An overview of stakeholder directed communication in the Pacific Islands

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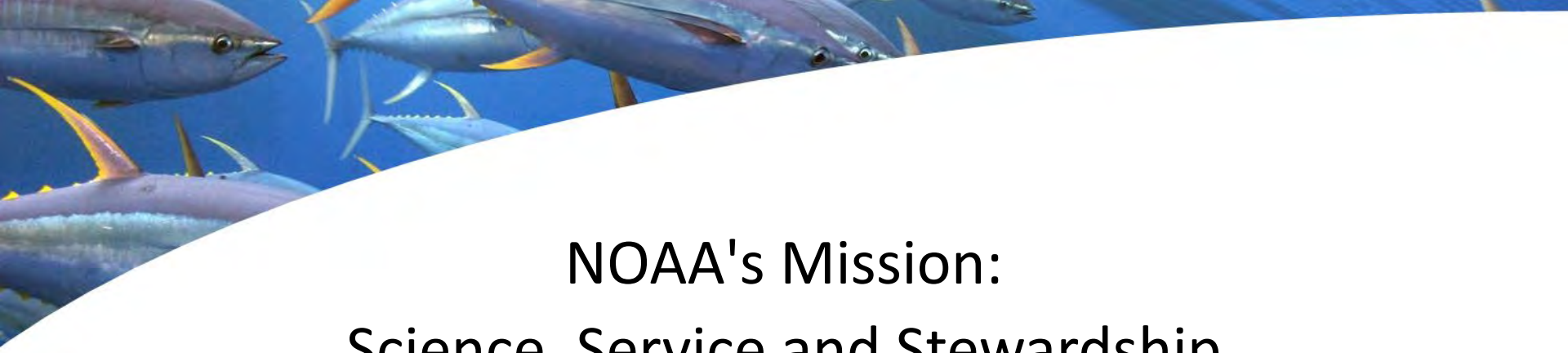
Pacific Islands Fisheries Science Center

With special mention to Amanda Dillon, Alex Reininger, T. Todd Jones, Evan Howell, and Kirsten Leong

PICES-2018 Annual Meeting
Toward integrated understanding of ecosystem variability in the North Pacific
(my caption: "the reason we are all here")

Facebook comment from a friend: "whew, that's a lot of big words on that sign. Best of Luck with that."



NOAA's Mission:
Science, Service and Stewardship

1. To understand and predict changes in climate, weather, oceans and coasts;

2. To share that knowledge and information with others; and

3. To conserve and manage coastal and marine ecosystems and resources.

PACIFIC ISLANDS REGION

5.8 M km^2 of Ocean

Northern & Southern Hemispheres

Various National plus International Jurisdictions and Stakeholders

51% of the US EEZ

Partners and Stakeholders

- Fishers
- Western Pacific Fishery Management Council
- General public (i.e. taxpayers)
- Pacific Islands Regional Office, NOAA Fisheries HQ, State of Hawaii, Territorial governments, NGOs, universities
- Lawmakers

Depth of science communication

Communicate product (science)

Traditional news media, social media, e-mail

Tailor communication to a user group

Unique comms product

Incorporate audience input to into design of study

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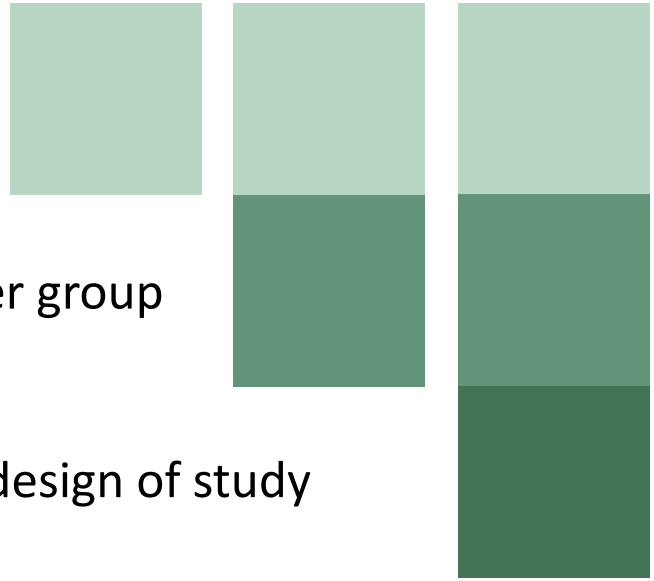
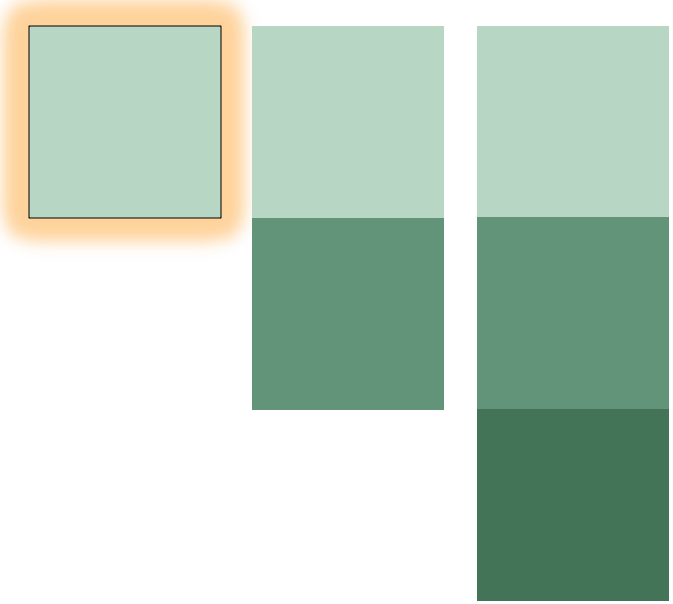


Examples

Communicate product (science)



Newsroom

Media

THE GUAM DAILY POST

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Researchers embark on 24-day cetacean survey

Meghan Swartz | The Guam Daily Post Jul 15, 2018 (0)

MACS: Researchers look for whales and dolphins with high-powered binoculars on the NOAA Oscar Elton Sette during a previous Mariana Archipelago Cetacean Survey. Photo courtesy of Joline Lau

A team of researchers from the National Oceanic and Atmospheric Administration set sail from Guam aboard the NOAA Oscar Elton Sette on July 9 for a 24-day cruise through the Mariana Islands' western waters, listening hard for whale and dolphins hiding beneath the deep blue of the Philippine Sea.

"There is more than one way to find a whale," according to a statement from the NOAA Pacific Islands Fisheries Science Center. "For whale and dolphin researchers, detecting all of the animals is imperative to gaining a true

Follow

Follow the team on their NOAA StoryMap page: https://bit.ly/2mcWx2z

Weekly Online Poll

Poll results are published every Monday in The Guam Daily Post.

If the general election were held today, who would get your vote for governor?

- Democrat Lou Leon Guerrero
- Republican Ray Tenorio
- Neither

Vote | View Results

Forum

Keep shelter open until displaced residents receive help to rebuild

The Guam Daily Post 6 hrs ago

Guam and the Commonwealth of the Northern Mariana Islands are fortunate that Typhoon Mangkhut wasn't as powerful when it passed the islands than when it devastated the Philippines and Hong Kong days later. Read more

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Featured

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NEWS

Honu Count 2018: Help Us Find Numbered Sea Turtles in Hawaii

June 27, 2018

Citizen scientists of Hawaii, we need your help counting turtles—and here's why!

Feature Story | Pacific Islands

More Information

- Green Turtle
- By the Numbers: The Annual Migration of Green Sea Turtles in Hawai'i

Recent News

FEATURE STORY
Hatchery-Born Mullets Spell New Things for Ancient Hawaiian Fishponds
Pacific Islands

Photo Journal: Taking Out Trash
Pacific Islands

FEATURE STORY
Estimating the Number of Endangered False Killer Whales in the Main Hawaiian Islands

Citizen Science: Honu Count

#HonuCount 2017 Citizen Scientists provided 70 reports of 23 females and 9 males

Reports from Oahu, Maui, Kauai and the Big Island

#HonuCount 2018 underway

Citizen Science: #honucount

Successes

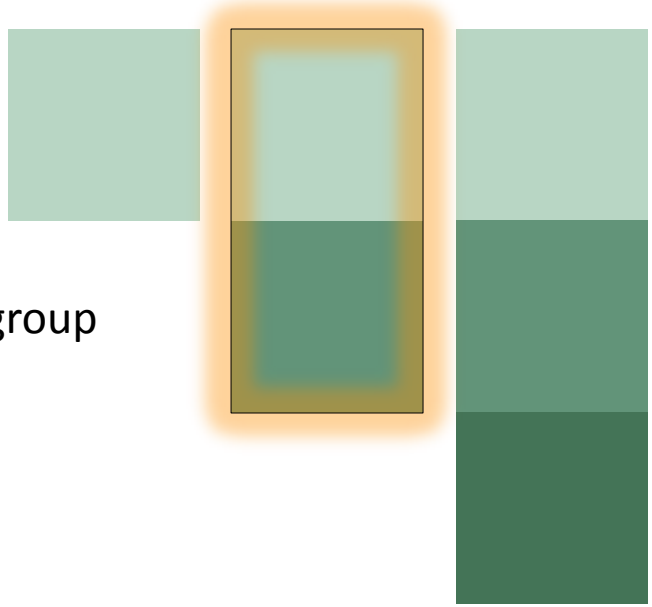
- Greater awareness of turtles
- Small increase in data points

Lessons learned

- Hard to saturate media
- Media misinterprets (need for media training)
- Synchronize messages with management side

Examples

Tailor communication to user group



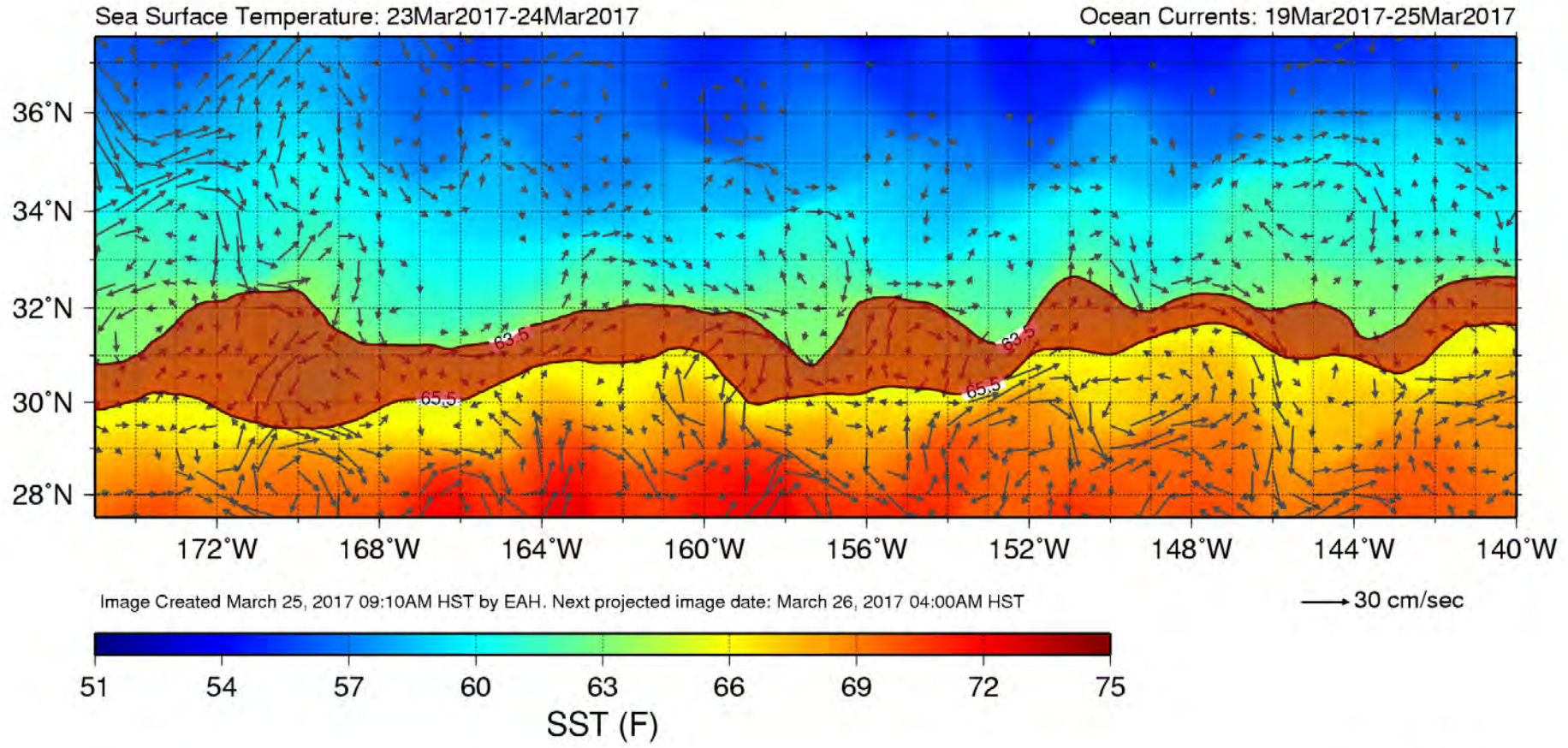
TurtleWatch

- Fishermen in US waters under strict limits for turtle interactions (can shut down fishery)
- Tool created by PIFSC to reduce accidental interactions between Hawaii-based longline fishing vessels and loggerhead sea turtles
- Displays Sea Surface Temperature and ocean current conditions to predict location of turtles

Evan Howell, Melanie Abecassis, Don Kobayashi, T. Todd Jones

EXPERIMENTAL PRODUCT

avoid fishing between solid black 63.5°F and 65.5°F lines
to help reduce loggerhead sea turtle interactions



PACIFIC ISLANDS FISHERIES SCIENCE CENTER
ECOSYSTEMS AND OCEANOGRAPHY DIVISION
2570 Dole Street, Honolulu, HI 96822
http://www.pifsc.noaa.gov/eod/turtlewatch.php
contact: Evan.Howell@noaa.gov

Data provided by Central Pacific CoastWatch node

TURTLEWATCH

TurtleWatch

Successes

- Turtle Watch predictions independently validated
- Automated and available digitally to anyone through mailing list on a daily basis.

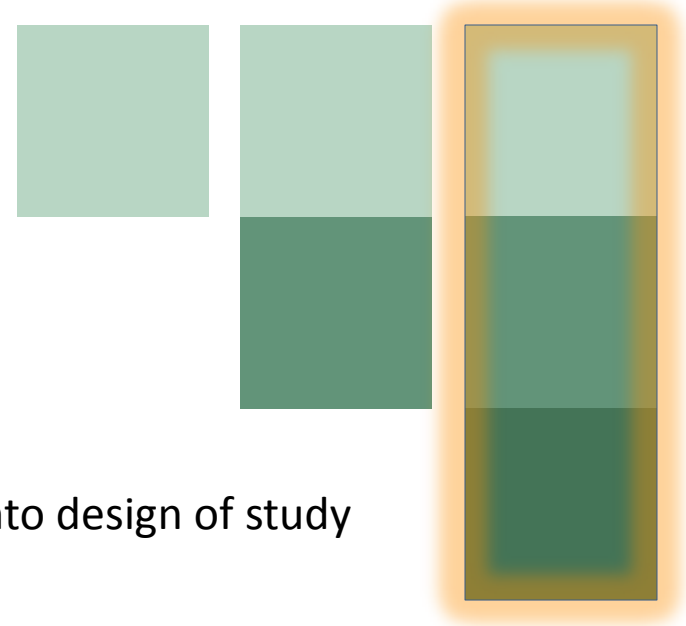
Lessons learned

- Not needed consistently
- Communication to fishing vessels difficult without cell service

Next steps

- Develop a pilot program to share data among SSLL vessels
- Develop a third party information sharing service and obtain cost estimates.

Examples



Incorporate audience input to into design of study

West Hawaii Integrated Ecosystem Assessment

The following slides highlight the work of Jamison Gove and Rebecca Ingram

NOAA's Integrated Ecosystem Assessment

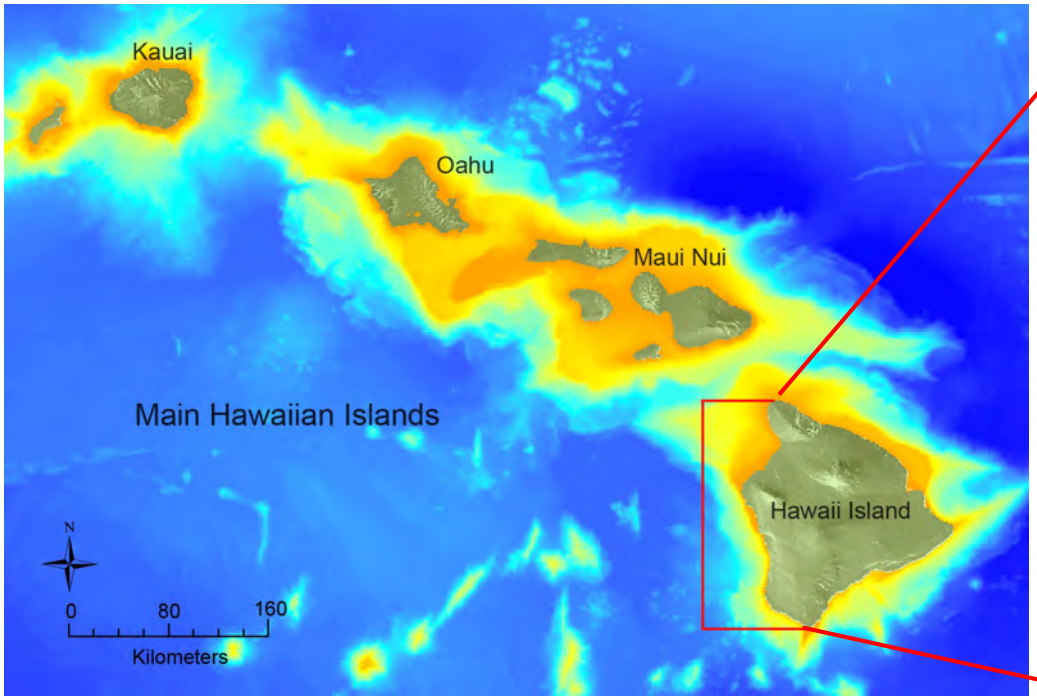
IEAs are a formal synthesis and quantitative analysis of information on relevant natural and socioeconomic factors, in relation to specific ecosystem management objectives (Levin et al., 2009)

IEAs represent a process for organizing science to inform EBM

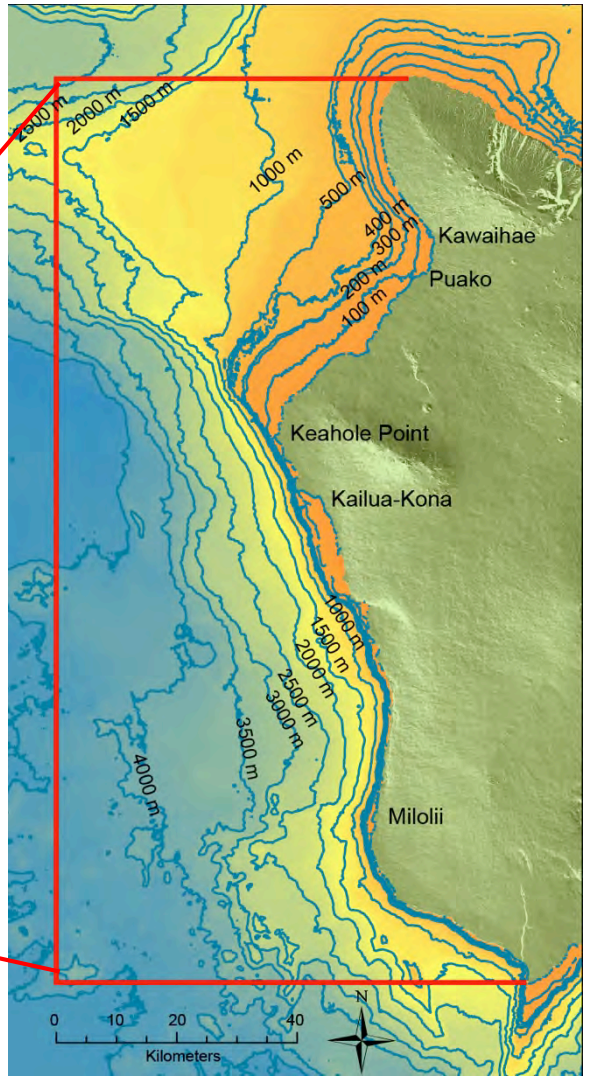
National Program with 5 regions

1. Northeast Shelf
2. Gulf of Mexico
3. Gulf of Alaska
4. California Current
5. West Hawai'i

NOAA's Integrated Ecosystem Assessment



West Hawai'i



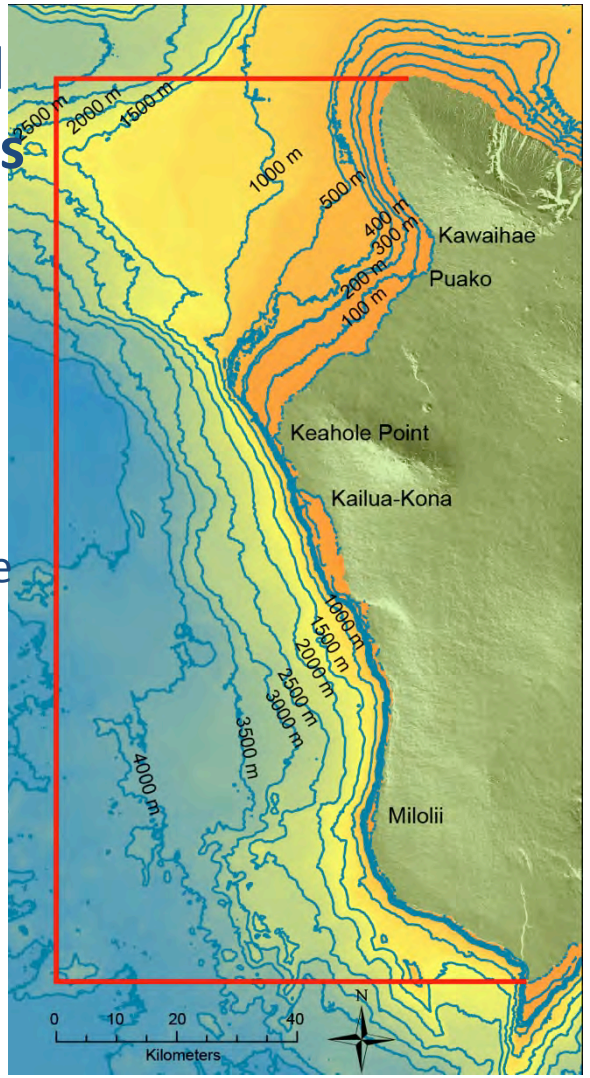
NOAA's Integrated Ecosystem Assessment

West Hawai'i IEA Goal: to provide sound and relevant scientific information that addresses existing and future resource management concerns in the region.

Regional highlights and Management Needs:

- Unique biogeographic and oceanographic setting
- Largest expanse of intact coral reef ecosystem in the State
- Active non-commercial and commercial fisheries
- Aquarium fish trade
- Sport fishing
- Aquaculture industry
- Ocean Energy
- High Cetacean abundances
- Ecotourism

West Hawai'i



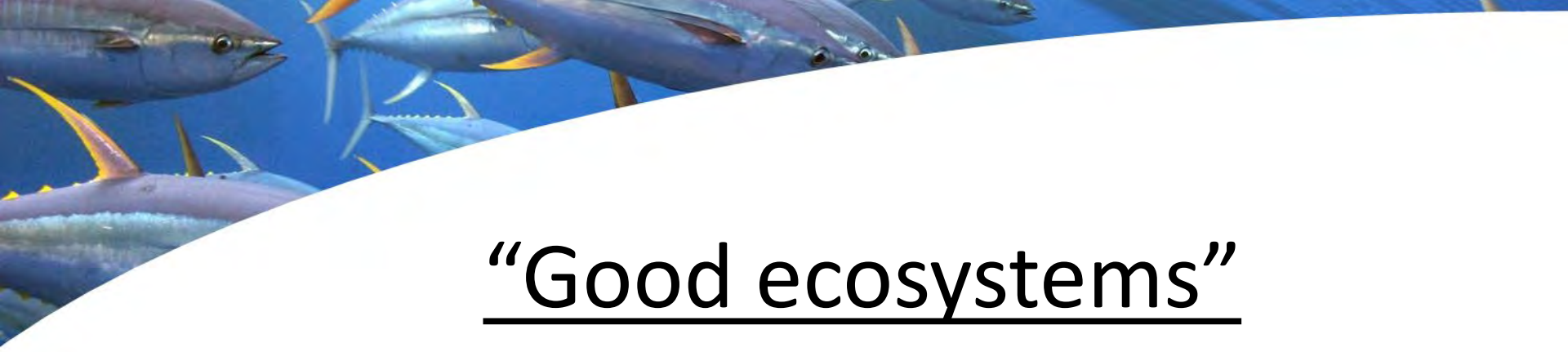
NOAA's Integrated Ecosystem Assessment

Scoping: Stakeholder Engagement

The IEA Framework

Examples of engagement

- Two participatory workshops (characterizing social ecological system)
  - Word-of-mouth, e-mail
  - Scientists, resource managers, community members within the conservation community, anyone welcome
- Electronic survey (characterizing social ecological system)
- In-depth unstructured interviews (in process) Informed by first two bullets



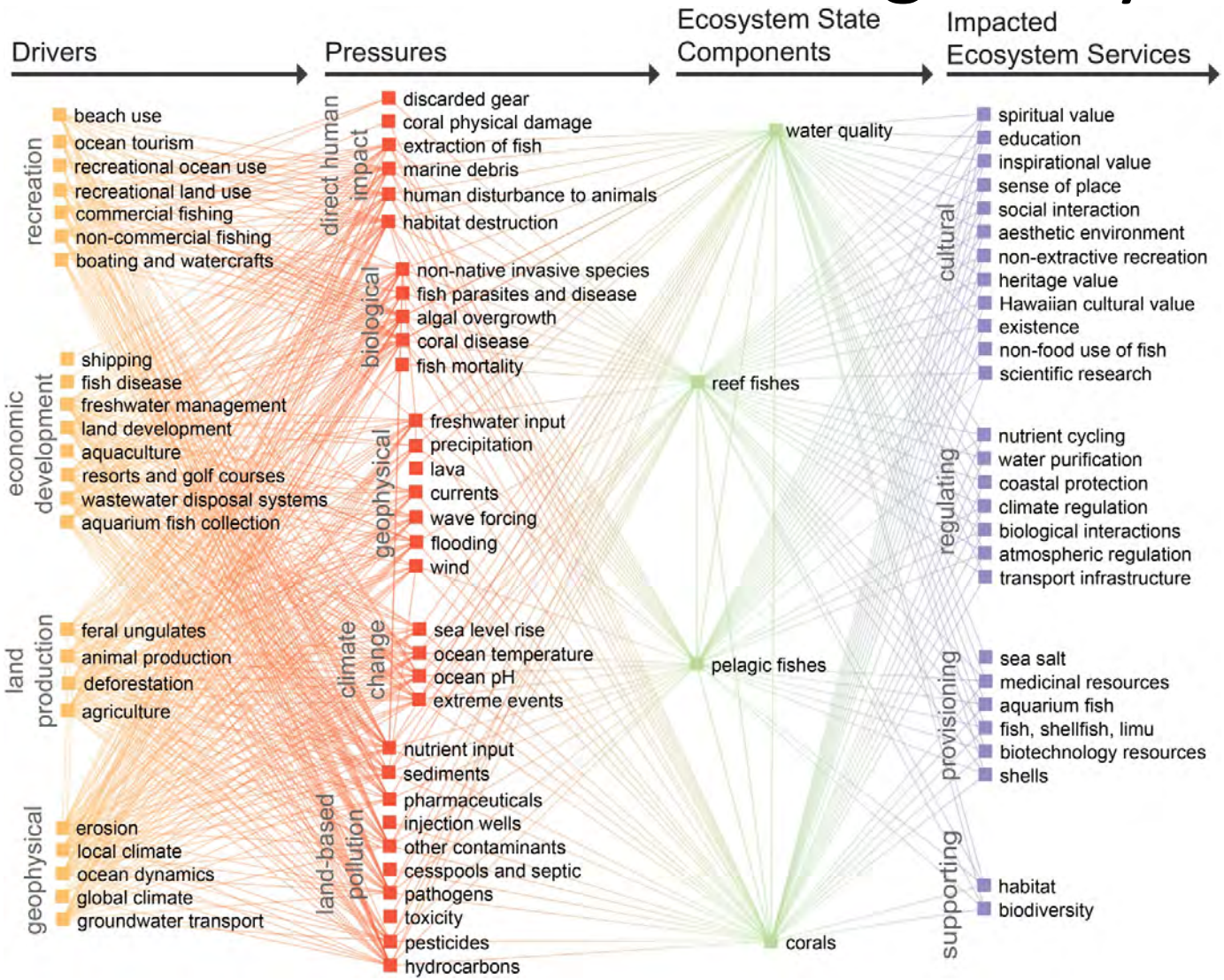
“Good ecosystems”

- When listening to community members/ stakeholders we’re trying to learn what their “good ecosystem” is, and also understand their perceptions, values, motivations, and behaviors

- This then informs the science : what to look at, and allows for integration of community knowledge

- Knowing community needs can also direct science communication

Conceptual Ecosystem Model of the West Hawai‘i social-ecological system



(Ingram, Oleson and Gove, 2018)

Result of workshops

"Our results uncovered that cultural services were perceived to be the most impacted type of service in West Hawaii." (Ingram, Oleson and Gove, 2018)

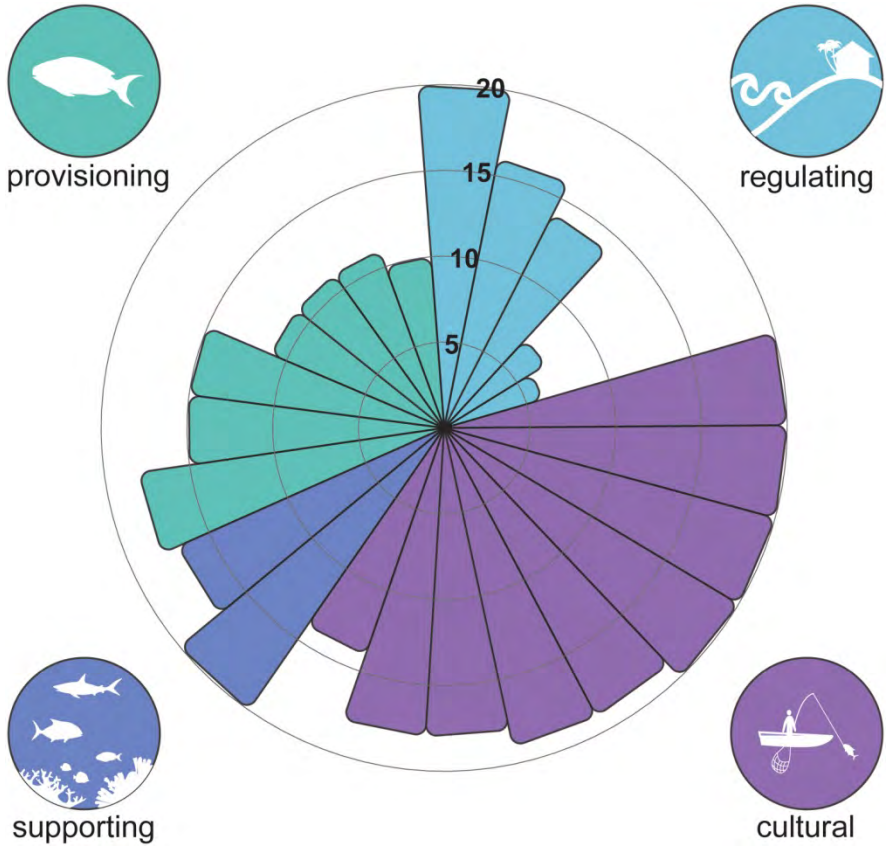


Figure 3 from Ingram, Oleson and Gove, 2018.

Current status

- The current research steps are largely informed from communicating with/listening to community members

- Going forward, the studies will need to determine measurable indicators of how cultural ecosystem services are impacted.

Lessons learned

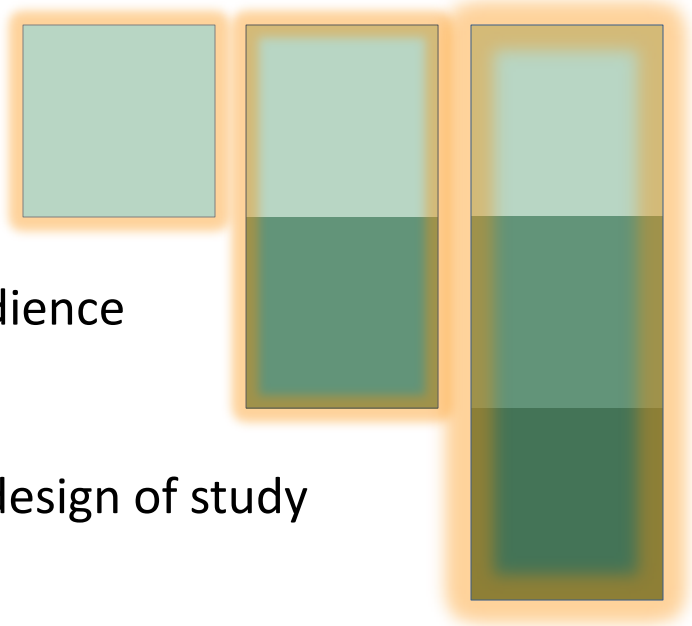
- Scaling both information collection and information dissemination to appropriate size for audience
- Start with listening
- Asking “How can we help?” vs. stating what we think we can do to help
- Building relationships (community and NGOs)
- Providing opportunities for people to meet face-to-face

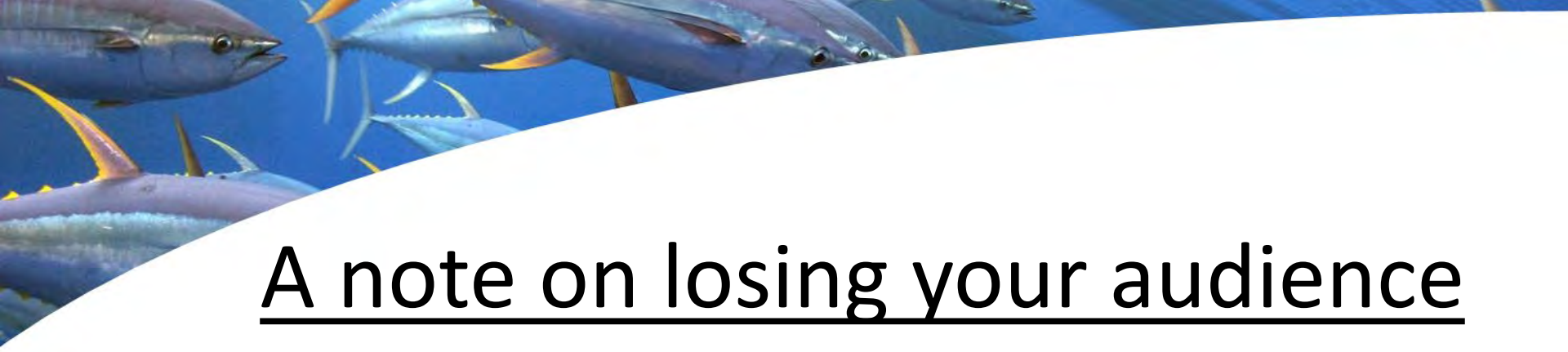
In Summary

Communicate product (science)

Tailor communication to audience

Incorporate audience input to into design of study





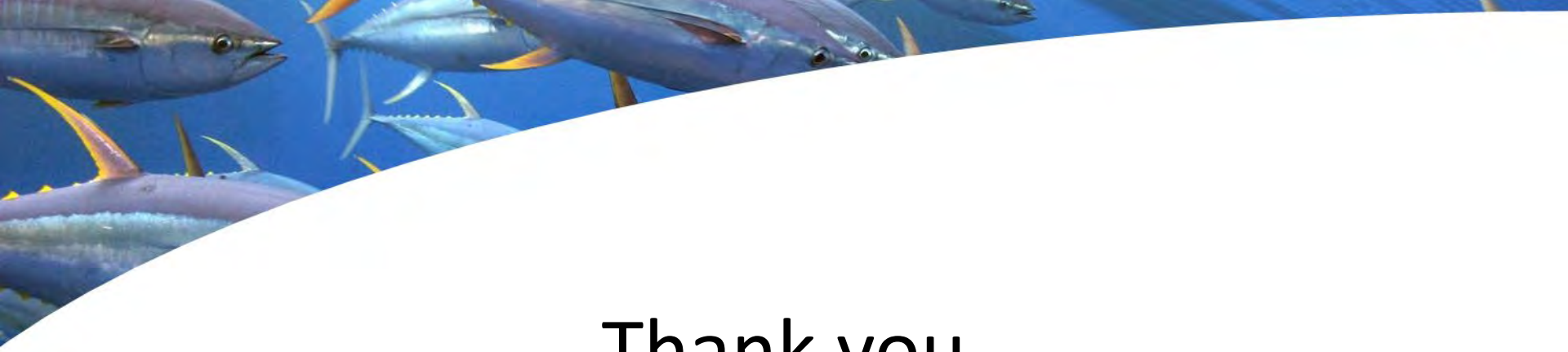
A note on losing your audience

"…requires close and effective interaction of concepts, methodologies, models, and data, from various disciplines. Dissemination of that complex scientific information to society can be difficult. The PICES' scientific community would benefit from hearing examples of successful scientific communication…"

Session 3 Description

Even my title is a problem: "An overview of stakeholder directed communication in the Pacific Islands"

PICES-2018 Annual Meeting
Toward integrated understanding of ecosystem variability in the North Pacific



Thank you

ありがとうございました

谢谢

고맙습니다

Большое спасибо