

**National Fish and Wildlife Foundation
Project Evaluation Form**

Project Name and Number: Large Whale Cooperative Management Plan (ME) - III
#2005-0326-003

Recipient: Maine Department of Marine Resources

Project Location: Western Gulf of Maine/coastal Maine

- 1) Were the specific objectives as outlined in your application and grant agreement successfully implemented and accomplished? Explain.

Yes, DMR made great strides towards many of the goals outlined in Maine's Large Whale Conservation Program. With respect to gear modification research and development, DMR has moved from the initial steps of creating an alternative to a mandate for sink rope to large scale field testing of potential low profile products. This included the purchase of 30 data mini-loggers to test the arc height of experimental ropes. 124 coils of low-profile ropes were purchased from two companies with varying specific gravities. A portion of this rope was deployed along with the depth loggers on the regional juvenile ventless trap survey through the DMR lobster biology group. This yielded sets of experimental rope state-wide through June, July and August. To supplement this data, seven fishermen were chosen in different regions of the state to test all four different low-profile ropes alongside standard float line to characterize regional differences. In total, over 170 sets of low-profile rope were recorded with depth loggers to characterize their average arc heights in differing habitats and current velocities. Additionally, coils of rope were handed out to fishermen to test throughout the fishing season. Lobstermen fished the rope and recorded relevant data on a standard log sheet that was turned and used to craft the next version of low-profile rope, which was purchased in a subsequent grant. This large scale testing was the spring board into the final phase of this multi-year project, which has found a final product for consideration by the Atlantic Large Whale Take Reduction Team. The proposal for the use of this low-profile line has been submitted and will be discussed at the next TRT meeting.

There has been subsequent work under a different grant segment that has occurred since the above testing took place. It has involved additional low-profile line products handed out to fishermen for trials, strength testing, and additional logger deployments. That work will be presented to the TRT in the same format and available on the DMR website when completed.

Additional gear work included sending out a survey to all federally permitted lobstermen to gain an understanding of how trap configurations, and therefore the number of vertical lines, change spatially and temporally in the state. Data from

returned surveys were analyzed and written up into a report that was also distributed at the TRT meeting and is available on-line.

A follow up survey is currently being conducted through a subsequent grant segment. It consists of finer scale location information on gear configurations by season throughout the coast. That information will be supplied to NMFS and the TRT through reports and/or presentations and will be available on DMR's website.

These projects required a lot of collaborative effort between the state, members of the industry and non-profit organizations such as the Gulf of Maine Lobster Foundation. Outreach of this kind not only keeps the fishing industry involved and educated but yields a feeling of being part of the solution to a dynamic and changing problem. Additional collaborative efforts undertaken in this project include the disentanglement network and the sightings program, both of which were maintained and expanded. The sightings network was maintained by inputting sightings into the database in near-real time and trouble shooting problems. To expand the database outreach was done with local whale watch companies in an effort to increase reporting. Additionally, a source of historic sightings was identified through College of the Atlantic and digitized for input into the database. More about this can be seen in the foraging projects section. The disentanglement network was maintained by holding several trainings at different levels. New marine patrol officers were trained with introductory level training and some veteran officers were trained at a higher level with some hands on tool use and on the water training. Tool kits were also inspected and tools were replaced. Additional trainings have taken place since then under a different grant segment and the network will continue to be expanded through additional training and use of the PCCS apprenticeship program. Both of these important components of the state's whale plan rely on the involvement of Maine marine patrol, industry members, community members, and local businesses.

Another important component of the program is large whale foraging research. Several projects were funded under this grant and are continuing to be pursued through additional grant funds and partnerships. Collaborative projects were undertaken with Ocean Works Group, Inc., Woods Hole Oceanographic Institute, University of New England, Gulf of Maine Research Institute, College of the Atlantic/Allied Whale, Bar Harbor Whale Watch and others. These partnerships yielded projects including right whale tagging in Maine coastal fishing habitats, the presence and occurrence of the bottom mixed layer and *Calanus* copepods in rocky bottom habitats as well as near right whale sightings, and sightings and seasonality of right whales around Mt. Desert Rock. These projects all began to be funded, at least in part with contracts for work, supplies, workshops etc., with this grant and are continuing to be pursued through additional funding sources. While many foraging projects began in this grant segment few were completed and therefore the information has not been disseminated. The majority of the money was paid out to Ocean Works Group, Inc. for the right whale tagging

project that was attempted in the Maine waters. There is a final cruise report available for this project. Six right whales (three mother/calf pairs) were seen but no tags were deployed due to permit constraints. The sightings from this project will be added to the DMR sightings database but have not yet been added. This project will continue under another grant segment in 2008 to attempt to tag right, fin and humpback whales in Maine. The pinger buoys that were built using the money from the grant segment in question will be used during the 2008 cruise to track the altitude of the whales off the bottom. After the project is complete a report will be available as well as papers for submission to peer reviewed journals. Another project that was funded by this grant segment included a contract to College of the Atlantic to digitize logbook sightings to be added to the DMR sightings database. Work on this has just been completed and transfer to the DMR database will take place shortly. Those sightings will then be available for public use. DMR and COA also plan to write a scientific paper with the results. The last foraging project that took place was also with College of the Atlantic and included outfitting their boat with a system to sample areas of known right whale habitat (for plankton tows and CTD drops). No sampling was able to be done in the 2007 field season but will commence this spring. All other foraging projects (plankton survey and some sampling in the presence of right whales) were done under subsequent grant segments and will be reported on to the TRT in 2008. The data is not currently available.

2) Please assess project accomplishments as quantitatively as possible. For example:

- a. Number of miles of stream/river corridor benefited. Categorize by type of benefit (e.g., protected, enhanced, restored, made accessible).

This project benefited all coastal waters within about 30 miles of the coast of Maine. In some cases species outside of zone and into other parts of the east coast will benefit as well.

- b. Total acres of land conserved. Categorize by conservation mechanism (e.g., restored, managed, acquired, placed under an easement) and by habitat type (e.g., wetland, deciduous forest, shortgrass prairie).

N/A

- c. Species benefited. If possible, report number of individuals of each species.

The primary species benefited by this program is the North Atlantic Right Whale. However, other species of large whale are included in the conservation plan including humpbacks, finbacks, and minke whales.

Additionally, other species of non-target marine mammals and sea turtles stand to benefit from the program as well.

d. Number of meetings/events held.

DMR held and attended a number of small meetings and events that included disentanglement trainings, meetings to discuss collaborations with partners, gear workshops, Lobster Advisory Council meetings and Lobster Zone Council meetings.

e. Presentations made.

Presentations were made at Lobster Advisory Council meetings, Maine Lobstermen's Association Board of Directors meetings and Lobster Zone Council meetings to update industry, the Maine Fishermen's Forum, and the Atlantic Large Whale Take Reduction Team meeting (TRT).

f. Publications and extent of distribution.

Reports for the low-profile groundline work as well as the endline survey were written and distributed at the TRT, the Maine Fishermen's Forum and are available on-line.

g. Other

3) Assess the number of people reached through your work (e.g., landowners, students, organizations, agencies) Did other land managers benefit from the project?

DMR strives to reach out to as many members of the lobster fishing industry as possible. While the number of lobstermen participating in DMR sponsored research is far fewer than the total number of license holders it is the goal of the Large Whale Plan to have some amount of outreach with most members of that community. Additionally, DMR prides itself on cultivating many fruitful collaborations with a variety of organizations including but not limited to other state agencies, non-profits such as the Gulf of Maine Lobster Foundation and Allied Whale, industry organizations such as the Maine Lobstermen's Association, educational institutions such as College of the Atlantic, University of New England, Woods Hole Oceanographic Institute, Gulf of Maine Research Institute and Bigelow Laboratories. Outreach conducted by DMR includes members of the general public, businesses such as whale watch vessels and rope manufacturers. These collaborations yield benefits for all parties as we learn from each other and work towards a common goal.

4) Were any surveys or interviews conducted with partners to help gauge the success of your efforts?

Surveys and interviews were conducted with fishermen who were fishing any experimental low profile gear that DMR handed out. This consisted of a logbook that documented not only operational details of the research such as how their gear was rigged but also included comments on how they liked the product and what some of the problems might have been. These surveys and interviews were used to adapt the products for another round of testing in an effort to yield the best product that will work for both whale conservation measures and within the fishing community. Additionally, a vertical line survey was conducted to create a baseline for fishing practices state-wide. This information will be used when addressing vertical line risk reduction measures.

- 5) How will the project be evaluated in terms of monitoring or assessment of cause-and-effect response? Describe the evaluation timescale (e.g., one year, five years, ten years). How will monitoring results be reported?

DMR hopes to have an approved low profile line product that can be implemented by the October deadline for the Final Rule. Work done during this project continued the process of testing and perfecting a product to that end. Monitoring will be reported in the form of reports and presentations to relevant stakeholders (NOAA Fisheries, TRT, industry members, etc.). Once approved specifications for that rope will be released to rope manufacturers so that a product can be sold commercially.

Other aspects of the project have longer timescales. The sighting and disentanglement networks are on-going programs that have no end date associated with their success. We will continue to maintain those networks, train members, and execute the goals of large whale conservation whether it is through disentanglement protocols, raised awareness or gear modification. The disentanglement program is monitored through NOAA fisheries and in DMR's collaboration with PCCS.

The foraging research that began during this grant will continue to be pursued as long as it is funded. Research done will be in support of the needs to the TRT, NOAA Fisheries and DMR for making management decisions with regards to large whales and the commercial fishing industry. Results will be reported to the TRT, the industry and other relevant stakeholders. Results will also be published in peer-reviewed journals and made available on the DMR website.

- 6) Does this project fit into a larger program, spatially or temporally? If so, how has that program benefited from your work? (For example, an easement or on-the-ground work that connects or benefits other protected properties.)

This program fits into the overall scope of the protected species division of Maine DMR. This program is a long term program that originated in 2002 with the conservation plan and will continue to adapt to changes in need for information,

research and development, and large whale conservation. The area that it covers encompasses the coast of Maine out to three miles and in some cases beyond. Additions to this program include a state-wide strandings program. Although the target species for this research are large whales, specifically right whales, humpbacks, finbacks, and minke, many other species of marine mammals and sea turtles will benefit from this program. Conservation efforts and gear research will have positive implications for all species in the area.

- 7) Does the project incorporate an adaptive management component? If so, please explain. Any lessons learned that will guide future implementation of this, or similar, projects?

The DMR large whale conservation plan does include an adaptive management component. All things learned from gear research and modifications are used to build upon the next generation product and improve the direction that the DMR is taking. This is true of foraging research as well. Information learned through this program will be directly applicable to gear research and will help guide the best course of action to achieve the DMR's goals.

- 8) Was there a local/regional/national response? Any media/press involvement?

There is a local and regional response to the ongoing program. DMR makes it a priority to keep the local industry members not only informed of the program's progress but involved in the research and field testing. DMR also uses industry input to design gear modifications and the best ways to document and test them. This involves write-ups and articles in local industry papers, including the Fishermen's Voice and the Commercial Fisheries News. Additionally, whale disentanglements have been written up in local papers and broadcasted during local news spot. Since the publication of the Final Rule by NOAA Fisheries in October there have been many articles and news spots in local and regional papers and television stations regarding the implications for the state and most include or highlight the work of this program in particular.

- 9) To what degree has this project contributed to the conservation community as a whole?

This project has contributed a great deal to the conservation community. DMR continues to work to provide a way to conserve right whales and other large whales in state waters while still allowing an important fishing industry to coexist. This has included implementing, training and equipping marine patrol officers and select fishermen state wide for a disentanglement program, instituting a sighting network that relays the locations of whales to the public to raise awareness and allow them the opportunity to avoid whale hotspots when relevant.

Perhaps the largest contribution to the conservation community has been the DMR's effort to reduce entanglement risk with lobster gear by working with industry members to modify fishing practices and gear, and working towards establishing baseline information about important areas of research such as large whale foraging habits in Maine waters.

- 10) Did your work bring in additional partners, more landowners, et cetera, who would be interested in doing similar work on their land in the future? If so, please describe.

This program united many fronts surrounding the same dynamic issue. DMR has worked closely with fishermen, other state agencies, NOAA Fisheries, non-profits such as the Gulf of Maine Lobster Foundation and Allied Whale, and educational institutions such as the College of the Atlantic, University of New England, Gulf of Maine Research Institute, and Woods Hole Oceanographic Institute. All parties are interested in carrying out this work in the future and continue these successful collaborations. There are many faces to this complex problem and the DMR realizes that without the input and expertise of many entities this program could not be as successful as it has been nor could it be as versatile in the future as DMR is proposing it to be.

- 11) Do you have any suggestions for NFWF to guide improvement of our project administration?

Please share any additional information that you feel is important to the evaluation of your program.