

## THE NORTHEAST CONSERVATION ENGINEERING NETWORK

Over forty representatives<sup>1</sup> from the fishery research and management community in New England participated in workshops in Spring 2010 to explore benefits of a networking based approach to future collaborative research focusing on conservation engineering (bycatch reduction) solutions for the fishing industry. The Northeast (NE) Conservation Engineering Network emerged at an inception stage, its purpose being to meet critical conservation engineering and collaborative research needs to enhance sustainable fishing through a networking approach. This was on the basis that a network can realize greater use of shared assets, knowledge, relationships to achieve more effective and far-reaching outcomes.

The Conservation Engineering Network Workshops focused on developing the following:

- Improve coordination, integration and collaboration among the Conservation Engineering community
- Meet the requirement for data integration/correlations to assist avoidance strategies
- Consider new approaches to optimize outcomes in resolving bycatch challenges
- Improve technology transfer, outreach, adoption and diffusion processes relative to successful bycatch reduction programs resulting from networked program research
- Improve extension process to help industry to adapt and use improved gear or spatial/temporal fleet behaviors to minimize bycatch
- Take steps to meet the imperative for engagement by industry in the process.

The following conclusions were reached at the workshops:

- The strategic review of the NE Cooperative Research Program in 2009 established a priority for greater effectiveness, collaboration, and impact for industry which inspired the current workshop and Conservation Engineering Network development efforts.
- While there has been considerable collaboration to date, conservation engineering has not been optimal in addressing bycatch issues in the fisheries in the Northeast. Greater collaboration and multi dimensional approaches are required to maximize the impact of research and investment.
- The development of a Conservation Engineering Network has the buy-in of those engaged to date; a wide range of expertise related to conservation engineering issues is committed to promoting and supporting the concept and associated opportunities
- The emerging Conservation Engineering Network established a range of key questions, potential priorities, short term actions and outline planning process to move forward.
- There is a consensus that industry is not consulted enough and that partnership with industry is critical; an industry panel could be one resource to assist this process.
- There are acute priorities related to squid bycatch issues and a number of researchers already engaged in squid research have committed to collaborate moving forward.

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<sup>1</sup> A fuller report which sets out the details of the workshop, attendees, network theory and development and potential research topics is available from the NE Cooperative Research Program and at GMRI. [kburns@gmri.org](mailto:kburns@gmri.org) .

- Sector implementation requires prioritisation for collaborative research solutions to bycatch issues; this should be a focus of work for the NE Conservation Engineering Network.
- There are potentially multiple funding resources that are likely to request a more network-based approach to projects addressing conservation engineering research, while also providing a competitive process.

## **Emerging Project Priorities**

The following potential project priorities emerged from the workshops:

### Develop Conservation Engineering Solutions for small meshed fisheries such as squid, shrimp, whiting:

- Develop and implement a butterflyfish bycatch conservation engineering research in the Loligo squid fishery.

### Developing Conservation Engineering and real time Information Based Solutions for Sectors' managers to direct their fleets away from high bycatch fishing grounds:

- Industry testing, outreach, and extension of proposed technical solutions at industry level.
- Conservation engineering research to address bycatch issues in underutilized species such as red fish, whiting and hake and non 'choke' species such as haddock.
- Reducing habitat impacts from trawl gear and harbor porpoise/gillnet interactions.
- Maximizing use of existing spatial and temporal information to assist industry use avoid strategies (including gathering observer/VTR/trawl survey data, information from industry, and use of GIS mapping) and encourage real-time info sharing.

### Funding Mini Grants, Challenge Grants or short term Proof of Concept Projects

- Support highly innovative ideas by providing financial and technical support. Ensure scope for proof of concept projects and integrate positive results into broader network based research and delivery to fishing industry.

### Networking Development and Integration

- Scope how targeted efforts for network development with industry and among the industry could be delivered.
- Enable extension solutions through network based delivery of research, past and future.
- Ensure that network-based efforts focus on strategic development and solutions for sector based fisheries.
- Research added value and market solutions for underutilized species.

## **Next Stages**

Volunteer 'Conveners' at the workshops committed to engage with the partners and follow through with network based meetings and project planning as an important next stage. This process will be an outcome focused project development discussion.

