IOC/WESTPAC Project on Coastal Marine Biodiversity and Conservation in the Western Pacific

Department of Marine and Coastal Resources and Chulalongkorn University THAILAND
IOC/WESTPAC Project on Coastal Marine Biodiversity

- In contributions to the High Level Objectives of IOC/UNESCO (2008-2013) on the safeguarding the health of marine ecosystem, the UNESCO/IOC-WESTPAC unanimously approved one regionally rooted project on “Coastal Marine Biodiversity and Conservation in the Western Pacific” at its 7th Intergovernmental Session in Sabah, Malaysia 2008
IOC/WESTPAC Project on Coastal Marine Biodiversity

Project Objectives:

- To understand and provide the scientific basis for biodiversity management by articulating the state of the science with respect to current and emerging stressors

- To establish the effective management plan and monitoring programs for marine biodiversity among WESTPAC country members

- To encourage research collaboration and to exchange knowledge among WESTPAC countries
Coastal Marine Biodiversity and Conservation in the Western Pacific

- Biodiversity and taxonomy of marine organisms
- Effect of disturbance and current stressors on biodiversity
- Restoration and rehabilitation of ecosystems
Project Leader and Project Steering Group

Project Leader: Dr. Suchana Apple Chavanich
Project Coordinator: Dr. Chareon Nitithamyong
Project Steering Group:

China: Dr. Put Ang, Dr. Xuelei Zhang
Indonesia: Dr. Mujizat Kawaroe
Japan: Dr. Makoto Omori, Dr. Toshio Furota, Dr. Shuhei Nishida
Korea: Dr. Yoon Lee, Dr. Heung-Sik Park, Dr. Youn-Ho Lee
Malaysia: Dr. Zulfigar Yasin, Dr. Aileen Tan Shau Hwai
Philippines: Dr. Edgardo D. Gomez, Dr. Benjamin Vellajo, Jr
Singapore: Dr. Chou Loke Ming, Dr. Beverly Goh, Dr. Lik Tong Tan
Thailand: Mr. Niphon Phongsuwan, Dr. Anchana Prathep, Dr. Somchai Bussarawit, Dr. Nalinee Thongtham
Vietnam: Dr. Vo Si Tuan
IOC/WESTPAC Project on Coastal Marine Biodiversity and Conservation

IOC/WESTPAC Project on Coastal Marine Biodiversity and Conservation was approved unanimously by member states during the Seventh Intergovernmental Session of the IOC Sub-Commission for the Western Pacific in Malaysia in 2008 as a contribution to the High Level Objective of UNESCO/IOC in safeguarding the health of ocean ecosystems. The project focuses and covers 3 study areas.

1. Biodiversity and taxonomy of marine organisms

   The project emphasizes on reviewing and identifying taxonomical groups which need to have more studies. At present, taxonomy is becoming more important as scientists struggle to identify species in order to understand the subtle relationships and complex reactions of ecosystems threatened by human pursuits. The study of taxonomy provides a solid foundation for the research needed for the conservation of marine life.

2. Effect of disturbance and current stressors on biodiversity

   The project reviews and determines regional concerns on disturbance and current stressor on marine biodiversity as disturbance is a major factor contributing to the declining of biodiversity in marine ecosystems that can lead to the species extinction. The examples of disturbance and current stressors concerned among WESTPAC region include introduction of non-native organisms, climate change, rising of temperature, and anthropogenic factors.

3. Restoration and rehabilitation of ecosystems

   Due to rapid declining of biodiversity in marine ecosystems, restoration and rehabilitation are needed. In this subproject, several techniques of restoration and rehabilitation of marine ecosystems are identified and evaluated to promote efficient and cost-effective implementation on restoration.
Activities Carried Out During Last Intersessional Period (May 2012-December 2014)

IOC/WESTPAC Workshop on Coral Reef Restoration Techniques in the Western Pacific Region

Venue: Chulalongkorn University, Bangkok, Thailand
Dates: September 21-23, 2012

The workshop was co-organized and sponsored by

- Japan Fund in Trust
- Department of Marine and Coastal Resources (Thailand)
- JSPS Acore – Comsea Program
- Chulalongkorn University (Thailand)
IOC/WESTPAC Workshop on Coral Reef Restoration Techniques in the Western Pacific Region

- A total of 43 participants from 10 countries: China, Indonesia, Iran, Japan, Korean, Malaysia, Philippines, Singapore, Thailand, and Vietnam attended the workshop.

- It aimed to summarize the coral reef restoration techniques that have been used or experimented in each country in the WESTPAC region.
Activities Carried Out During Last Intersessional Period (May 2012-December 2014)

Other activities included: (cont.)

**International Training Course on Sustainable Use and Conservation of Marine Ecosystems: Taxonomy of Soft Corals**

Venue: Phuket Marine Biological Center, Thailand
Dates: September 24-26, 2013

It aimed to help to instruct the current classification of soft corals and diagnose specific classification problems

The workshop was sponsored by:
- Thai National Commission for UNESCO
- Japan Fund in Trust
- Phuket Marine Biological Center
- Chulalongkorn University
International Training Course on Sustainable Use and Conservation of Marine Ecosystems: Taxonomy of Soft Corals

- A total of 33 participants from 8 countries: Cambodia, Indonesia, Korea, Malaysia, Philippines, Singapore, Thailand, and Vietnam attended the workshop.
Activities Carried Out During Last Intersessional Period (May 2012-December 2014)

Other activities included: (cont.)

**Editing Team Meeting: A Summary of Coral Reef Restoration in the Western Pacific Region**

Venue: NUS, Singapore
Date: December 17-18, 2013

Purposes:
- To draft pamphlet and scientific manuscript on coral restoration techniques in the Western Pacific region
Editing Team Meeting: A Summary of Coral Reef Restoration in the Western Pacific Region
Activities Carried Out During Last Intersessional Period (May 2012-December 2014)

Other activities included: (cont.)

IOC/WESTPAC Workshop on Coastal Marine Biodiversity and Conservation in conjunction with the 9th IOC/WESTPAC International Scientific Symposium

Venue: Nha Trang, Vietnam
Date: April 22-25, 2014

Purposes:

- To review past and current activities that had been done through the IOC/WESTPAC Project on Coastal Marine Biodiversity and Conservation
- To discuss future activities for IOC/WESTPAC Project on Coastal Marine Biodiversity and Conservation
IOC/WESTPAC Workshop on Coastal Marine Biodiversity and Conservation in conjunction with the 9th IOC/WESTPAC International Scientific Symposium

- **Purposes: (cont.)**
  - To give an opportunity for steering committee to present their research work related to marine biodiversity in the international conference for visibility of the IOC/WESTPAC Project on Coastal Marine Biodiversity and Conservation
  - A total of 14 Project Steering Committee were attended. In addition, 1 representative from NOWPAP and 16 guests attended as the observers.
Activities Carried Out
During Last Intersessional Period
(May 2012-December 2014)

Other activities included: (cont.)

Disseminating the outcomes of the research results and activities of the IOC/WESTPAC Project Coastal Marine Biodiversity and Conservation in the Western Pacific at the 3rd World Conference on Marine Biodiversity

Venue: Qingdao, China
Date: October 12-16, 2014
Collaborations with other WESTPAC projects and/or other organizations in the past 4 years

In the IOC/WESTPAC Projects:

- WESTPAC- HAB
- WESTPAC- DRMREEF
- WESTPAC -TMO
- WESTPAC-Remote sensing

Outside of the IOC/WESTPAC:

- PICES
- ICES
- UNEP/COBSEA
- UNEP/NOWPAP
- JSPS ACORE-COMSEA
- UNESCO Thailand
Summary of potential activities in the next 4 years

Coastal Marine Biodiversity and Conservation in the Western Pacific

Biodiversity and taxonomy of marine organisms
- identify newcomers marine NIS species
- identify other marine new species

Effect of disturbance and current stressors on biodiversity
- summary impact of climate change on biodiversity and monitoring
- impact of ocean acidification on biodiversity and monitoring

Restoration and rehabilitation of ecosystems
- summary other ecosystem restoration technique
## Proposed Workplan and Budget for January 2015-May 2017

<table>
<thead>
<tr>
<th>Action item description</th>
<th>To be implemented by [name]</th>
<th>Date</th>
<th>Expected outputs</th>
<th>Requested from other sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshop: Updating a list of marine NIS</td>
<td>DMCR, CU (Thailand)</td>
<td>August/September 2015</td>
<td>Report/scientific paper of a list of marine non-indigenous species in the WESTPAC region</td>
<td>32 K USD from Japan Trust in Fund and in kinds from DMCR and CU</td>
</tr>
<tr>
<td>Workshop: Updating techniques of coral restoration</td>
<td>DMCR, CU (Thailand)</td>
<td>August/September 2015</td>
<td>Report/scientific paper of coral restoration techniques available within the Western Pacific region</td>
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## Proposed Workplan and Budget for January 2015-May 2017

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</tr>
</thead>
<tbody>
<tr>
<td>Preparing 2 books related to list of marine non-indigenous species and coral restoration techniques</td>
<td>DMCR, CU (Thailand)</td>
<td>December 2015</td>
<td>Books</td>
<td>Springer</td>
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<tr>
<td>Collaborating with IOC/WESTPAC ocean acidification project</td>
<td>DMCR, CU (Thailand)</td>
<td>2015, 2016</td>
<td>Methods for monitoring ocean acidification for biological part</td>
<td></td>
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