stakeholders.

The group will focus on the following issues of concern:

1. Red tide and episodic mass die-offs
2. Habitat loss (seagrass and SAV degradation and loss)
3. Coastal development
4. Boat speed zones
5. Harassment in sanctuaries

**-Dr. Christopher Marshall** (marshallc@tamug.edu) and **Dr. Graham Worthy**  
(graham.worthy@ucf.edu)

## **LETTER TO THE CITES SECRETARIAT FROM SIRENIAN SPECIALISTS**

February 7, 2013

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### **To whom it may concern**

As sirenian specialists, we would like to make the following points relevant to the proposal to list the West African Manatee on CITES Appendix I:

#### **Precautionary approach needed because of lack of robust information on population size and trends**

*As the TRAFFIC advice indicates 'no reliable population estimate exists, but there may be fewer than 10 000 individuals and IUCN assessed the species as Vulnerable in 2008.'*

The population trend criterion (Criterion A) is usually the most appropriate IUCN criterion for evaluating the status of aquatic mammals. Estimating the population size and trends of West African manatees as required by the IUCN Red Listing process is very difficult. The species mostly occurs in turbid waters, surfaces cryptically and only for short periods, and can spend long but variable periods on the bottom. In addition, the probability of detecting West African manatees varies greatly with environmental conditions both among and within sites.

These challenges are compounded for the West African manatee because it in developing countries which lack the resources required for expensive surveys. **Thus there is no robust information about the population size and trends of West African manatees.**

#### **High likelihood of IUU cross-border trade despite lack of formal reports**

*The TRAFFIC Advice indicates that current legislation in all range States prohibits trade in any part of the species and little international trade has been reported since the species was listed in Appendix II in 1975.* Population models indicate that the status of sirenian populations is most affected by the mortality rates of adults. Hunting is the major source of anthropogenic mortality across

the range of the West African manatee. Specialist hunters are widespread and have been recently reported from many areas: the Bijagós Archipelago in Guinea-Bissau, the Sine Saloum Delta of Senegal, the Ogouue River in Gabon, the Congo River in Angola, and throughout Cameroon, Lake Volta (Ghana), Togo, Benin and Nigeria. In other areas, fishers supplement their income by hunting and incidental capture in fishing nets was the most frequently reported threat in surveys carried out in preparation for the UNEP/CMS Action Plan. Incidental capture was reported to account for 72% of 209 deaths reported in Guinea-Bissau from 1990 to 1998.

Thus West African manatee is aquatic bushmeat. It is inevitable that illegal, unreported and unregulated (IUU) trade in manatee 'bushmeat' occurs in West Africa where manatees are worth more dead than alive. Thus the fact that little international trade has been reported is not a reliable indication of whether such trade occurs.

In addition, in Nigeria, manatees are taken for exhibit in local zoos. Toba Aquarium in Japan also has a West African manatee exhibit. Wild-caught manatees from Guinea-Bissau are offered for sale on the internet as of February 2013.

### **Future prospects require precautionary management**

Eighteen of the 21 range states have a low Human Development Index; the remaining states have a medium Human Development Index. Climate change is projected to increase pressure on the world's fisheries with resultant increased food insecurity. A negative correlation between the catches of subsistence fishers and 'wild meat' has already been established for West Africa and thus the impact of climate change on fisheries is likely to increase the pressure to hunt West African manatees and increase the IUU trade in manatee 'bushmeat', especially as the human population is projected to grow exceptionally fast in West Africa in comparison to every other region in the world.

Marsh et al. (2011) agreed with the IUCN's 2009 assessment of Vulnerable (A3cd; C1) because of the high probability that a 30% or greater reduction in population size will result within 60 years (three generations). They concluded that the level of threats, particularly hunting and incidental catch, will continue to increase throughout the range resulting in near extirpation in some regions. They expected this situation to be exacerbated by human population increase and the resultant habitat destruction from activities such as urban development, mangrove harvesting, and silting of rivers and dams and that threats will be amplified by the high poverty that is expected to increase as a result of climate change in West Africa.

**Marsh et al. (2011) concluded that the West African manatee is the extant sirenian of greatest risk of extinction because of the high levels of human poverty in many parts of its range.**

### **Value of a CITES appendix I listing**

An appendix I listing could provide important support to West African range states that will help them implement improved hunting and trade controls. It will also help them raise the profile of the plight of this 'forgotten sirenian' internally, regionally and internationally. In our experience, such a listing can also provide an impetus for conservation funding agencies to increase efforts and resources for research and conservation, thereby helping meet the targets of the West African Manatee Action Plan.

We understand that CITES can act in a precautionary way to add species to its appendices and, given the difficulties inherent in studying this species, the poverty in the region and the complex national boundaries across which the West African manatee ranges, there would seem to be a very strong case for placing the species on CITES appendix 1, especially as all range states except Angola are parties to the Convention.

Please contact us if you have further queries. The contents of this letter are largely based on Marsh, H, O'Shea, TJ, Reynolds, JE III. 2011. *The ecology and conservation of Sirenia: dugongs and manatees*. Cambridge University Press. 521pp.



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## AFRICAN MANATEES RAISED TO CITES APPENDIX I

In early March the Convention on International Trade in Endangered Species (CITES) met at their 16<sup>th</sup> Conference of Parties (COP) in Bangkok, Thailand. On the agenda was a proposal to raise the African manatee from Appendix II to Appendix I, which was drafted by the representative from Senegal. Benin and Sierra Leone also joined as proponents. For the past year many others also worked on this proposal, including myself and colleagues from the Species Survival Network. Sirenian Specialist Group Co-chairs Helene Marsh and Benjamin Morales wrote an eloquent and strong letter in support of the proposal (see above), and Wetlands International hosted a meeting in Dakar, Senegal for range states to discuss the manatee proposal just prior to the COP. When the proposal was presented in Bangkok, the range states quickly reached a consensus to up list the African manatee to CITES Appendix I, and it gained final approval during the plenary session the following week. This move is remarkable considering the lack of population and illegal trade data that currently exists for African manatees, and the fact that the proposal had previously been unsupported by the CITES Animals Committee, but it speaks well of the interest of countries around the world wishing to protect this important species. We hope to keep the momentum going to make sure real changes start happening on the ground, particularly increased enforcement of existing regulations and studies to assess the effect of illegal hunting on populations. Species Survival Network wrote a declaration that was signed by 12 range countries (see below) in support of specific actions for African manatees just prior to the CITES COP, and we plan to connect these representatives with African manatee researcher network members in their countries. We are also creating manatee anti-poaching informational posters to be distributed to every wildlife law enforcement agency in all countries in which African manatees occur. -**Lucy Keith Diagne** (Sea to Shore Alliance, lkeithdiagne@sea2shore.org)

# DECLARATION OF WEST AFRICAN MANATEE RANGE STATES (signed by 12 range countries on 19 February 2013)

## Declaration of West African Manatee Range States

Adopted by Benin, Côte D'Ivoire, Gabon, Gambia, Ghana, Guinea Conakry, Guinea Bissau, Liberia, Mauritania, Niger, Nigeria, Senegal and Sierra Leone in Dakar, Senegal on 19 February 2013

**CONCERNED** about the ongoing decline of the West African manatee (*Trichechus senegalensis*) throughout its range due to the cumulative and synergistic impacts of habitat loss and degradation, climate change, illegal hunting and illegal international trade in parts and products;

**AWARE** that despite national, regional and international initiatives intended to strengthen the conservation of the species and increase the soundness of its management, the West African manatee remains poorly known and range States continue to experience significant challenges in the implementation and enforcement of their laws;

**SUPPORTIVE** of the forthcoming reassessment of the species by the International Union for Conservation of Nature (IUCN);

**FULLY COMMITTED** to the overarching goal of the Action Plan for the Conservation of the West African Manatee adopted in 2008 by the Convention on Migratory Species under its Memorandum of Understanding Concerning the Conservation of the Manatee and Small Cetaceans of Western Africa and Macaronesia, which is to "significantly improve the conservation status of the West African manatee across its range through the implementation of strategic policy, research, conservation and awareness actions";

**FULLY SUPPORTIVE** of the proposal submitted by Senegal, Benin and Sierra Leone to the 16<sup>th</sup> meeting of the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), requesting the transfer of the West African manatee to Appendix I;

**CONSCIOUS** of Goal 3 of the CITES Strategic Vision for 2008-2013 which provides that CITES shall endeavour to "Contribute to significantly reducing the rate of biodiversity loss by ensuring that CITES and other multilateral instruments and processes are coherent and mutually supportive."

**NOW THEREFORE, THE WEST AFRICAN MANATEE RANGE STATES THAT ARE SIGNATORIES TO THIS DECLARATION:**

**DECLARE** the following to be priority short and mid – term objectives under the CMS Action Plan for national conservation, research, enforcement and awareness initiatives in the range STATES;

**UNDERTAKE** to endeavour to implement the actions listed under each objective, working in collaboration with international partners and interested stakeholders;

**SEEK** financial, scientific, and other support from the international community and interested stakeholders for the implementation of the priority actions defined in this declaration.

**Objective 1 - Improve policies and legislation for manatee protection, and strengthen their implementation**

1.1. Develop an enforcement poster advising that capture and trade of manatees is illegal, to be distributed for display at markets, border crossing, airports, national parks and government buildings in the range states;

1.2. Create identification manuals relevant to local trade dynamics to assist in the identification of manatee products in trade, including meat, oil, fat and bones;

1.3. Update and publicise penalties for violation of manatee protection laws and rewards/incentives for identification/reporting of offenders;

1.4. Provide community-based incentive packages for communities that elect to refrain from manatee hunting;

1.5. Collaborate with police and wildlife law enforcement authorities to strengthen enforcement at markets where manatees are traded;

1.6. Collaborate with interested stakeholders on the preparation of a study focused on illegal trade to better understand trade routes and trade patterns and define, based on the results of this study, trans-boundary measures that could be adopted to stop illegal trade.

***Objective 2 - Improve research on the West African Manatee and use relevant scientific information for its conservation and management***

2.1. Initiate or strengthen collaboration with interested researchers and universities to facilitate research and fieldwork based on relevant research protocols that will document information on the status and distribution of the species and compile data on threats including hunting, habitat loss, pollution, and climate change;

2.2. Contribute to the work presently undertaken by experts on the determination of distinct populations throughout the range of the species to increase understanding of population dynamics and details on population estimates throughout the range.

2.3. Collaborate with interested stakeholders on the preparation of a funding proposal for the organization of a needs-assessment workshop among range States to focus especially on the definition of priority areas for surveys and other relevant scientific research.

2.4. Support and contribute relevant information to the forthcoming reassessment of the species by the International Union for Conservation of Nature through enhanced collaboration with the IUCN/SSC Sirenian Specialist Group (dugongs and manatees).

***Objective 3. Reduce pressures on the West African Manatee through the restoration and safeguarding of its habitats***

3.1 Identify obstructed water courses that currently prevent the free movement of manatees;

3.2 Promote management options at hydraulic works that enable the passage of manatees;

3.3 Investigate feasibility of refuges in manatee habitat that prevent hunting and reduce the incidental capture of manatees in fishing nets. Tocc tocc in Lac Guiers, Senegal and Gbundapi in Sierra Leone are promising examples.

***Objective 4. Promote a wide appreciation of the West African Manatee and its ecological and cultural values through targeted communication, education and public outreach***

4.1. Increase production and distribution of educational materials to raise public awareness (posters, coloring books, stickers, manatee costumes for education programs, videos, etc.)

4.2. Develop a poster illustrating the value of, and threats to, manatees for distribution to schools, public buildings, markets, etc. in relevant languages.

4.3. Collaborate with national media to disseminate/broadcast information about manatees and wetlands and foster public awareness.

4.4. Collaborate with stakeholders, including international and non-governmental organizations, to develop an education program that can be specifically tailored for use in all range states to educate the public about the

manatee, its conservation, its biology/ecology, threats to its survival, and the relevant laws protecting the species and its habitat.

## NEWS FROM THE SECRETARIAT TO THE UNEP/CMS DUGONG MOU



*Five New Signatories to the Dugong MOU: Bangladesh, Egypt, Somalia, Sudan and Kingdom of Saudi Arabia*

On 19 February 2013, at the Second Signatory State Meeting (SS2) in Manila, four countries signed the UNEP/CMS Memorandum of Understanding on the Conservation and Management of Dugongs and their Habitats throughout their Range (Dugong MOU): Bangladesh, Egypt, Somalia and Sudan. In addition, the Kingdom of Saudi Arabia confirmed its support towards the protection of dugongs and their vital seagrass habitats by becoming the Signatory State to Dugong MOU on 3 March 2013 in Abu Dhabi. This brings the total number of signatories to 26.

*Second Signatory State Meeting (SS2) Sees 26 Countries Assemble for the Progression of Dugong and Seagrass Conservation, 19 -20 February 2013*

SS2 of the Dugong MOU was hosted by the Government of the Philippines on 19 and 20 February 2013 in Manila, Philippines. 26 countries attended the two-day meeting to discuss priorities in conserving dugongs.

Two leading authorities on sirenians, Professor Helene Marsh from James Cook University (Australia) and Dr. John Reynolds from Mote Marine Laboratory (United States of America), gave presentations highlighting the challenges facing conservation management of dugong and seagrasses. Particular reference was made to the importance of holistic approaches which address socio-economic factors that prevent positive behavioral change of local fishing communities, customization of reform policies to suit specific challenges and the necessity of political will. Signatory States requested assistance from the Secretariat for their respective efforts to conserve and manage dugongs and their seagrass habitats; including facilitating communication, sourcing funding and accessing technical assistance. The Signatory States also requested the Secretariat to work with the IUCN Sirenia Specialist Group to develop a joint work program.



Attendees of the SS2 of the Dugong Mou, Manila Philippines 19-20 February 2013.

### *Progressing the Global Environment Facility (GEF) Project through the Preparation Phase*

In association with the SS2 Meeting of the Dugong MOU held on 19 and 20 February 2013, an International GEF Workshop for “Enhancing the Conservation Effectiveness of Seagrass Ecosystems Supporting Globally Significant Populations of Dugongs across the Indian and Pacific Ocean Basins” Project (Short name: “GEF Dugong and Seagrass Conservation Project”) was held on 21 and 22 February 2013 in the same venue. The GEF Dugong and Seagrass Conservation Project has a global objective to increase effectiveness of conservation efforts by identifying key dugong populations; reviewing underlying causes of threats to dugongs and their seagrass habitats; and identifying relevant, long term conservation management solutions.

The Secretariat will be supporting 8 Country Partners in the coordination of community-based and field-based research efforts; development of incentives to promote behavioral change; and implementation of socio-economically viable policies, with the aim of generating community stewardship of dugongs. The 8 Country Partners to the GEF Project are: Indonesia, Madagascar, Malaysia, Mozambique, Philippines, Sri Lanka, Timor-Leste, and Vanuatu. Three countries (Australia, Papua New Guinea and the Solomon Islands) are involved in the project as Supporting Partners.

The GEF Dugong and Seagrass Conservation Project is nearing the end of the Project Preparation Phase: all Country Partners who will be running projects are finalizing their project proposals to address a range of key threats to dugongs and their critical seagrass habitats. The Project is expected to be implemented over the next five years, with a completion date of 2018.

### *Other Projects*

The Project “Global Dugong Genetics” is an ongoing initiative conducted by James Cook University of Australia to identify the lineage of dugong populations. The project will enable researchers to assess the capacity of small dugong populations to recover by identifying discrete breeding populations and the occurrence of genetic mixing between populations. Professor David Blair has over 20 years researching marine megafauna and is currently leading the research in dugong genetics among the Range States of the Dugong MOU.

The Project “Addressing Net Fishery Bycatch in the Gulf” aims to contribute to efforts to reduce the risk of incidental bycatch of large marine animals and habitat degradation associated with net fisheries in 8 countries: Bahrain, Iran, Kuwait, Oman, Pakistan, Qatar, Saudi Arabia and UAE. The project will include a number of partners such as the Environment Agency-Abu Dhabi (EAD), the Emirates Wildlife Society (EWS), the Environment Society of Oman (ESO), the IOSEA Marine Turtle MOU, the League of Arab States (LAS), the UNEP Regional Office for West Asia (UNEP/ROWA), the Regional Organization for the Protection of the Marine Environment, and participating state governments. The Secretariat is currently seeking funding for the project.

The “Dugong, Seagrass and Coastal Communities Initiative” (DSCC Initiative) was launched in February 2012 to improve livelihoods and create economic opportunity in coastal communities in exchange for the conservation of dugongs and their habitats. The Initiative sets out the rationale and framework for a range of activities currently being initiated, supported and progressed by the Dugong MOU Secretariat. At the Second Signatory State Meeting in Manila, the DSCC Initiative was endorsed as the primary implementation platform for dugong and seagrass conservation in developing countries for the coming 3-5 years and beyond, subject to securing funding.

For additional news on activities of the Dugong MOU Secretariat, follow our noticeboard:  
[http://www.cms.int/species/dugong/dugong\\_noticeboard.htm](http://www.cms.int/species/dugong/dugong_noticeboard.htm)

## UPDATE FROM SIRENIAN RED LIST AUTHORITY

Hello All. As noted in *Sirenews* 58, I have been appointed the new Red List Authority for the Sirenian Specialist Group. I confess to being a little overwhelmed or unsure of just what that entails, but I'll endeavor to be fully up to speed soon. For those who don't recognize my name, I worked on dugongs with Helene Marsh, starting back in 1992 and then on and off until returning to work at James Cook University full time between 1999 and 2008. Since 2009 I've been working in the Species Listing Section of the Australian Government's environment department, with just the occasional foray into publishing since. Nevertheless, the work is complementary given the similarity in the criteria used.

The impetus for writing now is that I've recently been advised that under the IUCN plan to conduct another global mammal assessment they would like the Sirenian reassessments by **31 July 2013**. This date is negotiable, but if it is to be altered I should make my request very soon. As I'm new to this and not at all familiar with the IUCN systems I intend to ask for a small delay (a month or two) but in fairness I don't believe I can ask for a substantial extension given the small number of Sirenian species.

A second important date is to report on any taxonomic changes by **30 June 2013**. I believe this is more straightforward, so I don't propose to negotiate a change unless advised otherwise by someone in response to this notice.

If people want to discuss changes to those dates, or to volunteer information for the assessments, please do so as soon as you can. In the meantime I'll start to familiarize myself better with the process and presumably start contacting people directly for information. My preferred contact email is Ivan.Lawler@jcu.edu.au but I've missed a couple of key emails via that address, so please also copy any emails to Ivan.Lawler@environment.gov.au. Thanks and I look forward to corresponding with some of you more directly. -**Ivan Lawler**

## SIXTH INTERNATIONAL SIRENIAN SYMPOSIUM 2013

A Sixth International Sirenian Symposium is being planned in conjunction with the 20th Biennial Conference on the Biology of Marine Mammals which will be held in Dunedin, New Zealand from 9-13 December 2013 ([http://www.marincemammalscience.org/index.php?option=com\\_content&view=article&id=549&Itemid=65](http://www.marincemammalscience.org/index.php?option=com_content&view=article&id=549&Itemid=65)). You don't have to be a member of the Society to attend the meeting, although registration is much cheaper for members. The aim of the symposium is to foster communication between sirenian researchers, managers, and policy makers from around the globe. Additional information regarding this workshop is forthcoming in the next few months. Organizers: **Nicole Adimey** (nicoleadimey@gmail.com) and **Bob Bonde** (rbonde@usgs.gov)

## LOCAL NEWS

### BRAZIL

***Regional cooperation in Northern South America.*** The Amazon discharges 57 million gallons water/second. Its sediment plume gets deflected northward by the Southern Equatorial Current once it enters the Atlantic Ocean, and 100 miles out to sea. A small amount of the water flows southward, affecting coastal and oceanographic conditions as well. This ecoregion of Northern South America was

the focus of a recent meeting organized by the Regional Activity Center for Specially Protected areas and Wildlife, the Green Heritage Fund Suriname and the French Agency for Marine Protected Areas with support by WWF Guianas. The Mama Coco Sea (Marine Mammal Conservation Corridor for northern South America) Project aims to explore possible options towards a regional cooperation effort for marine mammal conservation in areas under Amazonian influence. The workshop took place in Paramaribo, Suriname, 18-20 March 2013, with the participation of over 30 professionals from 8 countries in the region (Aruba, Brazil, Colombia, French Guiana, Guyana, Suriname, Trinidad and Tobago, Venezuela) and France. During the meeting, participants identified data gaps on the distribution and abundance of marine mammals and determined potential data sources, partners, and research/monitoring programs to be developed in collaboration. Among the at least 15 species shared by these countries - for which much is still unknown - manatees (*Trichechus manatus manatus* and *Trichechus inunguis*) and Guiana dolphins (*Sotalia guianensis*) were highlighted and tend to be the main and primary focus of cooperation in the near future. -**Miriam Marmontel** (Mamiraua Institute for Sustainable Development, Brazil; marmontel@mamiraua.org.br)

## GUADELOUPE

***Proposed Reintroduction of the Antillean Manatee (*Trichechus manatus manatus*) to Guadeloupe, French West Indies.*** BACKGROUND, GOALS AND APPROACH: With support from the French Department of Ecology, the National Park of Guadeloupe has taken careful steps to assess the feasibility of reintroducing manatees to the waters of the Grand Cul-de-Sac-Marin (GCSM), a large protected bay of 15,000 hectares (ha). The species has been extinct in the waters of Guadeloupe for over 100 years, having been wiped out locally by hunting, but manatees remain a part of local folklore and the history of Guadeloupe (e.g., the town of “Lamentin” - manatee in French, located near the GCSM). Nowadays the GCSM represents a well-managed area, which includes enforced no-entry zones (5,000 ha), and has relatively little boat traffic or other threats to manatees compared to many other locations in the wider Caribbean. Formal agreements with local fishing organizations and relationships with communities are attempting to secure local support of a re-introduction effort. An Expert Working Group is carefully guiding the process. In light of the extreme rarity of marine mammal reintroductions globally, this program may provide an extremely useful model and good lessons to enhance species conservation.

This project is part of a larger initiative that seeks to: a) overcome and reverse loss of biodiversity in Guadeloupe; b) improve the global conservation status of the species and subspecies by restoring a population in Guadeloupe, and potentially contribute in the long term through a progressive re-colonization of the species in the Lesser Antilles; and c) provide a transferable model for other conservation projects.

After years of individual and group initiatives, a feasibility study (Lartiges *et al.* 2002) concluded that the reintroduction of manatees had merit, even if hurdles needed to be overcome to ensure success. The conclusion was echoed by the assessment of Mote Marine Laboratory (Reynolds and Wetzel, 2008). Factors that will contribute to the possible success of the project include: the large area of seagrass (5,500 ha) within a protected marine park; river mouths and access to freshwater; presence of little boat traffic and relatively few other apparent threats; and general acceptance (and even some enthusiastic endorsement) of agency scientists and managers, politicians, and local citizens around the GCSM.

Following the advice of an Expert Working Group who have helped shape this project's scientific framework and the conclusions of a recent study of factors promoting success or failure of releases of young captive manatees for the proposed reintroduction in Guadeloupe (O'Shea and Reynolds 2012), the National Park of Guadeloupe believes that it is preferable to use manatees in

captivity rather than animals captured directly from the wild. Relative to wild manatees, captive animals should be more sedentary; their health status and genetic identity are already known; they are accustomed to being handled and involved in training (e.g., regarding feeding); and their involvement is more acceptable in conservation terms, as it does not have direct impacts on wild populations. In addition, since one of the project's goals is to create a transferable model that could enhance manatee conservation elsewhere, the use of captive manatees promotes easy adaptation of the project for other locations. A key condition to increase chances of success in the use of young captive animals is a relatively long period of acclimatization and adaptation to life in the wild. This holding time in a pre-release enclosure will be used to facilitate and accompany their reintegration into their natural habitat, with the help of the various stakeholders associated with the project and use of the bay.

Scientists and managers in a number of countries (including but not limited to the United States, Brazil, and Colombia) have acquired considerable knowledge about the rehabilitation and release of manatees held in captivity for short and long periods of time. These operations enjoy a high success rate. Other countries currently lack care centers or necessary financial means to enter into this type of operation. The animals targeted by the reintroduction project in Guadeloupe would be preferentially taken from this pool of animals in captivity or animals needing a host center such as orphans.

The manatee reintroduction project in Guadeloupe is a project in two phases with the first reintroductions planned for the year 2014: 1) A preparatory phase (2010-2014) which includes feasibility studies of the project, the necessary work to enhance the involvement of the local population and socio-professional stakeholders, and the establishment of partnerships with potential donor countries as well as control of the threats while specifying the characteristics of the area. Soft release enclosures and a care center will be developed to ensure the care of animals from the first release. The project is currently in this preparatory phase; 2) An implementation and monitoring phase (2014-2019) which involves the reintroduction of selected manatees staggered over time. To succeed in this operation, the National Park of Guadeloupe plans to introduce a founding core group of at least 15 individuals, with a majority being female. Today given the status of the project, both scientific and local, the goal is to reintroduce the first manatees in 2014. It will begin once everyone is assured that environmental and other possible threats to manatees have been identified and are under control. The reintroduction will involve soft releases and VHF/satellite monitoring of the animals.

#### CURRENT STATUS OF THE PROJECT AND SYNTHETIC OVERVIEW OF PROGRESS MADE OVER THE LAST 2 YEARS

The developments fall into several categories:

*Enhanced scientific guidance:* 1) An expert working group was formed to work with the staff of the National Park and with long-term project advisor, Dr. John Reynolds, in order to provide guidance and scientific expertise for the various aspects of the project, both at the local level and in terms of regional cooperation. The members of the group (chaired by Dr. Reynolds) include Dr. Thomas J. O'Shea (former leader of the US Department of the Interior's Sirenia Project), Dr. Benjamin Morales (current co-chair of the IUCN Sirenia Specialist Group), Mr. Patrick Rose (Executive Director, Save the Manatee Club), Dr. Alejandro Acosta (Member of the Board of Directors and Chairman of the Program Committee of the Gulf and Caribbean Fisheries Institute and leader in community-based fisheries management), and Ms. Haydee Dominguez (PhD student, Duke University, assessing status and conservation of manatees in Dominican Republic). 2) Since February 2013, Dr. Nataly Castelblanco has joined the team to strengthen the scientific support of the project. Closely associated with the Expert Working Group, Dr. Castelblanco will be responsible for, among other things, finalizing the diagnosis and choice of the soft-release sites in collaboration with soft release experts; defining the material and the specifications to install the facilities; modeling the impact of a growing manatee population on

seagrass dynamic; assessing the potential impacts on associated species; modeling scenarios of population growth over the medium and long term; developing protocols for capture and transportation of the animals; developing protocols for pre-release, release and post-release phases; developing protocols for care operations and sanitary control of the animals in collaboration with veterinary experts; contributing to the team's training; and contributing to the implementation of the monitoring program of the manatee population in French Guyana.

*Enhanced stakeholder involvement:* A number of meetings have been organized over the past two years to involve and inform the project's stakeholders, including but not limited to fishermen, boaters, tourism operators, environmental non-governmental organizations, and community leaders. Also, several public meetings were held with the residents of the Grand Cul-de-Sac Marin to present the project, answer questions, and allow individuals and groups to voice their feelings about the project and its possible ramifications. In addition to the informational meetings, the National Park has organized workshops with users of the bay to work cooperatively to develop implementable solutions to address potential threats and manage potential usage conflicts. Special attention has been paid to developing a dialog with local fishing groups. The PNG and the Fisheries Committee of Guadeloupe (CRPM) have jointly decided to conduct a study to assess the potential impact of the presence of manatees on fishing activities and *vice versa*. The findings of the study were returned to the fishermen in February 2013 and are reassuring about the real impact of the project on the activity. This effort lies within the framework of a wider cooperative agreement promulgated and formally initiated in February 2011 between the PNG and the CRPM. Furthermore, representatives of the fishing communities in Guadeloupe met with their counterparts in Puerto Rico in September 2011 to discuss the experience that the latter group has had involving interactions between manatees and fishing activities, and the possible effects on fishing.

*Awareness programs:* Representatives of the PNG are involved in frequent presentations about the project to local school groups. These programs were accompanied in 2010-2011 by a competition throughout the school district of Guadeloupe on the theme of the reintroduction of the manatee. The children in the class with the winning entry were flown to Florida to see manatees first-hand and to meet experts on manatees and manatee habitat to discuss the project and its conservation implications.

*Establishment of formal relationships with countries that may provide manatees for the project:* A strategy for international cooperation was developed. Representatives of the PNG intend to present the project and the strategy document to potential donor countries. Presently, the project has been formally presented only to the government of Colombia, but a similar presentation is expected to take place with governments of other Caribbean countries.

*Assessment of the feasibility of using manatees from French Guiana:* Dr. Nataly Castelblanco was hired by the project to do preliminary assessments of manatee distribution and relative abundance in French Guiana. The possibility of using manatees from that territory (which would minimize diplomatic issues and certain issues associated with permitting) first required that the relative abundance and availability of manatees be assessed. Dr. Castelblanco submitted a report of her activities, with recommendations, in mid-May 2012 for consideration by the Park staff and the expert working group. She will contribute this year to the monitoring program of the manatee population in French Guiana.

*Communicating the goals and approaches of the project to a number of professional audiences:* Formal presentations regarding the project were made at a number of professional conferences to (a) provide transparency, and (b) solicit suggestions for improvements. Some of these conferences were: Symposium on Caribbean Marine Protected Area, January 24-27, 2011 - Guadeloupe; Second International Conference on Marine Mammal Protected Areas, November 7-11, 2011 - Martinique, FWI; 19th Biennial Conference on the Biology of Marine Mammals, November 27-December 2, 2011 - Tampa, USA; Symposium "Reintroductions, tools for conservation", February 10-11, 2011 - Lyon,

France; Fifth Meeting of the Scientific and Technical Advisory Committee to the SPAW Protocol, 22 October 2012 - Punta Cana, Dominican Republic; 65th Conference of the GCFI, November 5-9, 2012 - Santa Marta, Colombia.

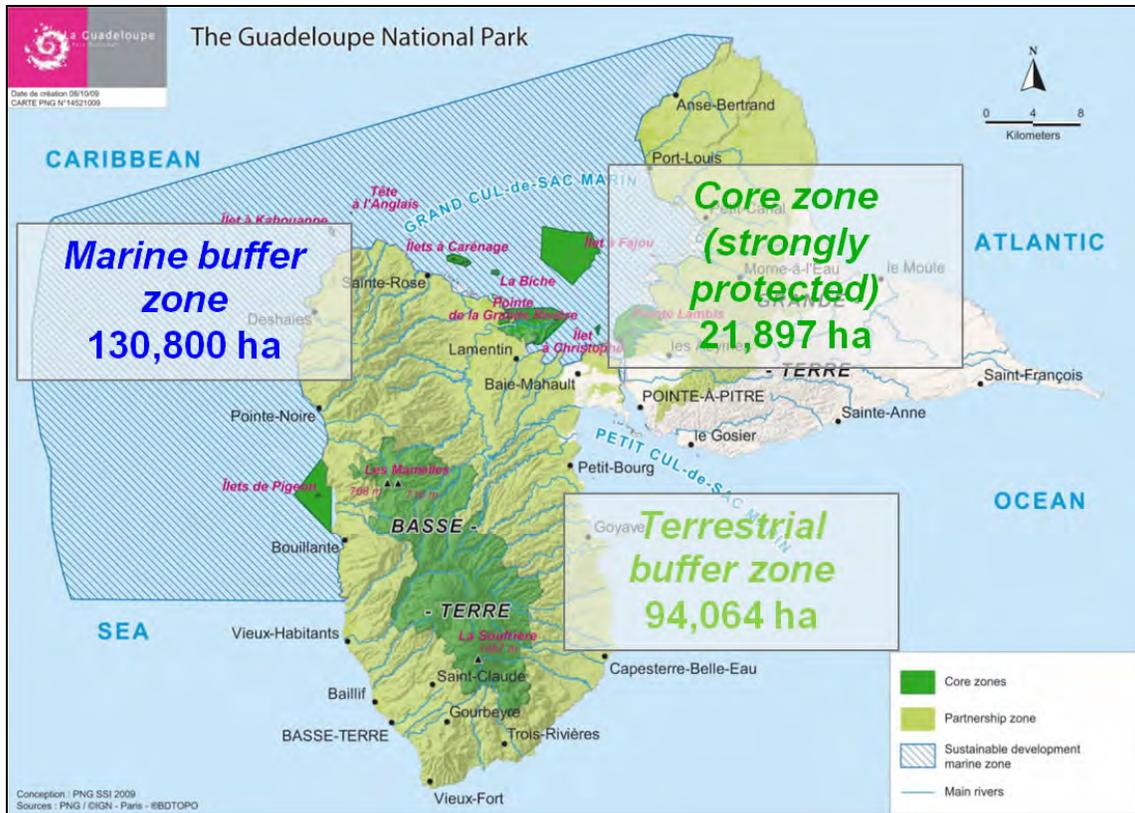
*Issuance of a contract to rigorously assess literature and other information on reintroductions:* The project team issued a contract to Dr. O'Shea and Dr. Reynolds to (a) review all available information (published and unpublished) on sirenian releases into the wild, and (b) review relevant literature regarding releases and reintroductions of large mammals in general. The goal of the contract was to establish the release criteria (e.g., using wild vs. captive manatees; the optimal relative age at which released animals succeed best; the best use of soft release facilities) that create the best possible chance for the manatee reintroduction project to succeed. The contract report was due in July, 2012.

*Invitation of manatee rehabilitation experts* (Dr. James Powell, Dr. Thomas O'Shea, Dr. John Reynolds) to assess habitat in the Grand Cul-de-Sac Marin and recommend specific criteria for the optimal soft release facility. On this occasion several sites were identified around the bay as the most favorable to the installation of the facilities. That process took place with the Park staff in late August, 2012.

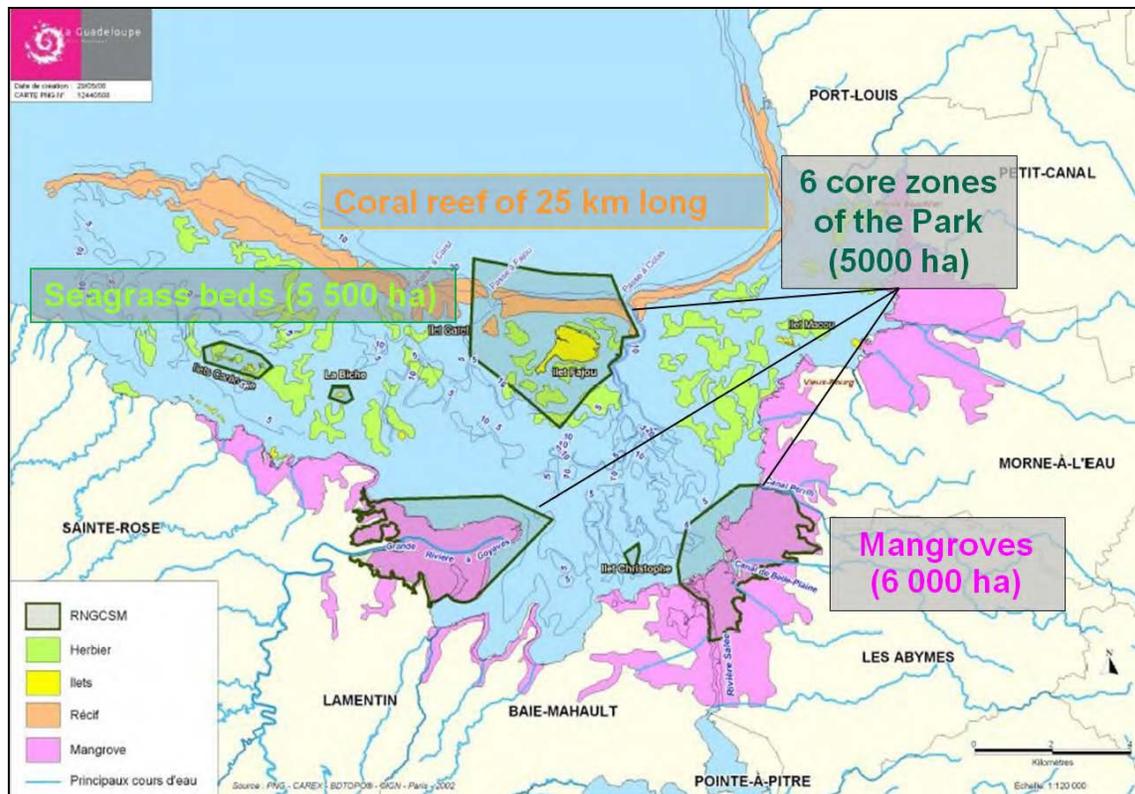
*Team training:* Staff of the National Park and vets from Guadeloupe have been trained in manatee capture and health assessment techniques in Crystal River, Florida with the U.S. Geological Survey (USGS) team since January 2012. Moreover, the rangers involved in the project were trained in March 2013 in Indian River Lagoon, Florida by the USGS team to radio track manatees and monitor seagrass habitat. The training plan of the teams will continue in the coming months. -**Boris Lerebours** (Parc national de la Guadeloupe, boris.lerebours@guadeloupe-parcnational.fr), **Hervé Magnin** and **John Reynolds**



1) Aerial view of GCSM mangroves; 2) Manatee, photo by Patrick M. Rose



Guadeloupe National Park Map



Map of Grand Cul-de-Sac-Marin (GCSM).

## PERU

***Looking forward to Amazonian Manatee Conservation in Peru.*** The Amazonian manatee in Peru is critically endangered mainly due to illegal hunting, in spite of being protected by national and regional laws. Intending to ensure the conservation of the species, the Iquitos Foundation – Amazon Rescue Center (CREA) was created in 2009, consisting of national and international organizations such as The Dallas World Aquarium Zoo (DWAzoo), The Peruvian Amazon Research Institute (IIAP), The Loreto's Regional Bureau of Production (DIREPRO Loreto) and The Association for the Amazonian Biodiversity Conservation – Dallas World Aquarium Zoo (Acobia – DWAzoo). Thanks to the joint efforts of these institutions it has been possible to rescue and successfully rehabilitate 25 manatees to date. These actions have been complemented by intensive educational campaigns carried out in both the city and riverine communities, making it possible to reach 70,000 children thus far.



An average day during educational campaigns carried out in riverine communities.

During the rehabilitation stage, rescued manatees are kept in artificial ponds of CREA which facilitates health assessments, diet studies and behavior research. This has led to two undergraduate theses (Arévalo-Sandi, 2012 ; Zavala-Huaman, in process) and one master's thesis (Velázquez-Varela, in process). Also, using data obtained from the manatees held in the facilities of CREA, it has been possible to take part in scientific papers about management (Perea-Sicchar et al. 2011) and genetics (Satizábal et al. 2012).

One of the main goals of CREA is to release the rescued manatees into the wild. So far, eight rehabilitated manatees have been released, the first group in July 2011 (three females and two males) and the last in April 2012 (two females and one male). The manatees were released in the lagoon "El Dorado", within the Pacaya Samiria National Reserve, and tracked by VHS telemetry. Technical support during the release was provided by Cristina Tóffoli (Instituto de Pesquisas Ecológicas) and Luis Sigler

(DWAzoo). The tracking process involved the participation of “Yacu Tayta” members, the closest fishermen community, who perform sustainable management of resources in the lagoon.



The first manatee release from CREA in 2011.

Data collected after releasing the first manatee group are being analyzed as part of an undergraduate thesis (Landeo-Yauri, in process). Preliminary results suggest that with the exception of one male, manatees were able to adapt properly to the wild. Our field work with Amazonian manatees also includes visits to occurrence areas of the species and surveys in nearby riverine communities. Data from these activities are being used as part of an undergraduate thesis (Vélez-Ramírez in process) and a master's thesis (Perea-Sicchar, in process)

This year, The Iquitos Foundation - Amazon Rescue Center will continue to maintain actions towards the conservation of the Amazonian manatee in Peru. We are pleased to announce that in April 2013 four more manatees will be released into the wild. We wish to thank all the international researchers and manatee specialists that have given advice to strengthen our research and conservation program: Antonio Mignucci-Giannoni, Fernando Trujillo, Cristina Toffoli, Luis Sigler, Rodrigo Lopez Pinho, Daryl Richardson and many others. We also want to acknowledge the efforts of our group of students and volunteers that work hard for Amazonian manatee conservation in Peru. - **Landeo-Yauri S.<sup>1</sup>, Perea-Sicchar, C.M.<sup>1</sup>, Velásquez-Varela L.J.<sup>1</sup>, and Castelblanco-Martínez, N.<sup>2</sup>** (<sup>1</sup>Centro de Rescate Amazónico; <sup>2</sup>Oceanic Society; mail: sslandeo@hotmail.com)

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## PHILIPPINES

***Harnessing Local Knowledge for Dugong Conservation in the Philippines.*** PALAWAN, PHILIPPINES -- Community Centred Conservation (C3) Philippines is working hand-in-hand with fishers in Busuanga, Palawan in implementing a dugong monitoring and reporting system which aims to produce needed information to facilitate effective conservation action and increase local awareness on the conservation of the species. Listed as vulnerable in the IUCN Red List of Threatened Species, the dugong is considered by many local experts to be already critically endangered in the Philippines. Fishing practices such as corral fishing, combined with the degradation of seagrass beds have all contributed to the reduction of dugong populations in the country.

With support from the Prince Bernhard Nature Fund, C3 is working with local fishers to harness their local knowledge and produce vital information that goes far in developing and implementing local conservation for dugongs in Busuanga. The Dugong-Fisher Monitoring Programme is a new effort for the people of Busuanga Municipality in that it specifically recognizes the value of the role fishers can play in dugong conservation. "They are the ones most out there," explains Leo Cayaban, Programme Coordinator for C3 Philippines and the key person in charge of the organization's activities in the country. "Fishers are very important because they spend most of their waking lives at sea. They are the ones most likely to find dugongs and report on them."

Village fishers are made to report on any dugongs they might encounter while fishing. They return to shore and report sightings to local leaders where information such as time of sighting, location, animal size, individual numbers and the presence of calves are collected. The local leaders then proceed to a huge village sighting map where sightings are marked for all community members to see. This provides the community with a strong sense of ownership in the conservation effort. The data is then collected by C3 staff who visit the villages on a monthly basis and the information is used to help identify dugong "hotspots" in the municipality. Identifying these hotspots is critical because it can then enable the local government to focus its attention on protecting critical areas (and their related habitat) where dugongs can still be found.

Local community support for the initiative is strong with community members seeing the value of conserving dugongs for eco-tourism. Barangay Captain Gaudencio Jagmis, a local leader in New

Quezon, Busuanga Municipality is in agreement on the need for dugong conservation. Over 30 members of his community were present to witness the setting-up of the dugong sighting map for New Quezon last 14 February 2013.

"It is very important for people to work together so that we are able to support our dugongs, especially here in Busuanga. Hopefully, the development of our community will kick-off if we are able to do all these things," he said on the Dugong-Fisher Monitoring Programme. In the coming months C3 will be setting up more sighting maps in other communities in Busuanga as the program expands to cover an even wider stretch of Busuanga's coastal areas, involving even more fishing communities to play an active role in dugong conservation.

C3 Philippines is a non-profit organization working to develop conservation efforts in the Philippines by building the capacity of local individuals and institutions through grassroots research and training initiatives. To find out more please visit [www.c-3.org.uk](http://www.c-3.org.uk). -**Leo Rex C. Cayaban** (Programme Coordinator, C3 Philippines, Barangay Salvacion, Busuanga Municipality Palawan Province, Philippines; [leo@c-3.org.uk](mailto:leo@c-3.org.uk); (63) 0918-5534-702)



*Danica Lopez of C3 Philippines briefs community members on the method for marking dugong sightings on the community sighting map during the launch of the Dugong-Fisher Monitoring Programme in Barangay New Quezon, Busuanga Municipality held last 14 February 2013.*

## VENEZUELA

***An improvised necropsy of a West Indian manatee (*Trichechus manatus*) from Isla de Toas, Lake Maracaibo basin, Venezuela.*** The West Indian manatee (*Trichechus manatus*) is a Vulnerable (VU) taxon according to the IUCN Red List Categories and Criteria. The species is also included under Appendix I of CITES, and categorized as Critically Endangered in the most recent edition of the red book of the Venezuelan fauna (Ojasti and Lacabana 2008). In Venezuela this species has been recorded

in four geographic areas: central coast, Gulf of Paria-Orinoco Delta, Orinoco basin (Apure river and main tributaries) and on the lake Maracaibo basin (Correa-Viana, 1995). The manatee in Venezuela has been under legal protection since 1978, when manatee hunting was prohibited (*Resolutions 127 MARNR 1978; 1485, 1486 de la Presidencia de la República* 1996). However, although hunting is prohibited for many species in Venezuela, it has often been replaced by road killing, which affects the terrestrial wildlife, and by encounters with motorboats impacting aquatic wildlife, such as manatees. Many of these magnificent animals die every year due to collisions with medium or large sized motorized boats transiting through their habitat.

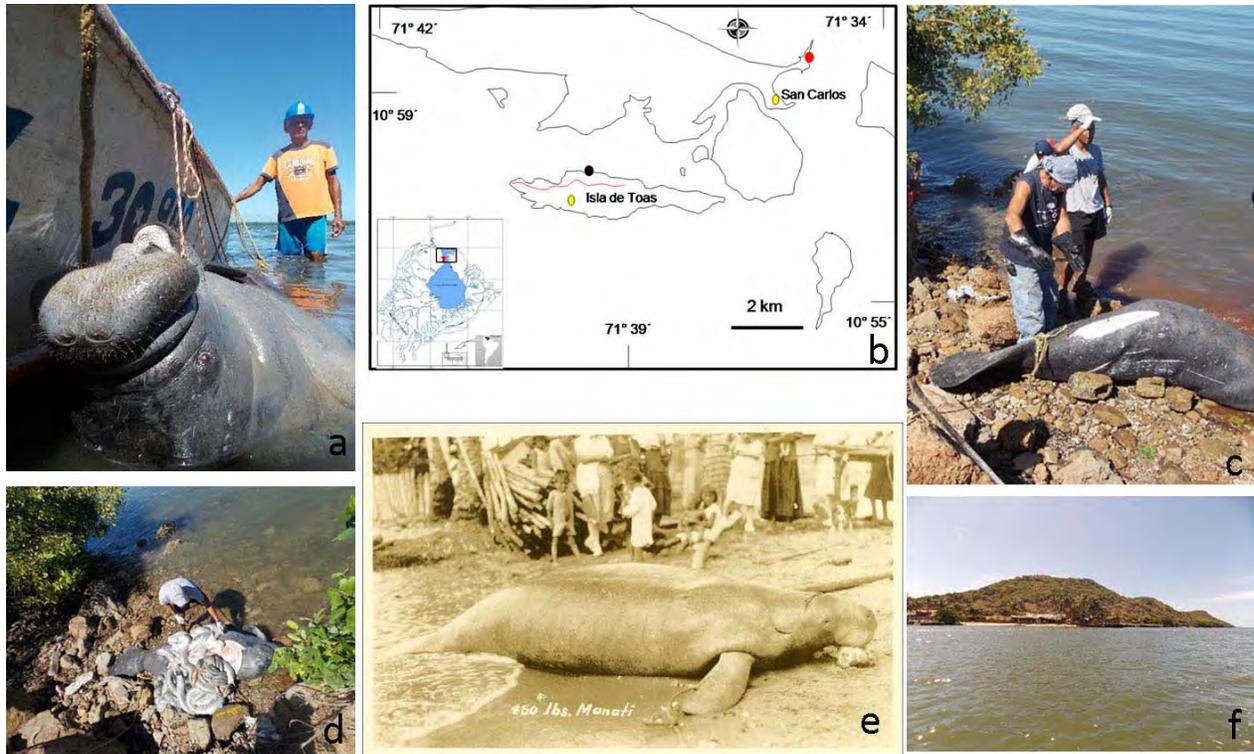
In the Maracaibo Lake, observations and locations of living or dead manatees (adults, juveniles and calves) have been regular since the 1990s. On 14 December 2012, one of the authors (TB) received a call from a local resident of Isla de Toas reporting an adult female West Indian manatee (2.6 m total length) found dead in the vicinity of Monte Alto beach, Isla de Toas, Estado Zulia, Venezuela. We immediately visited the location and performed an improvised post-mortem examination on the rocky beach with the help of locals of Isla de Toas. We concluded that the death was the result of a severe trauma in the lumbar zone, which broke the last four ribs causing the rupture of blood vessels followed by a profuse internal hemorrhage that is evidenced by the presence of dense clots in the retroperitoneal dorsal area. The digestive tract was full, and a sample of gut content was collected. We also found numerous nematodes, which were preserved in ethanol for future identification. Around six hours were needed to complete the necropsy and sample collection from the specimen, until the carcass was flensed and transferred to a beach located in San Bernardo bank (Isla San Carlos, Zulia). Initial cleaning of the skeleton was completed with the help of locals for scientific and exhibition purposes.

Possibly the first graphic documentation of a manatee killed in the Isla de Toas is a picture (converted in a postcard) taken at least one century ago. The manatee postcard was found by Angel L. Viloría, a Venezuelan entomologist, who bought it in London in 1997. The postcard illustrates a dead manatee with some people, mainly children, behind it. The back of the postcard mentions “Isla de Toas”, with a trivial comment about the children’s bellies, maybe in reference to their parasitosis. This interesting old record is also published in the second volume of *El Glorioso Ayer* (the Glorious Yesterday) by Julio Castillo (1920-1940). Viloría and another native from Isla de Toas, the paleontologist Ascanio Rincón, interviewed the oldest people from Toas, who do not recognize any of the people present on the postcard. This led Viloría and Rincón to conclude that the picture may have been taken at the end of the 1800s early 1900s.

In conclusion, we would suggest that there is a need for motorboat traffic regulation in this region of Venezuela to avoid impact with manatees. *Acknowledgements.* - We are grateful to Angel L. Viloría for sharing her knowledge of the postcard showing a manatee from Isla de Toas and Phillipe Kok who for his suggestion to a preliminary version of this note. - **Tito R. Barros<sup>1</sup>, Luis Sibira and Gilson A. Rivas** (Museo de Biología, Facultad Experimental de Ciencias, Universidad del Zulia, apartado postal 526, Maracaibo 4011, Estado Zulia; email<sup>1</sup>: porosaurus@gmail.com).

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Head detail of the manatee found in front of Isla de Toas (a); Map of Isla de Toas, with its relative location in northwestern Venezuela (b); Same specimen in (a) prior to necropsy (c); During the process of the necropsy (d); Old picture of a manatee killed on Isla de Toas (e); General view of Isla de Toas (f).

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