

Report on seagrass related activities

Preparation of material

1) For display in CCRC and at Workshop

Four posters were designed and printed around the themes of:

- What is seagrass?
- What species are found around KPT, and how are they identified?
- What is the value of seagrass?
- What are the threats to seagrass meadows?

Those posters were originally written in English, and have been translated into Thai. So there are now 8 posters, 65 X 45 cm, which will be mounted and become the central part of a permanent display in a room devoted to seagrass in the CCRC. Dried specimens of local seagrasses were mounted and laminated for display, and for demonstration of species differences in the workshop.

2) For monitoring

A description of the monitoring technique was written and translated into Thai. The technique follows that of Seagrass-Watch (www.seagrasswatch.net) for intertidal sites. The most important part of the monitoring involves estimating the percent coverage of seagrass within a quadrat by comparing the contents of the quadrat in the field with a photographic standard for which the percent cover has already been calculated. The photographic standards were downloaded from the Seagrass-Watch web site, printed, and laminated for our use. The Seagrass-Watch data sheet was also translated. Materials needed for the monitoring were purchased, and steel quadrats were made.

Introductory workshop on seagrass

A workshop was held on 16 June 2009 in Ban Lion. It lasted two hours and was attended by 12 villagers. There were 4 staff of the Marine and Coastal Resource Conservation Centre in Phuket who happened to be in the area and were also able to attend. We also invited Petchrung Sukpong of the International Union for the Conservation of Nature (IUCN) in Kuraburi to attend and lead one of the sessions. The main areas of discussion were:

- What is seagrass and where is it found around Ko Phra Thong?
- Why is seagrass important?
- What seagrass species are found near Ban Lion?
- What are the important animals that use the seagrass habitat?
- What are the problems and threats to seagrass, and what can be done about it.?

Sessions were led by Piyapat N, Jaruwan Kaewmahanin , Petchrung Sukpong, and Barry Bendell. The participants were familiar with seagrass, and knew where there were

meadows around the island. They mentioned that seagrass was important as a habitat for animals, that it was important as a source of food for some animals, e.g. green turtles, and that it provided a nursery area for some species. Many species were listed as being found in seagrass meadows. Among the many mollusks, hoy chuk teen (*Strombus* species) were mentioned as being especially important. They also mentioned the importance of seagrass for swimmer crabs, rabbitfish, several species of grouper, and sea cucumbers. Among threats to the seagrass, participants mentioned the damage done by the 2004 tsunami. Among man-made threats, they mentioned push nets, sea cucumber trawl nets, crab tangle nets, and boat propellers. As possible solutions to these problems they suggested developing a kind of zoning regulation of the area, with appropriate signs. They reported that there had been a very positive experience of zoning at the village of Tha Payoi. Refreshments and sweets were served during the workshop.

Monitoring

On June 26, a group of 9 villagers, led by Piyapat Nakhornchai and Barry Bendell, met at the school for a short discussion and training on seagrass monitoring. The value of seagrass and the benefits of monitoring were first discussed. Then there was a short practical demonstration of the monitoring technique. In the space under the school, a transect line was set up, and photos of seagrass in quadrats were placed at the 5m intervals along the line. The participants were then asked to fill out sample monitoring sheets as they would in the field. The participants did not seem to have any difficulty grasping the concepts of what they were being asked to do, and there seemed to be little reason to spend a great deal of time on the practical exercise. So refreshments and sweets were consumed, and we then headed into the field to the study plot which had been chosen and staked out the day before.

The monitoring site was only about 10 minutes walk from the village. Less than an hour was spent at the site, and most time was spent on logistical problems, such as setting up transects. The actual monitoring proceeded quickly. The one problem that we identified, was that the photographic standards that we downloaded were not as useful as they should have been. Participants did not consult them much. There was some guesswork in estimating percent coverage which could be reduced by improving the quality of the standards so that they more closely resembled conditions at the local site.

Outcomes

There appeared to be a good basic understanding of the importance of seagrass among those people who attended both the initial meeting and the monitoring. That knowledge was reinforced and extended in the discussions and the experience of monitoring. Interestingly, the nearby seagrass meadow was identified as a site to take tourists during the training for community based tourism. There is a sense of conflict over the local use of resources with people from the outside and with the proposed national park. So monitoring the seagrass can be presented as one way that local people can be seen to take possession of the resource. It is likely that there will be continued interest in monitoring in the future. It appeared that the task of monitoring was not considered too complex,

difficult, or time-consuming. Over time interesting patterns with respect to seasonal changes and other changes may immerge. The seagrass data will be kept in the CCRC and made available to everyone in the community, and to all other interested persons, such as Thai researchers and the Seagrass-Watch organization.



Photo 1 Training for monitoring



Photo 2 Examining a quadrat in the field



Photo 3 Group of monitors after completing transect #1



Photo 4 Second group after completing transect #2