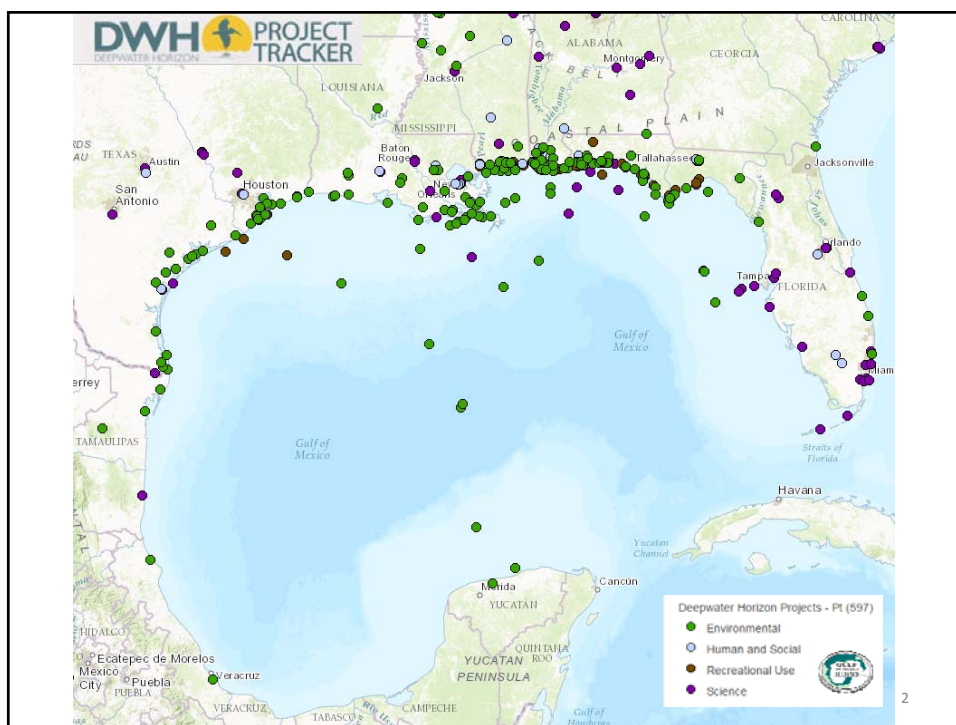
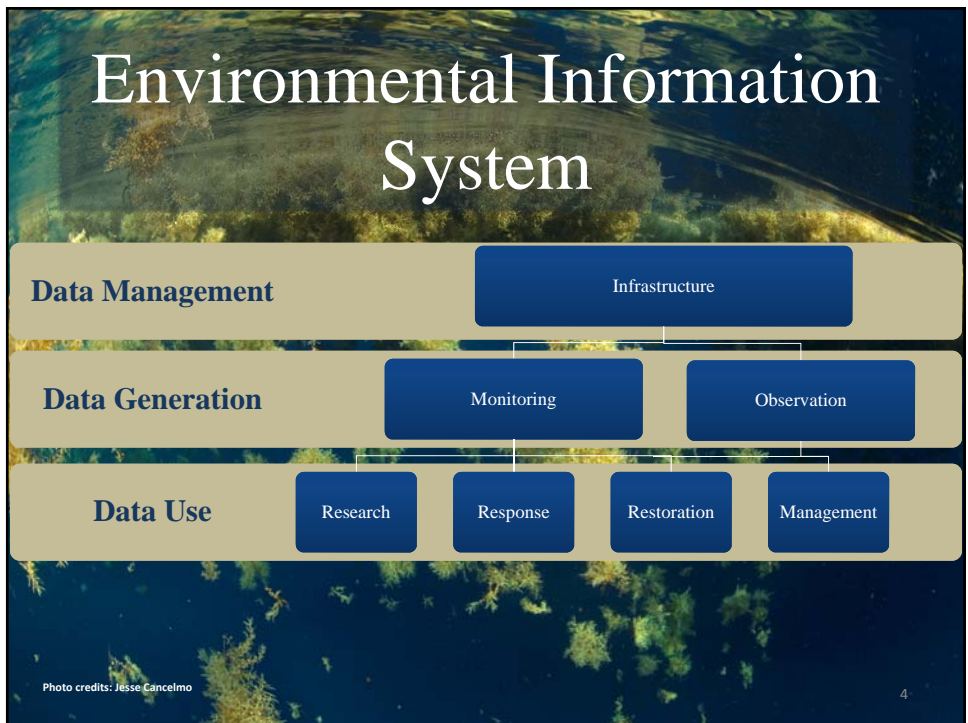
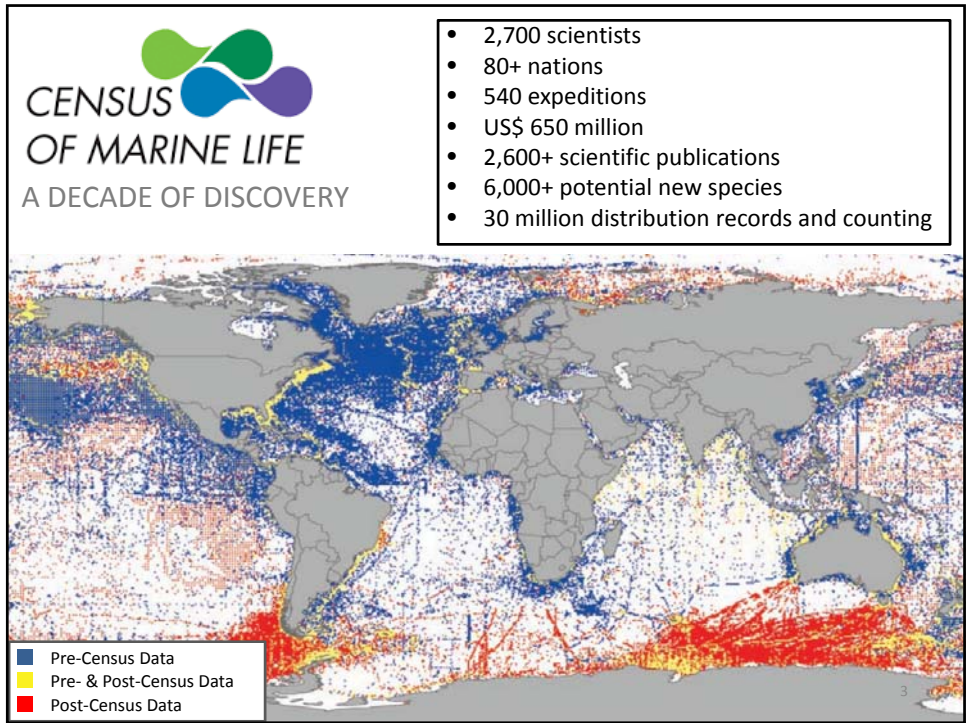


# Uses of DWH Long-term Data

June 7, 2017  
DWH Long-term Data Management Workshop  
Matt Love, Ocean Conservancy

Photo credits: NASA Goddard Space Flight Center, Orbimage





NGOs

Response

Restoration

Research

Business

Management

1

2

3

4

5

Photo credits: <sup>1</sup>U.S. Coast Guard—Reuters/Landov, <sup>2</sup>DWH NRDA Trustees, <sup>3</sup>NOAA ORR, <sup>4</sup>Sara Thomas/Ocean Conservancy, <sup>5</sup>Tom McCann / Ocean Conservancy.

# Response

1

Data needs:

- Common Operational Picture
- Decision Support

Use examples

- Coast Guard Search & Rescue
- Oil Spill Response
- Wildlife Rescue/rehab

Photo credits: U.S. Coast Guard—Reuters/Landov. NOAA ORR



# Restoration

1

Data needs:

- Ecosystem function → Multiple Scales
- Decision support

Use examples

- Identify Restoration Need
- Project Level Assessment
- **Ecosystem Scale Evaluation**



2

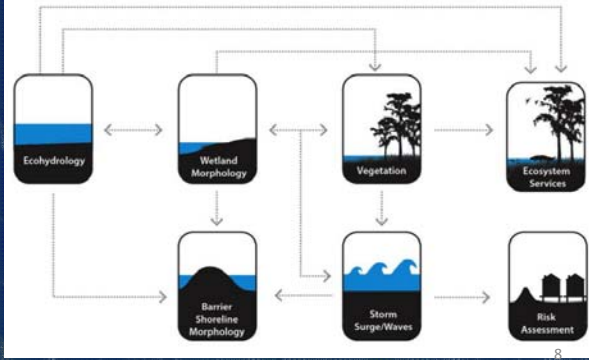
Photo credits: <sup>1</sup>DWH NRDA Trustees, <sup>2</sup>doi:10.1038/ngeo1620.

# DWH Restoration

Scale of Restoration = Scale of Injury

- Collaboration: Data managers + Data generators + Research + Restoration/Management
- Integration of data types from many sources
- Ecosystem scale modeling

*Louisiana Coastal Master Plan Predictive Models*



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# Research

## Data needs:

- Data Discoverability
- Data Access

## Use examples

- System-wide Status & Trends
- Ecosystem Scale Evaluation

Photo credits: NOAA ORR.



NOAA Technical Memorandum NMFS-SEFSC-706

**2017 ECOSYSTEM STATUS REPORT UPDATE FOR THE GULF OF MEXICO**

Mandy Karnauskas, Christopher R. Kelble, Seann Regan, Charline Quenée, Rebecca Allee, Michael Jepson, Amy Freitag, J. Kevin Craig, Cristina Carollo, Leticia Barbero, Neda Trifunova, David Hanisko, and Glenn Zapfe

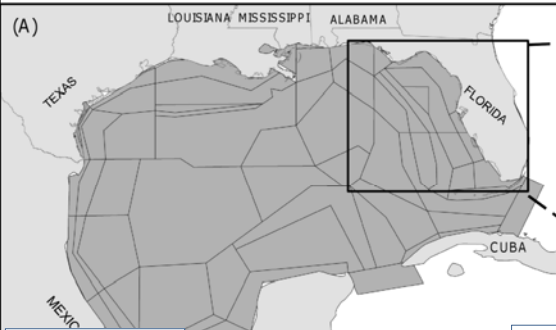


U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
Southeast Fisheries Science Center  
75 Virginia Beach Drive  
Miami, Florida 33149

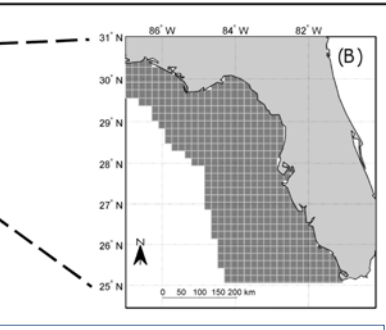
9

# Enhanced Data Applications

- Analytics & Decision Support Tools
- Ecosystem-based Fisheries Management
- Challenges: Data compilation



(A) Atlantis-GOM



(B) WFS Reef fish Ecospace & OSMOSE-WFS

# Communication With Data

- Derived Data Products - Information Synthesis

*EVOS Trustee Council  
Injured Species List*



- Recovered
- Recovering
- Very Likely Recovered
- Not Recovering
- Recovery Unknown



Overall Score - United States

- Goals
- Food Provision
  - Artisanal Fishing Opportunities
  - Natural Products
  - Carbon Storage
  - Coastal Protection
  - Coastal Livelihoods & Economies
  - Tourism & Recreation
  - Sense of Place
  - Clean Waters
  - Biodiversity

# Foundations in Monitoring



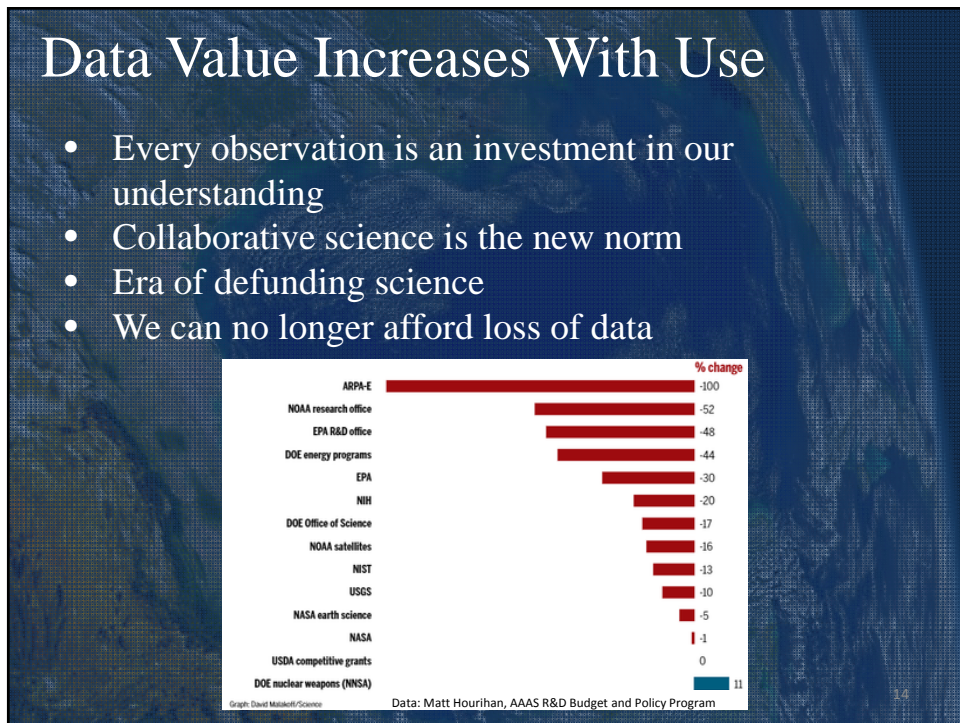
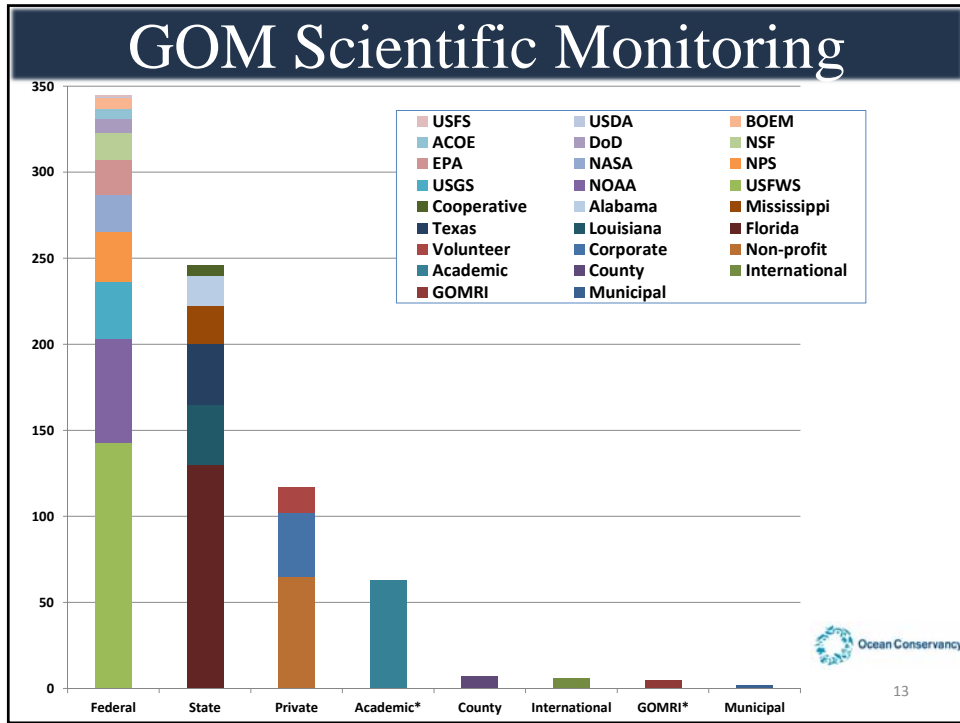
- 20 year program initiated 2012
- Consistent scientific data to detect ecosystem change

Ecosystem Monitoring Foundation

- Environmental Drivers
- Nearshore Ecosystems
- Pelagic Ecosystems
- Lingering Oil



Data Users  
Management Agencies  
Scientific Research Community  
General Public



## Long-term Vision – 15+ years

- Gulf restoration is an opportunity in collaboration
- Successful restoration and management based on science requires open, accessible data
- Need to consider uses of data beyond direct application
- Innovation in science and management requires an integrated information infrastructure



Photo credits: Apollo 11/NASA

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## Discussion Questions

1. What are key constraints or considerations in effectively engaging users in the development of data products?
2. Do you agree with the data users and uses described in this presentation? What types of users do we have at this workshop?

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