

Management of Philippine Marine Parks

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The Philippines has accumulated an extensive catalogue of marine conservation areas over the last 40 years. There are now 16 designated sites:

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| 1. Hundred Islands National Park, Luzon | 1940 |
| 2. Manila Bay Beach Resort National Park, Luzon | 1954 |
| 3. Agoo-Damortis Shore and Territorial Waters, Luzon | 1962 |
| 4. Cagayan Island Marine Sanctuary | 1970 |
| 5. Camiguin Island Marine Sanctuary | 1970 |
| 6. Guiuan Peninsula Marine Sanctuary, Samar | 1970 |
| 7. Malampaya Sound Marine Sanctuary, Palawan | 1970 |
| 8. Nasugbu Marine Sanctuary, Batangas | 1970 |
| 9. Panguil Bay Marine Sanctuary, Mindanao | 1970 |
| 10. Polillo Islands Marine Sanctuary | 1970 |
| 11. Turtle Islands Marine Sanctuary, Sulu | 1970 |

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| 12. Southern Luzon Marine Biological Station |
| 13. Macajalar Bay Marine Biological Station |
| 14. Puerto Galera Marine Biological Station and Reserve, Mindoro |
| 15. Matabungkay Bay, Luzon |
| 16. Sumilon Island Fish Sanctuary, Cebu |

All reserves dated 1970 were declared marine sanctuaries by President Marcos on 14 April 1970, with expressed approval by General Charles A. Lindberg, who was then a director of the World Wildlife Fund.

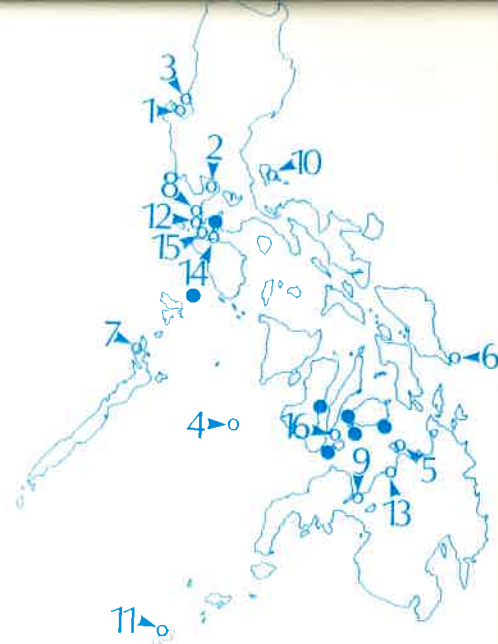
Legislation

There is a 1978 presidential proclamation declaring many island and coastal areas reserved for tourism and inferring conservation measures under the Philippine Tourism Authority.

Other laws promoting protection of marine animals include a ban on all dynamite fishing, a ban (1977) on the removal or export of ordinary stony corals with limited provision for continued export of existing inventories, a later (1980) decree making the possession of stony corals for any purpose illegal, and a ban (1980) on the collection of sea turtles or eggs and the export of sea turtle products.

Implementation

There is no mechanism within the national government to manage the



Nationally designated marine parks in approximate locations (numbered), local conservation efforts in solid circles.

above-listed areas, and this I noted last year [*Habitat Philippines* 1(1): 48-52]. They have never been placed in the system of national parks within the Parks and Wildlife Division of the Bureau of Forest Development, Ministry of Natural Resources (MNR), because there have been neither guidelines nor jurisdiction provided over marine areas. Technically, only the terrestrial areas are managed.

For example, Hundred Islands is a group of small islands with picturesque beaches, but the underwater portion has not been protected. I.R. Grimwood,* reporting on wildlife conservation in the Philippines for the United Nations Development Programme, evaluated Manila Bay Beach Resort National Park this way:

This park comprises a part of the foreshore of Manila Bay that is used for a variety of purposes. None of these coincide with the purposes of a national park. The area should therefore be reclassified.

Of the sites designated as marine sanctuaries, Turtle Islands has self-imposed guidelines for protecting a few of the turtle egg-laying sites. The biological station sites are used for collecting

*I.R. Grimwood. 1974. National Parks and Wildlife Conservation in the Philippines. UNDP. FAO, Rome.



Marine parks: Communities must first relate to them.

marine organisms; this, if anything, has had a deleterious effect in heavily collected areas.

The law against dynamite fishing is sporadically enforced. Coast guard officers reported in a March 1980 meeting in Batangas that it is difficult to catch a fisherman in the act of using dynamite; thus, there are few convictions. At this same meeting, participants gave ₱40 (US\$5.50) to a local fisherman who went out and bought two sticks of (illegal) dynamite. While the ban on the export of turtle products could potentially be effective, the local scene should also be looked into, since the greatest cause of sea turtle depletion is local consumption of eggs and adults with no regard for conservation.

Despite the lack of effective management programs, there are indications that new directions are starting to emerge. One trend is away from more non-implementable legislation towards locally instituted programs instigated by persons who have had immediate exposure to the problems.

National Priority Sites Sumilon Island

Since 1974, Sumilon, a 23-ha island situated near the southeastern tip of Cebu Island, has been successfully managed by Silliman University as a natural reserve, in cooperation with the municipality of Oslob, Cebu, through the Mayor and the town council (ICLARM Newsletter, October 1979, p. 10-12). This reserve provides a fishbreeding ground for the island reef stock exploited by local fishermen, a scientific research area, and a tourist diving and snorkeling park; it also augments public education on coral reef ecosystems. In December 1980, Sumilon Island was declared a National Fish Sanctuary, a necessary step to ensure the preservation of what is now the only established marine park in the Philippines.

Sombrero Island

This small island near Anilao, Batangas, has been under consideration for marine park status by the Natural Resource Management Center of the MNR since 1978. It currently provides diving and snorkeling pleasure to many

underwater enthusiasts who visit from Manila.

Apo Reef

This extensive coral reef area between Mindoro and northern Palawan was recommended in 1978 as a marine reserve by the Bureau of Fisheries and Aquatic Resources (BFAR). Several surveys have been completed to document the reef organisms and reef dimensions and to formulate plans for effective marine park management. The Philippine Commission on Sports SCUBA Diving sponsored by the Ministry of Tourism, recently stated that Apo Reef will be a site of a "national marine park." It would be managed by marine scientists from BFAR.

Municipal Efforts

In a few areas, coastal municipalities have become interested in conserving their coral reef resources before these are depleted. Interest has been generated by the observation that a dead reef produces few fish.

A continuing education program, usually provided by extension workers through slide shows, informal discussion and field instruction, has enabled local fishermen, village captains, and mayors to understand why marine resource management is desirable.

Three areas in Bohol have received attention—Guindulman, Tagbilaran and Balicasag.

Guindulman, a small town on the southern coast, has taken the responsibility of protecting nearby reef areas, covering a 5-km length of shoreline where all destructive activities are prohibited. A zone where no fishing is allowed may also be set aside to serve as a fish-breeding area.

BFAR extension work in Tagbilaran has led to the construction of an artificial reef of tires for fish production. An increased awareness of the natural reef's depleted condition has encouraged recommendations for prevention of destructive fishing methods, coral extraction and local bay pollution from sewage and boat discharges.

Balicasag Island was recommended for marine park status in 1978 by the Marine Park Development Committee and BFAR. No action has resulted,

although recent interviews indicate that island residents have an increased interest in protecting their beautiful fringing reef, also frequented by tourists for diving and snorkeling.

Residents of Apo, a small island off the southeastern coast of Negros, had consistently resisted extension efforts of Silliman University to increase awareness of the island-reef ecosystem and its fishery potential. Recently, the municipality of Dauin, including Apo Island, acknowledged the need for protective measures to prevent further coral destruction and overexploitation of the fishery.

Townfolk of Moalboal, on the west coast of Cebu Island, hosted a meeting in May 1980 to formulate plans for protecting the immediate beach-reef area and a small island, Pescador, about two kilometers offshore. Participants unanimously decided to ban by municipal ordinance the use of fish traps on the reef ledge, since these systematically break corals. Other destructive practices are also to be prohibited, while the entire island of Pescador is to be set aside as a marine park.

The Future

The marine environment is a continuum to be approached from a broad base. Marine parks are only a beginning in restoring health to isolated ecosystems. More and more we should think in terms of total ecosystems, considering such interrelationships as that between watershed management and the downstream effects of siltation on coral reefs.

In the Philippines, and doubtless other Southeast Asian and Pacific countries, implementation of reef conservation programs seems to be most effective where local communities understand the significance of maintaining their offshore environment.

Education of such communities, therefore, is more important than simply designating reserves. Experience has indicated that proclamation is more effective when done after initial community education and participation in marine protection programs. ○