



SAVING THE LAST GREAT PLACES ON EARTH

Of Hawai'i

Marine and Coastal

Conservation Program

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*The Nature
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The mission of The Nature
Conservancy
is to preserve the plants, animals,
and natural communities that
represent
the diversity of life on Earth by
protecting
the lands and waters they need to
survive

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Our Past...

- 1980-The Nature Conservancy of Hawai'i is established
- 2001-The Nature Conservancy of Hawai'i begins a Marine Program with the hire of a Director
- And the first NOAA Appropriation is awarded to initiate the Program and its projects



Our Present...

- 2003~04- The Program increases capacity and has established mature portfolio of projects
- Present- The Program looks forward with a recent, second NOAA Appropriation to continue to improve marine resources in Hawai'i

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In Hawaii...

- 85% of U.S. coral reef systems
- Between 14 and 62 % of Hawaii's coral reef species are endemic
- Average of 23% live coral cover in sites surveyed
- Incredible biodiversity

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Objectives & Strategies

Objective 1: To enhance coral reef conservation

Objective 2: To build a solid foundation for long-term conservation success

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Objectives & Strategies

Focus on forging partnerships

Expand our modest capacity with **capable
contractors**

Contribute to large-scale efforts
to address **large-scale threats**

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Objectives
& Strategies

Sustainable Financing



Invasive Species Control



Marine Gap
Analysis

Community Based
Management



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An underwater photograph showing a variety of colorful fish, including a prominent orange and white fish in the foreground and a blue fish to its left. The background is dark with some coral or rock formations.

Sustainable Financing

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*Conservation "Fees" are Now Common
and Successful Around the World
for example*

Bunaken

Galapagos St. Lucia

Bonaire

Palau

Tubbataha

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Sustainable Financing Potential in Hawaii

800,000

Molokini

200,000

West Hawai'i

potential to generate several
million dollars annually to support
marine conservation.

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Potential Applications of these Funds

**Establishment of an Effective Marine Conservation Enforcement Program
(Coast Watch):**

**Monitoring Alien Algae and Other Species to Prevent their Spread Along
the Coast:**

**Community Awareness and Involvement Program to Build Support for
Protection**

of Marine Resources:

Installing and Maintenance of Mooring Buoys

Monitoring of Changes in the Number of Violations:

Biological Monitoring of the Condition of Marine Resources:

A Program to Support Sustainable Fishing

Traditional Hawaiian Fishing and Management Program

Marine Conservation Scholarship Program

Restoring Nesting Sea bird and Marine Turtle Nesting Areas

Incentive Programs for DOCARE

Numerous Others

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Steps in the Process of Establishment

- 1. Consultations,** involve Dive Industry from Day One
2. Development of a Mutually Agreed to
“Willingness to Pay Survey”
3. Establishing an **Advisory Committee**
4. **Pilot** a Dive Conservation Contribution **Program**

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Accomplishments to Date...

Pilot Projects on the Big Island & Maui initiated

Willingness to Pay Surveys (WTP)

on Kona Coast, Honolua Bay, Molokini Island, (& Oahu).

Study by Hawaii Wildlife Fund commissioned by TNCH

entitled **“Maui at the Turning Point”**

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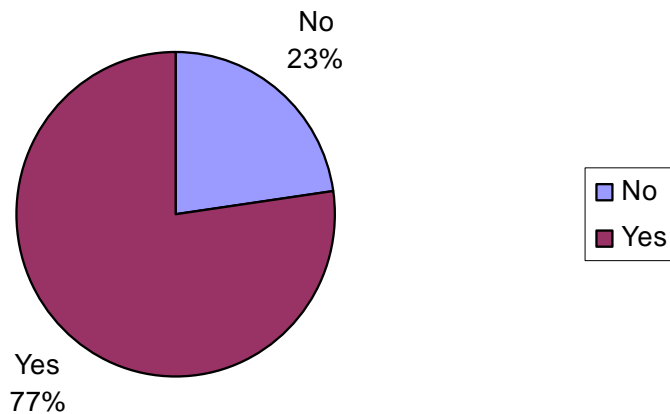
Results of “Maui at the Turning point” study

- **42 plus interviews**
- **Marine tourism is perceived as a threat to the very places they conduct their business**
- **One of the strategies ID to mitigate these threats was to create a sustainable funding mechanism to help protect and restore Maui's reefs**

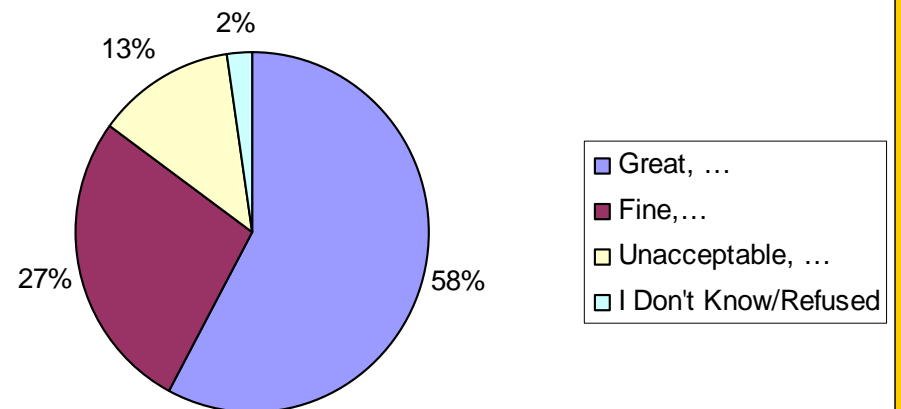


Results of WTP Surveys- Big island

Willingness to Pay Extra for Conservation in Kona, Hawaii



How Visiting Divers/Snorkelers in Kona, HI Feel about Possible Donations for Conservation

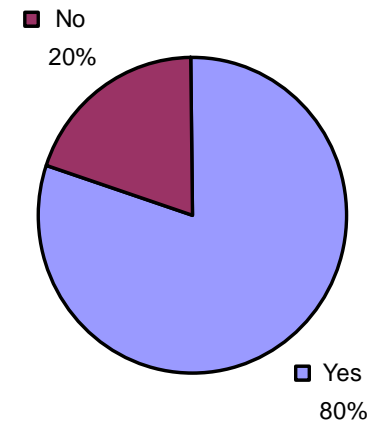
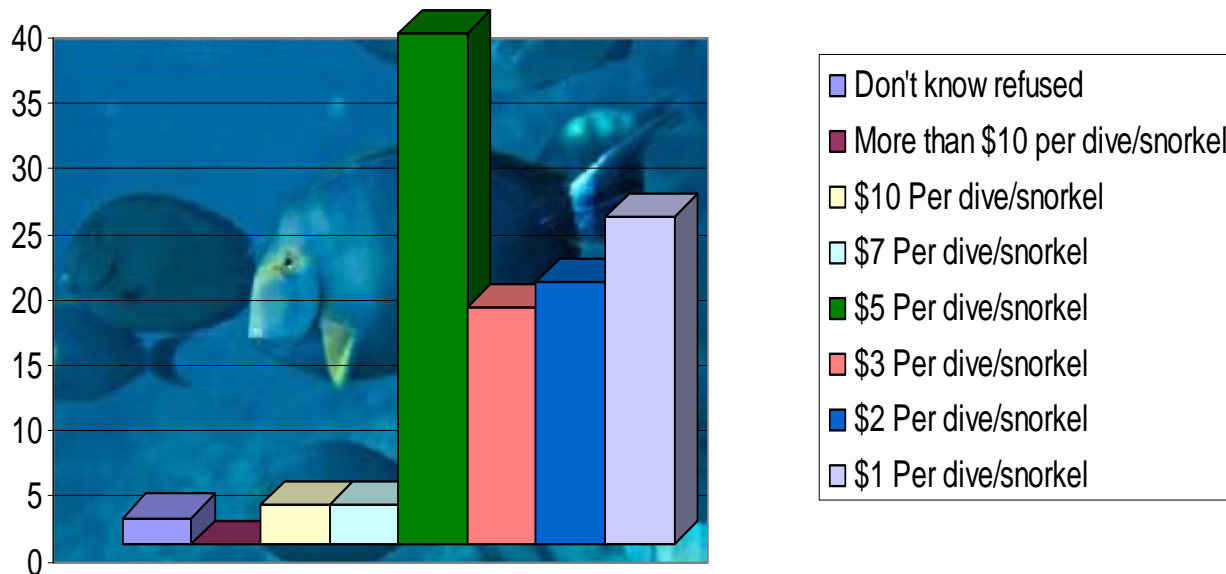




Results of WTP Surveys- Maui

Willingness to Pay Extra for Conservation- Molokini Bay

Amount Divers and Snorkelers were Willing to Pay at Honolua Bay



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Where we are **now**

- Partnered with CCN, HWF, and participating businesses
- Formation of Advisory councils
- Articulation of Project Titles- ex. “Maui Reef Fund”
- Crafting of Organizational Protocols for the councils
- Identification of payment and collection methods
accounting, taxes, and fund management
- Development of brochure for visitors

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Where we are

headed

- Fully identify and enact payment and collection methods accounting, taxes, and fund management
- Finalize and distribute brochures
- Outline projects to be funded and criteria to evaluate potential projects in the future
- Achieve “proof of concept” and move beyond pilot phase to include an increasing amount of operators
- Create a robust conservation finance program

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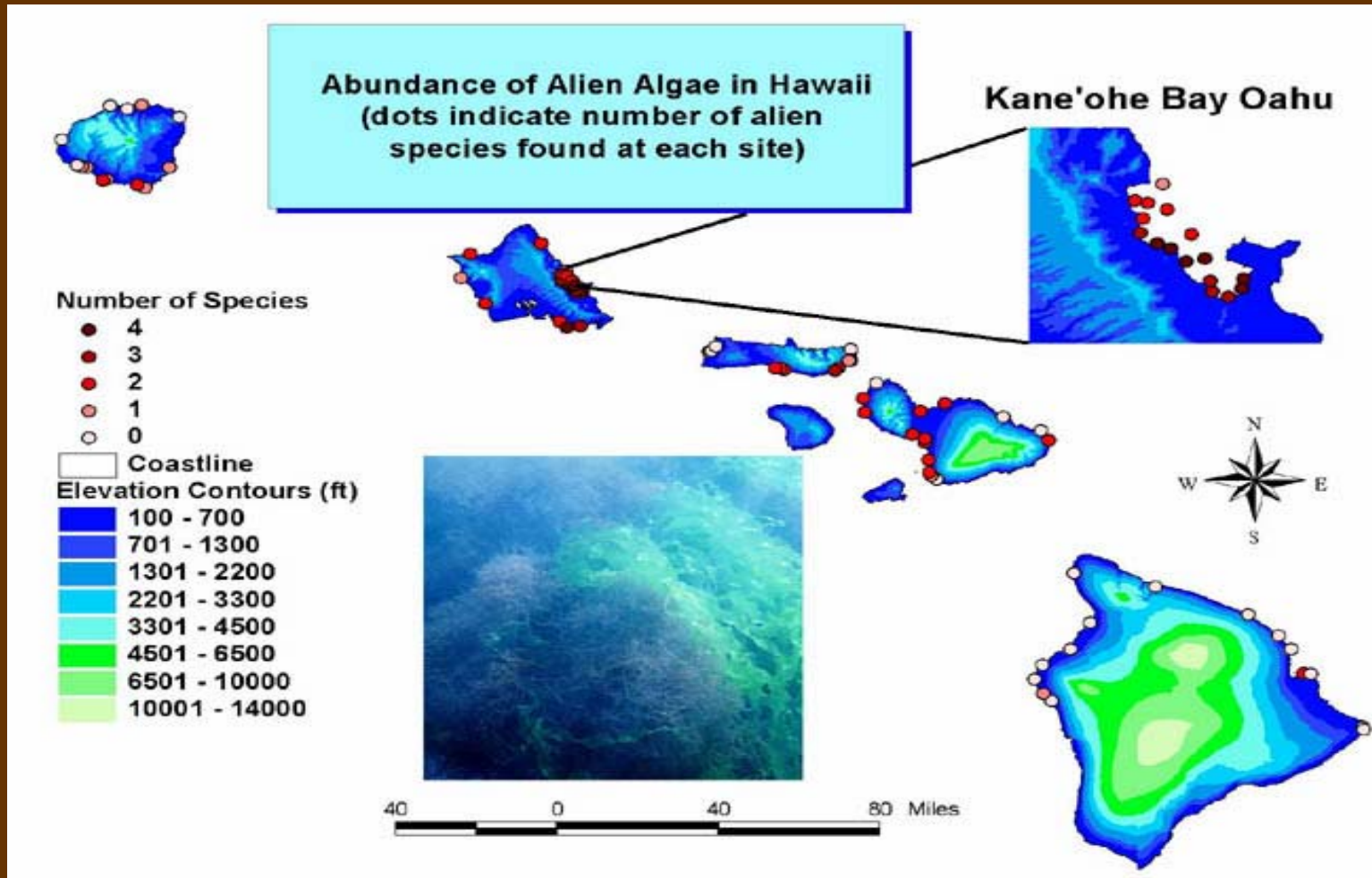
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Invasive Species Control

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Effects of Marine Invasive Species

- “Silent Killers”
- Can outcompete native species
- Alien species are often unpalatable to native grazers
- Alien Algae can decimate coral reef ecosystems by overgrowing corals and decreasing biodiversity

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Accomplishments to Date...

Volunteer-based events
of alien algae have removed

Over 42 tons

thus far

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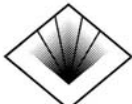
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Waikiki Cleanup Event



'A'ohē Limu'ē



No Alien Algae

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Accomplishments to Date...

- 7 Volunteer events thus far, with more coming soon
- Thousands of brochures printed and distributed
- Articles in both major newspapers, and most recently HBM
- Local news coverage
- Alien algae distribution surveys in the Main Hawaiian Islands
- Education and outreach at schools, with communities, and at conferences
- The development of “The Super Sucker”
- The identification of alien algae removal and safety protocols for mechanical removal

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Where we are now

- Designing and building a specialized alien algae collection platform
- Working with partners such as DLNR-DAR and UH to begin test plots in Kaneohe Bay for mechanical removal
- Developing secondary alien algae control approaches- native limu and native urchins

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Where we are now

- Education and outreach efforts with partners on outer islands
- Identifying other manual alien algae removal sites with communities
- Developing early warning systems for areas presently unaffected by alien spp.

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Where we are headed

- Updating and developing new educational and outreach materials with partners including underwater ID cards and a general curriculum
- Initiating test plots for mechanical removal and secondary alien algae control methodologies
- Implement a monitoring program to compliment removal efforts and promote additional removal and control activities

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...Continued

- Set up a intensive training course to develop more algal specialists
- Expand technology for increased conservation successes
- Build DAR support for expanded and ongoing alien algae control activities to the State.
- Continue to develop a better understanding of the root causes of invasive marine algal blooms in Hawaii by investigating environmental markers in Kaneohe Bay.

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And *Aquatic Invasive Species Plan* Implementation

- Incorporating all invasive species projects in the State and identifying gaps in information
- Developing a website to act as a repository of information
- Initiating a system of early detection and rapid response
- Working with partners to develop comprehensive education and outreach materials for the State

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And *Aquatic Invasive Species Plan* Implementation

- Assist DLNR and DAR in identifying priority aspects of the AIS plan that they can undertake.
- Host a workshop to bring together researchers and managers to decide how to most effectively move forward
- To learn from national and international efforts.
- Identify additional possible sources of funding

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The Purpose

is to integrate available information on Hawaiian near-shore waters to enable a comprehensive ecosystem conservation-planning framework for Hawai'i.

Marine Gap
Analysis



The Concept

- Partnered with the State Division of Aquatic Resources- **DAR**, Hawaii Natural Heritage Program- **HINHP** & all contributing scientists
- collection, review, and integration of information relating to into a database incorporating **GIS**
- Utilizing **scientific information** and in addition information that rests within **local communities**

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The “Pyramid” Approach

- 1. The Foundation-** integrating information from disparate sources and data integrity that insures project stability

1



Marine Gap
Analysis



The "Pyramid" Approach

1. **The Heart-** developing of a decision-making framework to enable a greater understanding of the distribution of marine biodiversity and the requirements for effective marine protected areas using MARXAN

1



2

Marine Gap
Analysis



The “Pyramid” Approach

-
-
- 3. The Pinnacle-** integrate our findings and the underlying information with the decision making processes of our partners including peer review of the results, as well as the underlying dataset

1

3

2



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We hope to create a framework where different scenarios and layers can be displayed and examined in the same environment:

Biology
Ecology
Cultural Resources
Activities
Management
Land-Use

Marine Gap
Analysis

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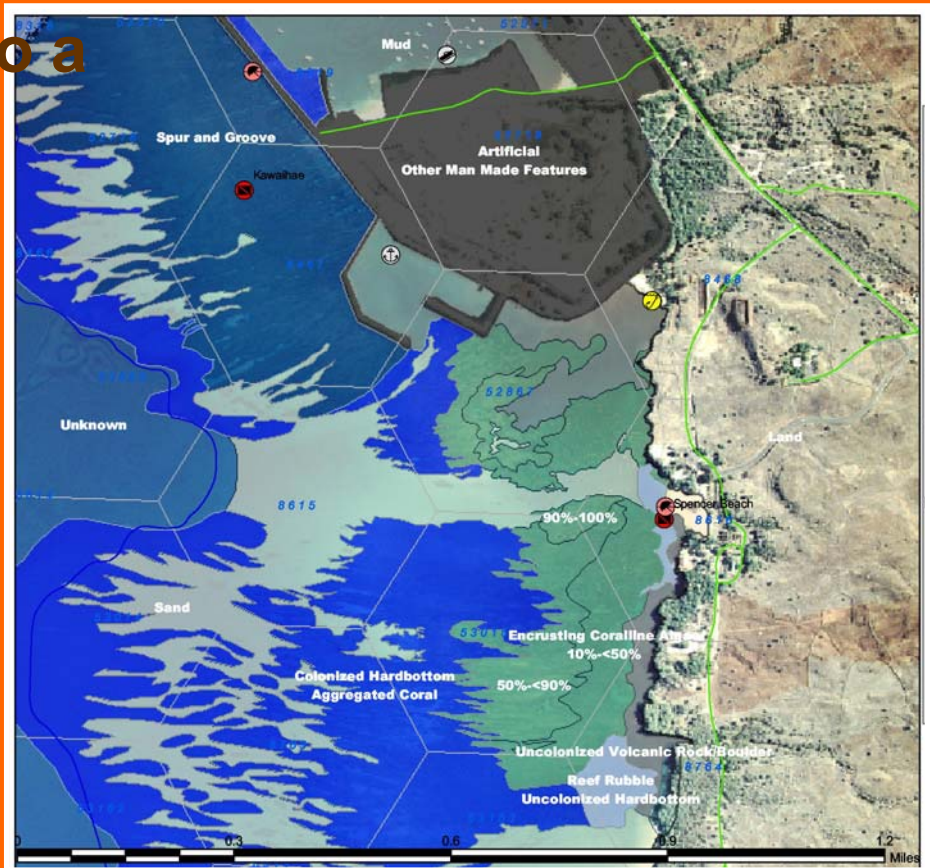
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Not to design a single answer to a marine protected area network in Hawai'i...



...but to create the ability to understand and visualize the possibilities



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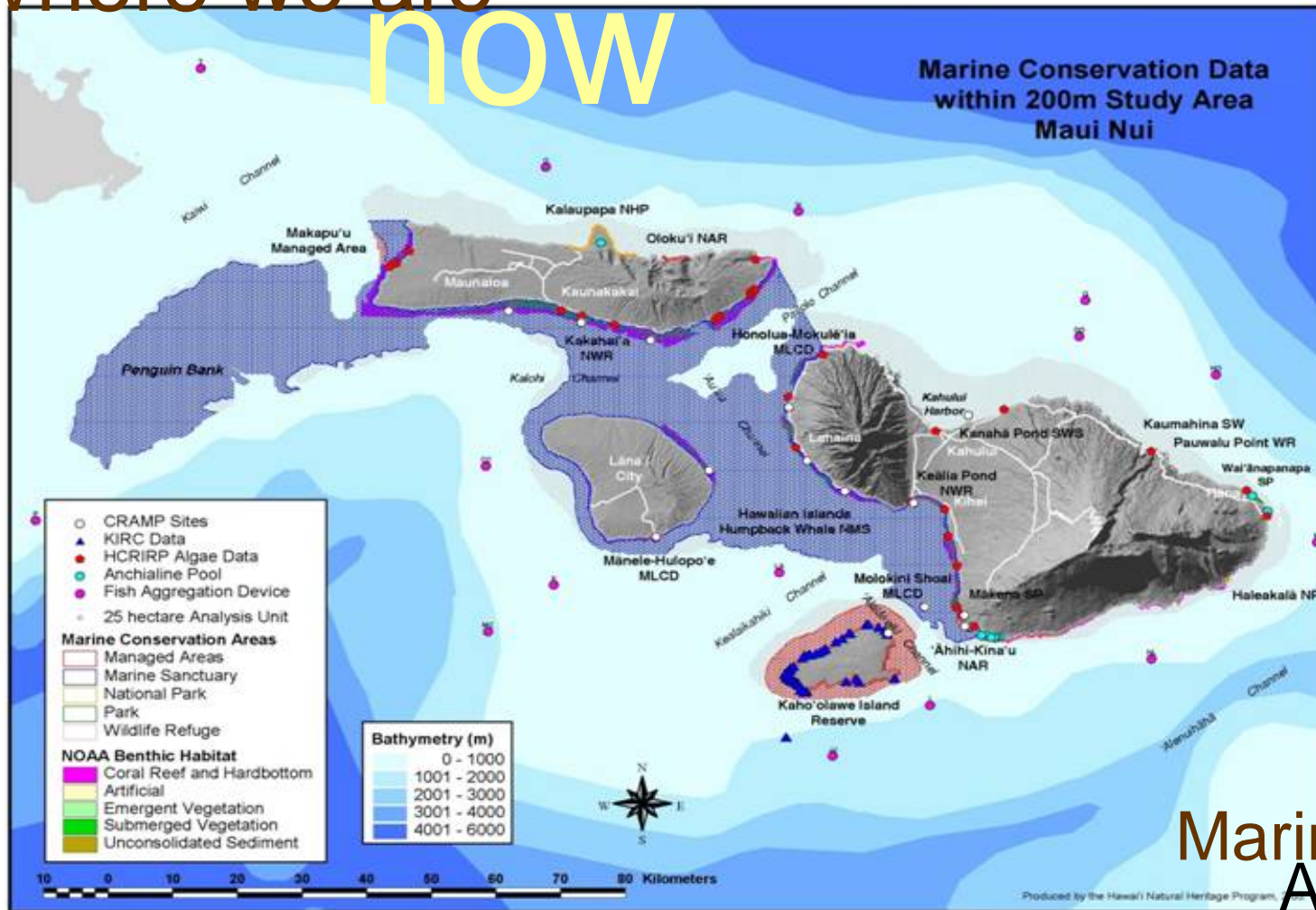
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Where we are
now



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Artificial
Other Man Made Features

Where we are

headed

- Provide support to Heritage Support's efforts to digitize existing information in second year of GAP analysis
- Help secure additional funding as needed.
- Assist in the implementation of surveys to gather information on biologically important areas that have not yet been surveyed.

Marine Gap
Analysis



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...Continued

- Organize kupuna (elder) and experts workshops to gather additional information on important marine areas statewide.
- Analyze and incorporate new and existing GAP information into our strategic plan.
- Begin work with partners to develop statewide, multi-agency strategic plan.

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Two Main Initiatives

1. Assisting the Miloli'i Community to improve marine resource management
2. Create a statewide learning network of community based marine conservation projects

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1. Assisting the Miloli'i Community

- Community-based Advisory Committee
- Raising awareness within the Community and Other Stakeholders, Institutions and Individuals
- Rejuvenating Traditional Practices that are also sound Conservation practices

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...Continued

- **Community-based Monitoring**
- **Research on Historical Knowledge of Marine Resources**
- **Abundance and Traditional Fishing Techniques to Inform**
- **the Future of Resource Management**
- **Developing a Coast Watch Program**
- **Preparation of Management Plan and Application for**
- **Marine Managed Area Designation**

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2. Create a statewide community learning network

- Partnered with CCN, Hui Malama 'O Mo'omomi, & all involved communities
- First workshop in December 2003 to enhance conservation effectiveness
- Response to a collective perception of dwindling marine resources, and limited State resources

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...Continued

- Positive feedback and support for future network workshops
- Network is designed to serve as a forum for communication, learning, & exchange
- Also an opportunity to share information from other areas

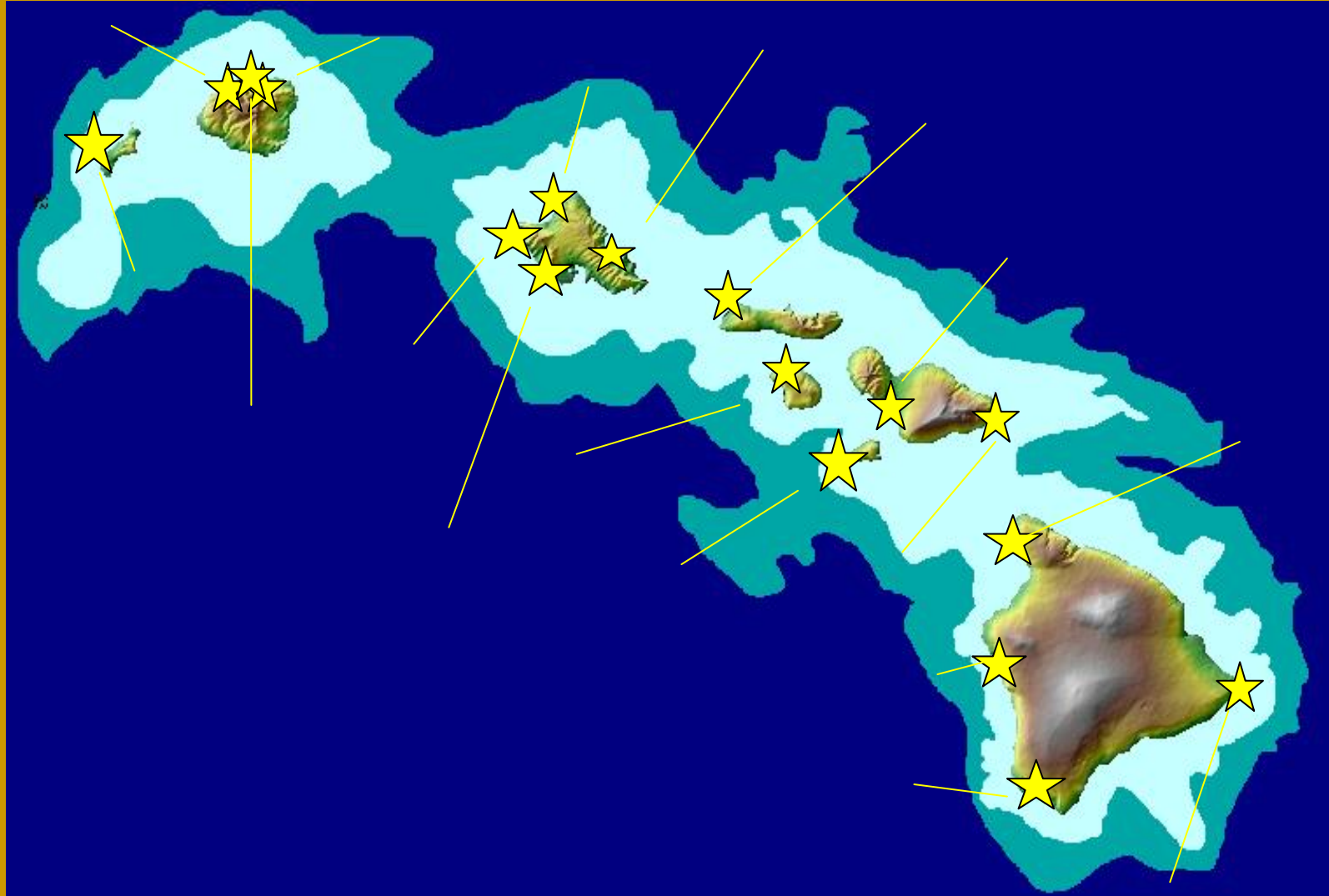
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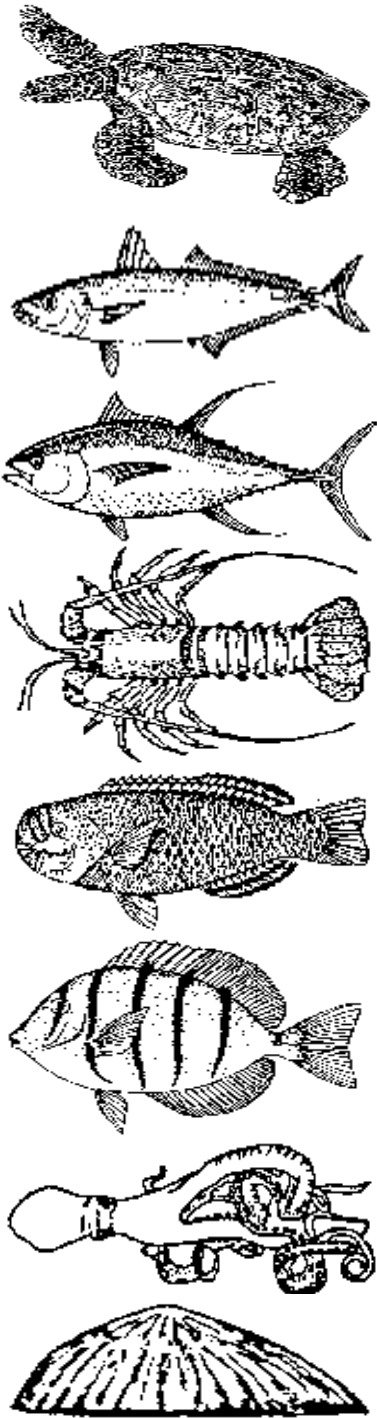
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Community Presentations:

- **Miloli‘i**
- **Mo‘omomi**
- **Wai‘anae**
- **Kawaihae**
- **Kahikinui**
- **Ewa Beach**
- **Hanalei**
- **Limahuli**
- **Wai‘ōpae**
- **Waipā**
- **Ho‘okena**






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	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
						■	■	■				
							■	■	■	■		
		■	■	■								
	■	■	■	■	■							■
			■	■	■							



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Where we are

now

With the Miloli'i Community

- Biological Monitoring
- Rejuvenating Traditional Practices
- Implementing a Coast Watch program
- Developing a Management Plan
- Improving Capacity

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Where we are headed

With the Miloli'i Community

- Work further to pass marine management regulations
- Work further with Miloli`i community to revise and implement management plan.
- Fully implement monitoring of nearshore reef areas by Miloli`i community members.

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...Continued

- Fully implement Coast Watch program in Miloli`i.
- Build DOCARE support for Coast Watch, and their capacity to oversee the program.
- Support development of Local Resource Councils (LRC) in other areas

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...Continued

- **Initiate one additional community-based marine conservation project**

On Maui

- **Work with HWF to establish LRCs in high priority conservation areas.**
- **Work with HWF to establish Maui Fisheries Council**

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Where we are

headed

With the Community Network

- Assessing current efforts, capacity, and needs
- Developing and implementing capacity-building modules
- Providing community-specific technical support
- Continue to include interested communities State-wide
- Planning the next workshop

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Our Future...

- Hire a Marine Coordinator for the Big Island
- Bring our projects to scale
- Continue to evaluate and improve ourselves

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Mahalo nui loa