

Identifying and Addressing the Impacts of Marine Debris on Birds in the Gulf of Maine and Northeastern U.S.

Webinar Series:

Webinar #1, Report Findings, and Introduction to Implementation

Background, Agenda, and Meeting Notes

February 10, 2021, 10-11:30am

Webinar Series Background:

In February 2021, University of Rhode Island graduate student, Michael Andranovich drafted a report, *Identifying and Addressing the Impacts of Marine Debris on Birds in the Gulf of Maine and Northeastern U.S.* (draft provided in Feb. 4 invitation e-mail), in partnership with US Fish and Wildlife Service Migratory Birds Program, and the NOAA Marine Debris Program. The report compiled available information on what is currently known about the impacts of marine debris on birds. This work directly supported Strategy 2.1 in the [Gulf of Maine Marine Debris Action Plan](#). While the report broadly details information gaps in understanding of impacts of marine debris on birds and strategies for addressing these impacts, it also conveys the need for additional work, though partner collaboration -- specifically, stepping down gaps and strategies so they can be implemented.

The purpose of this webinar series is to bring together partners with an interest/expertise in marine debris and/or birds that may not regularly interact in order to begin stepping down recommendations in the report into concrete actions that could lead to projects. With input from webinar participants, and follow-up discussions/targeted outreach, we intend to develop an **'implementation framework'** that identifies:

- 1) A set of top priority actions that could be undertaken to fill information gaps and address impacts of marine debris on birds in the Gulf of Maine
- 2) Clear objective(s) for each action
- 3) Steps that could be undertaken to initiate each action, including building off any existing materials from work already underway or completed
- 4) Potential stakeholders that could help undertake each action, including partners that have identified specific interest in a priority action(s)
- 5) A compilation of potential funding sources

The implementation framework will be included in a final version of the report anticipated to be released in early summer 2021, and widely circulated. Ideally, this report and framework will lead to collaborative projects that can fill research and conservation needs for birds in the Gulf of Maine region.

Objectives:

- Review priorities pertaining to birds in the Gulf of Maine Marine Debris Action Plan
- Review current findings of the report *Identifying and Addressing the Impacts of Marine Debris on Birds in the Gulf of Maine and Northeastern U.S.*
- Outline a process for obtaining stakeholder involvement to create an implementation framework
- Begin to review and prioritize a) information gaps and b) strategies for addressing known impacts, which should be included in an implementation framework
- Begin to identify what is already being done within these areas, and potential key partners (including those who are not on the webinar)
- Identify interest from webinar participants to help flesh out actions and take a role in specific projects of interest

The webinar series will include another 2 discussion-based webinars with partners to flesh out details of the implementation framework.

Agenda & Notes (including questions, answers, and comments from the ‘chat’):

I) Overview of Webinar Series; Webinar Logistics & Objectives (5 min) [Caleb Spiegel, USFWS]

- Since 1950, 70% of seabirds have been lost worldwide
- Marine debris is a factor, but not well understood or studied, particularly in the Gulf of Maine region (ME to southern MA)
- Gulf of Maine Marine Debris Action Plan (MDAP) was created and led by NOAA Marine Debris Program (MDP), with USFWS as a partner (hundreds of partners)
- Components related to birds:
 - o Phases I & II – lit review & partner inquiry: identify strategies & info gaps (recently completed)
 - o Phase III – implementation framework (starting now)

II) Introductions (10 minutes)

- Demi Fox, Christy Kehoe - NOAA MDP
- Michael Andranovich – URI
- Pam Loring, Caleb Spiegel - USFWS

III) NOAA Marine Debris Program and Gulf of Maine Marine Debris Action Plan (15 minutes)

[Demi Fox, NOAA]

- NOAA Marine Debris Program established 2006 by Congress
- Components: Removal, prevention, research, regional coordination, response, monitoring, and detection

- Two federal funding opportunities yearly: Removal (each year) and alternate between research & prevention (yearly)
- Announced in August via NOAA MDP
- Emergency response (e.g. storms & natural disasters)
- Regional coordination – 10 coordinators in coastal areas throughout US
- 2019 Gulf of ME Marine Debris Action Plan: ME, NH, MA and adjacent Canadian Provinces
 - o Working groups: consumer debris, derelict fishing gear, microplastic, wildlife & habitat impacts

Q&A Period:

Question (Q): Jane Arbuckle (Maine Coast Heritage Trust, MCHT): funding for coastal cleanup?

Answer (A): Federal funding opportunities – posted on MDP site (email Demi). Smaller projects sometimes can be funded by additional funds outside of federal grant funding activities via NOAA MDP microgrants to help support efforts in action plans (if funds avail): max \$5,000.

IV) Project & Report: *Identifying and Addressing the Impacts of Marine Debris on Birds in the Gulf of Maine and Northeastern U.S. (25 minutes)* [Michael Andranovich, University of Rhode Island]

- Addresses strategy 1.1 in 2019 MDP: ‘Assess marine debris risk to wildlife and habitat’
- Objectives:
 - o Identify threats
 - o Document impacts
 - o Information gaps
 - o Identify strategies & partners
 - o Report findings to NOAA MDP and partners
- **Question (Q):** Laura Ludwig (Center for Coastal Studies): connect between FWS & NPS to make sure NPS represented (e.g. Cape Cod National Seashore)?
 - **Answer (A):** Caleb Spiegel (USFWS): More outreach to park service would be great – please send suggestions for contacts
 - **Comment (C):** John Stanton (USFWS): While better info on sources and magnitude of debris is needed, we also need to start reaching out to other parties that will be required to affect change (e.g. Dept of Commerce, Tourism committees, Fishery advocacy groups).
- Methods: literature review & partner inquiry
- Major information gaps identified:
 - o # of birds lost to entanglement (on land and at-sea)
 - o Microplastics in water and food web
 - o Identify marine debris sources with highest impact
- **Q:** Susi vonOettingen (FWS): Has anyone looked at seabird fecal material for microplastics? Can you ID species ingesting microplastics that way?

- **A:** Julia Baak: Don't know of any studies in the Atlantic region, here is one from the Arctic that looks at microplastics in guano:
<https://doi.org/10.1016/j.scitotenv.2020.142808>
 - **A:** Linda Welch (USFWS): USFWS Maine Islands & Coastal Refuges and National Audubon Society (NAS) will be collecting seabird feces this summer to look at ingestion issues (hoping for grant to support this effort)
 - **A:** Liz Craig (Shoals Marine Lab): Our group is analyzing tern fecal material for MPs

- Major strategies identified:
 - Address derelict fishing gear through regulation change and identification
 - Reduce consumer litter through legislation and volunteer engagement
 - Increased community science efforts
 - **C:** Anna Robuck (URI): Balloon release reduction or education would also be a great priority.
 - **C:** Magdalena Ayed (Harborkeepers): How does this initiative help create legislation for producer responsibility, rather than the focus generally on consumer accountability
 - **C:** Adrienne Leppold (MDGIF): www.balloonsblow.org
 - **Q:** Susi vonOettingen (USFWS): re: clean-up efforts. If occurring during the shorebird nesting season - and efforts overlap with nesting shorebirds - who is responsible for coordinating the effort to avoid disturbing nesting birds? Is there a list of shorebird breeding areas that is included in documentation for the general public and/or agencies collecting the debris?
 - **A:** Linda Welch (USFWS): In Maine, we have a large group working together to implement cleanups. We conduct the cleanups outside the nesting season.
 - **Q:** Iain Stenhouse (BRI): Does that include the fishing industry, Linda?
 - **A:** Linda Welch (USFWS): Unfortunately no. They have not been involved in any of the cleanups we have done. Not for lack of requesting their assistance
 - **A:** Mark McCollough (FWS): NOAA consults with the Maine Field Office USFWS on federally-funded cleanup activities.
 - **A:** Iain Stenhouse (BRI): NAS did get some local fishermen involved in clean up a few years ago with a TogetherGreen grant. Not sure if that involvement continued.
 - **A:** Sue Schubel (NAS): NAS has had help from lobstermen transporting debris to shore
 - **A:** Don Lyons (NAS): NAS works with the Gulf of Maine Lobster Foundation to cleanup at islands where we work, through a joint project funded by the NOAA Marine Debris Program.

- Areas of interest
 - Derelict Fishing Gear (DFG)
 - Consumer litter
 - Industrial litter

- **C:** Linda Welch (USFWS): It would be great if there were some recycling options for derelict fishing gear (wire traps). Right now, they just go to landfills.
- Major impacts
 - Entanglement
 - Ingestion
 - Alteration of nesting habitat
- **Q:** More information on microplastic research?
 - **A:** Anna Robuck (Univ Rhode Island, URI): I am looking at plastics in Great Shearwaters over a ten year time series. We are about to publish in *Frontiers* but are also continuing the work. Let me know if you have specific questions about the effort.
- Phase I/II Final products:
 - Summary report
 - Reference list
 - Relevant datasets and submitted photo library
 - Partner list for future collaborations
- Phase III:
 - Series of partner webinars to increase feedback
 - Implementation framework
 - Final report for public use (summer 2021)

V) Questions (5 minutes) [All]

Q&A Period:

C: Linda Welch (USFWS): financial burden of cleanup falls on landowner. Clean up tons of traps, transport, dispose. Huge undertaking, very costly, no financial support from industry. Need better ways of disposing gear: e.g. gear disposal days for lobstermen to help reduce gear getting dumped at sea (easier than trying to dispose on land). Also need better recycling for traps and gear versus dumping in landfill

C: Laura Ludwig (Center for Coastal Studies): Lobster traps are not all going to landfills - many are recycled for metal scrap in Maine (e.g., *OceansWide Traps 2 Treasure* program); and here on Cape Cod we also recycle all the traps.

C: Susi vonOettingen (USFWS): Aquaculture permits for ROST -- equipment must be marked with contact info, if it washes up in nesting areas, must communicate w/site managers to remove. Good 'hook' for listed species, could apply to colonies, staging areas, etc. Making this requirement a permit condition could be a good approach.

C: Kiah Walker (USFWS): Lobster traps are marked, as well. Most lobstermen that have gear wash up at Parker River Wildlife Refuge cooperate voluntarily to retrieve equipment, but they can be charged with abandonment of property on the Refuge if they don't collect it.

C: Linda Welch (USFWS): There is one main commercial vendor for finfish aquaculture in the Gulf of Maine. If a big wash up event occurs, they might come and get it but not always. Lobster traps have tag #s but response rate is low when refuge reaches out, even for good traps

C: Buzz Scott (OceansWide): OceansWide is collecting traps in Gouldsboro and would be happy to help. We are working on a recycling option for the traps. Sorry to Sue, Linda, Laura and Erin for being so quiet lately -- effort still progressing

C: Kate O'Brien (USFWS): We have a significant issue with lobster traps > 100 annually at Rachel Carson Wildlife Refuge's Timber Point. We work with Maine Island Trails to help us get them off the island. Don't know where they go but I thought if damaged, they end up in a landfill.

C: Buzz Scott (OceansWide): FYI - we have a trap crusher designed to help reduce transit issues. <https://www.ellsworthamerican.com/maine-news/trap-recycling-program-is-poised-to-expand/>

C: Laura Ludwig (Center for Coastal Studies): Demi - time for an island-specific DFG removal meeting - you'll help us solve all these problems!

C: Demi Fox (NOAA MDP): We can make that happen!

C: Buzz Scott (OceansWide): We're working on a landing craft to help with island cleanup

VI) Group Discussion - Report Recommendations & Implementation (25 minutes) [All; facilitated by Caleb, Pam Loring (USFWS), & Michael]

(1) OVERVIEW OF IMPLEMENTATION FRAMEWORK CONCEPT

- Do you think a framework could help you and/or other partners you work with implement projects to undertake specific actions identified?
- What initial implementation 'steps' would be most useful to help initiate projects and undertake prompt action?
- Are there any missing components of a framework that we should consider?
- Any other impressions about an implementation framework concept?

(2) PRIORITIZING INFORMATION & DATA GAPS

- Which of these gaps do you think should be prioritized for action in the implementation framework?
- Of the priorities identified, what is already being done?

(3) PRIORITIZING STRATEGIES FOR ADDRESSING KNOWN IMPACTS

- Which of these gaps do you think should be prioritized for action in the implementation framework?
- Of the priorities identified, what is already being done?

(4) ENGAGING PARTNERS & STAKEHOLDERS

- Are you interested in participating in 1 to 2 subsequent webinars (target dates - March) to further identify priorities and flesh out practical steps to include in an implementation framework?
- Are you interested in collaborating on development of a project to take action on a priority(ies) identified in an implementation framework?
- Do you have suggestions for other stakeholders not at the meeting that you believe should be represented? How best to engage these individuals and generate interest?

Q&A Period:

C: Laura Ludwig (Center for Coastal Studies): Re Caleb's bullet of "relevant funding opportunities" - MET has an RFP out right now, perfect for this priority:

<https://www.commbuys.com/bsa/external/bidDetail.sdo?bidId=BD-21-1042-ENV-ENV01-58341&parentUrl=activeBids>

C: Laura Ludwig (Center for Coastal Studies): Reiterate that NPS engagement is needed at high use coastal sites, e.g. Acadia, Cape Cod National Seashore

C: Buzz Scott (OceansWide): I think a collaboration is a must and would like to be added to that list. OceansWide - *Traps 2 Treasure* program

C: Anna Robuck (URI): A collaborative framework for information gaps would be useful for comparing data across species and projects.

C: John Stanton (USFWS): In the Southeast Marine Debris Action Plan – common issues are being dealt with at site-by-site scale. There is a need for a coordinated, regional approach, as in the Gulf of Maine region. Involvement with Dept of Commerce, fisheries advocacy groups, need to identify priorities and develop 'SMART' objectives for outreach to regulators

C: Susi vonOettingen (USFWS): outreach is needed to partners who are not on the call, e.g. state parks. Hampton Beach removes 30 tons of trash/month in a typical year. During COVID they were not able to do so. Situation beyond just human health. Get the word out not just human health.

--- Caleb Spiegel (USFWS): Good idea....Asks the group to provide contacts if anyone has them.

C: Pam Loring (USFWS): Suggests highlighting the link between human health and bird health angle for messaging/outreach in phase III

C: Laura Ludwig (Center for Coastal Studies): Marine debris overlaps with broader waste management issues – It is important to identify corporate roles in reduction, beyond fishing industry (e.g. construction industry, trucking industry, recycling, etc.).

C: Linda Welch (USFWS): A fee structure has been discussed for all lobster trap tags in Maine. Even ~5 cents per tag (max of \$40/lobster fisherman) would generate about \$80K annually -- Could be put towards cleanup efforts. Make the industry part of the solution!

C: Laura Ludwig (Center for Coastal Studies): “RED Fund” (state level funding in Maine), trap tag funds and license plate funds paid to state for distribution to non-profits. Yearly RFP -- NGOs compete. Funds not specifically for cleanup, but similar to what Linda suggested.

<https://www.mainelegislature.org/legis/statutes/12/title12sec6431-B.html>

<https://www.maine.gov/dmr/news-details.html?id=803166>

C: Susi vonOettingen (USFWS): Just found this on MA CZM website (Michael A probably has this info). We should include them as a partner perhaps? <https://www.mass.gov/service-details/cz-tip-learn-about-lobsters-lost-gear-and-local-efforts-to-prevent-marine-debris>

C: Iain Stenhouse (BRI): Bring in legislatures early to help influence change at policy level

C: Caleb Spiegel (FWS): Framework could help map a path forward for that type of effort – e.g. identify partners and resources needed

C: Linda Welch (USFWS): UMaine and Unity college are testing a citizen science project that could help document the extent of debris on islands. Using high quality aerial photos USFWS obtained to estimate number of nesting seabirds.

C: Logan Kline: The UMaine/Unity trash project is in phase two of its pilot; we are using the high-quality aerial imagery from USFWS and MDIFW and students as citizen scientist proxies to see how effective they are at identifying buoys and lobster pots (among other trash) in 20m x 20m grid images.

C: Carolyn Mostello (Mass Wildlife) - Need to ensure that recreational fisherman are included as stakeholder

--- Caleb Spiegel (USFWS): Good idea....Asks the group to provide contacts if anyone has them

VII) Next steps & Wrap-up (5 minutes) [Caleb]

- Will send a follow-up Google form to:
 - o Prioritize information gaps AND strategies to reduce impacts:
Consider -- impact, interest, practicality, history, scalability
 - Entanglement
 - Microplastics & ingestion
 - Habitat & other
 - o Information on next steps
- Additional discussion-based webinars to flesh out framework details:
 - 18 March (Information Gaps)
 - 01 April (Strategies to reduce impacts)

C: Consider forming a smaller WG to plan for future webinars (John Stanton)

Interested in staying involved in framework process:

- Susi vonOettingen
- Liz Craig (not in leadership role)
- John Stanton
- Linda Welch
- Don Lyons
- Sue Schubel
- Theresa Torrent
- Iain Stenhouse

Webinar Participants List (50):

First Name	Last Name	Affiliation (if known)
Brad	Allen	Maine Division of Inland Fisheries & Wildlife
Michael	Andranovich	University of Rhode Island
Jane	Arbuckle	Maine Coast Heritage Trust
Magdalena	Ayed	Harborkeepers
Julia	Baak	McGill University
Mark	Baran	University of New Brunswick
Sarah	Courchesne	Northern Essex Community College
Elizabeth	Craig	Shoals Marine Lab (UNH)
Danielle	D'Auria	Maine Division of Inland Fisheries & Wildlife
Eddy	Edwards	USFWS - Maine Coastal Islands Refuge
Demi	Fox	NOAA MDP
Carina	Gjerdrum	Canadian Wildlife Service
Matthew	Hillman	USFWS - Parker River NWR
Robert	Houston	USFWS Ecological Services (ME Field Office)

Pamela	Hunt	New Hampshire Audubon (NH F&G)
Lynn	Jackson	Seaside Sustainability
Christy	Kehoe	NOAA MDP
Jen	Kennedy	Blue Ocean Society
Logan	Kline	University of Maine
Adrienne	Leppold	Maine Division of Inland Fisheries & Wildlife
Meredith	Lewis	University of Maine
Pamela	Loring	USFWS - Migratory Birds
Laura	Ludwig	Center for Coastal Studies
Don	Lyons	National Audubon
Mark	McCollough	USFWS - Ecological Services
Wayne	McFee	NOAA (southeast)
Jessie	McIntyre	Coastal Action, Mahone Bay Nova Scotia
Aly	McKnight	Unity College
Carolyn	Mostello	Mass Division of Fisheries & Wildlife
Kate	Obrien	USFWS - Rachel Carson NWR
Tessa	Pfeifer	College of Charleston
Debra	Reynolds	USFWS - Migratory Birds
Anna	Robuck	University of Rhode Island
Amy	Russell	Not specified
Jake	Russell-Mercier	Canadian Wildlife Service
Buzz	Scott	Oceanswide
Lisa	Sette	Center for Coastal Studies
Paula	Shannon	National Audubon
Caleb	Spiegel	USFWS - Migratory Birds
John	Stanton	USFWS - Migratory Birds
Iain	Stenhouse	Biodiversity Research Institute
Schubel	Susan	National Audubon
Theresa	Torrent	Maine Coastal Program
Terry	Towne	Maine Coast Heritage Trust
Susi	vonOettingen	USFWS - Ecological Services (New England FO)
Kiah	Walker	USFWS - Parker River NWR
Linda	Welch	USFWS - Maine Coastal Islands Refuge
Audrey	White	Not specified
Becky	Whittam	Canadian Wildlife Service
Sarah	Wong	Canadian Wildlife Service