Interagency Ocean Observation Committee

Biological Integration and Observation Task Team (BIO-TT)

Research Coordination Networks: October 24th 2014
Sam Simmons: ssimmons@mmc.gov
• Full summit report available: http://www.iooc.us/summit/#REPORT

• Of the 25 recommendation areas 8 contained biological elements

• BIO-TT formalized in March 2013 with a 2 year initial term

• First IOOC task team
Task Team Membership

Bob Houtman* - Interagency Ocean Observation Committee
Sarah Miller* – U.S. Army Corps of Engineers
James Price - Bureau of Ocean Energy Management
Samantha Simmons* (Chair) - Marine Mammal Commission
Michael Weise* - Office of Naval Research
Hassan Moustahfid * - Integrated Ocean Observing System
Rebecca Shuford - National Oceanic & Atmospheric Administration
Kandace Binkley - National Science Foundation
Mark Fornwall - US Geological Survey
Raphe Kudela – Regional Associations (CeNCOOS)
Jay Pearlman, Eileen Hofmann - RCN
Support: Nick Rome, Hannah Dean – Consortium for Ocean Leadership
A. Improve the availability of existing IOOS core biological variables
   - phytoplankton species (and abundance)
   - zooplankton species
   - zooplankton abundance
   - fish species
   - fish abundance

B. Identify, and prioritize additional cross-cutting biological and ecosystem observation needs
ACTIONS

Designed & executed a survey (Survey Monkey)
- Two part design Part one = goal A. Part two of the survey goal B.
- Federal agencies
- Beta-tested
- Survey was live March 7th – April 18th 2014
- Analyses and report drafting ongoing

Workshop Nov 4-6th 2014
- Broader observing community
- Integrate “needs” from the survey (Part B)
- Review the prioritized biological and ecosystem variables from the survey
- Recommend next IOOS core biological variables
• Preliminary survey results:
  • Response rates
RESULTS

• Preliminary survey results:
  • Response rates
  • Needs not being met
# RESULTS (preliminary)

<table>
<thead>
<tr>
<th>Category</th>
<th>Subcategory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organism</td>
<td>Benthos, Birds, Corals, ESA Listed, Fish, Marine Mammals, Invertebrates, Phytoplankton, Protected Species, Sea Turtles, Zooplankton</td>
</tr>
<tr>
<td>Non-Organism</td>
<td>Geography, Chemistry, Physical, Oceanography</td>
</tr>
<tr>
<td>Ecosystem</td>
<td>Habitat, Population Characteristics</td>
</tr>
<tr>
<td>Anthropogenic</td>
<td>Anthropogenic, Human Uses, Human Impacts</td>
</tr>
<tr>
<td>Other</td>
<td>Data, Optical, Sound</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High (≥12 responses)</th>
<th>Medium (6 to 11 responses)</th>
<th>Low (&lt;5 responses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benthos, Data, Habitat, Population Characteristics, Zooplankton, Fish, Anthropogenic</td>
<td>Chemistry, Corals, Geography, Invertebrates, Marine Mammals, Phytoplankton, Sound</td>
<td>Birds, ESA Listed, Oceanography, Optical, Physical, Protected Species, Sea Turtles</td>
</tr>
</tbody>
</table>
RESULTS

• Preliminary survey results:
  • Response rates
  • Needs not being met
  • Why not being met?
## RESULTS (preliminary)

<table>
<thead>
<tr>
<th>Problem Areas</th>
<th>Specific Survey Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too Few Observations</td>
<td>Geographic areas of interest contain too few observations</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>Too few observations in general</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>Repeated observations over time</td>
<td>80</td>
</tr>
<tr>
<td>Resources</td>
<td>Funding Limitations</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>Infrastructure Limitations (e.g. ships, aircraft etc.)</td>
<td>61</td>
</tr>
<tr>
<td>Data</td>
<td>Timely data availability is inadequate</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Data quality</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Data precision</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Lack of data documentation</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>Available in a limited format</td>
<td>15</td>
</tr>
</tbody>
</table>
NEXT STEPS

• Survey report
• Survey results in query-able format
• Workshop Nov 4-6\textsuperscript{th}
• Workshop report and recommendations to IOOS
• Follow up effort with IOOS Program Office
• BIO-TT sunset date March 2015

• Questions?

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