

International Studies and Collaborative Management Program
of the National Marine Sanctuary Program

THE ITALIAN SYSTEM OF MARINE PROTECTED AREAS



Final Report

William J. Douros, Superintendent
Monterey Bay National Marine Sanctuary

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Ci vediamo ancora.



Tower, Torre Guaceto marine protected area, Puglia, Italy

Overview and Background

One of the purposes and policies of the National Marine Sanctuaries Act is to cooperate with global programs encouraging conservation of marine resources. Other provisions direct the development of innovative management techniques and participation at international levels to ensure coordinated protection and management of resources within national marine sanctuaries. The protected area programs from other nations also offer a great deal to the National Marine Sanctuary Program (NMSP) in terms of ideas, experience, and expertise in managing marine protected areas (MPAs) and integrated coastal management. Furthermore, the National Oceanic and Atmospheric Administration (NOAA) and the National Ocean Service (NOS), who administer the NMSP, envision an increased role in global leadership in integrated coastal and ocean management.

To meet the international mandates and needs, the NMSP has a growing international program that works with various domestic and international governmental agencies on ocean conservation, outreach and building management capacity. Recognizing that time demands and other constraints often allow only limited exchanges with international colleagues (typically one week), the NMSP has developed an expanded and extended component to its international program, titled the International Studies and Collaborative Management Program (ISCMP). The ISCMP envisions sending, approximately every year or two, a senior manager from within the NMSP to a foreign country for a period of three months to a year to study and evaluate how those countries manage their marine protected areas (see Appendix 1).

There are obvious benefits to the NMSP in terms of new ideas, perspectives, strategies and techniques to improve management of the United States' system of marine protected areas. On the level of the individual however, NOAA, NOS and the NMSP all place a priority on training leaders for the future, and there are considerable training benefits to the senior manager on an international assignment. As a complimentary training benefit, an "acting" replacement for the senior manager during the international assignment will be chosen from within the NMSP, preferably from the field site or branch the senior manager leads.

The ISCMP envisions that the partnership nations and agency collaborators are developed in advance. Prior to departure, the senior manager will produce a work plan for the research activities and commit to a series of deliverables and products as part of the assignment. There will typically be only one manager on an international assignment at a time, and budget constraints can limit the time of or interval between assignments.

In summary, the benefits of the ISCMP to the NMSP and participating individuals are as follows:

- Improves partnerships internationally
- Provides opportunity to learn new techniques, approaches, and ideas to benefit NMSP, individual sites and senior NMSP managers
- Provides opportunity to export NMSP programs and ideas
- Allows "assignee" to grow and learn
- Reduces stress and prevents burnout with assignee
- Training opportunity for staff to fill-in for assignee

Italy was selected as the first international assignment for the ISCMP for several reasons. First, Italy has designated more than 5% of its coastal waters as marine protected areas and has a nation-wide goal to set aside 10% of coastal waters for protection. It has designated 23 marine protected areas to date, with all of them using innovative zoning strategies. The NOS has concentrated some projects on the Mediterranean region related to integrated coastal management, and the NMSP has been interested in developing some form of MPA project in that area. The Superintendent of the Monterey Bay National Marine Sanctuary, and author of this report, was assigned to Italy for 6-1/2 months to conduct this inaugural assignment.

Given its extensive MPA program, innovative zoning strategies and prominence in the Mediterranean Sea, Italy offered opportunities to learn various management strategies to aid management of U.S. national marine sanctuaries. A work agreement was developed with the Genoa Aquarium, given its role as the leading non-governmental organization within Italy working on marine protected areas and its status as a “neutral third party” on various resource management issues. Visits to 10 Italian marine protected areas, meetings with senior management at the Ministry of Environment and Land Protection in Rome who directs the program, and interviews with stakeholders such as fishermen, whale watch operators, environmental organizations and researchers were conducted and form the basis of this report. Recommended actions to benefit the NMSP are covered later in the report. Site-specific recommendations to benefit the Monterey Bay National Marine Sanctuary are also presented.

Future international assignments have not been determined yet, and the overall success of this initial assignment to Italy will shape future assignments. As such, recommendations contained later in this report target improvements to the overall ISCMP, as well as concentrate on Italy and U.S. NMSP collaborations.



Bathroom window at former leper colony, Asinara Island marine protected area, Sardegna, Italy

OBSERVATIONS

Overview of Italian *Aree Marine Protette* (Marine Protected Areas)

Like the United States, Italy has a long history of protecting resources onshore as national parks, but only recently began the process to designate and manage marine areas. Italy's system of marine protected areas has its roots in a law passed in 1982 ("Law 979") that authorizes designation of up to 50 marine protected areas in Italy's coastal waters. The original authority was given to the Ministry of Marine and Mercantile Affairs, and

another law, passed in 1986, transferred the authority to designate and manage marine protected areas to the newly-created Ministry of Environment and Territorial Protection.

Many sites were initially put on a site evaluation list in 1982, and by 1986 two sites were designated as protected marine areas. The Ministry of Environment moved quickly to designate new marine protected areas, with another five designated by 1991. There are presently 18 sites that have been evaluated in detail and await a decision on whether or not to designate, whether to complete zoning plans, or whether to remove them from further consideration. There are an additional 11 sites that have undergone initial review for consideration as a marine protected area in the future.

Of the 23 marine protected areas (as of 2004) designated in Italian waters, 20 represent “ecosystem” sites, where protection is afforded for all resources within the marine protected area. Two other sites off Naples are strictly submerged cultural resource sites, and there is a very large tri-national “sanctuary” for marine mammals in the northern Ligurian Sea on Italy’s northwest coast. All but one of the Italian marine protected areas has shorelines, and basically half of them (12 out of 23) surround islands in whole or in part. Approximately 362 miles of coastline are part of a marine protected area in Italy, and the surface area protected is about 708 square miles; the marine mammal sanctuary if included, protects a huge extent of coast and over 10,000 square miles of coastal waters, much of it in Italy.

Management of Italian Marine Protected Areas

In Italy, the national government in Rome has the authority to designate marine protected areas. The Nature Protection Service in the Ministry of Environment and Territorial Protection administers and manages the marine protected areas program in Italy. Once an Italian marine protected area is designated, the national government delegates management authority to a local entity or consortium of entities to manage the site. In some cases, a city will solely be the managing entity. In other cases, a consortium of one or two local cities and a provincial government (similar to a county) will be formed for management, with one party in the lead. Several of the sites are wholly managed by a national environmental organization, or the national environmental organization is part of the consortium. A university also sits on at least two managing consortia. Nearly all of the marine protected areas also adjoin terrestrial national, regional or provincial parks, and at least two of the marine protected areas are managed by the terrestrial park’s management entity.

Funds are provided by Rome for management of the sites, in accordance with an annual management plan that includes a budget and a schedule of projects and deliverables from the site. Local communities that are part of a managing entity often put forward local funds to assist management at a site. This can mean substantial, valuable commitments of staff, and/or land and buildings being provided for office space, visitor centers and other facilities.

The delegation of the day-to-day management responsibilities has the advantage of creating a higher level of local involvement and buy-in to a designated marine protected area in Italy. Because most of the sites are small, with the average coastline being only 18 miles long, there is usually only one city, or at most two or three, along the coast of most Italian marine protected areas. The basic political structure of Italy gives a great deal of authority to mayors of cities, and provincial and regional governments all have presidents. These are basically always political seats, meaning that different political parties compete for the job of a city mayor or a provincial president. As election fates change the person and party holding administrative power in a city or province, so to changes the fate of the director of the marine protected area and the direction of management at the marine protected area. This leads to irregular progress in site management and a clear challenge in continuity of management direction and focus.

Management consortiums did not seem to fare any better. During the review period in the summer and fall of 2004, there were three marine protected areas that were in the midst of transition of the director or the entity that managed the marine protected area, and two of those have consortiums working collaboratively on site management.

Delegating management to local governments or NGOs had an additional drawback of impeding the Ministry of Environment's goal to create a national network of marine protected areas. Site managers meet regularly with program directors in Rome, but managers have additional allegiances to local governments, mayors, and provincial presidents at the sites they manage. Since most of the local entities put up funds or provide space to help manage the sites, it seems reasonable for those local governments and elected officials to want to control the direction of the site. Leadership in Rome is aware that the management structure creates barriers to developing a fully integrated national network and is working to create incentives to improve the overall system.

Italian marine protected areas have no management plan for the site comparable to National Marine Sanctuary Program management plans for sanctuaries. Italian managers consider annual budget and performance plans, very similar to Annual Operating Plans for national marine sanctuaries, as their site management plans. But some directors of Italian marine protected areas acknowledge these plans are only annual and do not work well to carry forward overall, multi-year priorities at the sites.

Partnership with Tourism, Businesses and Recreational Programs

An outgrowth of both the close management relationship with local governments and direction from Rome is that most Italian marine protected areas seem to have close working relationships and diverse projects with local tourism and recreational operators. This partnership manifests itself in joint marketing of diving programs at almost all of the sites, marketing with local chambers of commerce, and joint programs with many local businesses that provide services to tourists that visit marine protected areas, such as walking or bicycling tours. The national-level direction aims at sponsoring programs in coastal areas that help sustain coastal communities and their cultural roots, in order to promote historically sustainable practices of coastal and marine uses.

The partnership extends well beyond local ecotourism too. Many Italian marine protected areas often engage in projects that promote sustainable coastal development. For instance in the south, Torre Guaceto marine protected area has developed a project with a local olive grower to buy the crop of olives for two years while the site trains the grower on organic farming techniques. Torre Guaceto is also helping to develop marketing outlets for the organic olives in central Europe where such olives are favored. The marine protected area will have helped to create a less-impacting land use (reducing nutrients and pesticides that wash into the protected area) while helping the farmer develop a higher value product.

Cinque Terre marine protected area in Liguria has also developed many programs with local farmers, from helping to market and sell local products to rebuilding coastal terraces for local vineyards, to marketing plans with local hotels. In 10 years, the Cinque Terre has gone from a quiet, Italians-only summer resort area to an almost over-crowded, internationally famous tourist destination. At each of the five towns along the Cinque Terre coastline, there are visitor centers that provide basic information (maps, brochures) about the protected area. Most of the floor space at the visitor centers is dedicated to selling products, with the Cinque Terre label, made in the area – olives, cheese, olive oil, wines, pasta, pesto. Products such as hand bags and fleece sweatshirts, made in Peru in partnership with the Cinque Terre park, are also sold, as are T-shirts, hats, books and CD-roms about the marine protected area and terrestrial park. Services are also provided by the park/MPA, such as booking kayak and bicycle trips, and storing bags at the train stations. The attention to marketing and selling products has basically obscured what little information the park/MPA provides to the public at the visitor centers or in other venues about how individuals can take action to help protect the marine resources.

Pescaturismo

For many years, Italy and other European countries have successfully marketed overnight accommodations on farms or other agricultural properties as “agriturismo”, sort of a bed and breakfast on a farm. Often these include a meal, in addition to breakfast, with food grown or raised on the farm or from farms nearby.

Recently, Italy (and some other Mediterranean countries) has developed a similar concept that involves fishermen, called “pescaturismo” (“pesce” is Italian for fish). Italian fishermen take paying tourists out to observe for a day of commercial fishing, which typically also includes a meal or fish as part of the day on the water. Italian marine protected areas co-brand and co-market pescaturismo opportunities and in some cases have crafted access exemptions in some zones to improve pescaturismo opportunities.

The basic benefits of the program are:

- 1) Italian fishermen, hard hit by declining catches, can augment their revenue by taking paying tourists out to observe fishing and learn about the lifestyle and oceans

- 2) Marine protected areas or other sponsors like environmental groups work with fishermen on outreach messages, and the fisherman helps to be a spokesperson for healthy oceans and maintaining sustainable fishing practices
- 3) Tourists learn about the ocean, about commercial fishing and get a meal or fish to take home

While there are many variants, most pescaturismo operations have in common a basic model where tourists watch the fisherman catch fish, or at least lay out and retrieve gear, and the take home fish caught that day or get a meal of fish prepared by the fisherman. As a cultural boost, this program has greatly extended public awareness and appreciation of Italian fishing and recipes, from fishermen themselves, for fish commonly caught in Italian coastal waters. The boats must meet special requirements for passenger safety, and sanitation and comfort. Boats usually go out in the morning and return in mid-afternoon.

In several of Italy's marine protected areas, regulations have been written so that fishermen have access to and can catch fish within Zone Bs if done in conjunction with a pescaturismo activity (see "Resource Protection Through Zoning Activities" below). This has made fishermen more enthusiastic about restrictive zones in Italy and helped the marine protected area and fishermen co-market the activity. Fishermen who participate in pescaturismo who were interviewed were mostly positive about the program, for the basic benefits identified above.

The individual fisherman is the most important component to a successful pescaturismo business, according to representatives from national environmental organizations who have helped develop these programs. Successful fishermen are described as those who are open to talking to "paying customers" on their boats and are interested in and able to be positive about the need for ocean protection and stewardship. Fishermen who are negative about marine protection programs and areas, or their own fate as fishermen, will not be allowed to participate in co-marketing effort. More importantly, negative attitudes and dialogue with customers turns off the customers, who themselves do not return and do not recommend the fishermen to friends.

In addition to the individual, a fisherman needs a boat that functions well for fishing and is inviting enough and safe for 8 to 15 customers. Also, successful pescaturismo programs are found where weather conditions and sea conditions do not get too rough, so that customers are not seasick or worried for their safety.

Resource Protection Through Zoning Activities

An interesting component to Italian marine protected areas is that all of the "ecosystem" protected areas are fully zoned. This authority for zoning marine protected areas was included in the original national legislation in 1982. Zoning in 19 of those 20 sites includes a core "no entry-no take" zone called Zone A, or the "core reserve". In Zone A, all activities that the Ministry of Environment predicts will harm the marine environment are prohibited; this can include swimming, boating, fishing, and scuba diving. Activities

such as marine research are allowed by permit. Italian marine protected areas usually include a Zone B, the “general reserve”, often considered a buffer zone around Zone A, which allow some access with reduced take restrictions. Typically in a Zone B, commercial fishermen who reside in cities bordering on the marine protected area may fish with certain limited gear types, and local residents may be allowed to enter Zone B to lead scuba diving trips or to take tourists to swim in remote beaches. All activities allowed in Zone A are allowed in Zone B. Regulations for Zone C, the “partial reserve”, consent to activities allowed in Zones A and B, yet overall they may still include some basic restrictions such as prohibition on trawling and spear fishing. Generally, Zone C is the area where zoning plans focus and direct extractive activities.

The Ministry of Environment has a separate institute of marine scientists who work on developing zoning plans in advance of designating new marine protected areas. While the process continues to be refined with each zoning plan, the basic process today involves engaging interested stakeholders who give information about activities they want to continue to conduct, what sort of access they need, and the areas where they need access. The analysis includes an assessment of what activities are compatible with one another – for instance underwater photography is not considered compatible with fishing but is considered compatible with swimming – and the amount of impact to marine resources for each activity is assessed. Activities and goals for zones are assessed in advance with weights given to management goals so that the various activities that cause impacts and the access that users must have, can be ranked and evaluated. Based on literature review and input from marine science experts, distribution of habitats and important resources are mapped. A GIS decision-making tool is employed to show areas where users need access and to identify areas where access for certain activities needs to be limited or prohibited (recall that Italian zones restrict both extraction to varying degrees, as well as access in different zones). Proposed plans for zones are distributed and public comment helps to shape final management decisions by the Ministry of Environment about boundaries for the marine protected area and the zones within it.

A stated objective of the Italian zoning methodology is to have a process that is objective and science based while also relying on data collected by marine users other than scientists. Another goal is to have a process that produces reproducible results. Past processes in Italy have used technologies that have been too complicated for the general public to understand, leaving stakeholders feeling like data went into a “black box” that no one could understand. Other past zoning methodologies have included using pens at a large map to negotiate marine zones. Neither of these extremes met the goals of being objective, understandable and reproducible.

The Italian process does not always prevent controversy over site boundaries and zones within marine protected areas. On several occasions, when local governments have taken over site management soon after designation, they have embarked in a re-evaluation and proposed re-drafting of the marine zones. Some of these have occurred immediately after designation and before any data could have been generated on the efficacy of the originally designated zones and their restrictions. The Ministry of Environment must approve any proposed boundary changes and changes in allowed or prohibited activities.

Like with national marine sanctuaries, there are some basic prohibitions within the overall legislation for the national system that apply to all Italian marine protected areas and within all zones. These include basic prohibitions such as no mining or mineral extraction, no discharge of materials causing pollution, and no use of firearms.

Advisory Commissions for Italian Marine Protected Areas

A component of Italian marine protected area management is 12-member advisory commissions very similar to those of United States national marine sanctuaries. The Italian commissions provide advice and suggestions to the site managers and link the site to local communities by providing a formal forum for locals to address management issues. Law 979 defines the seats and who appoints commission members for marine protected areas as follows:

- a president, designated by the Ministry of the Environment
- the commandant of the local “captain of the port”, or his/her delegate
- two representatives from coastal cities, appointed by those cities
- a representative of the regional government
- a business representative for each province (county) along the marine protected area, appointed by that province’s chamber of commerce
- two experts designated by the Ministry of Environment for the particular purposes for which each site was designated
- a representative of environmental associations selected by the Ministry of Environment
- a representative of regional department of education
- a regional representative of Ministry of Cultural Heritage
- a representative of the Ministry of Environment

Thus, in the basic makeup and function, Italian commissions are very similar to sanctuary advisory councils in the United States. Perhaps the greatest difference is that Italian commissions are more politically oriented than sanctuary advisory councils. The president of the commission holds a fairly powerful position within the region, and often this person is connected to the political parties in power at a national level. Italian commissions also have a more governmental feel to them, given that so many of the commission members are either representatives of local or regional governments or of the national government.

National-Level Outreach Programs in Italy

One of the core functions of the national marine protected area program in Rome is to carry out or fund projects that raise public and visitor awareness of the network of marine protected areas in Italy. By most measures it has been a striking success, with almost any Italian, not just those living next to an Italian marine protected area, aware of the network of marine protected areas. Many of these outreach efforts also include information on the terrestrial parks of Italy, so there is a two-for-one public outreach benefit.

One of the keys to success for these programs involves close cooperation between different ministries of the Italian government. For instance, the Minister of Transportation and Telecommunications has personally led his agency to develop mutually-beneficial programs on marine protected areas with the Ministry of Environment and Land Protection. Projects and products include:

- Postage stamps of Italian marine protected areas
- Commercial airplanes named after a marine protected area, with posters and other information inside the aircraft about the national program and individual protected area
- Phone cards with names and information about individual marine protected areas
- Information kiosks in all coastal ferries in Italy about the national system of marine protected areas

Similarly, the Ministry of Environment and Land Protection has developed marine protected area outreach products in cooperation with the Ministry of Cultural Heritage for Italy, in order to protect and promote Italian heritage, foods, wines, and overall culture. Their products include:

- Touring books of wines and wineries around Italian protected areas
- Slow food recipes and foods from within and around Italian protected areas
- Cook books of seafood from within and near Italian marine protected areas

Other public awareness projects and products of the Ministry of Environment include books developed in partnership with touring clubs and the tourism industry (hotels and restaurants), and national-level educational products for children distributed for free or sold by partners who help develop them. A huge building being remodeled in a very busy piazza in Rome has a scaffolding and fabric covering placed over it during the remodeling. The Ministry of Environment paid for a map of the Italian protected areas to be painted on the fabric covering, where it is seen by virtually millions of residents and tourists during the year-long building restoration. There are also two weekly television shows in Italy during the summer (LineaBlu [Blue Line] and Pianeta Mare [Ocean Planet]) that focus solely on ocean issues of which marine protected areas are almost always featured.

Thus, one can see a clever outreach effort to raise public awareness of the marine protected areas (and terrestrial parks) of Italy by targeting people in transit, people in cities who want to be elsewhere – at the coast or in the mountains – people who are traveling somewhere for a vacation.

Research and Monitoring

There is no overall, written, national plan for conducting research in Italian marine protected areas. The NMSP does have a national science needs assessment, a skeletal plan for system-wide monitoring and national research team comprised of leadership at the headquarters of the NMSP and research coordinators at each of the sites who confer annually and identify research themes and direction for the program and for individual sites. There was no apparent, comparable team to conduct and plan research within the Italian system of marine protected areas. In terms of integrated ecosystem monitoring,

the Italian marine protected areas system does not have a program to monitor natural and human-induced change in protected areas. A group of government and academic researchers in Italy developed a monitoring program – AFRODITE – to monitor the ecological change in marine protected areas predominantly within the no-take zones, Zone A, of Italian marine protected areas. That program ran for three years and data were collected, but it was discontinued due to a lack of funding. Because monitoring programs take many years to show results, no conclusions have been drawn through AFRODITE about the effect of the Zone As across the system of Italian marine protected areas.

As is the case in the United States, most site managers in Italy have been able to develop ecosystem monitoring programs and research programs at their sites by funding programs or developing collaborations with local research institutions or universities. There are relatively fewer marine research institutions and universities in Italy, so the “demand” for research collaborators typically exceeds the “supply” of those researchers and graduate students.

Managers at the national and site level are interested in developing ocean observing systems for Italian marine protected areas. Given this same interest in the United States within the national marine sanctuary program, this may be an area of future collaboration.

Another area for future collaboration with the Italians may be in developing and implementing programs that measure the management effectiveness of marine protected areas. The Ministry of Environment is developing a program to focus on site management effectiveness, to determine if the sites are delivering the projected management results, if they are effective at outreach that engages local citizens and business and tourism operators, and other related effectiveness measures. The NMSP is increasingly moving towards developing these sorts of metrics, often geared towards effectiveness measures of new 5-year site management plans and national program measures. Understanding how Italians will develop such metrics and conduct measurements, and sharing U.S. plans, could be useful.

Education and Outreach

The Italian system of marine protected areas does not have a written national education plan, like the National Marine Sanctuary Program. After this, however, the two national programs and a comparison of individual sites are quite comparable. In Italy the individual sites have annual education and outreach plans that target specific programs and projects. For instance, a marine protected area might target education in public schools for a year or two. That same year they may conduct outreach efforts at several public events that they host or participate in. At Isole Egadi marine protected area, the site staffed an information booth during the summer at the most often visited island, Marettimo, at the harbor along the pathway tourists and residents take from inter-island ferryboats to the town square. It would be impossible for a visitor to not know they were at a marine protected; once people entered the tent area, the staff could provide information about the protected area, its rules, and different means to visit the island’s resources. In almost all years, sites in Italy have programs to conduct outreach to and

through local businesses, such as dive shops, and other tour operators. The focus of these programs is to raise awareness about the protected area, and outline and model proper behavior in the protected area to prevent damage to resources.

The Italian system varies from the U.S. system regarding education and outreach in that typically each year, the national program outlines goals and programs for education and outreach for the sites. A site manager can request funds from the headquarters to meet goals the national program has established. This has an advantage that every site will generally have a consistent message that year or two, so that visitors to different sites may hear that same message repeatedly.

Italian marine protected areas have their own staff to conduct education and outreach, and also rely on partners to conduct such activities. Many sites have their own small visitor centers, which serve as central points for teaching visitors about the marine protected area. Some sites, such as Capo Rizzuto marine protected area, effectively communicate complicated information, such as the allowed activities in multiple zones, via signage. At Capo Rizzuto, which has a long coastline, the site employed large, attractive roadsign signs often at pullouts and parking lots to describe the location of zones within the marine protected area and what was allowed and prohibited.

Enforcement Programs

Of great variability in the Italian management of its marine protected areas is the level of enforcement. There are several sites with very sophisticated levels of enforcement, including use of remote cameras that scan the coastline and Zone A protected areas. A well developed example of this technology is Capo Rizzuto where these signals are sent to a control room where operators observe a bank of television screens and use controls to pan, tilt and zoom the cameras. When a potential intrusion or illegal activity is observed, the local, federal enforcement officers, typically the captain of the port or the Italian coast guard is notified and asked to respond. Many of the other sites rely on staff patrolling the coastline by car or by foot, or the marine waters by boat; and like what is done in the Florida Keys National Marine Sanctuary, they pass out information to boaters about responsible use of the marine environment. Still other Italian marine protected areas have enforcement programs that mirror those seen in national marine sanctuaries where other agencies patrol the protected areas to enforce regulations, or the site manager relies on volunteers and concerned users to report violations.

Because site management is controlled locally, by local politicians or appointees, some Italian conservation groups feel enforcement is compromised given that friends, relatives and locals must pursue violations of the marine law against one another. Site managers interviewed did not find this to be an issue although almost all felt that they needed more resources to effectively enforce regulations.

The smaller size and coastal nature of most Italian marine protected areas gives them an advantage over American national marine sanctuaries which are significantly larger and all include marine waters at least 10 miles offshore, if not more. The camera monitoring

systems are worth further evaluation by the NMSP to determine their transferability to enforcement at national marine sanctuaries.

Summary of Similarities and Differences

The basic similarities between Italian marine protected areas and United States' national marine sanctuaries are:

Similarities

- Advisory Councils that are organized, selected and function similarly
- Involve stakeholders in solving resource management problems
- Have mandate and programs to study and protect submerged cultural resources
- Have standard regulatory prohibitions that themselves are similar
- Have site-specific regulations customized for threats at individual sites
- Enforcement programs are haphazard, custom built and variable among sites
- Have struggles between local control vs. national program
- Have energized, underpaid, dedicated staff

A summary of the basic differences between Italian marine protected areas and United States' national marine sanctuaries are:

Differences

- Italian sites are mostly coastal but typically quite small; half are around islands
- Local management of sites, by governments, universities or environmental NGOs
- Few written plans in Italy – virtually no site management plans (>1 year), education plans, or research plans
- A key focus of Ministry of Environment in Rome is public awareness nationally; produces numerous national outreach products
- Protected areas are fully “zoned”, with various levels of restriction on fishing
- Research and monitoring vary among sites; not a uniform priority; at national level, focus is on monitoring management effectiveness not natural resources
- Sites in Italy have numerous programs for sustainable use and ecotourism
- Italian sites have, at almost all sites, visitor centers; US sites are just developing
- US has a moderate and growing small boat program; few Italian sites have their own boats



Grotto on Marettimo Island, Isole Egadi marine protected area, Sicilia, Italy

RECOMMENDATIONS

Based on this assignment to assess the Italian system of marine protected areas, recommendations have been developed for the National Marine Sanctuary Program and for the Monterey Bay National Marine Sanctuary in particular. Superintendents for other national marine sanctuaries can review the recommendations for the Monterey Bay National Marine Sanctuary for actions that might be relevant for their site management.

Websites have been highlighted because they are such a critical element to outreach to the public. Since early research for this project involved internet searches, it became apparent what an effective website was, and what missing information would help improve a website. The national program's and Monterey Bay National Marine Sanctuary's websites were reviewed to see to what degree improvements were necessary to their respective websites.

Recommendations to NMSP Directly Related to Italian MPAs

NMSP-1 Protocol for Collaboration

At the request of the Director General for the Ministry of Environment's protected areas program, and with the consent of the NMSP Director, a protocol for future collaboration and exchanges between Italy and the United States on marine protected areas programs has been drafted. Modeled after a similar agreement for terrestrial parks the U.S. National Parks Service has with the Italian Ministry of Environment, the protocol includes a number of important potential collaborations for the future, several of which are described below. The parties envision a series of management-level exchanges in the United States and Italy, as well as ongoing bi-lateral exchanges. The schedule calls for signing an agreement in April 2005, during an international conference in Rome on biodiversity and marine protected areas. At that time a calendar of future meetings will be developed, to include at least one exchange in Italy and one in the United States. The exchange activities described in the draft MOA are:

- a. Locally applying programs to promote sustainable use of resources, including sustainable ecotourism, within and adjacent to existing marine protected areas;
- b. Defining management methodologies for natural and cultural resource protection within existing marine protected areas;
- c. Evaluating management strategies for marine protected areas;
- d. Promoting environmental education programs at a local, regional, and national level;
- e. Developing and coordinating research and monitoring programs for marine protected areas;
- f. Using geographic information systems, remote sensing systems and ocean observatories to manage existing marine protected areas; and
- g. Applying integrated coastal zone management to protect and manage existing marine protected areas.

NMSP-2 Sister Sanctuaries

One of the areas for future collaboration between Italy and the United States is a program of sister "sanctuaries". Possibilities include information exchange between site managers in the United States, sharing staff for discrete projects, and co-development of education materials that highlight the partnership. National Marine Sanctuaries that have the capability and interest in sister sanctuary programs would be paired with similarly interested sites in Italy, based on various parameters. For instance, due to size (both are the largest "sanctuaries" in the respective programs) and the history of connection between Monterey and Marettimo, the Monterey Bay National Marine Sanctuary and Isole Egadi marine protected area could be linked as sister sanctuaries.

NMSP-3 Sustainable Coastal Use and Ecotourism Projects

Both the Italian legislation and the National Marine Sanctuaries Act include a requirement to allow for and facilitate multiple uses compatible with the resource protection mandate. Italy has developed more projects in this vane, including having a premiere focus on these sorts of programs at the national level. The protocol for collaboration recognizes this as a potential area for future collaboration, which should be pursued by the NMSP. This may require at least one dedicated staff member at the NMSP headquarters to focus on these sorts of projects nationally and to encourage and nurture them at a local and regional level.

NMSP-4 National Level Outreach

Italy's national headquarters engages in a great many projects and programs that highlight the existence and importance of the Italian system of marine protected areas. Comparatively, relatively little has been done at the national level in the United States. Almost anyone in Italy has some level of awareness of the marine protected area program and some basic knowledge of why those areas are important. Even in a coastal state like California, and even less so throughout the United States, there is little overall awareness of national marine sanctuaries, their importance to the country, and the role citizens can play in helping to protect special ocean places. Some of the examples employed by Italy that could be transferred directly to the NMSP, in particular in partnership with the National Marine Sanctuary Foundation, include:

- a. Work with National Marine Sanctuary Foundation to develop television show on PBS
- b. Advertisements or targeted stories in select in-flight magazines, such as flights to Hawaii would have information on the Pacific Islands national marine sanctuaries; flights to New England would highlight the Stellwagen Bank national marine sanctuary
- c. Postage stamps of the National Marine Sanctuaries
- d. Touring books and/or a map booklet of cities near and around the 13 national marine sanctuary sites
- e. Regionally, develop value-added touring books; for instance, concentrate on wine tours near west coast national marine sanctuaries, or partner with Washington and California state parks on a touring book for coastal parks

NMSP-5 Pescaturismo

Throughout the United States, fishermen are struggling financially as catches, and allowed catch limits, decline. Italy has developed the pescaturismo model to help its similarly struggling fishermen increase their incomes without giving up their core way of life. It also has been a program that has raised public awareness of fishing and its rich cultural history and has nurtured a more rounded awareness by participating fishermen about the benefits of ocean conservation. The National Marine Sanctuary Program should investigate developing pescaturismo programs in partnership with commercial fishermen, at a range of national marine sanctuaries. Given weather constraints, the model may not be ideal for all sites. The overall goal of sustainable use of national marine sanctuaries would suggest that certain gear types would be preferred over others –

trap fisheries are probably ideal; coastal hook and line are preferred over trawl fisheries. Opportunities for pescaturismo in the National Marine Sanctuary Program include:

- a. Florida Keys National Marine Sanctuary, given its weather
- b. Channel Islands National Marine Sanctuary, given its weather
- c. Gray's Reef National Marine Sanctuary, in surrounding waters
- d. Possibly Stellwagen Bank and Monterey Bay National Marine Sanctuaries for some gear types during calmer weather seasons

NMSP-6 Italian Process to Develop Zoning Plans

Italy's Central Institute for Research on the Marine Environment ("ICRAM") in Rome has developed a process to consider and propose marine zones for Italian marine protected areas. This Italian process provides an opportunity for the National Marine Sanctuary Program, which offers guidance and assistance to field sites in processes for designating marine protected areas within existing national marine sanctuaries. Of particular interest is the ability of the ICRAM process to receive, evaluate and present information from resource users like fishermen, along with more conventional research data. The process, run on conventional GIS software, allows a means to set goals and weight those goals, and, additionally, offers repeatability – meaning results can be repeated, which can improve the confidence participants have in the results. This recommendation specifically does not recommend or even propose adopting the Italian system and nomenclature of Zones A, B and C; recommendations for goals and outcomes for zones will come specifically from the marine protected area working group processes.

Recommendations Related to ISCMP

An expectation of this international assignment to Italy was that it would help the National Marine Sanctuary Program make adjustments to improve the International Studies and Collaborative Management Program. Accordingly, recommendations are made below that are operational and logistical in nature.

NMSP-7 Operational Issues

- a. Know in advance who will be the contact at the United States Embassy in the host nation; typically this will be a person in the Science and Technology Office. These people are KEY to success, and the embassy is a critical home away from home. Go to the embassy early in the start of the assignment and make regular trips there
- b. Language skills. If English is not the main language, make sure the person has fairly good skills in the native language to get started and to interact, even if the bulk of business discussions will occur in English.
- c. At the home sanctuary or the home branch, be prepared for some communications challenges initially. Unless the assignee plans to not return to his/her job, there are critical things he/she will most likely want to stay involved with, such the next year's budget, management plan reviews, and key future decisions. Know what

those are and have a team at the Sanctuary/Branch that is willing to be adaptive to your needs to know what is going on with these key things.

NMSP-8 Logistical Issues

- a. The assignee will need to front a great deal of cash to get established financially in the first month. A future assignee should plan on putting up at least \$15,000 to get started in a bank account – for rent, car, basics in life. He/She will not have a credit history there and a credit card will only go so far. Future monthly vouchers will eventually reimburse the assignee for these upfront costs.
- b. Paying bills back in the United States is a challenge, in particular things like work travel visa. Arrange for a system in advance to pay those bills.
- c. There are great cost savings in most countries for things like renting a car. Look into these far in advance as they take time to set up.
- d. Get the specifics first about setting up things like a DSL line at home, mailing and customs for personal possessions.
- e. Know what the immigration needs are, specifically, in advance, and ideally have a “handler” arranged in the other country to help with immigration meetings and officials.

Recommendations Related to NMSP Website

As noted earlier, websites were an important tool for early research on this assignment to Italy, and some strengths and deficiencies in others’ websites can be used to better guide the National Marine Sanctuary Program website.

NMSP-9 Website

Overall, the NMSP website underwent a valuable and focused update around 2000, although few new categories of information or improved design has occurred since. More information needs to be added to the site, some re-organization would be helpful, and some existing information can be presented in a more informative way. Suggestions are:

- a. Better maps for each national marine sanctuary. Current maps are only generally vocational maps, and lack information about bathymetric features and onshore reference locations, like points or bays. If habitat information or zoning information is available it should be shown too. The maps should be placed more prominently on the website.
- b. Clicking the button titled “Marine Sanctuaries”, takes a visitor to the hemisphere where the 14 sites managed by the NMSP show up. One should be able to go click on national marine sanctuary sites on that hemisphere and be directed to

- those sanctuary sites on the NMSP webpage. (On the new interface for “Education” you can click on the sanctuaries on a hemisphere map and go to education websites for individual sanctuaries.)
- c. For each national marine sanctuary site on the HQ website, put a summary of the regulations (meaning the prohibitions) for that site on the left/down set of buttons (where now it has “Introduction”, “Natural Setting”, etc.) Also for regulations, put a summary table in the section on “Regulations”, in “National Program” section that compares the prohibited activities across the sites. A matrix such as this was prepared for a leadership team meeting several years ago.
 - d. There is very little information at the NMSP website on several important aspects of the national program. Many of these sections are found on each national marine sanctuary’s individual website, and should be added to the NMSP website, as follows:
 - The organizational structure of NMSP
 - What are the separate HQ branches responsible for, and what are their key objectives. Recently, a new section with good information about some education programs was added under “Education” (although the Education Plan for the NMSP is buried)
 - Who works for NMSP HQ and how do you reach them
 - Press releases are not presently found in and should be added to the “Sanctuary News” section
 - The “Home” section has a pseudo section accessed by text “Press Releases” that contains calendar and Sanctuary Watch newsletter – move these to the “Education” section or “Sanctuary News” sections
 - Important information like small boats, management plan review are missing or very hard to find
 - Nothing exists on International Program
 - Special Offerings section has a great section about Exploration, but only one mission (Portland) is on there even though there have been many NMSP exploration projects funded by OE. Update this. Probably also put it in the section on Science.

Recommendations to Improve MBNMS Management

MBNMS-1 Broad Collaborations with Italy

There are pending several immediate opportunities for future collaborations with Italian counterparts managing marine protected areas. The MBNMS needs to participate in these, as time and budget allow. The actions below are predicated on an assumption that a protocol for collaboration will be approved by the appropriate government agencies in the United States and Italy.

- a. Attend signing ceremony for MOU, presently planned for September 2005 in Rome. To involve NMSP director and director general for protected areas for Italian Ministry of Environment. This meeting will also include planning for

- future meetings and exchanges between NMSP and Ministry of Environment to implement MOU.
- b. Participate in planning for and implementation of MOU actions, including future management exchanges with Italy.
 - c. Participate in planning for conference proposed by provincial government of Trapani at the Isole Egadi marine protected area. Proposal calls for international exchange on human uses and management in marine protected areas; proposal envisions small group attending from Monterey Bay area; tentative date for conference is September 2005.
 - d. Develop MBNMS staff expertise to “fill in” for Bill and support participation on Italy issues.

MBNMS-2 Sister Sanctuary in Italy

It is likely the NMSP will develop a sister sanctuary program involving those national marine sanctuaries who have ability and time to develop closer ties with Italian marine protected areas. This needs to be a future component of the MBNMS contribution to international projects in the NMSP. The obvious sister sanctuary for the MBNMS is Isole Egadi marine protected area, off the western tip of Sicily. Many thousands of habitants in Monterey, nearly all presently or one time fishing families, trace their recent heritage to one of the Egadi islands, Marettimo. Isole Egadi is the largest marine protected area in the Italian system, like the MBNMS in the NMSP (although it is acknowledged that the pending designation of the Northwest Hawaiian Islands as a national marine sanctuary will make it the system’s largest). Future sister sanctuary activities must await a formal signing of the cooperative agreement between Italy and the U.S. NMSP, and must be bi-lateral in nature – meaning there must be reciprocal interest from the site manager for Isole Egadi marine protected area. Activities could include information sharing about management challenges and techniques, staff interchanges, multiple use programs, and interchanges involving sanctuary advisory council members.

MBNMS-3 Italian/ICRAM Process for Zoning Plans

Italy’s Central Institute for Research on the Marine Environment (“ICRAM”) has developed a process to consider and propose marine zones for Italian marine protected areas. This process offers an opportunity for the MBNMS, which is in the midst of a process with stakeholders to consider the need for, and if necessary, the design for special marine protected areas, to improve the analytical system for the MBNMS process. Of particular interest is the ability of the ICRAM process to receive, evaluate and present information from resource users like fishermen, along with more conventional research data. The process, run on conventional GIS software, allows a means to set goals and weight those goals, and, additionally, offers repeatability – meaning results can be repeated, which can improve the confidence participants have in the results. This recommendation specifically does not recommend or even propose adopting the Italian system and nomenclature of Zones A, B and C; recommendations for goals and outcomes for zones will come specifically from the Special MPA working group process.

MBNMS-4 Partnerships with Local Businesses

For various reasons, most Italian marine protected areas have developed closely linked relationships with businesses, despite or perhaps because of strict zones that prohibit access and harvest of marine wildlife. These programs generally involve raising awareness of and promoting sustainable businesses in a region. Participating businesses in Italy, which usually include scuba diving shops, kayak rentals, bicycle rentals, hotels, and boat rentals, consider the marine protected area a benefit to tourism, both for marketing opportunities and to enhance tourist visits. The Monterey Bay National Marine Sanctuary can expand its partnerships with businesses by concentrating efforts to develop collaborative programs with similarly sustainable businesses. Identifying the MBNMS as a destination for tourism, as is done with Italian marine protected areas as well as at the Florida Keys National Marine Sanctuary in the United States, can have benefits for both marine protection and for local businesses.

The new visitor center being planned for Santa Cruz, and that being developed at San Simeon, offer opportunities to make these connections between visitors and local businesses. The Cinque Terre marine protected area in Italy does a very good job connecting tourists with local, organic and sustainably grown produce and products, such as wine, olives, olive oil, and pesto. The Sanctuary's many programs with the agriculture industry must be involved in identifying partners who have taken steps to grow organic and sustainable produce and products. A similar program with local fishermen to promote those local fisheries that are sustainable is another obvious step that would show how local businesses – fishermen – are using local resources yet minimizing impact.

Recommendations Related to MBNMS Website

As noted earlier, websites were an important tool for early research on this assignment to Italy, and some strengths and deficiencies in others' websites can be used to better guide the website for the Monterey Bay National Marine Sanctuary. The MBNMS website has been upgraded several times in the past 10 years, and a great deal of attention is placed in the website on a regular basis by MBNMS staff. As a result, the website is the most visited sanctuary website in the NMSP and has won awards. Upgrades are nonetheless necessary to help implement site priorities and make further progress on improvements initiated with the management plan review process.

MBNMS-5 Maps on MBNMS Website:

Maps are an integral communication tool for visitors and for sanctuary managers. As more effort is placed on considering the need for additional zones, the need to show the location of existing, state-designated zones in the MBNMS, as well as other zones in the MBNMS is heightened. Necessary map changes on the MBNMS website are:

- a. The section titled "Maps" on the MBNMS website has only one map on it. This is the place to add new maps, including a better general map of the MBNMS.
- b. Add a map that shows the MBNMS zones for activities such as vessel traffic, dredge disposal, motorized personal watercraft, etc.
- c. Add a map that shows the marine reserves (no or limited fishing zones) imposed by others, such as the California Department of Fish and Game and NMFS

- d. Add a map that shows watersheds within the MBNMS. Look to the State's watershed portal which is found on the Resources Agency website

MBNMS-6 Visitor Section of Website

The MBNMS has had a visitors section on its website for many years, in recognition of the mandate to promote use of the Sanctuary to the extent it is compatible with the primary mandate of resource protection. Unfortunately, this section of the website is only partially complete. Steps to improve this section are:

- a. The section on "Beaches" to visit needs write-ups for half of the beaches, needs photos for all of them, and they all need directions so visitors can get to them
- b. The section on "Wildlife" needs to be changed to "Wildlife Viewing"; need write-ups for most sites identified for viewing; need new photos of those sites; need more on sensible viewing like with tidepools; include the new wildlife viewing protocols developed by NMSP
- c. The section on "Camping" needs write-ups and photos
- d. Whale watching section links to Sanctuary Cruises for a log of sightings, yet when you go there, you don't find sightings, rather it is just Heidi Tiura's weekly postings about weddings and book reviews, etc. For sightings, it is better to link to Monterey Bay Whale Watch; also keep Sanctuary Cruises but do not link it as a log of sightings. Another action is to put website links for all of the whale watching operators in the region.
- e. The Overview for this subsection of the website needs to describe the numerous partnerships that presently exist with businesses, and our mandate to encourage multiple use that is consistent with primary mandate for resource protection.
- f. The photos in the Slide Show are very outdated and need an immediate upgrade.

MBNMS-7 Photos

MBNMS staff have been upgrading the internal digital photo library yet virtually none of these images has gotten on the website. Rather, about 90% of the images shown on the website have been there for more than ten years, are used in all MBNMS publications, and get copied and used by the National Marine Sanctuary Program when it needs photos about the MBNMS. The NOAA website also has photos of the MBNMS and they are similarly outdated. A concentrated effort to move the internal photos onto the website, including an organized effort to get photos to the NMSP and NOAA (and permanently retire the existing ones) is needed, to be led by the Education and Outreach team. Other teams will need to advise and support this effort.

MBNMS-8 Upkeep of MBNMS Website

The MBNMS needs a system apart from the web manager to patrol and update website sections. Perhaps the best approach is to dedicate one staff person per team to review the website each month and upgrade images, words, etc. An example is the visitor center information on the Education and Outreach subsections – the information is fine but about a year or two old. A lot has changed on the visitor centers, and it ought to be on the website.



Hillside above Genoa Harbor, adjacent to Marine Mammal Sanctuary, Liguria, Italy

Appendices

Appendix A – Summary Table of Italian Marine Protected Areas

Appendix B – Map of Marine Protected Areas in Italy

Appendix C – International Studies and Collaborative Management Program

Appendix A

Italian Marine Protected Areas and Submerged Parks

Ranked by Total Size

Area Marina Protetta	Managed by	Year Designated	Total Coastline (meters)	Total Coastline (Miles)	Total Hectares	Total Sq. Miles	Zone A (Hect.)	Zone A (Sq. Mi.)	Zone A (by %)	Zone B (Hect.)	Zone B (Sq. Mi.)	Zone A+B (Sq. Mi)	Zone A+B (by %)	Zone C (Hect.)	Zone C (Sq. Mi)
Isole Egadi	City of Favignana	1991	73,922	45.83	53,992	208.46	1,067	4.12	2%	2,865	11.06	15.18	7%	21,962	84.80
Penisola del Sinis-Isola di Mal di Ventre	City of Cabras	1999	25,099	15.56	25,673	99.12	529	2.04	2%	1,031	3.98	6.02	6%	24,113	93.10
Porto Cesareo	Consortium of 3 parties	1997	32,707	20.28	16,654	64.30	173	0.67	1%	3,056	11.80	12.47	19%	13,425	51.83
Isola di Ustica	Captain of the port of Palermo	1986	14,452	8.96	15,951	61.59	60	0.23	0%	7,860	30.35	30.58	50%	8,031	31.01
Tavolara-Punta Coda Cavallo	City of Olbia	1997	76,094	47.18	15,357	59.29	529	2.04	3%	3,113	12.02	14.06	24%	11,715	45.23
Capo Rizzuto	Province of Crotone	1991	42,150	26.13	14,271	55.10	585	2.26	4%	9,326	36.01	38.27	69%	4,810	18.57
Isola dell'Asinara	National Park of Asinara	2002	79,635	49.37	10,732	41.44	577	2.23	5%	6,988	26.98	29.21	70%	3,167	12.23
Capo Carbonara	City of Villasimius	1998	30,379	18.83	8,598	33.20	332	1.28	4%	1,191	4.60	5.88	18%	7,075	27.32
Isole Pelagie	Cities of Lampedusa and Linosa	2002	46,279	28.69	4,136	15.97	80	0.31	2%	1,364	5.27	5.58	35%	2,692	10.39
Isole de Ventotene e Santo Stefano	City of Ventotene	1997	9,836	6.10	2,799	10.81	410	1.58	15%	1,600	6.18	7.76	72%	789	3.05
Cinque Terre	National Park of Cinque Terre	1997	17,308	10.73	2,726	10.53	79	0.31	3%	186	0.72	1.02	10%	2,461	9.50
Capo Caccia-Isola Piana	City of Alghero	2002	38,104	23.62	2,631	10.16	38	0.15	1%	547	2.11	2.26	22%	2,046	7.90
Torre Guaceto	Consortium of 3 parties	1991	8,405	5.21	2,227	8.60	179	0.69	8%	163	0.63	1.32	15%	1,885	7.28
Capo Gallo-Isola delle Femmine	Captain of the port of Palermo	2002	16,024	9.93	2,173	8.39	77	0.30	4%	242	0.93	1.23	15%	1,854	7.16
Punta Campanella	Consortium of 6 cities	1997	31,433	19.49	1,539	5.94	181	0.70	12%	674	2.60	3.30	56%	684	2.64
Isole Tremiti	National Park of Gargano	1989	20,410	12.65	1,466	5.66	180	0.69	12%	268	1.03	1.73	31%	1,018	3.93
Secche de Tor Paterno	Roma Natura	2000	0	0.00	1,387	5.36	0	0.00	0%	1,387	5.36	5.36	100%	0	0.00
Isole Ciclopi	City of Aci Castello & Univ. Catania	1989	6,529	4.05	623	2.41	35	0.14	6%	202	0.78	0.92	38%	386	1.49
Portofino	Consortium of 5 parties	1998	13,893	8.61	346	1.34	18	0.07	5%	134	0.52	0.59	44%	194	0.75
Miramare	WWF Italia	1986	1,104	0.68	30	0.12	30	0.12	100%	0	0.00	0.12	100%	0	0.00
Parchi Sommersi															
Baia	Supervisor of Arch. in Napoli	2002	3,718	2.31	176.6	0.68	20.7	0.08	12%	25.3	0.10	0.18	26%	130.6	0.50
Gaiola	Supervisor of Arch. in Napoli	2002	1,985	1.23	41.6	0.16	6.4	0.02	15%	35.2	0.14	0.16	100%	0	0.00

Visited during Italian Assignment, 2004

Appendix B

Designated Marine Protected Areas in Italy



Appendix C

NMSP International Studies and Collaborative Management Program

An Innovative Approach for Leadership Development

This document describes a new program being developed by the National Marine Sanctuary Program (NMSP) entitled the NMSP International Studies and Collaborative Management Program. This program is geared toward the leadership of the NMSP (the Sanctuary Managers, Branch Chiefs, chain of command, and other senior personnel) to build collaborative international partnerships and provide opportunities for the leadership to enhance their management skills and refresh their personal commitment and drive. Specifically, the program will place leadership staff into international settings for periods of three to twelve months; each assignment will be specially crafted to take advantage of the staff member's individual expertise, fill particular needs of the international partner, produce tangible outcomes, and minimize the resources necessary to support such an assignment. The Director of the NMSP will have final authority to decide on proposed international management collaborations.

A Sound Basis for Program Development

The NMSP has a mandate to cooperate with other governments and global programs in the protection and management of marine areas (National Marine Sanctuaries Act, sections 301(b)(9) and 305(c)). The protected area programs from other nations also offer a great deal to the NMSP in terms of ideas, experience, and expertise in integrated coastal management and marine protected areas (MPAs). Furthermore, the National Oceanic and Atmospheric Administration (NOAA) and the National Ocean Service (NOS), who administer the NMSP, envision an increased role in global leadership in integrated coastal and ocean management.

Also, the NMSP has always strived to provide training opportunities for all of its staff as summarized in its official training policy: to support and encourage training, skill-building, and continuing education for all of its employees, including both GS employees and contractors, for their professional growth and in anticipation of the future evolution of the program (*NMSP's Training and Continuing Education Policy*, 2002). This is particularly true for the evolution of NMSP's leadership. The overriding goal is to ensure such staff have the necessary tools and personal energy to serve as effective trustees for the nation's designated network of marine protected areas, to broaden management skills and perspectives, and ensure the succession of new leaders..

A Wide Range of Benefits

To be effective stewards of the NMSP, Sanctuary Managers and other leaders work with a huge array of partners to deliver necessary services expected by local communities and the broader nation. Examples of these partnerships and collaborations exist throughout the nation, and include research partners, community groups to disseminate information to the general public,

educational partners to aid with education missions, non-governmental organizations who share the vision for managing coastal resources, and most commonly, with governmental agencies, such as state resource managers and local municipalities. The NMSP also works closely with NOS's International Program Office (IPO) in numerous projects.

Because marine protected areas exist around the world and due to the NMSP's international mandate, the NMSP has and will continue to have effective partnerships with IPO and with other nations who manage similar MPA programs. Many short-term exchanges (lasting usually for a few days to several weeks) have occurred between the NMSP and other countries, such as with South Korea and Australia, in the past few years. Full scale international collaborations would be greatly enhanced with concentrated, focused outreach, exchange and group effort that can only result by placing NMSP leadership in other countries for extended periods of time.

As discussed above, the NMSP has always strived to provide training opportunities for all of its staff, including effectively training its leadership to best serve as trustees of the nation's marine protected areas. A number of managers have been placed into NOAA's Leadership Competency Development Program, and other leadership training opportunities. However, site and branch managers often have a difficult time participating in these programs due to the distributed nature of the sites and the ongoing, daily demands of managers. Enhancing existing competencies and building new skills in integrated coastal and MPA management efforts is difficult under such conditions, and one or two-day seminars and conferences simply do not provide the depth of information or experience that is needed. An extended international assignment for a Sanctuary Manager or Branch Chief will also allow an existing staff member the training opportunity to serve as acting manager or acting branch chief, thereby compounding the growth and training benefits of this program. This natural consequence magnifies the NMSP's and NOS's ability to develop its leadership for the future.

Daily site and national program management responsibilities are also extremely stressful; the NMSP has found that after many years, leadership can benefit from temporary opportunities and assignments to rekindle the passion necessary to be effective managers. These concepts are familiar to other site-based management programs, such as the National Park Service, U.S. Forest Service and Bureau of Land Management, who respond by rotating site managers every 2-5 years to new sites to provide new perspectives and opportunities for managers, and new ideas and energy to the sites being managed.

Primary Program Principles

The NMSP will place site and headquarters leadership with international partners to meet program and NOS objectives and provide management training opportunities. Principles of assignments will include:

- Partners are identified in advance of an assignment;
- Goals, expectations and outcomes are identified in advance, yet refined during the manager's time in the partnership to stay flexible and responsive to host programs;

- Costs of travel and reasonable expenses will be covered by headquarters or site funds, or a combination thereof, and expenses will be minimized where possible;
- Availability of assignments would of course be subject to the presence of funds to support such projects;
- All assignments must result in concrete outcomes and products such as long-term exchange partnerships with other nations/programs, publications, web site updates, written reports and internal and external presentations and training seminars upon return;
- Leadership staff will be eligible to seek an International Management Collaboration assignment after working in good standing for the NMSP for at least five years, and will not be eligible for a second until at least five years have elapsed since completing a first assignment;
- The NMSP international staff will work closely with NOS' International Program Office to identify and cultivate international collaboration opportunities and strategic needs;
- "Acting" site or branch managers will be identified from within the NMSP, with the replacement(s) for the manager involved in a collaborative assignment coming from within that manager's site or branch to further magnify the training benefits to the program and personnel;
- The NMSP will have no more than one manager involved in a collaboration assignment at a time, except for brief periods of overlap; and
- The NMSP Director has the discretion to approve, International Management Collaboration assignments, and the details and expectations of each.

Initial Implementation

The first implementation step will be to assign the Superintendent of the Monterey Bay National Marine Sanctuary, William J. Douros, to a six-month assignment in Italy. The assignment is planned begin in early June 2004. Mr. Douros will work from the Aquarium of Genoa concentrating on four core program areas that expand the NMSP's knowledge base for managing marine ecosystems and expand outreach and collaboration possibilities to our growing partnerships in Italy and the Mediterranean Basin.

The core program areas will be:

- Understanding Management Regimes for Italian System of MPAs
- Identifying Opportunities for Collaborations with NMSP and NOS IPO
- Exploring Multilateral Opportunities with Mediterranean MPA center
- Refining Opportunities to Bring Telepresence System to Italian Aquariums

In addition, Mr. Douros will be able to assist the NMSP further refine the regional vision for our program, which is a fifth task on his work plan.

A detailed work plan has been developed that further explains each of these core program areas and the products and outcomes the NMSP expects from each core program area. As this will be the first International Management Collaboration assignment, the NMSP will use it as a learning opportunity and will concentrate on regular communications during the assignment and afterwards to make refinements to improve the program. Mr. Douros will provide regular updates via email and website, and will make a presentation to the NMSP leadership team in September 2004, in the middle of the assignment.

The second initial implementation step for the International Studies and Collaborative Management Program is planned with Australia. The NMSP anticipates assigning a Sanctuary Manager, Branch Chief, chain of command, or other senior personnel to collaborate with NMSP partners in Australia within 3 –12 months after the initial assignment of Mr. Douros ends, provided adequate program funds exist to support the assignment. The NMSP and NOS's International Program Office have been working with colleagues in Australia for several years on integrated coastal management, coral reef management, marine protected area management and related themes. After the initial assignment of the International Management Collaboration Program is complete, and the NMSP has made refinements, the details of an assignment to Australia, including the core program areas, products and outcomes, will have been developed for action.