

2007 ANNUAL REPORT

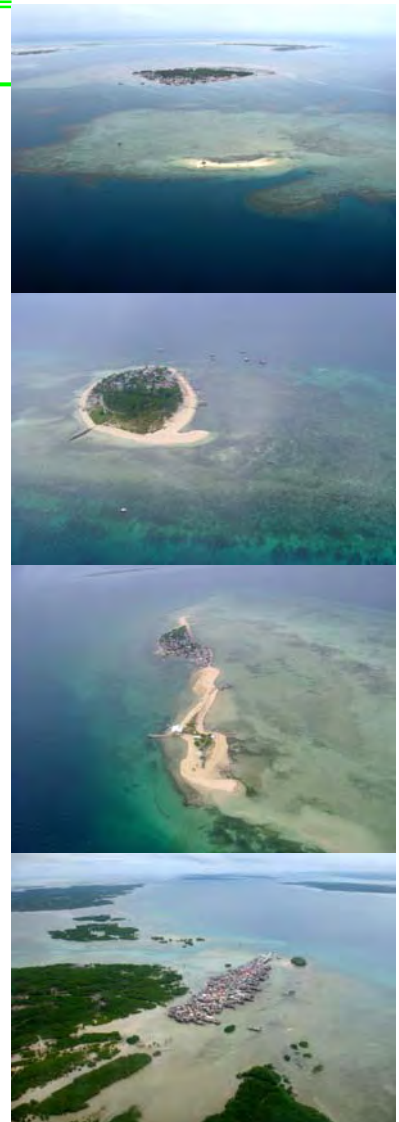


Project Seahorse (Philippines)
Foundation for Marine Conservation



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LIST OF ACRONYMS

DA-BFAR	Department of Agriculture- Bureau of Fisheries and Aquatic Resources
CFARMC	City Fisheries Aquatic Resource Management Council
CFHF	Conservation, Food and Health Foundation
CITES	Convention on the International Trade in Endangered Species of Wild Flora and Fauna
DWCF	Disney Wildlife Conservation Fund
FISH Project	Fisheries Improved for Sustainable Harvest Project
KAMADA	Kapunongan sa mga Mananagat sa Danajon (Alliance of Fishers in Danajon)
MPA	Marine protected area
MSN	MPA Support Network
OPCF-HK	Ocean Park Conservation Foundation - Hong Kong
PMSM	Participatory Marine Sanctuary Monitoring
PSF	Project Seahorse Foundation for Marine Conservation
PS-UBC	Project Seahorse-University of British Columbia

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Standing, from left: Manuel Go, Meinrado Paredes, Jurgenne Primavera. Heather Koldewey, Daphne Villanueva, Anabelle Plantilla, Amanda Vincent, and Amado Blanco (seating)

Photo by A Vincent/PS-UBC

Project Seahorse Foundation for Marine Conservation (PSF) is the Philippines member of the international Project Seahorse family. The Project Seahorse at the University of British Columbia (UBC) Fisheries Centre serves as our international base.

Vision

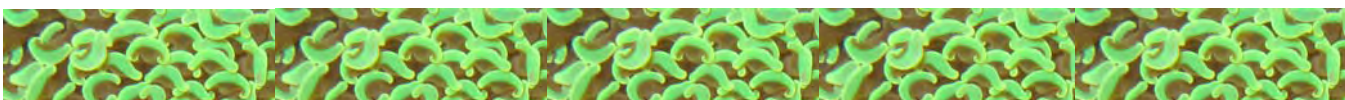
A Philippines with healthy marine environments and good quality of life for coastal communities.

Mission

PSF is a national interdisciplinary organization committed to conservation of Philippines marine ecosystems through equitable sustainable use. In collaboration with stakeholders and partners in coastal communities and elsewhere, we undertake research and management initiatives for marine resources, within an ecosystem framework. We focus on Danajon Bank because this region encompasses critical marine conservation issues of the Philippines, and we use the seahorses in this region as flagship species to inspire and engage people in finding solutions to marine conservation problems.

Goal (2005-2009)

Danajon Bank serves as a model for ecosystem-based management because of its healthy marine habitats, equitable sustainable fisheries and good governance.



MESSAGE

Early in 2007, I had the privilege of flying 300-400 feet above Danajon Bank, with Dr. Amanda Vincent and a visiting scientist from British Columbia, Canada. It was breathtaking! As we flew over island communities randomly nestled along the two parallel reefs, I began to appreciate the challenges, excitement, and the unique experiences that can only come along with working with these communities, which, by the nature of their daily association with the Danajon Bank, have substantially helped define the current state of this globally significant natural heritage. I hope the aerial photos on page 2 could give a sense of what we felt during that exceptionally educational flight.



Amado P. Blanco
National Director

Danajon Bank is, indeed, stunningly beautiful, visually vibrant, and significant. Yet, these positive attributes are punctuated by the mark of fragility. Synergy offers the best means to conserve and protect it. We need to complement resources, optimise use of available information, generate vital management information, strengthen local stakeholder participation, build capacities, enlist more private sector involvement, innovate, and be unwavering in our attempts to reconcile divergent interests.

The year presented another great opportunity for PSF to be an active and productive partner in various collaborations to conserve the Danajon Bank. We are proud to outline below some of our key contributions to these initiatives:

- ✓ site identification and design of the proposed 218-hectare Minantaw Marine Park and Sanctuary – the first multiuse marine protected area on Danajon Bank
- ✓ official establishment of the 17-hectare Busalian MPA in Talibon, Bohol
- ✓ understanding of the common issues and limitations encountered by local MPA managers
- ✓ fifty local MPA managers with improved knowledge and skills in MPA management
- ✓ guided reviews of existing MPA management plans and formulation of new plans
- ✓ formulation of the Alliance of Fishers in Danajon Bank (KAMADA) new Strategic Plan.
- ✓ registration of new KAMADA chapters with a government registering agency
- ✓ PSF and KAMADA jointly facilitating the development of the *Agenda of the Small-Scale Fishers for the Conservation and Management of the Danajon Double Barrier Reef*
- ✓ improved understanding on the effectiveness of MPAs as conservation tool
- ✓ improved understanding on the impact of MPAs and fishing on seahorse populations
- ✓ an amendatory bill seeking to ensure sustainable use of marine resources

The year wrapped up with the jubilation of the Handumon Marine Sanctuary being adjudged by the MPA Support Network as the **Most Outstanding MPA in the Philippines in 2007**.

We wish to acknowledge our partner **John G. Shedd Aquarium**, and our donors **Guylian Chocolates; International Development Research Centre (IDRC); John D. and Catherine T. MacArthur Foundation; PKF Family Foundation; Conservation, Food, and Health Foundation; Dr. Scholl Foundation; Disney Wildlife Conservation Fund; Chevron-Philippines; Ocean Park Conservation Foundation-Hong Kong**; and many others. We value highly our collaborations with KAMADA, partner national government agencies, and local government units. Their confidence in us created opportunities and provided the means to exercise leadership in a range of conservation actions on Danajon Bank.

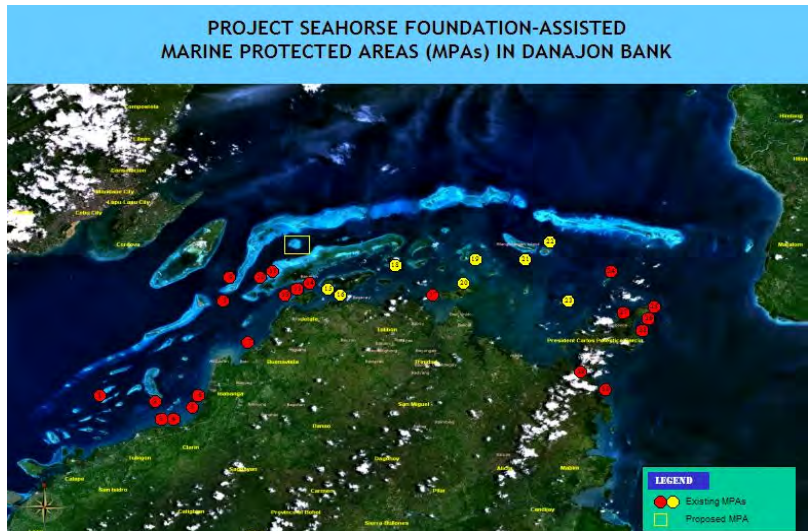
Thank you very much.



2007 ACCOMPLISHMENTS

MANAGING MARINE PROTECTED AREAS

A principal element in the PSF 2005-2009 Strategic Plan is our goal to catalyse a network of MPAs that can provide adequate protection on Danajon Bank for biodiversity conservation and fisheries management. To realize this, we use a clustered approach of creating new MPAs on critical areas within the double barrier reef that involves long-term research and documentation, while maximizing the effectiveness of existing ones.



PSF is involved in 31 MPAs across the Danajon Bank. More and more communities are requesting assistance in MPA creation.

Our drive for innovation and our adherence to adaptive management principles have allowed us to keep pace with the dynamic and complex conservation and management issues and challenges in Danajon Bank. For instance, we worked with local communities to identify a large potential MPA site and an open-minded local government provided our team with an opportunity to introduce innovative approaches to designing MPAs. Also, we collaborated with our international team of scientists to conduct field tests on a new benthic monitoring method that can enhance our ability to track coral recovery in MPAs.

Establishing new marine protected areas

Substantial focus was directed at establishing a new MPA on the Minantaw Reef. The 256-hectare Minantaw Reef is located between the inner and outer reefs of the middle section of Danajon Bank. A large portion of Minantaw Reef belongs to Lapu-lapu City and a small part of the eastern side belongs to Getafe, Bohol. The proposed site is about three kilometers off the coast of the inhabited Caubian Island of Lapu-lapu City.



These photos show the two faces of the proposed MPA on Minantaw Reef. Blast fishing has turned portions of the reef into rubbles (right photo). Remaining patches of live corals (left photo) offer promising starting point for both coral and fish communities recovery.
Photos by A Nellas/PSF



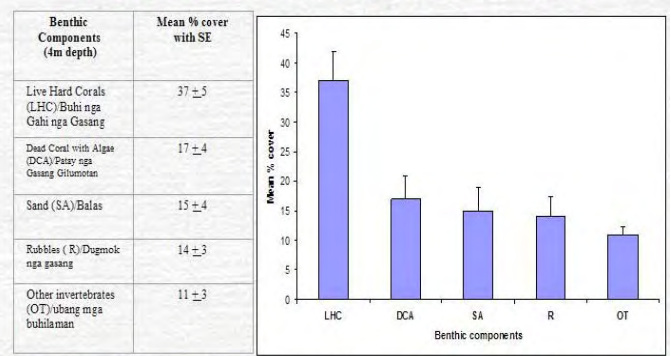
A two-year grant from Chevron-Philippines enabled us to undertake a suite of community-level activities that ensure optimal stakeholders participation in the often complex process of establishing community-managed marine areas. The activities include, among others, the building of stakeholder consensus on MPA location and management systems. Caubian Island and Lapu-lapu City government officials actively took part in various consultative assemblies. PSF acted both as process facilitator and resource institution, providing vital technical guidance and research-based information.

PSF field biologists carried out a series of biophysical surveys to assess overall conditions of fish populations and coral communities within the reef, with help from local fishers and a practicum student from the University of San Carlos in Cebu City. Habitat mapping was undertaken using the “bucket viewing” method that our field biologists were implementing on an experimental scale. Years of blast fishing have turned most parts of the reef into rubble. Our biophysical survey results suggested a 50-hectare portion of Minantaw Reef as viable site for a marine sanctuary. While fish density in this area is low, a 35-40% live hard coral cover could provide a promising base for fish and coral cover recovery.

Results of biophysical and socio-economic surveys were presented to community leaders, local fishers, and the City Fisheries Aquatic Resource Management Council (CFARMC) of Lapu-lapu City. This feedback process informed critical decision-making processes, such location, zoning, stakeholders’ involvement, and city ordinance formulation.

A technical working group composed of village council members and CFARMC representatives was created. Our team assisted the working group in drafting the city ordinance required to officially establish the marine park and sanctuary. The CFARMC and City Mayor’s Office endorsed “An Ordinance Establishing a Minantaw Marine Park and Sanctuary in Caubian, Lapu-lapu City” to the Lapu-lapu City Council for deliberation and approval. Caubian local officials lobbied for the passage of the ordinance. We are expecting the city council to approve the ordinance in the first quarter of 2008.

Mean % cover of Benthic components at a depth of 4 meters



Area covered for survey: 2 transects= 200 meters



The graph shows that dead corals with algae, sand, rubbles, and other invertebrates combined represent more 60% of coral cover on Minantaw Reef. Fish density is very low, driving many residents dependent on gleaning for food and income. Photo by F. Genson

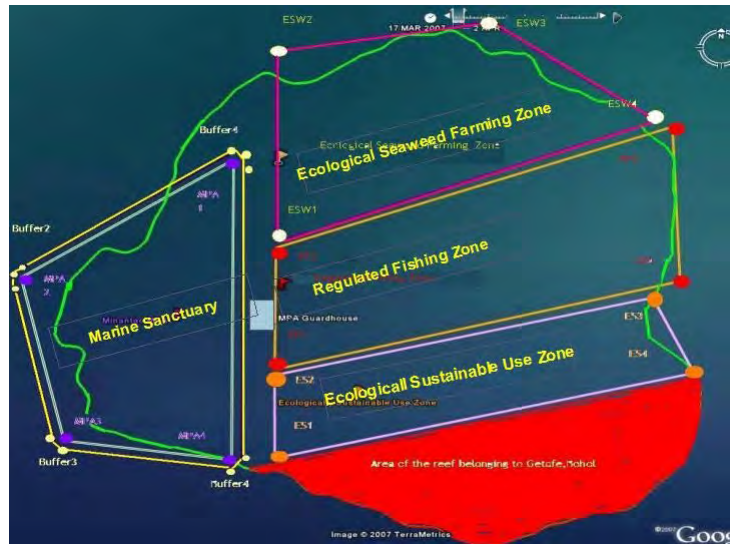


If approved, the 218-hectare Minantaw Marine Park and Sanctuary would be the first of its kind in the Danajon Bank region. It will be the first marine park and sanctuary with multiple designated management zones.

As defined in the proposed ordinance, the marine park and sanctuary will have the following management zones: 1) a 50-hectare no-take zone or sanctuary, (2) an ecological seaweed farming zone, (3) a regulated fishing zone, (4) an ecologically sustainable use zone, and (4) navigational lanes within the park (see illustration below). A Minantaw Marine Park and Sanctuary Management Council will be formed as the principal management body of the marine park and sanctuary. The council will also be authorized to define specific prohibitions and develop and implement an operable users' fee scheme.

Meanwhile, the municipal council approved an ordinance legally establishing the community-managed Busalian MPA in Talibon, Bohol, in March 2007. This MPA was the third no-take zone that PSF and the Alliance of Fishers in Danajon (KAMADA) catalyzed in 2006. Busalian MPA is the third community-managed MPA established through the grants PSF received from the US-based

Conservation, Food, and Health Foundation (CFHF). After the MPA was established, Project Aware Foundation-Asia Pacific gave us a modest grant for the procurement of MPA boundary marker buoys and installation of educational billboards. Enforcing an MPA is often a challenge if the boundaries are not properly marked.



The proposed multi-use Minantaw Marine Park and Sanctuary will be the first of its kind on Danajon Bank, in terms of size and design.



A Busalian community leader (left photo) inspects a locally fabricated cement block sinker and a marker buoy being readied for installation. Community billboards, such as the one at background of right photo, help educate community members about important MPA rules. Photos by R. Apurado/PSF



Strengthening management of MPAs

The legal creation of an MPA only represents the crucial first steps in a long-term process of making this spatial tool to conserve biodiversity and generate fisheries effective. Our own experiences in Danajon Bank indicate that the creation of MPAs can actually be done with relative ease, especially with the right local partnerships, the right team armed with good science, and a well-documented model. More complex challenges arise in building local capacities that are vital to the effective enforcement and management of MPAs. Our own research suggests a positive relationship between good enforcement and management, and fish and coral recovery, at least within the no-take zones. Building local capacities in MPA enforcement and management is, therefore, paramount.

We delivered management capability-building interventions in 2007, including MPA management skills training, strengthening existing MPA management institutions, technical support in the review and formulation of management plans, and catalysing collaborations among local MPA stakeholders and support institutions. We also assisted one management council in acquiring enforcement support logistics, like marker buoys and educational billboards.



The Conservation, Food, and Health Foundation grant provided us resources to convene the First Danajon Bank Community-Based MPA Managers Regional Conference on 7-8 June 2007 in Talibon, Bohol. Fifty participants representing 15 MPAs, three provincial and national government offices, five municipal governments, and three non-government organizations attended conference workshop. We facilitated an assessment of the common issues that local MPA managers think impede efforts to manage MPAs effectively. These issues include:



The series of regional local MPA managers training-workshops supported by CFHF provided opportunities for collective reflection and problem-solving exercises. Photos by PSF

- ❑ *Lack of facilities to support effective MPA enforcement;*
- ❑ *Weak capacities of local management bodies in terms of generating financial resources necessary to start and sustain operations;*
- ❑ *Poor MPA enforcement resulting from insufficient incentives for MPA enforcers;*
- ❑ *Lack of municipal government capacity to provide sustained technical, logistics, and financial support to MPAs; and*
- ❑ *Inadequate public support for MPAs as a conservation strategy and for its operations.*



Two regional skills training workshops were subsequently organized to provide a forum for deeper discussions on these issues and to address some of the issues through skills training. The First Danajon Bank Local MPA Managers Skills Training Workshop was held on 3-4 October 2007 in Talibon, Bohol. Forty-six MPA managers from 13 MPA sites, four local governments, the Bohol provincial government, and the Department of Agriculture- Bureau of Fisheries and Aquatic Resources (DA-BFAR) registered for the training workshop. Designed as a follow-through of the previous workshop, the two-day event aimed to:



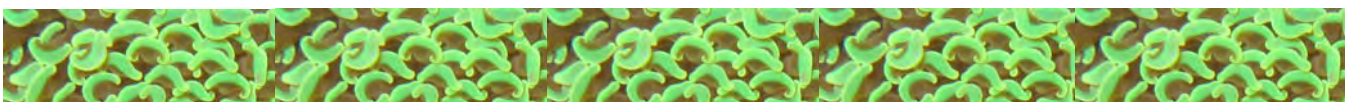
Local MPA managers learn with and from local government officials. Ubay, Bohol Vice-Mayor Galicano Atup (standing, top photo) mentoring local MPA managers how to run meetings and make resolutions. Mr. Joe Belga (standing, lower photo) of the Bureau of Fisheries and Aquatic Resource-Bohol sharing ways to generate resources to support MPA management.

Photos by PSF

Alliance of Fishers in Danajon (KAMADA), personnel from five partner municipal governments, the Bohol provincial government, and the DA-BFAR went through a structured exercise for sharing local experiences and initiatives in fund raising.

1. *Provide a venue for deeper understanding of key issues and challenges identified by local MPA managers who participated in the 7-8 June 2007 workshop;*
2. *Develop basic skills in addressing some of the key issues and challenges in managing community-based MPAs;*
3. *Formulate workable policy recommendations and practical solutions on how to address the issues and challenges by building on insights, lessons, and local success stories; and*
4. *Develop and adopt schemes to advance the policy recommendations and integrate practical solutions in existing MPA management plans.*

The Second Danajon Bank Local MPA Managers Skills Training Workshop was held on 8-9 November 2007. Improving access to financial resources will help address a number of issues identified on the 7-8 June 2008 regional meeting. Providing local MPA managers with information on various means, best practices, and local success stories in generating funds to support their MPAs was a key objective in the second skills training workshop. The workshop also aimed to collectively explore viable options for sustained support from local government units. Fifty-two local MPA managers from 13 MPA sites,





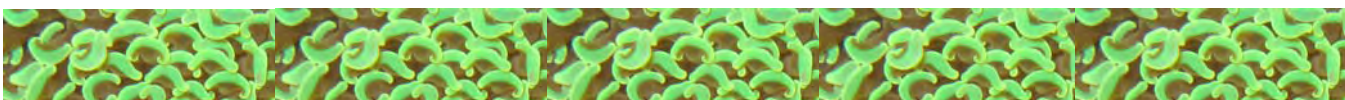
*Participants of the First Danajon Bank MPA Local Managers Regional Workshop (left photo) and participants of the second regional workshop (right photo).
Photos by PSF*

Representatives from successful MPAs in Bohol were invited to share their success stories in fund raising. The budget officer of the Municipality of Ubay briefed local MPA managers about the local planning and budgeting processes and timeframe. Local MPA managers were required to develop fund raising action plans.

MPA management planning was an equally important focal point for intervention. We guided seven MPA management councils in reviewing their existing management plans. Our team assisted the formulation of new MPA management plans in four sites, namely: Jandayan Sur and Jandayan Norte in Getafe, Lipata in Carlos P. Garcia, and Union in Ubay. The MPA management councils endorsed the management plans for formal adoption by the village councils – a strategy to lock in local government unit commitment to support the implementation of the plans.

We also organized a regional workshop to evaluate the implementation of Participatory Marine Sanctuary Monitoring (PMSM) - a community-based approach to monitoring MPA effectiveness. Twenty-three participants representing seven MPA sites attended the two-day assessment exercise. Results will be used to enhance the design of PMSM. Our goal is to simplify this scheme, making it more viable and easier to implement. While this approach had been introduced during first few years of Project Seahorse's presence in Danajon Bank, many partner communities find it a challenge to sustain the use of PMSM.

The Handumon Marine Sanctuary won an award for the Most Outstanding MPA in the Philippines in 2007. The award was given by the MPA Support Network (MSN) - the Philippines' largest network of organizations involved in marine environment protection and conservation. Its member organizations include the environment, interior, agriculture and science departments, University of the Philippines Marine Science Institute, United States Agency for International Development, Silliman University and several non-government organizations involved in environmental protection and conservation. A P100, 000.00 in cash prize came with the trophy.



BIOLOGICAL AND FISHERIES RESEARCH

Long-term marine protected area monitoring

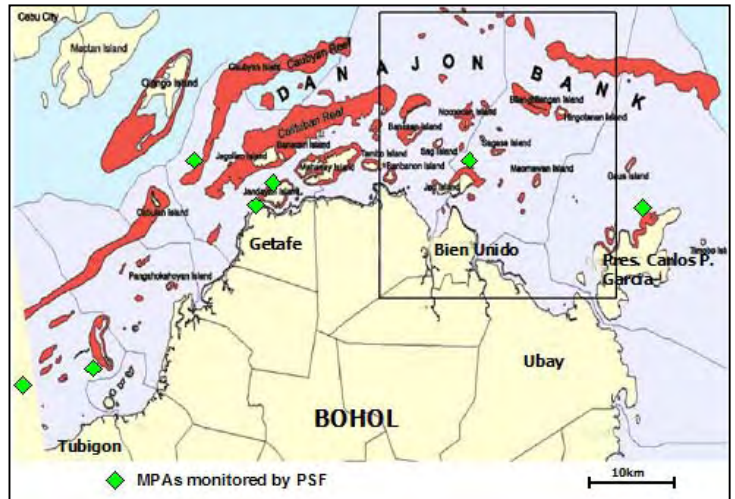
Research is necessary to demonstrate the impacts of MPAs and inform current efforts to improve their designs as biodiversity conservation and fisheries management tools. A number of communities consider MPAs as altruistic investments for the future.

The need to document the “return on investment” or results is profound.

Since 1998, we have been studying how fish populations and benthic communities respond to protection from fishing pressure. Tracking how seahorse populations are responding to protection has also been integral element of the study. This long-term study covers eight community-managed MPAs across the Danajon Bank.

Biannually, a team of Filipino field biologists, local fishers, and local and international volunteers conduct underwater surveys to assess fish populations (including seahorses), and coral cover recovery both inside and outside no-take zones. Also, five fishing grounds are covered as distant reference sites.

Fish and seahorse surveys were conducted in 13 MPA sites during the dry season (March-April). Joleah Lamb (United States) and Rosamund Boalch (United Kingdom) joined PSF field biologists and four local field assistants in conducting the summer surveys.

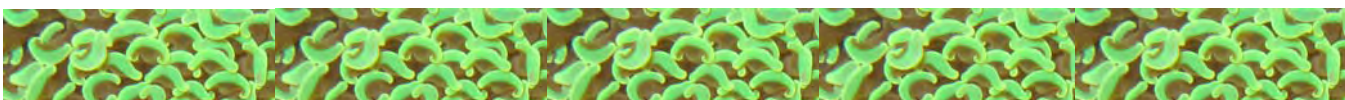


Map of Danajon Bank showing the eight MPAs covered by long-term MPA survey program of PSF. The survey also covers five fishing grounds as distant reference sites.

Map courtesy of FISH Project.



Joleah Lamb (standing, 2nd from left, left photo) and Rosamund Boalch (standing, 4th from left) joined PSF field biologists and local assistants in conducting the 2007 dry season MPA surveys. Photos by PSF

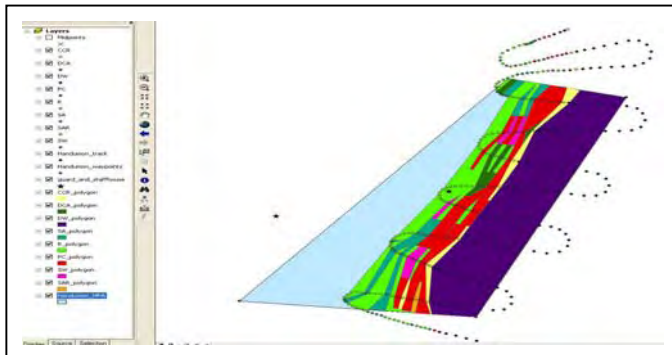


An all-Filipino team of field biologists, local fishers, and local assistants implemented the wet (September-October) season surveys. The wet season surveys only covered five MPAs. The long-term monitoring of seahorse populations inside MPAs and rugosity surveys were undertaken in the same sites.

We have upgraded our MPA monitoring methods. These design upgrades resulted from internal system reviews that recognized a need to integrate more powerful methods of capturing the biological changes occurring inside and outside of the assisted MPAs. A review of benthic survey results showed that our existing methods (i.e. line intercept method as shown in top right photo) lacked the rigidity to detect coral growth over time. The redesigning of the benthic survey method was decided after consultations among PSF biologists and senior scientists of PS International. The new method employs the Photoquadrat Coral Point Count with Excel and Rugosity.

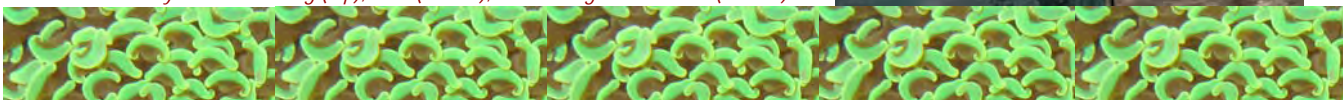
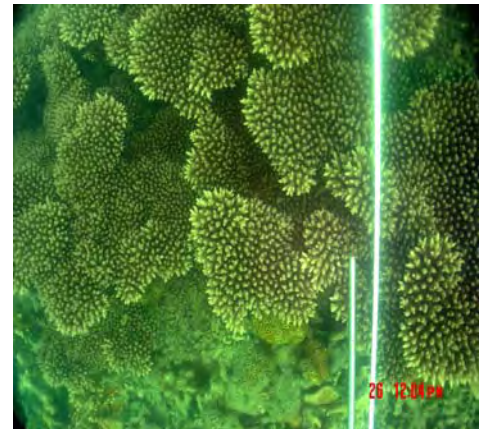
Broad-scale “bucket viewing” habitat mapping and the *photo-quadrat* survey methods were tested in eight MPAs during the dry season surveys. Test results will be used to refine the methods. Modified broad-scale mapping and *photo-quadrat* survey methods were used in the wet season surveys.

A PSF field biologist made an oral presentation on these new methods during the **9th National Symposium in Marine Science** in Ilo-ilo City to draw out comments and recommendations from the local marine science community.



The image above shows general habitat profile of the MPA where the “bucket viewing” method was piloted. PSF Field Biologist Angelie Nellas (bottom right photo) viewing underwater habitat using a glass-bottom bucket.

Photos by T. Mann Chung (top), PSF (middle), and J. Selgrath/PS-UBC (bottom)



Seahorse population monitoring

The long-term goal of our seahorse monitoring projects in the Danajon Bank is to help secure a future for wild populations of seahorses in the central Philippines. We have been documenting population dynamics and life histories of seahorses on Danajon Bank since 1998. In 2004, all seahorse extraction was prohibited in the Philippines, as an inadvertent consequence of international trade regulations. Our studies on life history, population consequences for seahorses inside MPAs, and the fisheries ban, will strengthen our advocacy for sustainable seahorse fisheries and provide the foundation for management planning processes should the state reopen the fishery.

Seahorses were listed on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), requiring partner countries to document the international trade of seahorses beginning on 15 May 2004. This resulted in a ban in the local seahorse fishery. Section 97 of the Philippine Fisheries Code of 1998 prohibits the collection and trade of all species listed in CITES, including our local seahorse species. Investigating the impact of the fishery ban on the local seahorse populations has become part of the core objectives of our seahorse population monitoring activities.

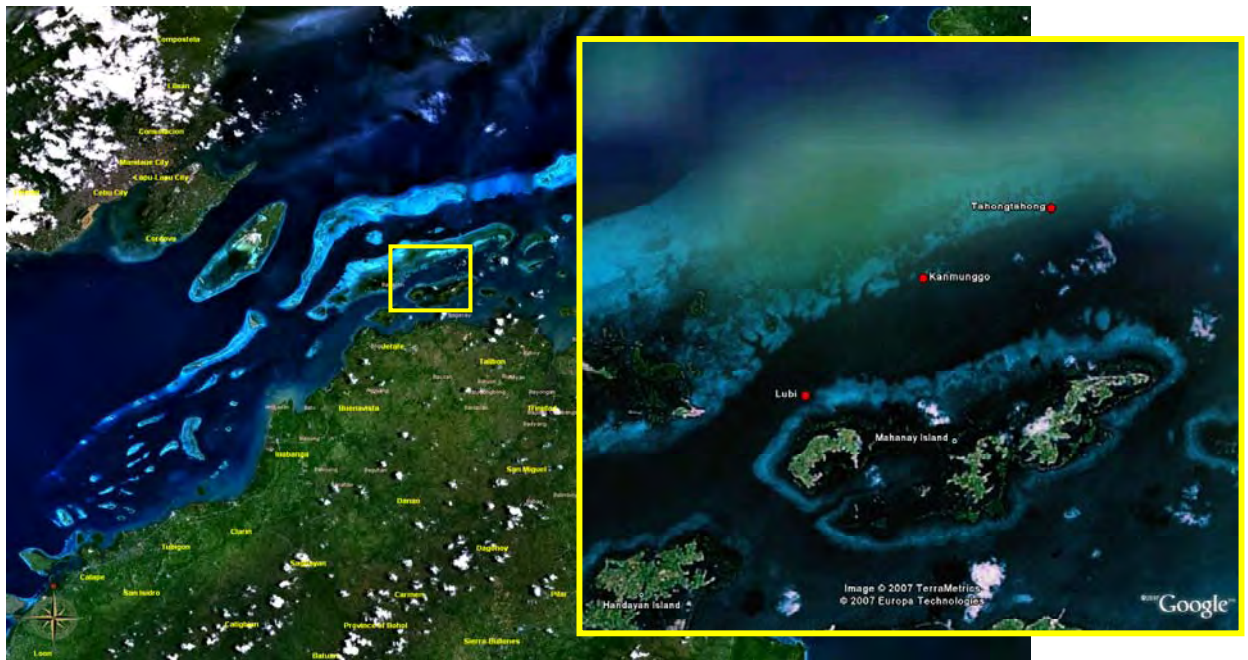


Hippocampus comes (left photo) is the dominant seahorse species on Danajon Bank. A PSF field biologist (middle photo) conducting standard underwater measurements of a seahorse spotted inside an MPA. Our monitoring reconfirms the existence of an underground seahorse fishery on Danajon Bank. Seahorses are listed in CITES Appendix II. Photos by C. Lau & G. Leung/PSF-OPCFHK Volunteers and F. Genson/PSF

We are employing both fishery independent (i.e. underwater surveys) and fishery dependent (i.e. catch landing) methods to monitor the health of the local seahorse populations. Our monitoring covers the locally known peak (March-May) and lean (August-October) seasons. A team of PSF field biologists and local fisher-assistants implement the seasonal monitoring of the seahorse populations in three known seahorse fishing grounds. We have trained locals who record catch landings in two prominent seahorse landing sites in Danajon Bank. We used a grant from the Ocean Park Conservation Foundation – Hong Kong (OPCF-HK) to implement these important monitoring activities.

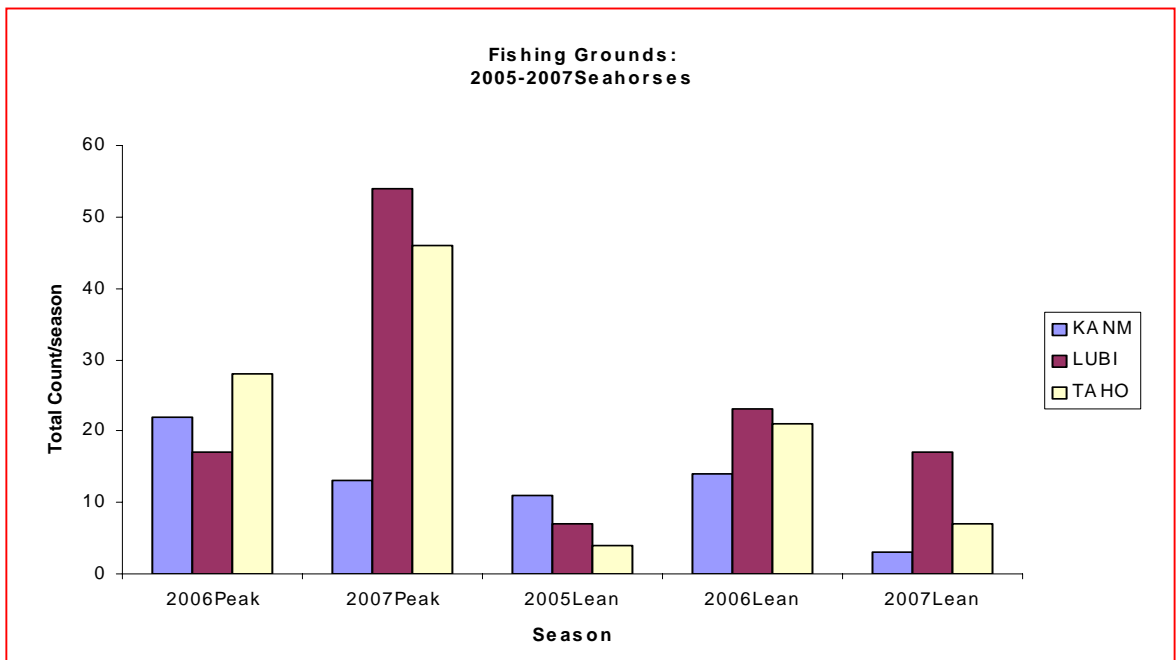
Results of our fishery-dependent monitoring reconfirm the existence of an underground seahorse fishery in Danajon. In the 2007 peak season alone, a total of 4,715 seahorses were landed in our two study sites. The presence of a black market sustains an illegal fishery. A market outside any regulatory regime can potentially turn a fishery more lucrative, thereby encouraging overexploitation of the targeted species.





Location of the three seahorse fishing grounds covered by fishery-independent seahorse population monitoring of PSF. These sites include Kanmunggo (KANM), Lubi (LUBI), and Tahong-tahong (TAHO).

On the other hand, a preliminary analysis of our fishery-independent monitoring data showed some encouraging trends. A comparative analysis of the 2006 and 2007 peak season dataset indicated an increase in mean densities in the two fishing grounds in 2007. Also, as shown in the graph below, densities in the 2006 and 2007 lean seasons were also slightly higher relative to the 2005 data. However, we need longer datasets to be able to make more conclusive analysis.



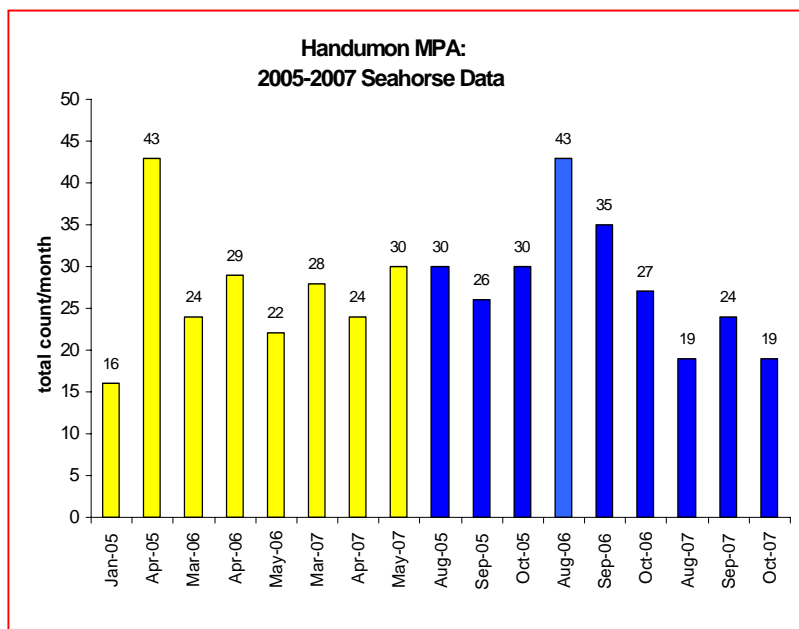
Monitoring seahorse response to marine protected areas

Danajon Bank had been a major seahorse fishing ground in central Philippines before the CITES listing became effective in May 2004. On the other hand, the popularity of MPAs as biodiversity conservation and fisheries regeneration tool among municipal governments and fishing communities continue to grow. The study on the impacts of MPAs on local seahorse populations is especially relevant in a region where the seahorse fishery was very active and where MPAs enjoy popular support.

We have been tracking seahorse numbers inside the Handumon MPA since 2001. Goals of this long-term monitoring project are to (a) study unexploited H. comes in order to infer aspects of its biology, which can guide management, and (b) assess the effect of MPAs as management tools for seahorses.

With the assistance from OPCF-HK, we were able to expand our research on seahorse populations inside a no-take zone to include two more sites. The expanded research should put us in a position to gain a deeper understanding of the density, distribution, sex ratio and size structure of unexploited populations of seahorses.

Initial analysis of the data collected from the Handumon MPA revealed a consistent trend in fish density. In terms of size, seahorses inside the Handumon MPA are larger compared to seahorses we recorded in unprotected fishing grounds. Particularly, our 2007 peak season data reaffirmed earlier observations that the average standard length of seahorses inside the MPA is higher than that of the fishing grounds. This is very promising since larger individuals imply greater fecundity and can potentially increase juvenile recruitments in adjacent fishing grounds.



The above graph shows the trend of the number of seahorses inside the Handumon MPA. OPCF-HK has given PSF a grant to replicate the Handumon MPA study in two other MPAs. The expanded study should put us in a better position to assess the effectiveness of MPAs as a species-oriented conservation tool. Right photo shows one of the tagging/marking techniques PSF employs. Photo by A. Torrechilla/PSF



EMPOWERING COMMUNITIES FOR MARINE CONSERVATION



Since 2003, eight community-managed MPAs have been set up by PSF in collaboration with KAMADA and local government units. MPAs are, indeed, becoming rallying points for many communities. Top photo shows two fisher-leaders installing a marker of their MPA. The middle photo captures the Brgy. Busalian, Talibon in action, transporting a set of MPA marker buoy and sinker. KAMADA leader Carlos Ocarol (bottom picture) delivering a message during the KAMADA Congress.

Photos by R. Apurado and A. Blanco/PSF

Genuine participation and full engagement of fishers has helped foster the long-term conservation and management of Danajon Bank. The Philippine Fisheries Code of 1998, in fact, provides the policy environment for this type of participation and level of engagement. From being purely resource users, fishers should substantially transform into being stewards and resource managers. However, the process of shifting their self-concept and assuming new roles is often long. This entails community organization, constituency building, clarifying or re-orientating values, raising environmental consciousness, and the sustained delivery of organizational development and technical capacity-building interventions.

One of the objectives of the PSF 2005-2009 Strategic Plan is to work towards a direction where coastal communities have developed skills and capacities to participate in effective management of marine resources on Danajon Bank. Our efforts to build and strengthen the organizational and technical capacities of the Alliance of Small Fishers in Danajon (KAMADA) form part of the core strategies to achieve this objective.

Community empowerment initiatives in Danajon Bank involve institution-building with the KAMADA. Formally organized in 2002, this award-winning regional alliance is both an intervention focus and leading partner of our community organizing and alliance-building work in Danajon Bank. PSF and KAMADA are also highly collaborative in our local and national policy advocacy efforts.



In 2007, our capability-building interventions with KAMADA aimed to enhance skills in leadership, organizational and project management skills, strategic planning, membership development, and coastal law enforcement. A small grant that KAMADA received from a local funding agency offered opportunities to further activate its leadership structures, and mentor leaders in project management, and financial recording and reporting.

We have facilitated the formulation of KAMADA's 2007-2010 Strategic Plan. Coastal law enforcement, MPA management, fisheries management, fishers' issue advocacy, and social development are key results areas of the new strategic plan. This three-year plan was adopted unanimously by the members of KAMADA during its congress on 30 May 2007.

Membership development is crucial in our alliance-building work. This can be through recruiting new affiliates, strengthening existing affiliates, or both. Our team mentored KAMADA local community organizers as they strengthened existing and prospective KAMADA-affiliates in six fishing villages. We guided the drafting of their constitution and by-laws and guided the registration of the new people's organizations with the Department of Labor and Employment.

We worked with MPA management councils and governing boards in at least 10 MPA sites across Danajon Bank. We encouraged local KAMADA leaders to become active members of these councils. At least five local KAMADA leaders in all sites secured seats in the MPA management councils. These KAMADA representatives were actively involved in MPA planning, community-based MPA monitoring, and coastal law enforcement.

Illegal fishing remains a major issue in Danajon Bank. The coastal law enforcement component of KAMADA's new strategic plan complements existing efforts to address the issue. PSF assisted KAMADA in planning the pilot implementation of short-message-service (SMS) aided illegal fishing reporting system. We facilitated the formulation of an operational plan for the pilot implementation. The Disney Wildlife Conservation Fund Conservation Hero award that we won in 2006 helped KAMADA to procure five mobile phone units that covert informants in five pilot sites can use. Named *Oplan Maniit*, the SMS-aided reporting system links with municipal and regional coastal law enforcement groups operating in the Danajon Bank.



Blast fishing remains a big problem on Danajon Bank. Top photo shows bags of ammonium nitrate, which may end up either on the farms or on the reefs. The MPA guardhouse (bottom picture) has become the symbol of communities' drives against illegal fishing. For these campaigns to succeed, political will, genuine and active support from municipal governments are very vital. Photos by A. Blanco and R. Apurado/PSF



MUNICIPAL CAPACITY BUILDING

Municipal governments in the Philippines have management mandates over municipal waters. Many of them still need to equip themselves with knowledge, skills, and tools needed to perform the mandate to a level that ensures sound management of their coastal resources. Municipal capacity building is a cornerstone program of the PSF 2005-2009 Strategic Plan. This program aims to build and strengthen municipal government capacities in developing and implementing coastal resource management policies, legislations, and programs. More specifically, the program is focused on developing municipal competence in MPA creation and management, and small-scale fisheries management. Our long involvement with MPA creation, management strengthening, and our research-linked management of the local seahorse fishery helped build our credibility as resource institution in these two areas.



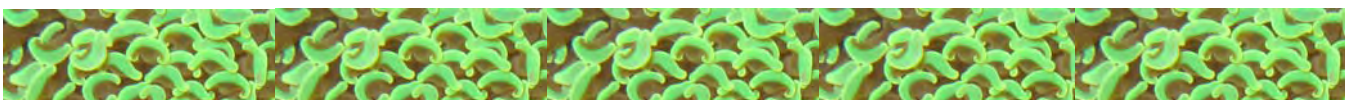
Jojo Delima (standing), Ubay, Bohol Coastal Resource Management Officer, discussing a point in one of the local MPA managers training-workshops. Photo by PSF

In 2007, support for local governments revolved around MPA creation processes, including site identification, generation of stakeholder support, and legislation. PSF extended technical guidance to a working group that was created to formulate the proposed ordinance for the Minantaw Reef Marine Park and Sanctuary in Lapu-lapu City. We also mentored village leaders of Busalian, Talibon on how to expedite approval of an MPA ordinance through active lobbying.

Through the Conservation, Food, and Health Foundation grant, PSF organized regional training workshops intended for local MPA managers. Technical personnel from seven partner municipal governments trained for MPA management alongside community-based MPA managers.

DANAJON BANK ECOSYSTEM-BASED MANAGEMENT

The existence of the rare Danajon double barrier reef is not widely known, even among local residents. This 272-km² ecosystem is within management jurisdictions of two cities and 15 municipalities, unevenly distributed in four provinces. While the region is ideal for showcasing inter-municipal collaborative and ecosystem-based management regime, there is a need to raise appreciation among local resource managers and stakeholder groups of the necessity of viewing Danajon Bank as one management unit. Existing municipal management plans remain highly fragmented and are not guided by a common management framework.





Many local government units in Danajon Bank plan to further develop seaweed production. There is a growing recognition of seaweed farming as alternative income source for many fishing communities. Remaining patches of healthy reef habitats may, however, unnecessarily be converted to seaweed farms. Thus, research-based information should be made accessible as local governments embark on the expansion.

Photos by A. Vincent/PS-UBC (left) and N. Hill/ZSL (right)

Our goal is to help generate research-based information on the biophysical and socio-economic attributes of Danajon Bank and facilitate forums among various stakeholder groups to generate support for a coordinated management.

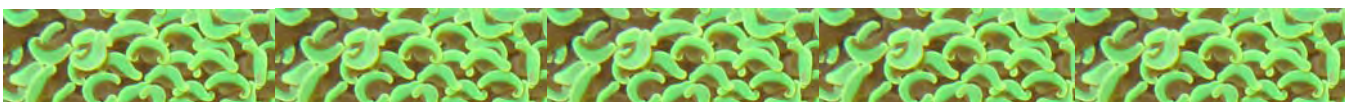
Past attempts to discuss ecosystem-based management of Danajon Bank were mostly local government unit dominated and the involvement of small fishers was generally minimal. A process that could draw out conservation and management issues and the agenda of the region's small fishers was therefore necessary.

We partnered with KAMADA in convening a series of agenda-setting consultations with small fishers in Bohol, Cebu, and Leyte. The **Agenda of the Small-Scale Fishers for the Conservation and Management of the Danajon Double Barrier Reef** evolved out of these consultations. The pioneering document that embodies the issues and aspirations of small fishers - a very important stakeholder group - was formulated and adopted. Representatives of various fishers groups in Danajon Bank adopted the agenda in a regional convention held on 29 May 2007 in Talibon, Bohol.



Representatives of fishers' organizations from Cebu, Bohol, and Leyte who attended the Danajon Bank Small Fishers Agenda Setting Workshop in May 2007 (top photo). An everyday sign of overfishing in Danajon Bank (bottom photo). Fishers are now catching smaller fishes, and collecting crabs and shells.

Photos by A. Blanco/PSF



POLICY ADVOCACY



The listing of seahorses in CITES Appendix II took effect in May 2004. PSF has been working with DA-BFAR in amending the Philippine Fisheries Code to allow sustainable use of marine resource. PSF organized a round-table discussion with senior officers of DA-BFAR (right photo). Photos by A. Vincent/PS-UBC (left) and PSF (right)

A central theme of our policy advocacy involves adjusting a provision of the Philippine Fisheries Code to allow sustainable use of marine resources.. We have worked closely with fishers' groups, provincial and national NGOs, traders and exporters, academic institutions, CITES management authorities, and members of the Philippines Congress in lobbying for the amendment of Section 97 of the Fisheries Code and to make it compatible with CITES.

In January, PSF convened a roundtable discussion to explore ways to advance collaborations on policy reform initiatives directed at reconciling Section 97 of the Fisheries Code with CITES. Leaders of the Alliance of Fishers in Danajon, officers of national and Region 7 offices of the Bureau of Fisheries and Aquatic Resources (DA-BFAR), and PSF team members attended the discussion. When we realized that the Section 97 amendatory bill we had been lobbying had a very slim chance of being deliberated by the last Congress, the group discussed how to approach the second filing of the amendatory bill in the next Congress.

The principal author of House Bill 659, Congressman Roberto Cajés of Bohol Second Legislative District, was re-elected to another congressional term during the May elections. He immediately re-filed his amendatory bill, which was drafted in dialogue with KAMADA and PSF. Another Section 97 amendatory bill was filed in Congress; House Bill 2266, which sought to exempt artificially cultured endangered species from the ban, was endorsed by the aquaculture sector.



Before the ban of fishery in 2004, more than 90% of seahorses from the Philippines ended up in Hong Kong traditional Chinese medicine markets. Photo by A. Vincent/PS-UBC



Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

THIRTEENTH CONGRESS

First Regular Session

House Bill No. 4840

Introduced by: Rep. ROBERTO C. CAJES

AN ACT AMENDING SECTION 97 OF REPUBLIC ACT 8550
OTHERWISE KNOWN AS THE FISHERIES CODE OF 1998

Be it enacted by the Philippine Senate and the House of Representatives in Congress assembled:

SECTION 1. Section 97 of Republic Act 8550 otherwise known as "THE FISHERIES CODE OF THE PHILIPPINES OF 1998" is hereby amended to read as follows:

"Section 97. Fishing or Taking of Rare, Threatened or Endangered Species.
It shall be unlawful to fish, CATCH, GATHER, SELL, PURCHASE, POSSESS, TRANSPORT AND EXPORT rare, threatened or endangered species as listed in CITES APPENDIX I and as determined by the Department."

"CONSISTENT WITH CITES RULES AND REGULATIONS, A NON-DETRIMENTAL FINDING (NDF) SHALL BE CONDUCTED BEFORE ANY TRADE WILL BE ALLOWED TO THOSE SPECIES LISTED UNDER APPENDIX II AND III OF THE CONVENTION.

THE BUREAU OF FISHERIES AND AQUATIC RESOURCES SHALL, IN COORDINATION WITH NFARMC, LGUs, PRIVATE INSTITUTIONS AND OTHER GOVERNMENT AGENCIES CONCERNED, INITIATE THE DEVELOPMENT OF A FISHERIES RESOURCE MANAGEMENT PLAN FOR

The Committee on Aquaculture and Fisheries Resources invited us to present our positions on the two amendatory bills. The BFAR and the Department of Environment and Natural Resources - Protected Area and Wildlife Bureau were supportive of the amendatory bills. The committee announced the creation of a technical working group to reconcile and consolidated the two bills. The committee chair committed PSF will have a representation in this working group.

Congressman Roberto C. Cajes of Bohol Second Legislative District originally filed House Bill 4840 (above photo) in the Thirteenth Congress. Congressman Cajes refiled same bill as House Bill 659 in the Fourteenth Congress. PSF and KAMADA assisted the legislator in the drafting of the bill.

INFORMATION, EDUCATION, AND COMMUNICATION

PSF believes that media is vital tool in building a strong constituency for marine conservation. We have engaged both broadcast and print media to inform the public about the critical conservation and development issues that are impacting on our marine resources and the communities relying on them for food and livelihoods.





At least 40 public sector organizations, civic groups, divers' associations, civil society organizations, universities, youth organizations, people's organizations, and corporations participated in the 2007 International Coastal Cleanup. PSF partnered with the Lapu-lapu City Government, Chevron-Philippines in organizing the annual global awareness campaign. Photos by PSF

Our initiatives to conserve local seahorse populations in Danajon Bank, the existence of the underground seahorse fishery, and the underlying socio-economic factors that push marginal fishers to engage in the illegal fishery were featured in the Reporters Notebook of GMA 7 Network. We also helped organize the visit of a filming crew from Hong Kong. Ocean Park Conservation Foundation-Hong Kong contracted a filmmaker to capture in film our conservation work in Danajon Bank. The materials will be used for conservation education targeting young people in Hong Kong. PSF also renewed its memorandum of agreement with a Cebu-based radio station that offers free airtime for conservation education.

A few key developments provided anchors for our printed media. Press releases associated with the launching of a Chevron-Philippines assisted project and the Most Outstanding MPA Award the Handumon MPA won in 2007 gained us attention in major local and national newspapers.

In partnership with Chevron Philippines and the Lapu-Lapu City Government, PSF organized 2007 International Coastal Cleanup in Lapu-lapu City. The event engaged university students, private and corporate sector groups, government offices, military, civic groups, peoples' organizations, and non-government organizations, while providing a good public education opportunity for PSF.



Left photo shows contestants of the 2007 World Environment Day drawing competition. Right photo shows one of the winning entries submitted by a local grade school pupil. There were also oratorical and singing contests. PSF and the Jandayan Island Coastal Development Council have been working together to make every June 5 an opportunity to raise environmental awareness, especially among children and youth.

Photos by PSF



BUILDING PARTNERSHIPS FOR MARINE CONSERVATION

The Philippine Local Government Code of 1991 created avenues for participation of the non-government organizations in local development. A system of accreditation has been put in place as the first step towards legitimate participation of NGOs, such as PSF. Accreditation is often co-terminus with the terms of elected local officials. After newly elected officials assumed office in June, PSF immediately worked out the renewal of its accreditation with the local governments of Tubigon, Buenavista, Getafe, Talibon, Bien Unido, Carlos P. Garcia, and Ubay in Bohol and Lapu-Lapu City.

Earlier we signed formal memoranda of agreement with the local government units of Bien Unido and Ubay in Bohol. We have current formal agreements with three other local government units in Bohol.

Our current financial resource base remains limited in relation to the nature and scale of the conservation and development issues in Danajon Bank. New collaborations and partnerships are, therefore, essential. Four international and national donor agencies formally committed to supporting our conservation initiatives.

Chevron Philippines approved a two-year grant that sets the stage for broader and more dynamic community-local government-corporate sector collaborative engagement in marine conservation in Danajon Bank. The MPA this project is establishing off the coast of Caubian Island will serve as gateway to private and corporate sector involvement in the conservation of Danajon Bank. The project employs an MPA-centered strategy, which we have coined as "MPACS". Using MPACS, we will create a coherent and integrated programme that combines management and technical skills-building, partnerships, environmental education, and social mobilization with MPA establishment and management strengthening.

The Ocean Park Conservation Foundation-Hong Kong awarded us a one-year grant to strengthen our current understanding of the status of local seahorse populations in Danajon Bank. This grant allows us to track how wild seahorse populations respond to MPAs and how wild populations in fished areas react to the prevailing underground fishery.



Our partnership with Chevron-Philippines aims at catalyzing more corporate sector involvement in the Danajon Bank conservation and management. The partnership was formally launched early in 2007. The Caubian Island community (bottom photo) is also a very important partner in the undertaking.

Photos by A. Nellas/PSF and A. Vincent/PS-UBC



OPCF-HK's vision is to ensure the sustainability of wildlife and biodiversity. It advocates, facilitates and participates in the conservation of wildlife and habitats, with an emphasis on Asia, through research and education.

The Philippine Tropical Forest Conservation Foundation approved support for a one-year project that aims to rehabilitate and conserve mangrove forests to enhance the biological connectivity between mangrove habitats and adjacent protected coral reef areas and seagrass beds. Beginning in 2008, the project will be implemented in seven MPA sites with adjacent remnant and marginal mangrove forests. This will be implemented in close collaboration with existing MPA management councils and local government units.

Project Aware Foundation-Asia Pacific also gave us a small grant to help managers of a newly created MPA procure marker buoys and set up educational community billboards.

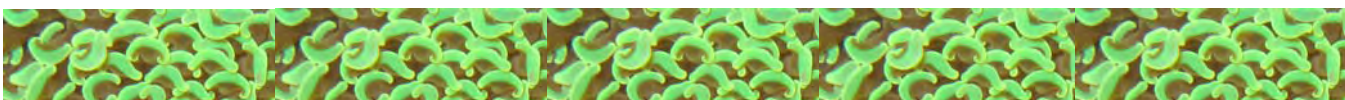


PSF initial data analyses reveal that while seahorses inside no-take zones do not increase in number, they become bigger. Disney Wildlife Conservation Fund and Ocean Park Conservation Foundation-Hong Kong have supported our long-term monitoring of seahorse populations on Danajon Bank.

Photos by C. Lau & G. Leung/OPCFHK-PSF Volunteer and K. O'Donnell/PS-UBC

For three consecutive years, Conservation, Food, and Health Foundation has been supporting our efforts to create new community-managed MPAs and to strengthen the effectiveness of existing ones. This partnership has catalysed the creation of three new MPAs and enhanced the management of at least seven that already exist. CFHF has just approved a third grant, which will enable us to help local MPA managers address the issue of financial inadequacy, which has constrained the smooth implementation of their MPA management plans.

The funding support regularly entrusted to PSF by our long-time partner, the John G. Shedd Aquarium of Chicago, allows us to perform our core conservation programs in Danajon Bank and ensures effective implementation of the projects supported by our other partners and donors, through planning, supervision, and extension vital technical assistance.



PSF ORGANIZATIONAL DEVELOPMENT



Senior Project Seahorse scientists, like Dr. Jean Marcus, Ph.D. (right, top photo), provide periodic training to PSF field biologists. Lower photo, from right: Pert Auxilio, Elvira Bohol, Franco Villaruel, Rosemarie Apurado, Angelie Nellas, and Hazel Panes attended the Coastal Zone Philippines 2 and MPA Congress in Iloilo City. Mrs. Bohol, who represented Handumon community, made an oral presentation about the Handumon MPA experiences. Photos by J. Selgrath/PS-UBC and A. Bartolo/PSF

PSF puts an emphasis on staff training, retooling, and systems improvement as part of our 2005-2009 strategic plan. Two PSF field biologists participated in the 9th National Symposium in Marine Science in October 2008 in Iloilo City. One of them gave an oral presentation, titled “Redesigning benthic monitoring of coral reserves in northern Bohol, central Philippines”. The presentation proved to be effective staff training strategy for our young biologists. It also generated inputs and recommendations from members of the local marine science community on how to enhance our monitoring design, which was being piloted in a few MPA sites in Danajon Bank. The symposium also offered a wide professional networking opportunity for our biologists. The Philippine Association of Marine Science organised the biennial symposium.

All staff attended the **Coastal Zone Philippines 2: Sustainable Financing and MPA Congress** that was held on 27-28 October 2007 in Iloilo City, Philippines. The sub-themes of the congress, which included Sustainable Financing Mechanisms, MPAs and Ecosystem-based Management and Fisheries, Recent Concerns with Pollution in the Coastal Zone, and MPA Best Practices from Sites, were all

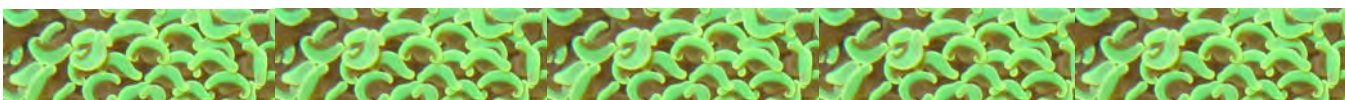
extremely relevant to PSF’s goals. Our biologists also took part in the MPA Support Network Visayas MPA Regional Forum.

Dr. Keith Martin-Smith and Dr. Jean Marcus conducted intensive hands-on training on habitat mapping and photoquadrats survey methods for our field biologists. Drills on oxygen kit and first aid administration, and cardio pulmonary resuscitation were organized to enhance our capability to handle diving related accidents. Some team members were also required to take structured basic swimming lessons.



PROJECT SEAHORSE FOUNDATION TEAM 2007

Alfredo Abayan	Local Community Organizer
Edward Alivo	MPA Surveys Local Assistant
Rosemarie Apurado	Community Organizer
Perfecto Auxilio	Community Organizer
Wilson Barbon	Senior Social Development Officer (until September)
Alfie Bartolo	Messenger-Utility
Amado Blanco	National Director
Rosamund Boalch	MPA Surveys International Volunteer (UK)
Pedro Bohol	MPA Surveys Local Assistant
Hermes Cosicol	Local Research Assistant
Dondon Daan	MPA Surveys Local Assistant
Jesus Rey Dongallo	Local Research Assistant
Delia Flores	Local Assistant
Fermina Genson	Field Biologist (until July)
Nick Hill	Ph.D. Student
Lourdes Labrada	Administrative and Finance Officer
Joleah Lamb	MPA Surveys International Volunteer (USA)
Diosdada Mejasco	Local Assistant
Lucilo Minguito	Local Research Assistant
Angelie Nellas	Field Biologist
Kerrie O'Donnell	Ph.D. Student
Hazel Panes	Field Biologist
Rogelio Pechoco	MPA Surveys Local Assistant
Jennifer Selgrath	Ph.D. Student
Geralde Sucano	Local Research Assistant
Franco Villaruel	Senior Social Development Officer (since September)



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www.fisheries.ubc.ca



The Zoological Society of London, UK
www.zsl.org



The John G. Shedd Aquarium
Chicago, USA
www.shedd.org

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Ocean Park Conservation Foundation –Hong Kong
Pew Fellows Program for Marine Conservation, U.S.A.
Philippine Tropical Forest Conservation Foundation
PKF Family Foundation
Project Aware Asia Pacific
Whitley Fund for Nature





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