While significant attention has been given to the impacts of climate change and other human pressures on coral reefs and mangrove forests, understanding of changes in seagrass habitats is still limited. Seagrasses are declining globally at a rate of 7%/yr. In total, 29% of the total known global extent of seagrasses has disappeared. Much of the connectivity (how one ecosystem is connected or depended upon another ecosystem) in coastal tropical ecosystems depends on intact and healthy non-coral habitats, such as seagrass meadows. These non-coral habitats are particularly important to the maintenance and regeneration of fish populations.

Monitoring changes in seagrass meadows (and their associated fauna) can provide an indication of coastal ecosystem health and be used to improve our capacity to predict expected changes to coral reefs, mangroves and associated resources upon which coastal communities depend. Seagrasses provide key ecological goods and services valued at billions of dollars per year. In addition, seagrasses have high societal importance (e.g. fishing grounds, fish nursery areas, seaweed farming) for coastal communities throughout South East Asia. Seagrasses may be more resilient to some aspects of climate change such as temperature rise and ocean acidification than other coastal ecosystems. Thus it is important to protect these habitats to ensure the long-term resilience of the local communities to climate change.

Within the Sulu-Sulawesi Seascape, the Verde Island Passage has a very high diversity of mangrove, coral and seagrass species and it is considered the “Center of the Center” of the world’s biodiversity, providing natural resources and ecosystem services for the benefit of about 7 million people. To protect these resources from current and future threats, marine protected areas (MPAs) are being used throughout the Passage. However, MPAs are still working towards a comprehensive management of all habitats and seagrasses are often neglected in this process.

To increase awareness of seagrass and the services they provide and to ensure a sustainable management of seagrass resources, Conservation International, in partnership with the Marine Science Institute – University of the Philippines, the SeagrassWatch Program and the municipalities of the Verde Island Passage designed a training program for managers of marine protected areas (MPAs) in the Sulu-Sulawesi Seascape to provide tools for monitoring, adaptive management, and conservation of seagrass beds and increase awareness among managers and local governments to effectively conserve these important ecosystems and ensure their protection is specifically addressed within MPA management plans.
THE TRAINING PROGRAM

The seagrass training course is designed primarily to bring together National and International seagrass experts with coastal resource and MPA managers to work together through a comprehensive curriculum on why seagrasses are important, how to monitor and map them, and how doing so can greatly improve our management of coastal ecosystems in the face of global issues such as climate change. Field visits to local seagrass beds will be an integral component of the curriculum during which specific training on the design and implementation of monitoring programs for seagrasses will be covered. Participants will also engage in sharing case studies, discuss their local management plan and lessons learned and developing effective awareness campaigns.

The training will be held through three day workshops. Full participation is required as each day a different topical area will be covered. Applicants will be asked to commit to the entire duration of the training program in order to receive maximum benefit. The training program and all material will be presented in English, requiring English proficiency by participants. Each workshop will host about 12-15 people and will be run by five instructors according to the modules. The project will not only train the specific participants of the training workshops, but will also provide materials so that knowledge can be more broadly disseminated through the participants in a ‘train the trainer’ model.

Course Goals

- To increase and strengthen the protection of seagrasses in the VIP by enhancing knowledge of seagrass ecosystems;
- To provide tools for monitoring seagrass systems, with reference to the impacts of climate change;
- Build awareness of the threats (overfishing, pollution) to seagrass ecosystems and how to manage them.

Course Objectives

- Transfering knowledge to MPA managers on seagrasses, their ecological role and how to manage the main threats to these habitats.
- Enhance the capacity of MPA managers to implement effective coastal management plans that explicitly include critical seagrass habitats.
- Provide effective tools for assessing human and climate change impacts in some of the most ecologically significant seagrass habitats of the Coral Triangle region.
- Provide hands-on examples of how to monitor seagrass beds and how to create effective awareness campaigns.
- Provide opportunities to revise current management plans and to include specific actions to better manage and protect seagrass ecosystems.
Course Modules

Module 1:
Basic notions of seagrass biology & ecology

Module 2:
Seagrass ecosystems and the services they provide

Module 3:
How to monitor and map changes in seagrass beds, developed in partnership with the SeagrassWatch Program

Module 4:
Main threats to seagrasses in the VIP; Climate change in the VIP and relevance to seagrasses

Module 5:
How manage seagrasses in the VIP, tools and approaches;

Module 6:
Identify useful products and key messages for increasing seagrass awareness in the VIP

In addition, visits to local seagrass beds will be conducted to learn species identification and to implement monitoring and mapping exercises.

Lodging and all meals will be provided as part of the training program.

Contacts:

Dr Augustus (Rex) Montebon
Manager, Sulu Sulawesi Seascape
Tel: 0632-924-8235/Fax: 0632-4356446
Email: amontebon@conservation.org

Rochelle Balitaan
Project Coordinator, Sulu Sulawesi Seascape
Tel: 0632-924-8235/Fax: 0632-4356446
Email: rbalitaan@conservation.org

Dr Giuseppe Di Carlo
Manager, Marine Climate Change Program
Phone: +1 703 341 2522
Email: g.dicarlo@conservation.org

Our Vision

We imagine a healthy prosperous world in which societies are forever committed to caring for and valuing nature for the long-term benefit of people and all life on Earth.

Our Mission

Building upon a strong foundation of science, partnership and field demonstration, CI empowers societies to responsibly and sustainably care for nature for the well-being of humanity.

Photo Credits: Prof Mike Fortes, SeagrassWatch, RP van Dam
Seagrass-Watch is a participatory monitoring program developed in 1998 to provide an early warning of coastal ecological decline. It is a multi-faceted program focused on long-term monitoring and education, awareness and capacity building. Monitoring is a valuable tool for improving management practices by allowing resource managers to know whether resource status and condition is stable, improving or declining.

Participants in the program range in ages from 18 to 72 and represent a diverse cross-section of the community, including tradespeople, engineers, indigenous communities, school teachers, fishers, divers, retirees, university students, biologists and ecologists. Many are involved with local environmental groups and have a keen interest in conservation and environmental issues.

More than 25 countries participate in the program globally and monitoring is currently occurring at over 270 sites and growing. The success of the program is that information collected can be used in local decision making with regard to habitat management practices and protection.

Seagrass-Watch methods were developed to be rigorous, yet relatively simple and easy to use. After 6–9 hours of training, participants can produce reliable data. Training includes both formal and informal approaches. Technical issues concerning quality control of data are important, especially when the collection of data can be by people not previously educated in scientific methodologies. Seagrass-Watch has an accepted Quality Assurance-Quality Control program in place to ensure that the program is producing data of high quality, and that time and resources are not wasted. Quality data reassures the data users (e.g., coastal management agencies) that they can use the data to make informed decisions with confidence.

Early detection of change allows coastal management agencies to adjust their management practices and/or take remedial action sooner for more successful results. The program has provided information about the health of seagrass ecosystems for local management agencies and developed benchmarks where performance and effectiveness can be measured.

By working with both scientists and local stakeholders, it is hoped that the impacts on seagrass meadows can be avoided. To protect the valuable seagrass meadows along our coasts, everyone must work together. To register and make a difference, visit www.seagrasswatch.org

If you are interested in taking the opportunity of the Training Workshop to set up a seagrass monitoring site in collaboration with SeagrassWatch or organise a Seagrass-Watch Training Workshop, please contact Seagrass-Watch HQ ahead of time.

Contacts:

Seagrass - Watch HQ
Northern Fisheries Centre
PO BOX 3596, Cairns
QLD 4870 Australia
Email: hq@seagrasswatch.org
www.seagrasswatch.org