

# Council Member Ongoing Development

Western Pacific Regional Fishery Management Council

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Staff

# Council EBFM Pillars

## Science and Data to inform policy decisions

Meeting the science and data needs for select FEPs or candidate species through increased collaboration with PIRO and PIFSC

Prioritize EBFM initiatives based on available information and current research plans

## Council Process

Engage all agencies to ensure all resources and data needs are addressed, as well as an understanding of the economics

Allows for communication to stakeholders throughout the PI region; REAC

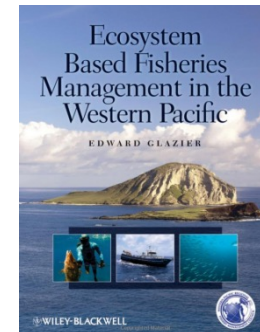
## Building community resilience and stakeholder engagement

Fishery development to help diversify options in a dynamic environment

Education and Outreach to the local communities affected by changes to the management structure

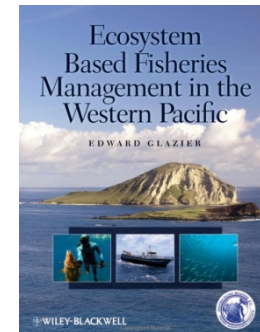
# Past Council EBFM Workshops

- \* **Ecosystem Science and Planning (2005)**
  - \* Review **existing ecosystem models** and their applications and management of marine resources in the Western Pacific to enhance climate predictions.
  - \* Identify the best suite of quantitative **ecosystem indicators**.
  - \* Identify **short-term applications of EBFM** given the current data.
  - \* Identify **new data or models required** to advance EBFM.
  - \* Identify **changes in policy** necessary to implement EBFM in the Western Pacific.



# Past Council EBFM Workshops

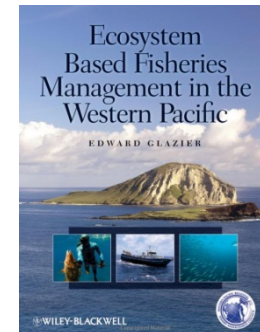
- \* **Social Science and Planning (2006)**
  - \* Convene nationally recognized scientists to **review social science applications, resource management requirements, and ecosystem indicators** related to the human and institutional ecology of marine ecosystems in the Western Pacific.
  - \* Identify **short-term applications of EBFM** with current data.
  - \* Explore what **new social and policy science data or models** would be needed to advance approaches to EBFM.
  - \* Focus on the **ecosystem component of available data** and developing the application toward fishery management.



# Past Council EBFM Workshops

- \* **Ecosystem Policy (2007)**

- \* Discuss the **challenges of new marine resource management policies** in the diverse social and biophysical settings.
- \* Identify policy options for **maximizing the potential benefits of EBFM for cross-jurisdictional and cross-cultural settings.**
- \* Examine policy options for addressing the needs and interests of **indigenous fishing practitioners** and other resource user groups.
- \* Discuss options for enhancing the benefits of fishery ecosystems **research and monitoring** in the Western Pacific.
- \* **Ten objectives to guide implementation of EAFM policy in the region.**



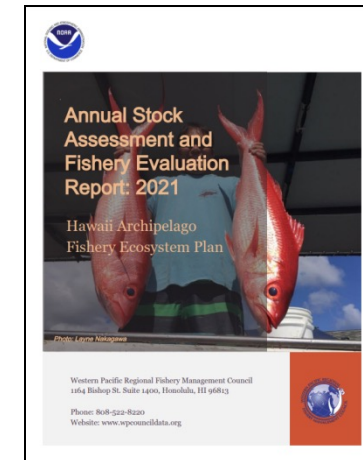
# October 2022 EBFM Workshop

- \* **WPRFMC, PIFSC and PIRO EBFM Priorities (2022)**
  - \* **Revise integration efforts and the process** to improve collaboration in the region.
  - \* **Refine the scope** of EBFM in the region (think, habitat) – action items!
  - \* Foster a **shared understanding** of the management, science and data challenges.
  - \* Learn from a case study in **West Hawaii (IEA) – Scalability?**
  - \* Prioritize opportunities that improve EBFM outcomes on: **human dimensions, climate change, socioeconomics, equity and environmental justice**
  - \* Develop recommendations on **engaging state and territorial stakeholders** for future EBFM initiatives.



# Current Council EBFM Initiatives

- \* Shift from species-based FMPs to place-based FEPs
- \* Focused on advances in ecosystem modeling, data requirements and the policy framework
- \* Ecosystem chapter in the SAFE Reports
- \* Regional Ecosystem Advisory Committee
- \* Ecosystem considerations are included in every amendment to the FEPs
- \* Framework to monitor changes in the fisheries as a function of the ecosystem – proactive management, as opposed to reactionary
- \* EBFM model development for understanding factors driving protected species interaction patterns – False killer whales (depredation) and turtle interactions (turtle watch)



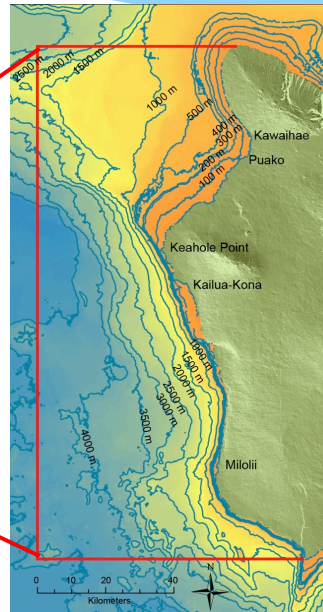
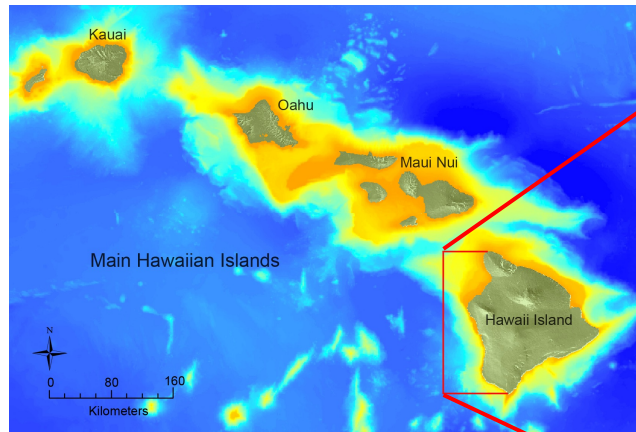
FMP→FEP





# West Hawai'i IEA

**Mission:** To provide sound and relevant scientific information that addresses existing and future resource management concerns



## Regional Highlights:

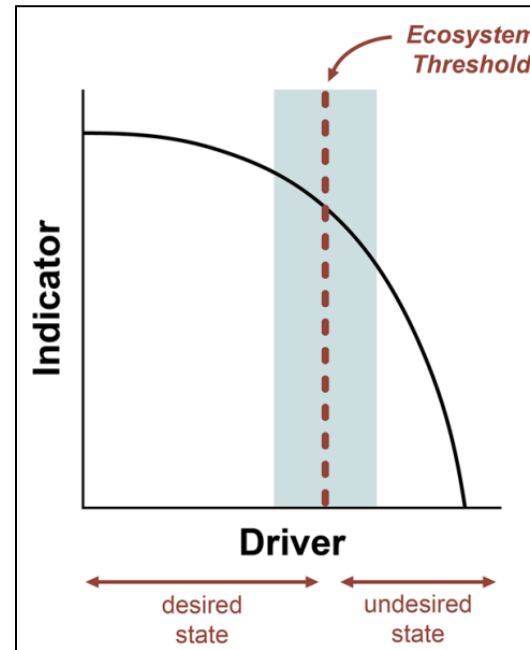
- Active fisheries
- Highly engaged community
- High Cetacean abundances
- *West Hawai'i Habitat Focus Area*
- Aquaculture industry - blue economy
- Existing Spatial Marine Managed Areas
- Unique biogeographic/oceanographic setting

- \* Identified 30 indicators spanning social, ecological climate and oceanographic variables
- \* Monitored drivers of reef ecosystem change and the impacts of local and global variables
  - \* Impacts of independent and combined variables.
- \* Examined the ecosystem's ability to recover and persist in the face of these stressors
  - \* Allowed State managers to maximize their impact in achieving their conservation and management mission



# EBFM Thresholds for Hawaii Nearshore Fisheries

- \* Define ecosystem-reference points in the form of threshold relationships between indicators and human and environmental pressures for nearshore ecosystems in Hawai'i.
  - \* Identified threshold relationships between indicators and environmental drivers to estimate thresholds
  - \* Described thresholds across species and groups with implications for management: species complexes
  - \* Developing analytical tools to explore thresholds in relation to human drivers with a potential to investigate patterns of thresholds for area-based management
  - \* Developing EBFM frameworks that are applicable to management.



# Questions?

