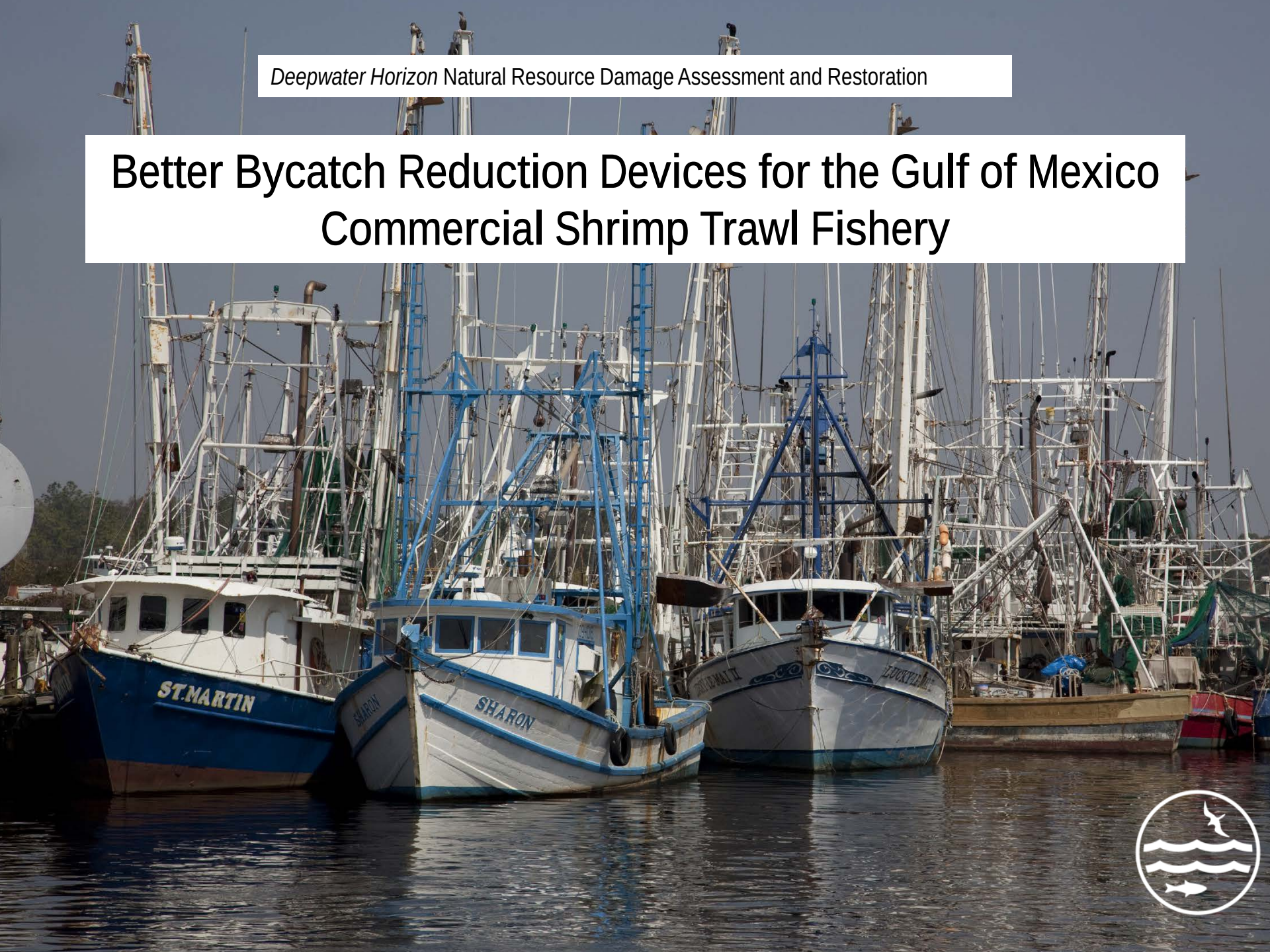
Deepwater Horizon Natural Resource Damage Assessment and Restoration

Better Bycatch Reduction Devices for the Gulf of Mexico Commercial Shrimp Trawl Fishery



Deepwater Horizon Background

April 20, 2010 – *Deepwater Horizon* (DWH) mobile drilling unit exploded, caught fire, and began spilling oil from BP's Macondo well

April 20, 2011 – BP agreed to $1B towards Early Restoration

July 2, 2015 – Trustees and BP reached an agreement in principle to settle natural resource damages

- To provide up $8.8 billion for restoration, paid in installments over 15 years

Feb 2016 – DWH trustee Council the Final Programmatic Damage Assessment and Restoration Plan and Final Programmatic Environmental Impact Statement (PDARP/PEIS)

Open Ocean Trustee Implementation Group

Consists of Four Federal Trustees (no states):

- NOAA, DOI, USDA and EPA

Open Ocean restoration area total $1.2B in restorations funds across six restoration types:

- A total of $55M is available for sea turtles in the OO TIG
- A total of $380M is available for fish and water column invertebrates in the OO TIG
- Other restoration types are: sturgeon, marine mammals, birds and mesophotic and deep benthic communities

Fish Restoration

Restoration goals in the PDARP/PEIS include:

- Restore injured fish species across the range of coastal and oceanic zones by reducing direct sources of mortality
- Increase the health of fisheries by providing fishing communities with methodologies and incentives for reducing impacts to fishery resources

5 projects proposed by the OO TIG for fish restoration

4 projects moved forward, including Better BRDs

- Better BRDs total cost $17.1M, 7 Year duration

Better BRDs Project Goal

To partner with the Gulf of Mexico commercial shrimp fishery to restore fish affected by the 2010 Deepwater Horizon oil spill

Project duration: 6 years
Funding: $17.2 Million

Early Project Development

Industry meetings, February 2018:

- Brownsville, TX
- Palacios, TX
- Port Authur, TX
- Gretna, LA
- Biloxi, MS
- Bayou La Batre, AL

Industry Input

New BRD technology needs to:

- Improve shrimp retention
- Simple to use
- Cost effective
- Improve bycatch reduction

Project Partners

- NOAA Restoration Center
- NOAA Southeast Fisheries Science Center (SEFSC)
    - Harvesting Systems Unit
- Sea Grant
    - Texas
    - Louisiana
- Industry Stakeholder Working Group
    - Brown Shrimp Fishery
    - White Shrimp Fishery

Project Objectives:

Tom's Fisheye (Australia)

- Identify new advances in BRD technology (BRD Hunt)
  - Domestic
  - International
- Validate the effectiveness of improved BRDs
- Maximize the use of advanced BRD technology through outreach and incentives
- Maximize restoration benefits through dockside BRD outreach and training

BRD Hunt

Conduct a international and domestic search for new existing technology that has the potential to improve bycatch reduction and shrimp retention in the fishery

Examples:

- Australia (Tom's Fisheye)
- North Carolina BRD project
- Gulf of Mexico white shrimp fishery

BRD Hunt
Tom's Fisheye

- Northern Prawn Fishery, Australia
- Developed by Raptis Fisheries, Karumba, AU
- Tested against a Square Mesh Panel BRD
    - 44% additional bycatch reduction
    - 0% shrimp loss

BRD Hunt
North Carolina BRD Project

- 2015-2017
- Project Partners:
  - State of North Carolina
  - North Carolina Sea Grant
  - NOAA Fisheries
  - NC Shrimping Industry
- Project Goal
  - Reduce finfish bycatch by 40% over standard Fisheye BRD
  - Four BRDs successful

BRD Validation

Proof of Concept testing

- NOAA diver evaluations
- NOAA paired testing (initial cut)

Stakeholder trials

- Commercial evaluations
- Industry feedback

BRD versus BRD testing

- Commercial evaluations (with observers)
- Bycatch reduction and shrimp retention rates

BRD certification testing

- NOAA Certification Testing Protocols

Stakeholder Working Group input at each step

Incentivized Use

BRDs selected for incentivized use based on:

- Bycatch performance
- Shrimp retention
- Cost of construction
- Ease of use

Participation

- Voluntary
- Target, 20% of the federally permitted vessels in the Gulf (~250 vessels)

Incentivization

- To be determined
- Based of BRD performance

Dockside BRD outreach and training

- Formation of a BRD Gear Team
  - NOAA and Sea Grant personnel
  - Work in collaboration with the NOAA TED Gear Monitoring Team (GMT)
- Serve as the POC to the industry for the domestic BRD Hunt
- Conduct industry training for new and existing BRD designs
- Conduct law enforcement training for new and existing BRD designs

Restoration through improved BRD compliance of existing BRDs

Dockside BRD outreach and training

- The two prominent BRDs used in the Gulf
  - Fisheye
  - Composite Panel
- Industry is transitioning to the more effective Composite Panel
  - Low compliance rate
- Improving BRD compliance rates will increase bycatch reduction levels and aid in fish restoration

Questions?

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Gulf Spill Restoration Project Website:
https://www.gulfspillrestoration.noaa.gov/project?id=227