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Pacific Islands



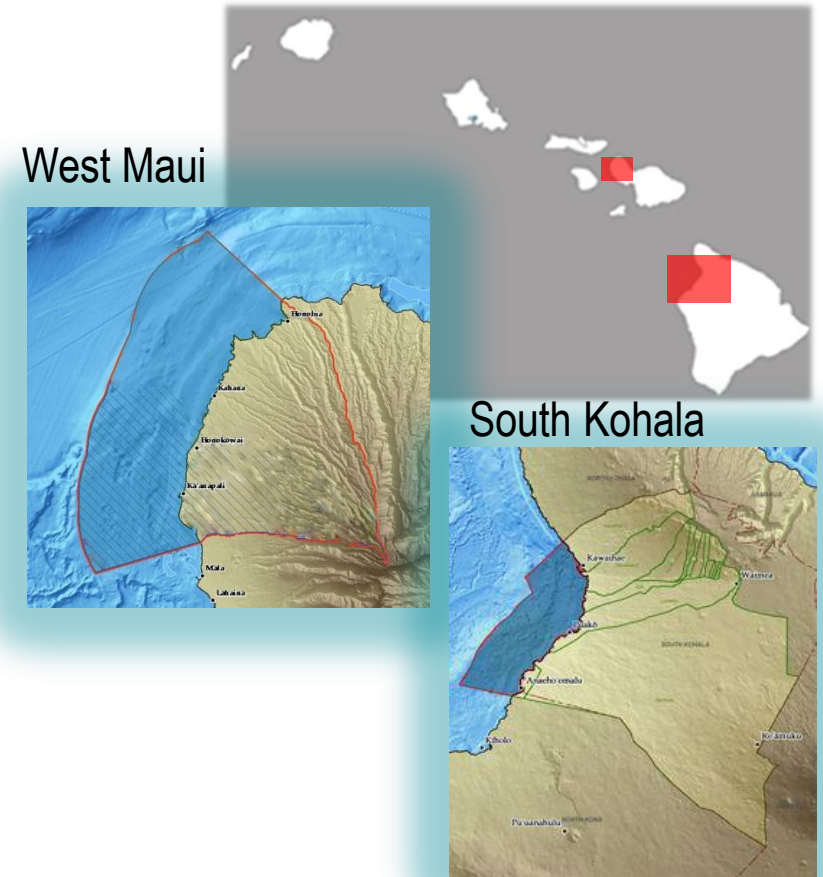
Knowledge, Attitudes, and Perceptions of Coral Reefs in West Maui

May 5, 2014

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JIMAR/PIFSC

Project background

- Collaboration with HDAR and TNC
 - South Kohala Conservation Action Planning (CAP) process
- Hawai`i's coral reef priority sites
 - Ka`anapali-Kahekili (West Maui)
 - Pelekane Bay-Puako-Anaeho`omalu Bay (South Kohala)
- Funded by NOAA Coral Reef Conservation Program



Survey design

- **Goal:** *To better understand resource users' knowledge, attitudes, and perceptions (KAPs) of coral reefs in priority sites.*
- 200 intercept surveys per site
- Local contractors administered surveys to residents and repeat visitors
- Spread out over 6 months to capture seasonal variability



Survey topics

- Site use patterns
- Knowledge about site conditions
- Potential threats to resources
- Potential management strategies
- Marine managed areas
- Benefits/services
- Knowledge of planning activities



Survey # _____
 Date _____
 Time _____

OMB Control #: 0648-0654
 Expiration Date: 10/31/2015

Survey: Knowledge, Attitudes, and Perceptions of Hawaii's West Maui Coral Reef Priority Site

SITE USE PATTERNS

1. What is your primary purpose/activity for visiting the West Maui coast today (e.g., fishing, swimming, diving, etc.)? Please write only ONE activity.

2. Approximately how many times have you visited the West Maui coast?

- First time 2 – 10 times 11 – 20 times > 20 times

a. If this is not your first time, how long have you been coming to the West Maui coast?

- 1 year 2 – 5 years 6 – 10 years > 10 years

3. What times of year do you visit the West Maui coast?

	Rarely or never	Sometimes	Often
a. Winter	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
b. Spring	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
c. Summer	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
d. Fall	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

4. What activities do you participate in at the West Maui coast?

	Never	Rarely	Sometimes	Often	Always
a. Swimming	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Surfing	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Scuba diving	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Snorkeling	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Camping	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Boating (motorized)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Canoeing/kayaking	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Sun bathing/hanging out	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Picnicking	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What did we do?



- 200 surveys
- 18 sites, West Maui
- Aug 2013 – Jan 2014

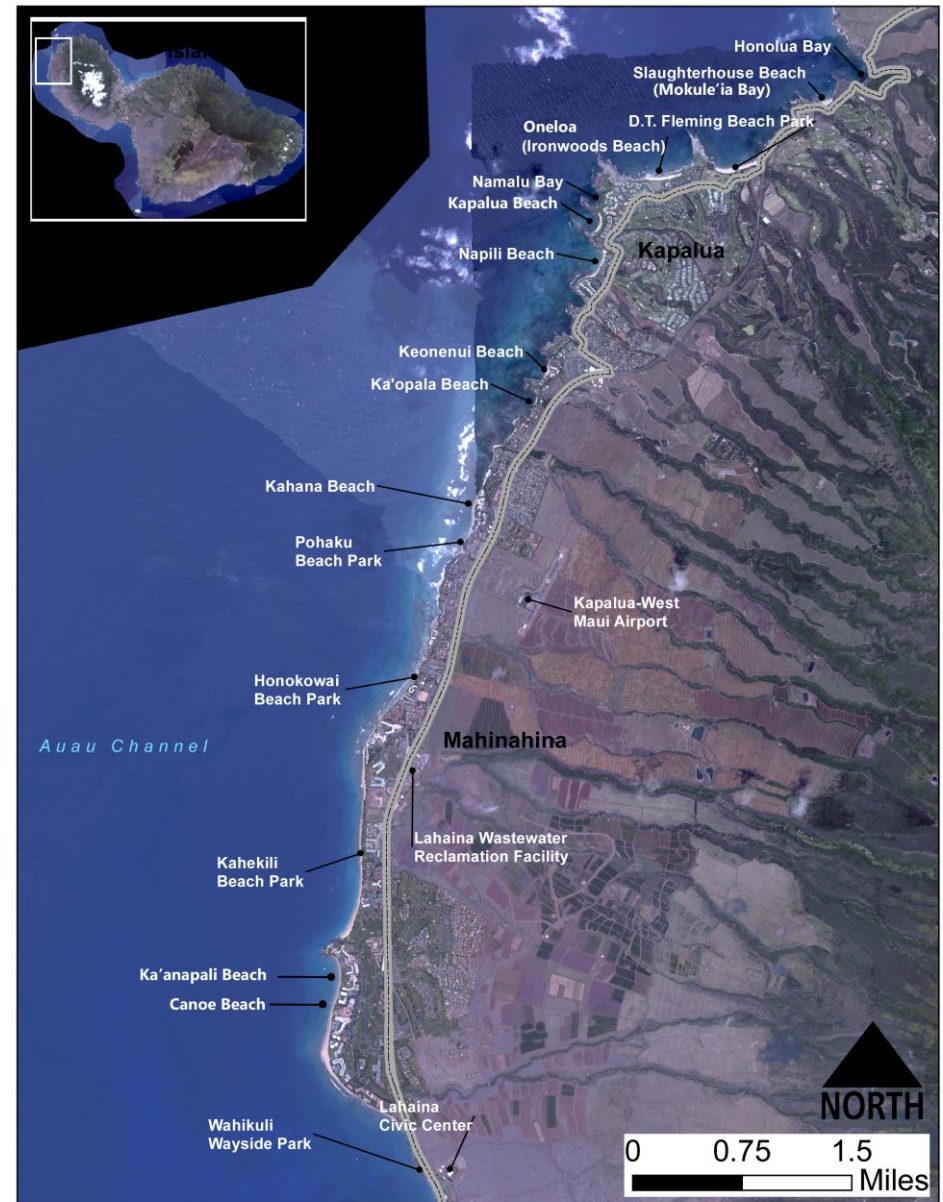


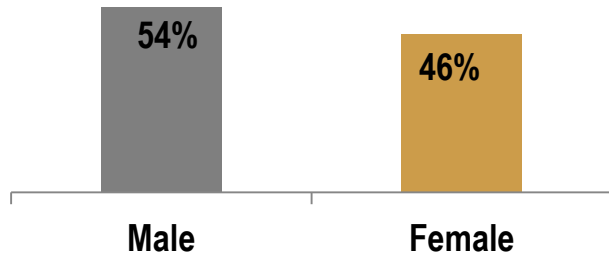
Image: 2011 Digital Globe, WV02. Map: NOAA Pacific Services Center, DAR



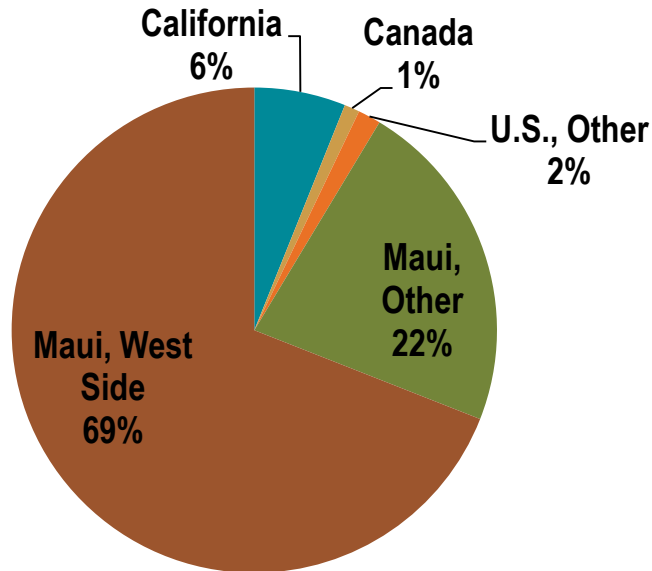
Credits: Pam Benjasirichai, Leila Sievanen

Who was surveyed?

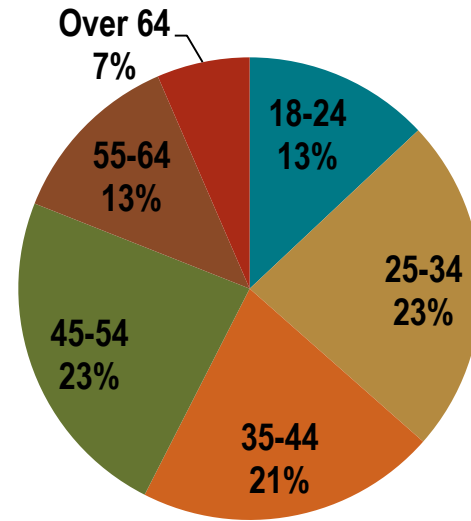
Gender



Where they live

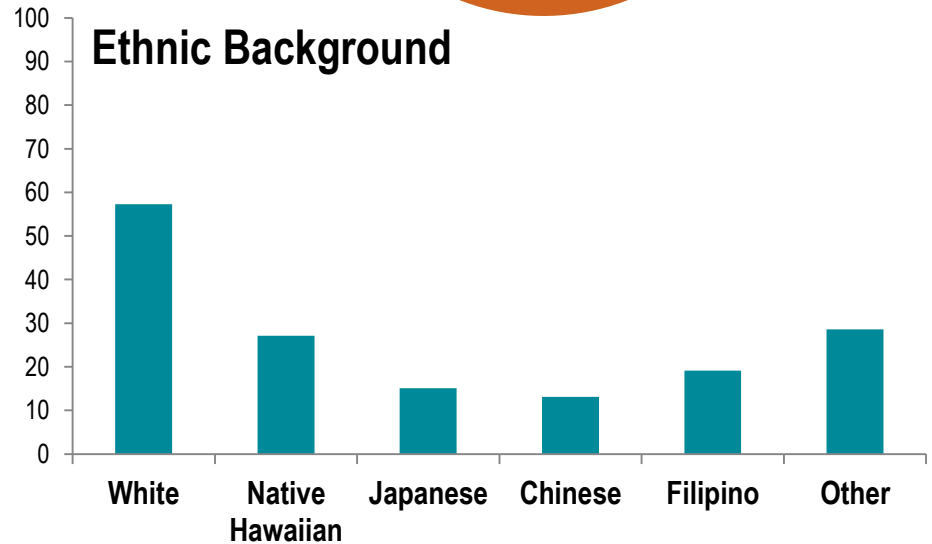


Age



%

Ethnic Background



<10% participate in management

What do they do at the beach?

Unspecialized activities most common

N=200

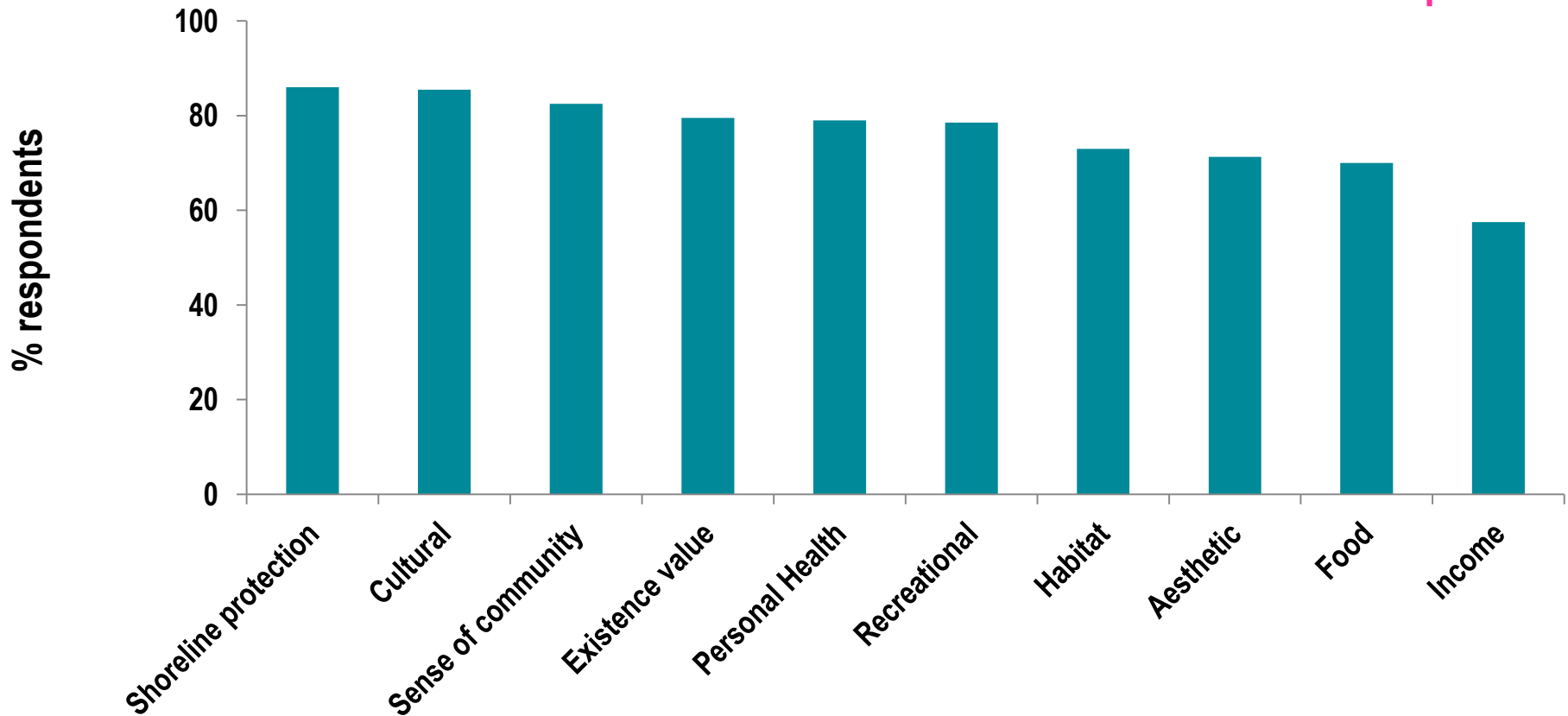


Always
Never

What benefits do they associate with coral reefs?

N=200

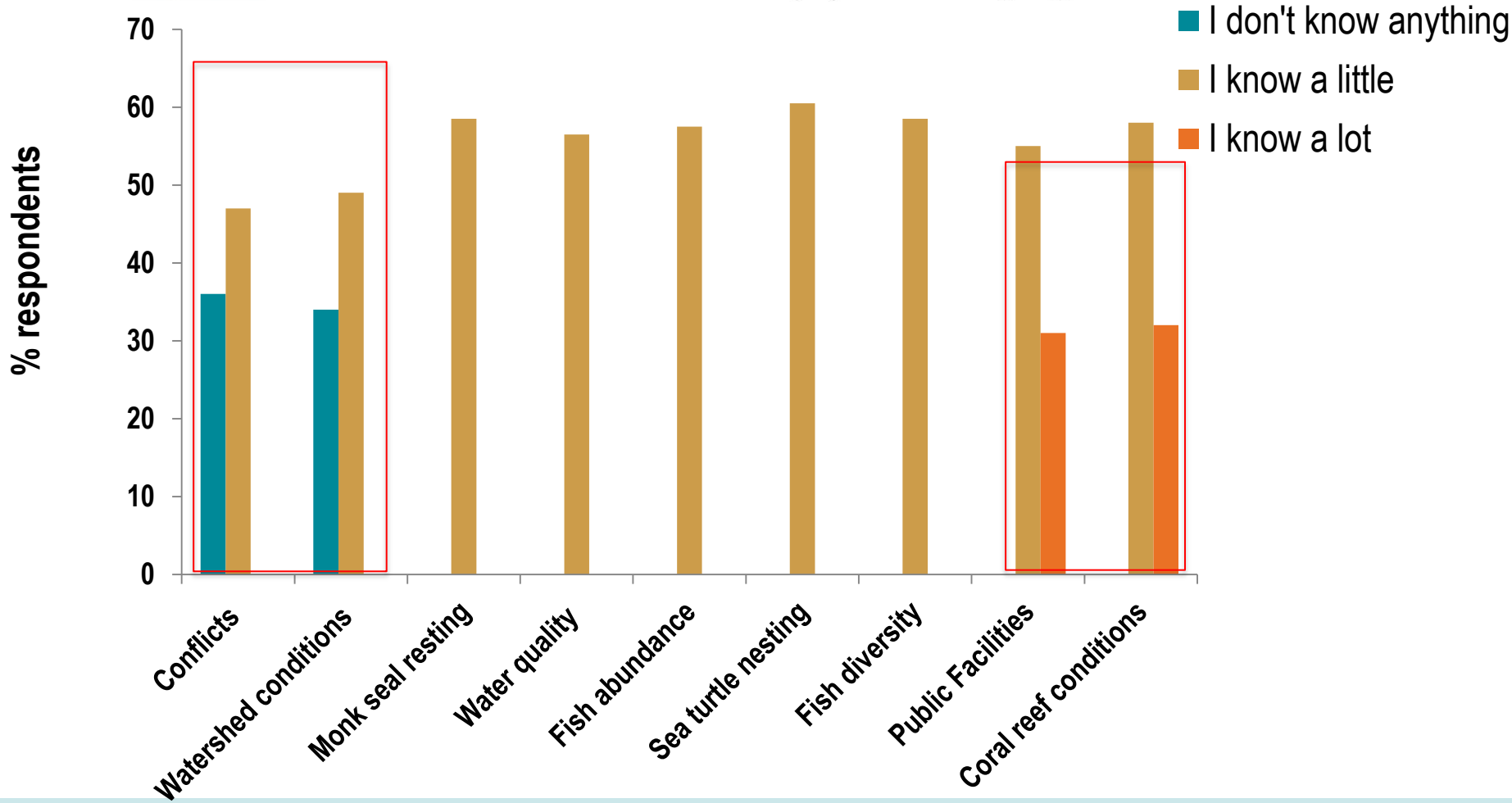
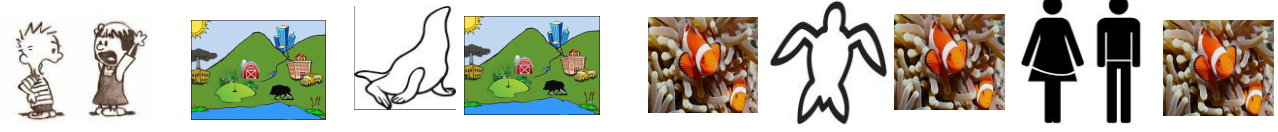
All ranked as important



What do they know about?

“I know a little” most common

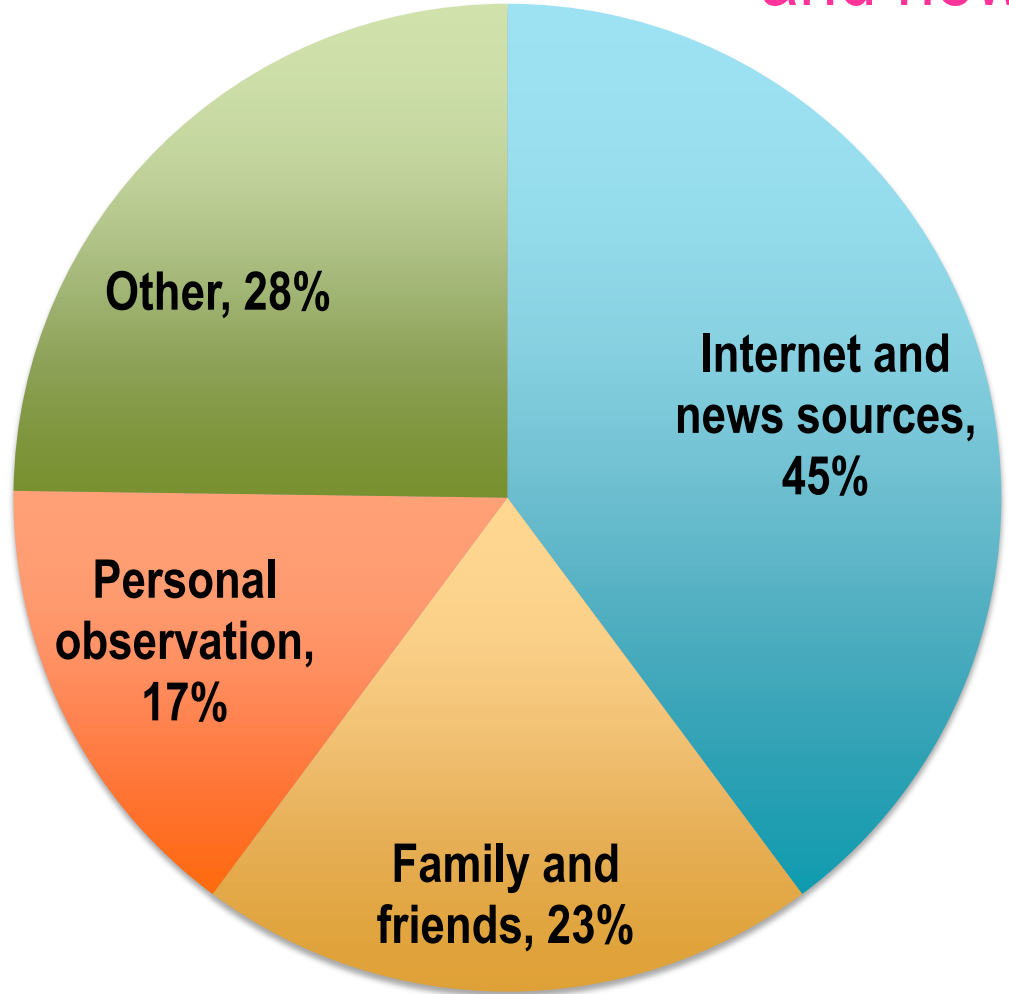
N=200



Information sources relied on

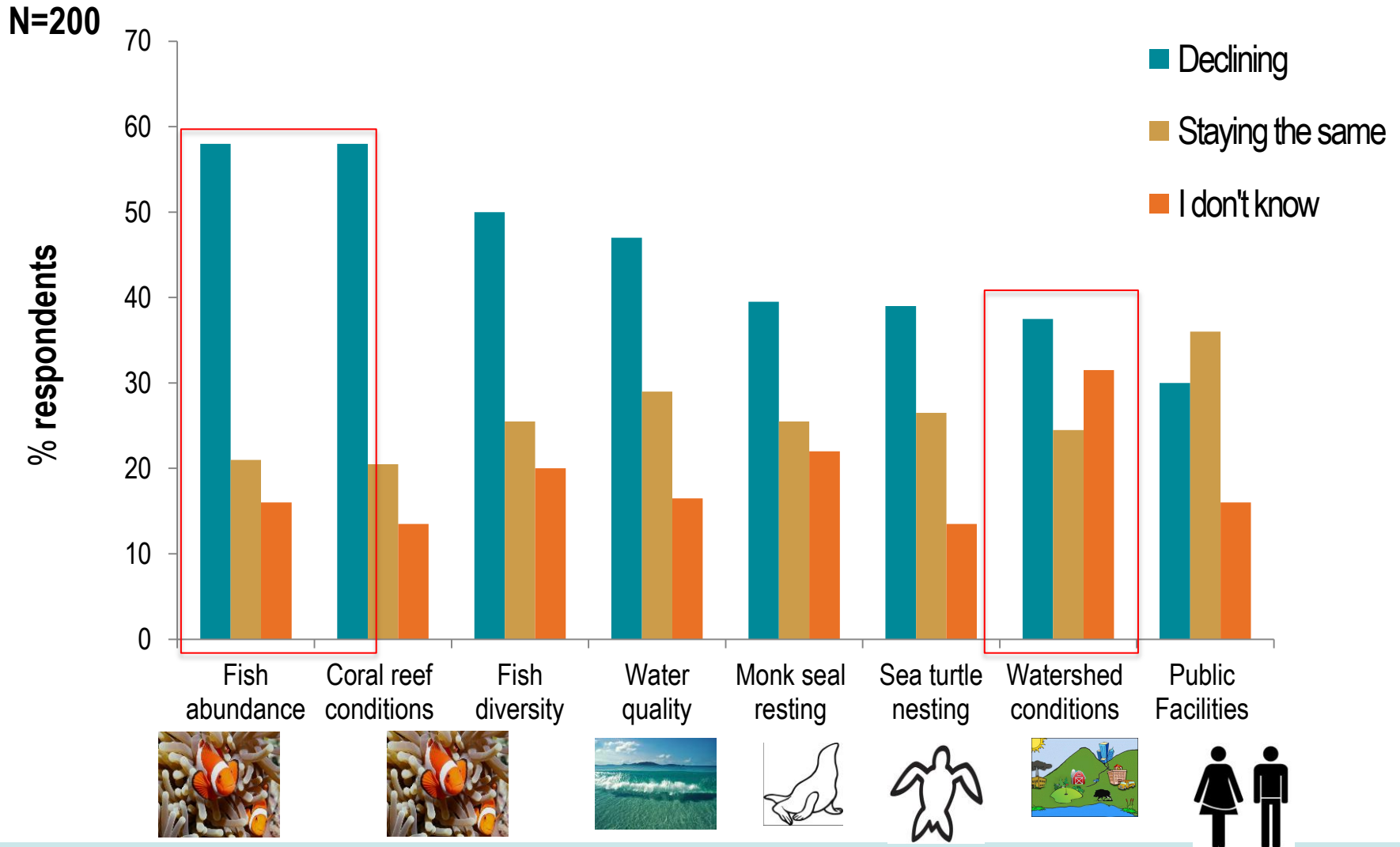
Most rely on internet and news

N=113



What are they concerned about?

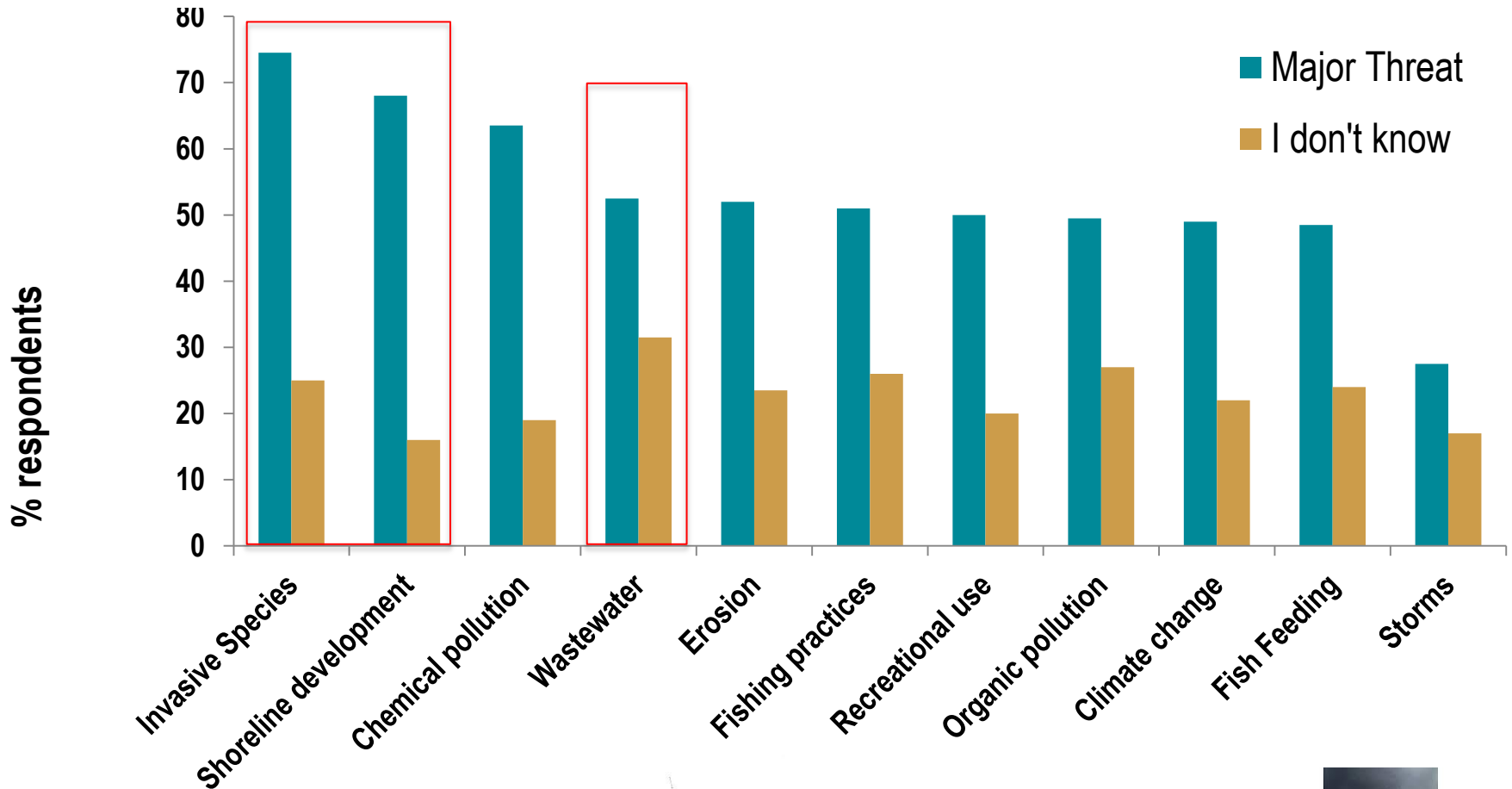
Most perceived declines



What do they consider to be threats?

N=200

Perceived threats to coral reefs



Concern

Shoreline Development



- Coastal development
- Runoff from golf courses, hotels
- Impacts coral reefs, marine life

Concern

Invasive Species

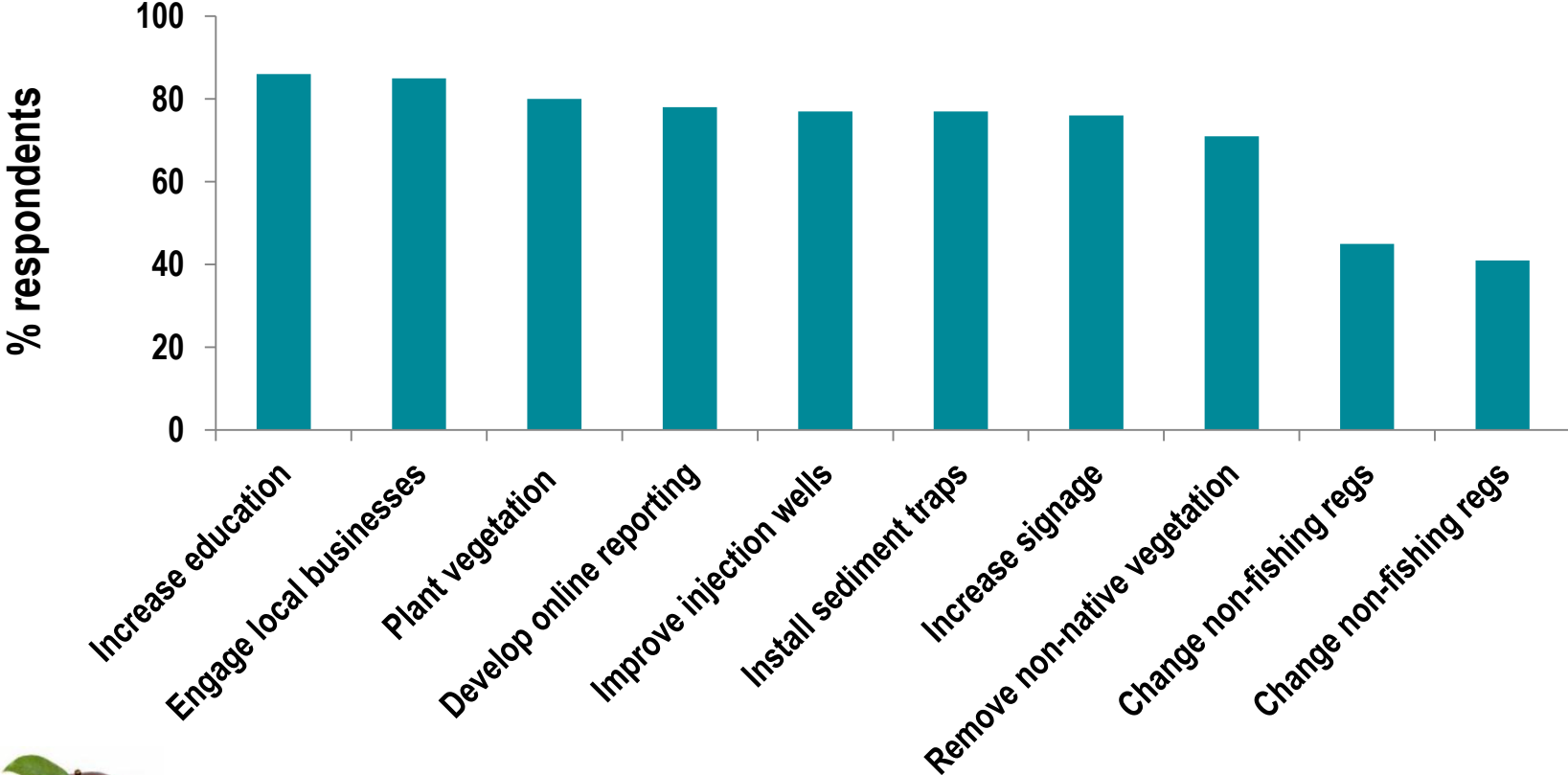


- Ta'ape, roi
- “We have to be vigilant for new introductions”

How much do they support what's being done?

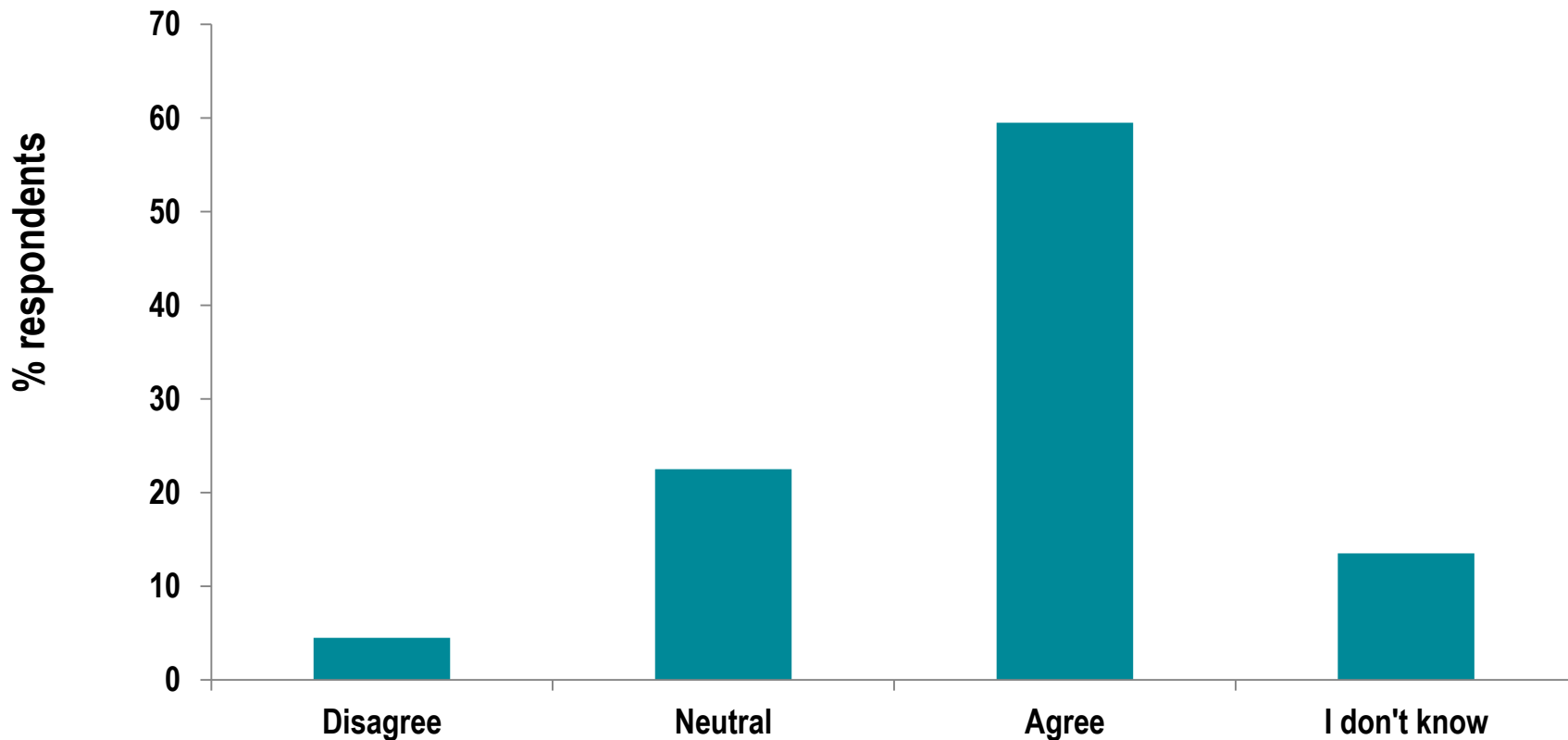
N=200

Little opposition to any management strategies...
but not equally supported



Do they think marine managed areas are effective?

N=200



Of the management strategies, what would be your top priorities?

- Increase outreach and education
- Establish community-based subsistence fishing areas
- Engage local businesses in management and developing education materials for tourists



Reporting marine resource violations

66 respondents (33%) had seen a violation (~ 50% of these were fishing violations)



Only 15 reported the violation



Why are so few people reporting?

- Frustration over results of reporting
- Some confusion over to whom to report violations

In Sum ...

Biggest perceived threats to coral reefs are invasive species and land-based

- Land-based threats
 - shoreline development
 - chemical pollution, erosion, wastewater
- Invasive species



In Sum ...

Respondents claim to know the least about

- Watershed conditions
- Conflicts

Injected water from wastewater
reclamation facility received mixed responses

How this information can be used

- Generate discussion
- Evaluate support for current management strategies
- Design new management strategies
- Education and outreach
- Baseline data to evaluate management impacts

Thank you!!

REPORT AVAILABLE WINTER 2014

http://www.pifsc.noaa.gov/human_dimensions/

(email to be put on a list of recipients)

To everyone who participated in the survey

Funding was provided by **NOAA's Coral Reef Conservation Program**

Specific thanks to collaborators

Cindy Grace-McCaskey

Liz Foote

Emma Anders

Mike Lameier

Pam Benjasirichai

Russell Sparks

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Hawaii Division of Aquatic Resources

Coral Reef Alliance

The Nature Conservancy

Coral Reef Conservation Program

NOAA

CAP team



NOAA FISHERIES

U.S. De