Ka Papapala Hoʻomaopopo: Papahānaumokuākea

photo by James Watt

The Informative Letter: Papahānaumokuākea • February 2008, Vol. 2 • Issue 1

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Aloha Kākou—Greetings from the Monument

We appreciate the continued commitment so many of you have shown during this exciting, and at times very challenging, draft management plan development process. We are almost at the finish line. We aim to have the draft plan made available to the public in the spring of this year.

In the first issue of Ka Palapala Hoʻomaopopo (September 2007), we introduced the Co-Trustees; described the context and history of the current draft Management Plan; and outlined its vision, guiding principles and goals. Summary tables described the views and concerns the public raised during various comment periods.

This second issue outlines the plan's management framework and approach (including priority management needs), introduces recent changes made in the Monument permit application process, and provides a glimpse of some of the deepwater research occurring in the Monument.

Thank you for your continued support of Papahānaumokuākea!

Management Planning

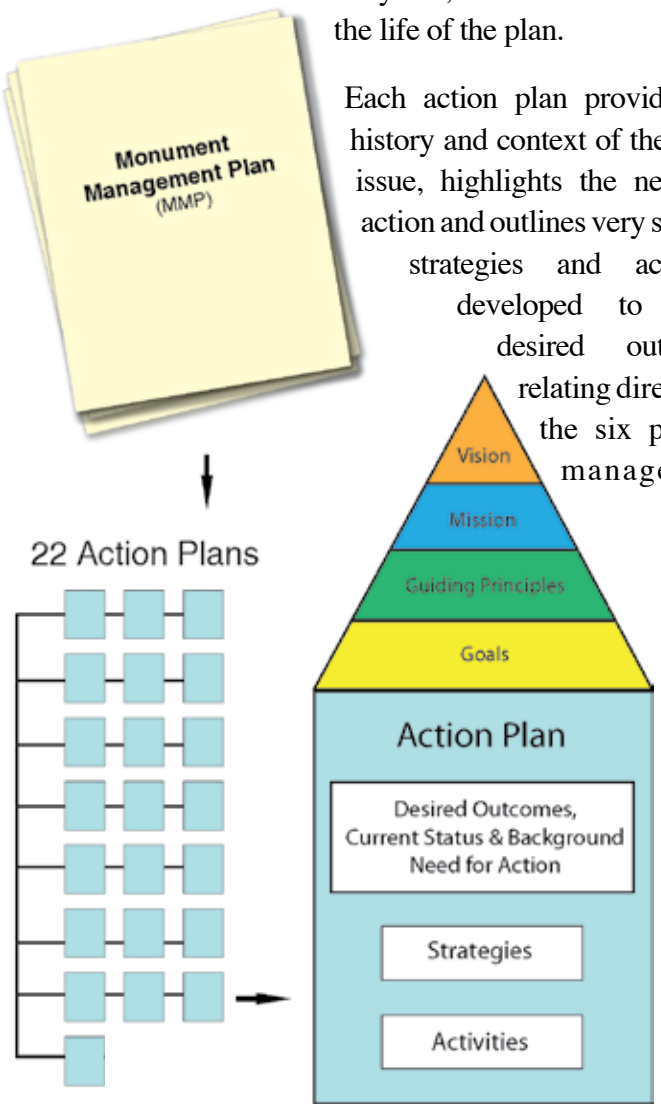
Adaptive Management Takes Form

In developing a management plan the Monument managers recognized the importance of having an adaptive, issue-based approach to management—an approach that focuses on managing for the benefit of the ecosystem as a whole.

The management plan is designed to address six priority management needs developed using public input from the various scoping meetings and from information gathered at workshops conducted between managers and scientists, cultural practitioners, and other stakeholders since 2000.

To address the management needs, 22 action plans were developed (see sidebar) containing specific strategies and activities to be implemented over different time frames across a 15-year planning horizon; some will begin and end within five years, while others may span the life of the plan.

Each action plan provides the history and context of the given issue, highlights the need for action and outlines very specific strategies and activities developed to reach desired outcomes relating directly to the six priority management needs. The plan will also undergo reviews to ensure that strategies are continually updated, and that the plan itself is achieving its stated goals, guiding principles, mission, and vision.



Priority Management Needs and Related Action Plans

1) Understanding and Interpreting the NWHI
- Marine Conservation Science
- Native Hawaiian Culture and History
- Historic Resources
- Maritime Heritage

2) Conserving Wildlife and Habitats
- Threatened and Endangered Species
- Migratory Birds
- Habitat Management and Conservation

3) Reducing Threats to Monument Resources
- Marine Debris
- Alien Species
- Maritime Transportation and Aviation
- Emergency Response and Natural Resource Damage Assessment

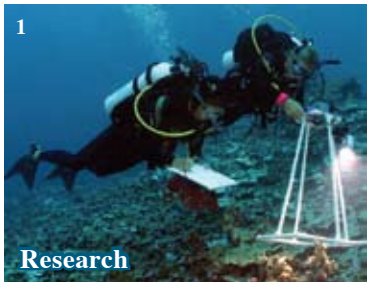
4) Managing Human Uses
- Permitting
- Enforcement
- Midway Atoll Visitor Services

5) Coodinating Conservation and Management Activities
- Agency Coordination
- Constituency Building and Outreach
- Native Hawaiian Community Involvement
- Ocean Ecosystems Literacy

6) Achieving Effective Monument Operations
- Central Operations
- Information Management
- Coordinated Field Operations
- Evaluation

Please see page six for more details on the public comment period for the Draft Monument Management Plan!

Permits & Proposed Activities



Improved Permit Application

New format and public posting policy

The Monument permit application process has been refined and improved. Upon completion of the 2007 permit season, Monument managers reviewed the process to identify the successes and areas needing improvement. Refinements were then made utilizing feedback from past applications and permittees.

As a result, revised application forms and updated instructions are online now and available to all applicants. The next permit application deadline is May 1, 2008.

More specifically, changes made to the application forms and instructions include:

- Development of 6 separate applications and instructions corresponding to the six categories of activities allowed within the Monument: research, education, conservation and management, Native Hawaiian practice, special ocean use, and recreation (Midway only)
- Inclusion of a Compliance Checklist as part of the application process
- Inclusion of an application summary to be available for timely public review
- Listing a Field Principal Investigator, in addition to the applicant, for activities when the actual applicant is not present in the field
- Listing personnel roles to be covered by the permit in the application to more accurately portray the number of people on the permit. However, names must be provided by the applicant before issuance of a permit.

In addition, a unified public posting policy has been developed by the Monument Co-Trustee agencies that took effect on February 1, 2008. The policy will apply to all proposed activities within the Monument beginning June 1, 2008.

This posting policy will make summary information and full permit applications available to the public in advance of decision making on the proposed activities:

- Within 10 calendar days of receipt of application, a summary of the applicant's proposed activities will be posted.
- Within 40 calendar days of receipt of application, full permit applications will be posted.
- The permit application will be posted for a minimum of 30 calendar days prior to agency determination.

Monument managers are committed to keeping the public engaged and informed about proposed activities in the Monument and to making the permit application process as user-friendly, yet comprehensive as possible.

We welcome your comments on the Monument permit process and unified public posting policy. Information about the process and policy will be included in the draft Monument Management Plan and comments about them will be received and reviewed as part of the public comment period on the draft plan.

To learn more about the Monument's permit application process, contact the permit coordinator (808) 397-2660. ■

If you are not able to access the hyperlinks embeded in this document, visit our website at:

www.hawaiireef.noaa.gov

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High-Tech Meets The Deep Blue

Another in a series of "good news!" stories to be featured in each issue of Ka Palapala Ho'omaopopo.

Amazing photographs of the Northwestern Hawaiian Islands—beautiful clear waters, thousands of nesting albatrosses, circling sharks and ulua, and of course coral reefs—can now be easily found depicting the area's rich and diverse plants and animals. But those images represent but a fraction of the inhabitants and ecosystems of this vast region. Far below, in the deeper reaches of the ocean, many more habitats have yet to be explored, and new species yet to be discovered.

On a recent research expedition to the Papahānaumokuākea Marine National Monument scientists working with the Hawai'i Undersea Research Laboratory (HURL) set out to learn more about the Monument's deep-sea communities.

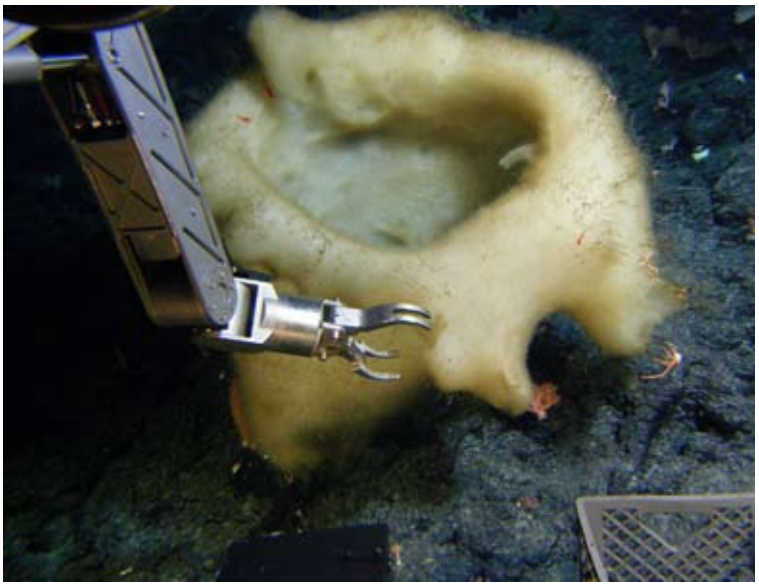
GOING DEEP

"Most of the Monument is below scuba diving depths," says Dr. Randy Kosaki, the National Oceanic and Atmospheric Administration research coordinator for the Monument, "It's important to find ways to explore these deepwater ecosystems where the inhabitants are virtually unknown."

One habitat that researchers wanted to get a closer look at was deep-sea coral communities. Unlike corals found closer to the surface, little is known about the biology, ages, and growth rates of most deep-sea corals. These corals intrigue scientists because of their near-global distribution and potentially long life spans. Knowing this information could help protect coral reef communities, which are vulnerable to human activities that damage the seafloor or alter the surrounding environment. Recovery from damage may take decades to centuries.

NEW DISCOVERIES

When scientists from HURL visited the Monument last October, they set out to survey previously unexplored research sites ranging in depth from 3,000 to 6,000 feet—over a mile deep! Upon their return to Honolulu, HURL scientists reported the discovery of new deep-water coral and sponge beds found in the Monument. Two examples of potential new species revealed by this project include a lemon yellow bamboo coral tree and a giant sponge the team dubbed "the cauldron sponge." In fact, the structure of the yellow bamboo coral is so unusual that it may represent not only a new species, but also possibly a new



Top: The Pisces V submersible underwater preparing to dive. Middle: Arm of Pisces V near "Cauldron Sponge"; Bottom: Yellow bamboo deep sea coral. Photos courtesy of NOAA

genus of corals. "The Monument is potentially protecting so many new species that many will not be revealed for decades to come," says University of Hawai'i researcher Dr. Christopher Kelley, the principal investigator for one of the projects.

Scientists work to identify organisms several different ways. Some organisms can be identified visually from photographs or video taken during the dives. Others will have biopsies taken (small, non-lethal tissue samples) during the dive, which are taken to laboratories for DNA and other analyses. Biopsies can also reveal the genetic connections of corals to those found in other areas of the world. Photos are often compared to determine growth rates and age of individuals. Some of these deepwater corals may be thousands of years old, and their skeletons may contain records of climatic conditions that span multiple millennia. Such information would provide a valuable baseline for evaluating the magnitude and rate of climate change occurring now.

TOOLS OF THE TRADE

To reach these deep-sea research sites, HURL employs the use of two submersibles, called the Pisces IV and the Pisces V. This awesome pair of research vessels each hold three people—two researchers and a pilot. The subs are battery powered and can operate at depths of 2000 meters (6,280 ft.). They are launched and recovered via a specialized A-frame on the aft (rear) deck of the University of Hawai'i's R/V *Ka'imikai-o-Kanaloa* (KOK), the primary support vessel for both submersibles.

Having two submersibles not only increases the efficiency of the research being conducted, but is also a safety precaution. Many research projects benefit from having two subs available—either using both at the same time or using one while preparations or repairs are being made to the other. More importantly in case of an emergency, such as one sub becoming entangled or having a mechanical problem, the second sub can be deployed immediately to render aid.

Typical dives last from 6 to 10 hours, with launches and recoveries being made during daylight hours. Nights are usually reserved for servicing aboard the KOK or the crew runs Remotely Operated Vehicle (ROV) operations. The subs also have emergency life support systems that can sustain three people for up to five days.

THE FUTURE

Deepwater habitats comprise 90 percent of the Monument's area, yet are virtually unexplored. As scientists begin gaining a better understanding of the organisms and workings of these deepwater systems, measures can be developed that will help managers better protect this area of the Monument. Scientists may also be able to learn how organisms, such as coral, are affected by potential impacts over a long period of time, leading to better understanding of potential threats to corals throughout Hawai'i and elsewhere. ■

HURL is a partnership between NOAA and the University of Hawai'i; the program operates the submersibles Pisces IV and V.

Top: The Pisces V being lowered into the sea off the aft deck of the R/V Ka'imikai-o-Kanaloa. *Photo courtesy of NOAA.*

Bottom: Nighttime servicing of the Pisces IV on the deck of the R/V Ka'imikai-o-Kanaloa. *Photo courtesy of NOAA.*

CONTACT US

‘Aulani Wilhelm
NOAA Superintendent
Papahānaumokuākea
Marine National Monument
6600 Kalaniana‘ole Hwy., Ste. 300
Honolulu, Hawai‘i 96825
(808) 397-2660
www.hawaiireef.noaa.gov

Susan White
FWS Superintendent
Papahānaumokuākea
Marine National Monument
300 Ala Moana Blvd. Rm 5-231
Box 50167
Honolulu, Hawai‘i 96850
(808) 792-9480
www.fws.gov/pacificislands

Athline Clark
State Superintendent
Papahānaumokuākea
Marine National Monument
1151 Punchbowl St., Rm. 330
Honolulu, Hawai‘i 96813
(808) 587-0100
http://www.state.hi.us/dlnr/dar/
http://www.state.hi.us/dlnr/dofaw/

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www.hawaiireef.noaa.gov

LEADERSHIP

The Monument Management Board welcomes Athline Clark as the newly named State of Hawai‘i Superintendent for the Monument. Clark has been working with Northwestern Hawaiian Islands issues since 1998, and we are glad to see her as a permanent member of the management team.

Clark joins Susan White, FWS Superintendent and ‘Aulani Wilhelm, NOAA Superintendent, in leading the Monument. Welcome aboard!

REMINDER: A Memorandum of Agreement (MOA) signed in 2006 established a Co-Trustee management structure including representatives from the U.S. Department of Commerce, through the National Oceanic and Atmospheric Administration, the Department of the Interior through the Fish and Wildlife Service, and the State of Hawai‘i. The MOA established a locally based Monument Management Board (MMB) to guide field level coordination. The MMB includes representation of the Co-Trustee agencies and the Office of Hawaiian Affairs.

Pisces V and IV on board the R/V Ka‘imikai-o-Kanaloa. *Photo courtesy of NOAA.*

WE WANT TO HEAR FROM YOU

A 75-day public comment period on the draft Monument Management Plan will commence with its release to the public this spring. Nine statewide public meetings will be held, plus one in Washington D.C. The Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve Advisory Council will convene during the public comment period to review and deliberate on the plan; it is anticipated that briefings will also be given to the State of Hawai‘i Board of Land and Natural Resources, the Board of Trustees for the Office of Hawaiian Affairs and its Native Hawaiian Cultural Working Group. Updated information about the public release date, the public comment period, and all associated meetings will be posted on our website. To receive information and updates directly, please join our Monument listserve.