

NOAA

Cross-MBON
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NOAA NaMES, Indicators and MBON

Willem Klajbor
Senior Research Associate,
CIMAS/AOML
Ecosystem Indicators Working Group,
Gulf of Mexico IEA Program

Takeaways

- NaMES is a unique, cross-line office indicator and ecosystem assessment tool
- Indicator processes vary across NOAA but have similar considerations
- MBON can contribute as there is a need for biodiversity indicators at multiple levels



Scaling Ecosystem Indicators

<u>Geographic Scale</u>	<u>Assessment Type(s)</u>	<u>Complexity</u>
1) National	1) <i>National Marine Ecosystem Status</i> (www.ecowatch.noaa.gov)	1) Low (Public, non-science and early academic)
2) Regional (LME, WEA, etc)	2) <i>Ecosystem Status Reports, State of the Ecosystem</i>	2) Medium (Fed Partners, Decisionmakers and Communities)
3) Local (Marine sanctuary, Bay, Estuary, etc.)	3) <i>Condition Reports, Stoplight Reports, Report Cards, Manuscripts</i>	3) High (Managers, Science Community)

End Users

- **Educators + Students (NaMES)**
- **Gen. Pub. interested in major ecosystem issues (All)**
 - Ex. People impacted by HABs
- **Scientists (IEA, CRs) (i.e. International, Academic, etc.)**
- **Natural Resource and Emergency Managers (IEA, CRs)**
 - (ex. Sanctuaries and Fishery Management Councils)
 - Other Fed Agencies (i.e. BOEM?)
- **Coastal Communities (All)**
- **Reporters (All)**



National Status

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These indices are a generalization of regional processes that should not be used for management purposes. We point to the regional ecosystem status reports to report on the actual data.

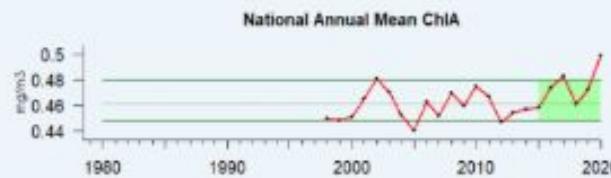
Climatological

Physical-chemical

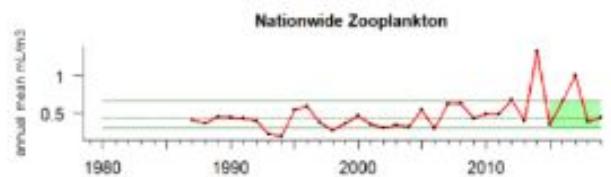
Biological

Human Dimensions

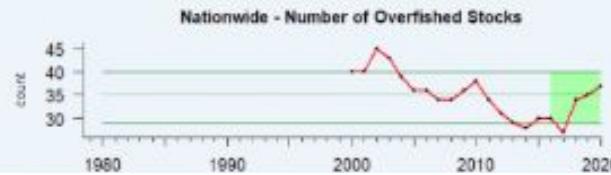
Chlorophyll-a



Zooplankton



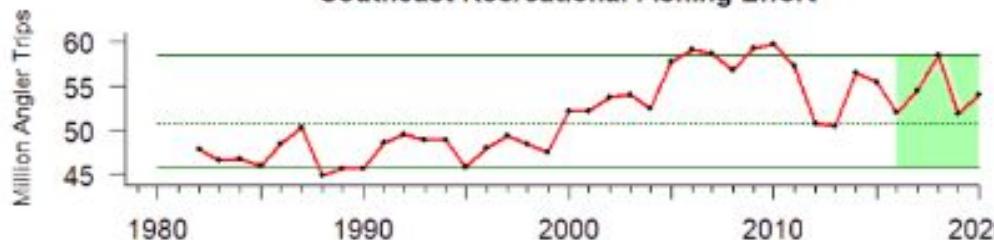
Overfished Stocks



Southeast US



Southeast Recreational Fishing Effort



Values correspond to cumulative number of angler trips

Description of time series:

Between 2016 and 2020, recreational fishing effort in Southeast is around historic levels and shows no trend.

Description of gauge:

The gauge value of 72 indicates that the recreational fishing effort between 2016 and 2020 for the Southeast US was higher than 72% of the recreational fishing effort values between 1982 and 2020.

Extreme Gauge values:

A value of zero on the gauge means that the average effort or harvest over the last 5 years of data was below any annual value up until that point, while a value of 100 would indicate the average value over that same period was above any annual value up until that point.

Indicator Source Information

Recreational harvest and effort data pulled from National Summary Query. Units of data are in Effort in Angler Trips and Harvest in numbers of fish. The data from these queries is used by state, regional and federal fisheries scientists and managers to maintain healthy and sustainable fish stocks.

Data Background and Caveats:

To properly interpret this information, it is important to consider the following key points:

- When comparing harvest estimates across an extended time series, note differences in sampling coverage through the years. Some estimates may not be comparable over long time series.
- Changes may occur between preliminary and final estimates and year to year, meaning that the data may change when updated. Please review the [Limitations](#) and other sections on the [Using the Data page](#) from the source for more information.

What does the EIWG look for in indicators?

- Relevant and Easily Understood
 - Plain Language
- Spatial and Temporal Resolution
- Data + Methods
 - Timeseries
 - Updated Regularly + Plan
 - For NOAA - Transparency
- Signal to Noise
 - What are you demonstrating?



Indicator Selection

Generally recurring evaluation/ screening criteria across processes:

- Theoretically Sound
- Concrete and Specific
- Relevant (includes understandable)
 - To management
 - To public
 - To policy makers
- Measurable
- Responsive to change/ Sensitive
- Widespread/Broadscale geographic coverage/relevance
 - Or “representative”
- Effective use of labor/time to compile
- Data available (including long-term/ time series) – preferably quantitative
- Early Warning
- Novel + Complementary
- Appropriate/ adequate spatial coverage
- Adequate temporal coverage
- Minimize redundancy

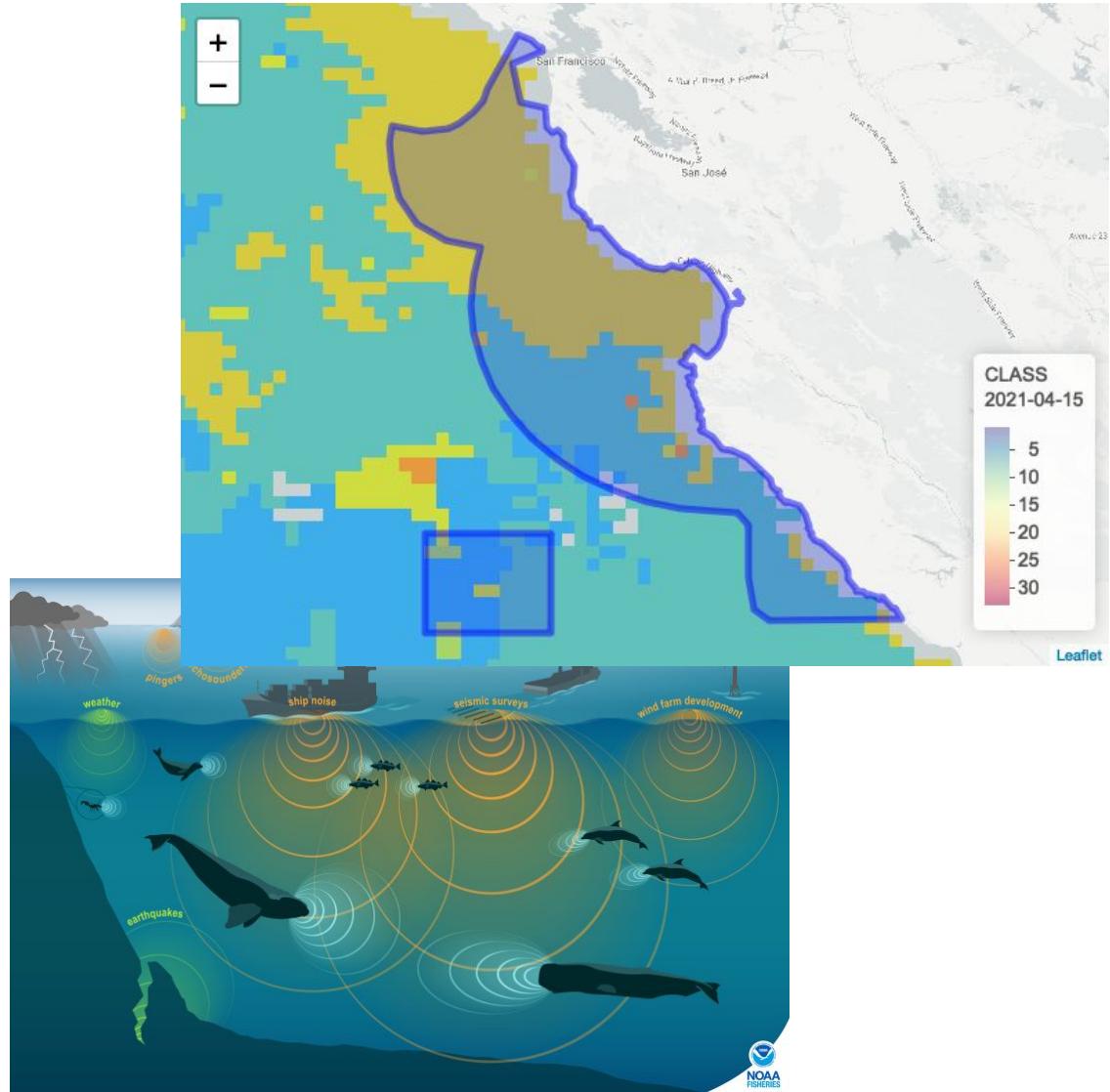
Biodiversity Indicators

- Biological Indicators Dominated by Fishing
 - “Management Indicators”
 - Due to Complexity of bio data
- Summarizing and Delivering Data - MBON
 - Data comparability
 - Representativeness at scale
- Communications
 - What *exactly* are we showing?
 - Signal/Disturbance Identification
 - Interpretation/Plain Language

Opportunities - MBON Synergies?

Remote Sensing
Sound
eDNA(?)

Co-Design
Representativeness
Data Formatting
Communications



Thank You!

QUESTIONS?



National
MARINE ECOSYSTEM
Status

Contact:

Willem Klajbor

willem.klajbor@noaa.gov

Which observation data fits the need?

