

# Atlantic Marine Bird Cooperative – Roseate Tern Recovery Group

## 2024 Virtual Meeting: Dec 10-12, 2024

### Teams Chats

*The following is a transcript of most of the Teams Chat entries, which are unable to be archived in the session recordings. We have done our best to make this as complete as possible, but in some cases Chats may have been inadvertently missed, particularly during extensive Chat volume or at the beginning or end of sessions. Chats are generally in chronological order in which they were written. We have also tried to categorize Chats where possible to provide context.*

December 10.....	pp.1-9
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#### **10 December 2024: AMBC Annual Meeting (virtual) Chat**

(through lunch. Note: Working Group break out notes are available on the AMBC website)

#### **Participants & Affiliations – Self-reported in CHAT:**

(NOTE: A complete list of participant names is available on the AMBC website in spreadsheet format)

Beth Forys, Eckerd College

Gemma Clucas, Cornell Lab of Ornithology

Sue Abbott, Birds Canada

Collette Lauzau- Audubon Florida

Peter Paton, URI

Kris Vagos; Falkner Island - Stewart B. McKinney NWR

Gibson Rieger, MSc student at the University of Manitoba (Davoren Lab)

Griffin Archambault, Adirondack Center for Loon Conservation

Emily Runnells, University of Manitoba

Sarah Neima, Canadian Wildlife Service

Margaret Rubega, University of Connecticut

Sabina Wilhelm, Canadian Wildlife Service

Arliss Winship, NOAA National Centers for Coastal Ocean Science

Jeff Spendelow, Director CRTMP

Sydney Collins, Memorial University of Newfoundland

Lauren Lescure, Shea Fee The Trustees of Reservations

Linda Welch, USFWS

Carina Gjerdrum, Canadian Wildlife Service

Hugh O'Connor, US Fish and Wildlife Service

Brad Zitske, Maine Dept Inland Fisheries & Wildlife

Jen Rock, Canadian Wildlife Service

Brad Pickens, US Fish and Wildlife Service, Mig Birds

Heather Major, University of New Brunswick

Luis Ramos Vazquez - USFWS Gulf Restoration Office

Kate Robb-Town of Hempstead Dept. of Conservation and Waterways (Long Island, NY)

J. Christopher Haney, TerraMar Applied Science

Steve Sinkevich USFWS Long Island Field Office

Will Mackin - BirdsCaribbean

Samantha Schurr, Town of East Hampton

Mark Pokras, Tufts Univ, Cummings School of Vet Med (emeritus)

Sean Wiedemann, New York State DEC

Tami Pearl, Assateague Island National Seashore

Julia Robinson Willmott Normandeau Associates

Zoe Korpi - USFWS Mig Birds

Diann Prosser, USGS Eastern Ecological Science Center

Rose Caplan, Mass Audubon's Coastal Waterbird Program

Sophia Brown, New York State Dept of Environmental Conservation

Sean Kelly - Fish and Wildlife Biologist, USFWS Caribbean Ecological Services Field Office (CESFO), St. Croix

Ruth Boettcher, VA Dept. of Wildlife Resources

Cindy Barreto - University of Connecticut

Ian L Jones, Biology Department, Memorial University, St. John's NL [www.mun.ca/serg](http://www.mun.ca/serg)

Eileen McGourty - Monomoy NWR

Yvan Satgé, Clemson University and South Carolina Cooperative Fish and Wildlife Research Unit

Liz Craig - Shoals Marine Lab (UNH/Cornell)

Nahíra Arocho- Biologist- Cabo Rojo National Wildlife Refuge, Puerto Rico

Rachel Stevens, USFWS New England Office

Stephanie Avery-Gomm, Environment and Climate Change Canada, Wildlife and Landscape Science Directorate.

Lee Benaka, NOAA Fisheries

Liam Taylor, Bowdoin College & BSS Kent Island

Sam Miller- Rhode Island Division of Fish and Wildlife by Miller

Caitlin Beebe - USFWS R5

Chandra Goetsch - NCCOS

Jamie Infanti - Mass Audubon Coastal Waterbird Program

Patrick Jodice, USGS SC Cooperative Research Unit @ Clemson Univ.

Jill Tengeres, USFWS (Maine Coastal Islands NWR/Mig Birds Program)

Natasha Gownaris, Gettysburg College

Asha Grewal, Acadia University

Sarah Gutowsky, CWS

Gail Davoren, University of Manitoba

Martin Scott - RPS Tetrattech

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### **Seeking expressions of interest on volunteering for the Species re-Prioritization Task**

I wouldn't worry too much about timing, I think it would be very useful. by Emily Runnells  
(Unverified) 9:09 AM

agree - still relevant. I sent you some documents from the GoMAMN effort by Patrick Jodice  
(Unverified) 9:11 AM

One of the purposes in the Gulf was to have it for assisting making funding decisions by Patrick Jodice (Unverified) 9:14 AM

I think its fine but keep main focus on fixing the priorities already identified by William Mackin (Unverified) 9:14 AM

Process needs to be transparent by Patrick Jodice (Unverified) 9:17 AM

and defensible by Patrick Jodice (Unverified) Patrick Jodice (Unverified) (External) 9:17 AM

I'd love to help out if needed! by Liam Taylor (Unverified) 9:22 AM

Yes, I'm interested in helping with the process by Pickens, Bradley A 9:22 AM

I can help given I worked on the Gulf lists by Patrick Jodice (Unverified) 9:22 AM

### **Examples of Other Prioritizations**

An example of priorities that are already being integrated into a prioritization plan:

<https://secassoutheast.org/blueprint> by Pickens, Bradley A 9:17 AM

WAPs, RSGCN, RWSC focal species list by Boettcher, Ruth (DWR) (Unverified) 9:17 AM

No it is not : ) by Patrick Jodice (Unverified) 9:17 AM

If anyone is aware of a prioritization list like this from another jurisdiction, please put it in the chat. by Avery-Gomm, Stephanie (elle | she, her) (ECCC) (Unverified) 9:20 AM

We did one for Caribbean seabirds After the oil spill by William Mackin (Unverified) 9:20 AM

I will look for it by William Mackin (Unverified) 9:21 AM

Patrick might have it by William Mackin (Unverified) 9:21 AM

ACAP Agreement on the Conservation of Albatrosses and Petrels by Ian L Jones 9:21 AM

Link <https://gomamn.org/wp-content/uploads/2020/02/chapter1-1.pdf> by Patrick Jodice (Unverified) 9:21 AM

Link <https://gomamn.org/wp-content/uploads/2020/02/chapter6-1.pdf> by Patrick Jodice (Unverified) 9:22 AM

depending on the level of effort folks feel is warranted, it could be helpful to develop a more "dynamic" list that compiles various characteristics for all the relevant species. There could still be an overall list of "priorities", but otherwise, the info/data could be filtered/sorted to produce different results based on the specific application that a group may be interested in. Factors such as confidence/uncertainty in status (as might direct monitoring efforts), various vulnerability factors (threats, trend, pop size), susceptibility to various threats (collision, bycatch, etc), and other data could be compiled. The "list" would be more of a dynamic resource than a static list. Again, I realize there are other priorities warranting time/attention, so it all hinges on the level of investment felt to be warranted for something like this. by Demarest, Dean 9:22 AM

There have been a couple of recent prioritization exercises for the US tropical pacific - developing actionable prioritized species lists to advance restoration. by Scott Hall (Unverified) 9:23 AM

Avery-Gomm,Stephanie (elle | she, her) (ECCC) (Unverified) 9:33 AM replying to [Scott Hall (Unverified)12/10/2024, 9:23 AM There have been a couple of recent prioritization exercises for the US tropical pacific - developing actionable prioritized species lists to advance restoration.] Can you provide a link to a source, please?

Prioritization of Restoration Needs for Seabirds in the U.S. Tropical Pacific Vulnerable to Climate Change

- January 2023
- [Pacific Science](#) 76(3)

DOI:[10.2984/76.3.1](#) by Scott Hall (Unverified) 9:35 AM

Assessment of Seabird Restoration Priorities for the U.S. Pacific Islands - this is a report developed for the Migratory bird program in Region 1 - developed by Archipelago Research and Conservation by Scott Hall (Unverified) 9:36 AM

### **Steering Committee Volunteers**

I'm fine with staying on the SC but just don't want to be 'that guy by Patrick Jodice 9:32 AM

I'd love to help out if needed! by Liam Taylor (Unverified) 9:22 AM

If you are interested in being considered as a Steering Committee Member, please put your name in the chat: by Avery-Gomm,Stephanie (elle | she, her) (ECCC) (Unverified) 9:34 AM

Aw shucks by Spiegel, Caleb 9:35 AM

It's true Caleb, you rock!! by Boettcher, Ruth (DWR) (Unverified) 9:35 AM

### **Who is volunteering to share the Opportunity with folks in the south of the AMBC region**

Sean Kelly: I can share this opportunity with our Caribbean Field Office for Puerto Rico and the USVI and they would be able to decide if they should appoint a POC for this for the Caribbean and/or perhaps someone from the Birds Caribbean Sea Bird Working Group would be a good POC

Collette Lauzau: Would having somebody on the Gulf of Mexico be helpful? I'd be interested in being a nominee at least but I am not on the Atlantic. I'd always be happy to help with that.

William Mackin: I would be interested in being a liaison.

(In response to question if Collette is collaborating with GOMAMN): A little bit by Lauzau, Collette (Unverified) 9:39 AM

Thanks Will! by Welch, Linda 9:39 AM

I'd always be happy to help with that. by Lauzau, Collette (Unverified) 9:40 AM

I can share this opportunity with our Caribbean Field Office for Puerto Rico and the USVI and they would be able to decide if they should appoint a POC for this for the Caribbean and/or perhaps someone from the Birds Caribbean Sea Bird Working Group would be a good POC by Kelly, Sean P 9:41 AM

### **Revitalized or New Working Groups**

We're going to be discussing an initiative that Kate is leading during the Comm Sci and Marine Bird Health WG breakout by Spiegel, Caleb 9:49 AM

Caleb: You might consider contacting Doug Forsell (retired USFWS) who did a lot of work on bycatch on the Atlantic coast years ago. by Spendelow, Jeffrey A 9:49 AM

I could participate in the bycatch WG, but not as coordinator or co-coordinator. Thanks! by Lee Benaka (he/him) (Unverified) 9:50 AM

I would be interested in climate change but, as Patrick said, it would be good to have an idea of what a potential project to work toward would be by Burgio, Kevin R 9:51 AM

For anyone interested, the annual regional meeting on loon biology, conservation, and research will take place at the headquarters of the Loon Preservation Committee (LPC) in Moultonboro, NH on March 13 & 14, 2025. There are options for in-person or virtual participation. A call for agenda items will be coming out in January. To get on the email list for additional information, please contact Harry Vogel, LPC Exec Dir at [hvogel@loon.org](mailto:hvogel@loon.org) OR Mark Pokras at [mark.pokras@tufts.edu](mailto:mark.pokras@tufts.edu) by Mark Pokras (Unverified) 9:52 AM

### **Leach's Storm-Petrel Conservation Plan for Eastern North America Presentation & Discussion (Sue Abbott & Linda Welch)**

Link to the LESP plan: <https://www.miradishare.org/ux/project/birds-canada-birdscanadaatlant-2023-00008> by Yvan Satgé (Unverified) 10:08 AM

### **North American Waterbird Conservation Plan Revision Effort and Potential AMBC Engagement (Sara Schweitzer)**

Thanks SO much for joining us on such a busy day by Spiegel, Caleb 10:16 AM

pelican with santa hat for the win! by Patrick Jodice (Unverified) 10:16 AM

Dream team! by Spiegel, Caleb 10:24 AM

Thank you, Sara, for championing this. I know you have been waving the flag at every opportunity for years and it's great to see real progress being made. by Iain Stenhouse (Unverified) (External) 10:27 AM

### **10:33-10:45 AM Break**

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10:33 AM Kocek, Alison R stopped recording.

**Additional Participants & Affiliations – Self-reported in CHAT:**

(NOTE: A complete list of participant names is available on the AMBC website in spreadsheet format)

If you have not yet entered your name and affiliation in the chat please do so by Spiegel, Caleb  
10:33 AM

Juliet Lamb, The Nature Conservancy by Juliet Lamb (Unverified) 10:38 AM

Don Lyons, National Audubon Society by Lyons, Donald (Unverified 10:38 AM

Iain Stenhouse, Biodiversity Research Institute by Iain Stenhouse (Unverified) 10:39 AM

Julie McKnight, ECCC - Canadian Wildlife Service by McKnight,Julie (elle | she, her) (ECCC)  
(Unverified) 10:39 AM

Patrick Roberts, USFWS by Roberts, Patrick 10:39 AM

Liam Waters, Stellwagen Bank NMS by Liam Waters (Unverified) 10:40 AM

Katie Studholme - ECCC Wildlife Research Division by Studholme,Katharine (elle | she, her)  
(ECCC) (Unverified) 10:40 AM

Lyra Brennan, Mass Audubon Coastal Waterbird Program by Lyra Brennan (Unverified) 10:40  
AM

Pam Loring, USFWS by Loring, Pamela H 10:41 AM

Dean Demarest, USFWS, Southeast Region Mig Birds by Demarest, Dean 10:42 AM

Kyle d'Entremont, Memorial University of Newfoundland by D'entremont, Kyle James (Unverified)  
10:43 AM

Scott Hall, National Fish and Wildlife Foundation by Scott Hall (Unverified) 10:44 AM

Kocek, Alison R started recording to the cloud 10:45 AM

Lindsay Addison, Audubon North Carolina by Addison, Lindsay (Unverified) 10:45 AM

Emily Klein, Town of East Hampton by Emily Klein (Unverified) 10:46 AM

Janet Thibault. South Carolina DNR by Janet Thibault (Unverified) (External) 10:48 AM

Carmen Johnson, North Carolina WRC by Johnson, Carmen M (Unverified) 10:48 AM

Ricardo Zambrano, Florida Fish and Wildlife Conservation Commission by Zambrano, Ricardo  
(Unverified) 10:51 AM

Jean-François Rail, Canadian Wildlife Service, Quebec by Rail,Jean-François (ECCC)  
(Unverified) 10:57 AM

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## **World Seabird Union Updates (Juliet Lamb)**

agree, new logo is sharp by Patrick Jodice (Unverified) 10:44 AM

Did our new comms person do it? by Patrick Jodice (Unverified) 10:45 AM

I don't think she did it herself... by Juliet Lamb (Unverified) 10:45 AM

(In response to some people not seeing slides advance): Mine are advancing by Emily Runnells (Unverified) 10:51 AM

I see page 5 on my end by Griffin Archambault, ACLC 10:51 AM

I think it is working for most by Spiegel, Caleb 10:51 AM

Woman facepalming emoji by Avery-Gomm, Stephanie (elle | she, her) (ECCC) (Unverified) 10:51 AM

no worries! always good to have ppl speak up when something isn't working! by Kocek, Alison

Mine don't advance either Stephanie... maybe it's an ECCC thing by Rock, Jen (elle | she, her) (ECCC) (Unverified) 10:53 AM

<https://worldseabirdunion.org/get-involved/website-submission-form/> by Kocek, Alison R 10:54 AM

Link juliet.lamb@tnc.org by Juliet Lamb (Unverified) 10:54 AM

## **Working group updates - Community Science and Marine Bird Health Working Group**

Can you put the link at the bottom of this slide in the chat please? by Vagos, Kristina 11:06 AM

HPAI Response Resources:

<https://drive.google.com/drive/folders/1WCvHrRoV6MT4Nj8HvFgHfZ6R325LcvC-> by Kocek, Alison R 11:06 AM

[https://elist.tufts.edu/sympa/info/hpai\\_global\\_seabird\\_mortality\\_reporting](https://elist.tufts.edu/sympa/info/hpai_global_seabird_mortality_reporting) by Kocek, Alison R 11:06 AM

## **Working group updates - Forage Fish Working Group**

Awesome! by Spiegel, Caleb 11:23 AM

Thank you, Linda! by Tasha Gownaris (Unverified) 11:24 AM

## **Working group updates - Seabird Colonies and Adjacent Waters Working Group**



Sorry Ruth!!!! by Welch, Linda 11:25 AM

Hope all the critters are OK from the vet visit! by Liam Taylor (Unverified) (External) 11:31 AM

Thanks!! Still waiting for an update from the vet! by Welch, Linda 11:31 AM

### **Working group updates - Marine Spatial Planning**

(No chat)

### **11:45 AM - 12:45 PM Lunch Break**

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## **11 December 2024: AMBC-Roseate Tern Recover Group General Presentations Session (virtual) Chat**

### **Participants & Affiliations – Self-reported in CHAT:**

(NOTE: A complete list of participant names is available on the AMBC website in spreadsheet format)

Peter Paton, URI

Jeff Spendelow, Director CRTMP

Griffin Archambault, Adirondack Center for Loon Conservation

Mark Pokras, Tufts Univ, Cummings School of Vet Med

Luis Ramos Vazquez - USFWS - Gulf Restoration Office

Jill Tengeres, USFWS

Kris Vagos, Stewart B. McKinney NWR - Falkner Island

Brian Benedict, Maine Coastal Islands NWR

Heather Major, University of New Brunswick

Emily Runnells, University of Manitoba

Laura Williams, Maine Audubon

Helen Manning - USFWS, Rachel Carson NWR

Iman Pakzad, Virginia Tech

Asha Grewal, Acadia University

Johanna Harvey USGS/UMD and starting URI

Kevin Burgio, USFWS

Diann Prosser, USGS Eastern Ecological Science Center

Sam Miller- Rhode Island Division of Fish and Wildlife

Emily Klein, Town of East Hampton

Gemma Clucas, Cornell Lab of Ornithology

Alexis Saulnier, Acadia University

Sophia Brown, NYSDEC

Casey Manera, USFWS Rhode Island NWRC

Lyra Brennan, Mass Audubon Coastal Waterbird Program

Jamie Infanti, Mass Audubon Coastal Waterbird Program

Ruby Schweighardt, Acadia University

Taylor Ozimek, Florida Fish and Wildlife Conservation Commission.

Claire Reilly, North Carolina Wildlife Resources Commission

Liz Craig, Shoals Marine Lab (UNH/Cornell)

Kyle d'Entremont, Memorial University of Newfoundland

Clay Graham, USFWS

Julia Robinson Willmott, Normandeau Associates

Juliet Lamb, The Nature Conservancy

Alison Doran, Bureau of Ocean Energy Management

Gibson Rieger, University of Manitoba

Sarah Guitart, UMass Amherst/MassWildlife

Zoe Korpi, USFWS

Linda Welch, USFWS

Samantha Schurr, Town of East Hampton

Carina Gjerdrum, Canadian Wildlife Service

Ricardo Zambrano, Florida Fish and Wildlife Conservation Commission

Rose Caplan, Mass Audubon Coastal Waterbird Program

Collette Lauzau, Audubon Florida

Mael Glon, USFWS

Yvan Satge, Clemson University and South Carolina Cooperative Fish and Wildlife Research Unit

Dean Demarest, USFWS, Southeast Region Mig Birds

Eva Windhoffer, BOEM Atlantic Region

Hugh O'Connor, USFWS Long Island

Tami Pearl, NPS - Assateague Island National Seashore

Stephanie Koch, USFWS Eastern MA NWR Complex

Ruth Boettcher, VA Dept. of Wildlife Resources

Kate Williams, Biodiversity Research Institute (thanks for the reminder, Ruth!)

Melanie Kunkel, NEAFWA

Will Mackin, BirdsCaribbean

Zack Johnson, HiDef

Natasha Gownaris, Gettysburg College

Arliss Winship, NOAA NCCOS

Michelle Staudinger, University of Maine, Darling Marine Center

Liam Taylor, Bowdoin College & BSS Kent Island

Natalie Karouna-Renier, USGS Eastern Ecological Science Center

Evan Adams, Biodiversity Research Institute

Eileen McGourty, Monomoy NWR

Iain Stenhouse, Biodiversity Research Institute

Chelsea Sweeney, Virginia Tech

Christina "Kashi" Davis, NJFW

Ben Gluhosky, VA DWR

Patrick Jodice, USGS SC Cooperative Research Unit, CLemson Univ

Stephanie Avery-Gomm, Environment and Climate Change Canada

Jen Rock, Canadian Wildlife Service

Joan Walsh, American Museum of Natural History

Dave Fifield, Environment and Climate Change Canada

Liam Waters Stellwagen Bank NMS

Patrick Roberts, USFWS

Maureen Durkin, USFWS

Sydney Collins, Memorial University of Newfoundland

Ian L Jones, Biology Department, Memorial University, St. John's Newfoundland

Ruth Boettcher, VA Dept. of Wildlife Resources

Kate Williams, Biodiversity Research Institute (thanks for the reminder, Ruth!)

Melanie Kunkel, NEAFWA

Will Mackin, BirdsCaribbean

Zack Johnson, HiDef

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### **8:30-10:25a: Health, Disease and Threats Presentations**

Pearl, Tami L 8:55 AM: Hello! Is anyone familiar with SEANET? SEANET is a beached bird survey program for citizen scientists but can be used by field technicians. My supervisor, Lindsay Ries, used this protocol and database at Fire Island National Seashore to monitor seabird mortality. We are discussing using this at Assateague, as we do see gannet, shearwater, and loon mortality but haven't been consistently reporting or documenting it. SEANET (Seabird Ecological Assessment Network):  
<https://www.anecdata.org/projects/view/462>

Glon, Mael G 8:57 AM: I have to hop off for another call but will rejoin later this morning. Is this session being recorded?

Benedict, Brian 8:58 AM  
Is this session being recorded? Need to head to another meeting and would love to listen later. Thanks!

Kocek, Alison R 8:59 AM  
yes it is it. it will be shared on the AMBC website in a month or 2

Spiegel, Caleb (response to Pearl, Tami L) 8:59 AM  
Hi Tami. I am familiar with SEANET -- am one of the project moderators. We discussed this and other beached bird survey ideas during the Comm Sci and Marine Bird Health WG breakout yesterday... In particular we are in the process of trying to expand COASST methodologies to the east coast. Happy to discuss more offline [caleb\\_spiegel@fws.gov](mailto:caleb_spiegel@fws.gov)

Avery-Gomm, Stephanie (elle | she, her) (ECCC) 9:08 AM (in response to Diane Prosser presentation):  
This was such a great overview! Thank you! I was really interested to see the phylogenetic study your lab is working on, and to hear about the data gaps. As you know, in Canada we have a really excellent wild bird surveillance program for HPAI including live and dead birds

(including hunter shot birds). Have you been in touch with my federal colleagues in ECCC to discuss data sharing arrangements so you can include that data to tackle some of the data gaps you mentioned?

PAUL SPITZER 9:09 AM  
compare? DCCO vs. Gannet

William Mackin (External) 9:25 AM  
Are there reproductive or survival differences between higher and lower pfas colonies?  
Teflon tape for a PFAS study? LOL.

Karouna, Natalie K 9:25 AM  
Teflon tape for a PFAS study? LOL.

Patrick Jodice (External) 9:25 AM  
we've been using this backpack harness since the DWH oil spill w/ pretty good success.  
Over 200 birds tagged using it.  
Will - we only sample at one colony this year so we won't be able to address that

*NOTE: Iman Pakzad had technical issues and switched places w/ Liam Taylor.*

Mark Pokras 9:33 AM (response to Natalie Kaourna):  
My question at the PFAS talk was about possible effects on eggshells...in addition to altered shell thickness, it may also be important to look at any changes in the structure & number of microscopic pores in the shell thru which the embryos do gas exchange, some chemicals are thought to decrease porosity leading to death of developing embryos.  
Is that something you do? by

Patrick Jodice 9:34 AM:  
thank you Mark, we will pass that along to our collaborators at URI who have the eggs now.  
Amber "reminded" me that URI will measure thickness

Mark Pokras 9:34 AM (response to Pat Jodice):  
Not currently. Have had a couple of students work on this in the past.

Amber Litterer 9:35 AM (response to Mark P.): Mark, can I reach out to you by email?

Cindy Barreto, 9:36 AM:  
Not a real question, just excited about the results: I don't know if this is something you'll end up looking at in the future, but it would be cool to know the effects of PFAS in different embryo stages, as well as if the concentrations change in the eggshell when the embryo is more developed

Mark Pokras 9:38 AM (response to Amber Litterer):  
Amber, happy to chat by email...but do NOT want to claim huge expertise in this area.  
mark.pokras@tufts.edu

9:38 AM Spiegel, Caleb (referring to Liam Taylor's presentation):  
Paper is also available on the AMBC website Resources Tab

Agree Cindy -we're not doing that but it's ... by Patrick Jodice  
Patrick Jodice 9:38 AM (response to Cindy):  
Agree Cindy -we're not doing that but it's an interesting question.

Barreto, Cindy 12/11/2024 9:36 AM (response to Pat J):

This is a tough question and will not have one answer since there are thousands of PFAS and the answer will likely change depending on the fingerprint of PFAS in a particular sample.

Emily Runnells 9:49 AM (to Liam Taylor RE: presentation):

Liam Taylor, for magnitude, would it be possible to do something like a percent increase from baseline to estimate actual magnitude from the HPAI "event"? Maybe only for certain species?

Similar idea for distribution estimates? To know where you might be missing records?

Ian L Jones (Unverified) 9:51 AM (RE: Liam's presentation)

mortality estimates require an estimate of detection rate (best measured experimentally)  
IMHO

Lyons, Donald 9:54 AM (RE: Liam's presentation)

Liam, one advantage of participatory datasets is that there is a pre-event baseline; often the the most useful metrics are comparisons to the baseline. More robust analyses of beached bird survey data, for example, are typically framed this way. Is that possible with the iNat dataset?

Liam Taylor 9:54 AM (Liam response to Ian):

Yes, any adjustments would require both site- and species-specific models that adjust for effort, detection rate, etc. This is the irony about some of these data sources. Someone who needs to use iNaturalist alone for monitoring mortality (because they can't get comprehensive background data) is missing the data needed to build an adjustment model. (Liam responses to Don):

Definitely possible! I think one potential use is something that monitors baseline "live", with iNat API, and then flags unexpected upticks in locations / timing of dead birds. Where we add caution is that once an event starts, relative to that baseline, we still will make some important mistakes if we use iNat data alone. Also some difficulty in that different mortality events can mix and match and get muddled up with each other. For example, dead geese in eastern Canada, fall/winter 2023. This might also pop up on iNat, but we would want to differentiate from 2022. So "resetting" the baseline would require some nuance.

Patrick Jodice 10:10 AM (Response to Ian **live comment**):

Good points Ian - and carcass counts can be very different in warm water systems

William Mackin 10:12 AM

You could seed the environment with carcasses regularly and measure the detection rate in different areas. I volunteer starlings!

Avery-Gomm,Stephanie (elle | she, her) (ECCC) (Unverified) 10:13 AM: Haha

Ian L Jones (Unverified) 10:15 AM:

at least an oil spill mortality typically floats and washes up on a beach - in Newfoundland in 2022 HPAI seabird victims flew inland and died on ATV trails in the forest much more difficult to measure detection rate

Avery-Gomm,Stephanie (elle | she, her) (ECCC) (Unverified) 10:16 AM:

HPAI mortality is a real challenge, for sure.

Iain Stenhouse (External) 10:17 AM:

Look up papers by Francis Wiese.

Avery-Gomm,Stephanie (elle | she, her) (ECCC) (Unverified) 10:17 AM:

They are so important and valuable. It seems we were all on the back foot when it came to responding to the mortality events from HPAI. Or we have been. Hopefully Johanna's work and other work will help us mobilize faster in the future.  
great session - ty all!

Patrick Jodice (External) 10:17 AM: great session - ty all!

Avery-Gomm, Stephanie (elle | she, her) (ECCC) (Unverified) 10:18 AM:  
Thanks Ian! Great comments!

Ian L Jones 10:24 AM:  
regarding iNaturalist, this is a site mainly used by non-birders, so although it permits dead observations, most bird-interested people are using eBird (that discourages dead observations) - if eBird encouraged dead observations it could be an effective source of mortality event information. Personally, I stick dead observations on eBird and they haven't been blocked e.g., <https://ebird.org/checklist/S180945140>

Liam Taylor (External) 10:25 AM  
Great point about eBird! By far most of the biodiversity data online, especially with birds. Stephanie et al. have done some excellent internal work digging into the challenges of using that platform for mortality

Liam Taylor (External) 10:26 AM:  
Especially emphasizes how the structure of the platform itself influences the data people even bother to report

**\*\*BREAK\*\***

## **1025a – 11:55a – Foraging Ecology, Diet & Prey Presentations**

Gibson Rieger talk:

PAUL SPITZER (Unverified) 10:31 AM interspecies cueing to patchy food?

**Answered live**

Evan Adams (External) 10:37 AM

Gibson Rieger, do you think the prey surveys were effective in describing prey availability for these seabird species? Hydroacoustic surveys can't estimate densities near the surface and could be more biased for some species than others.

**Answered live**

Evan Adams (External)

Gibson Rieger, do you think the prey surveys were effective in describing prey availability for these seabird species? Hydroacoustic surveys can't estimate densities near the surface and could be more biased for some species than others.

Gibson Rieger (External)

Thanks for this question, Evan. Just to expand on my answer, we use an echosounder towed just below the water surface so we do get densities from ~1 m below the surface to the seabed. We're planning to look more at prey species soon, using different target strengths and our underwater video for ID.

Evan Adams (External)

Thanks for the great talk. I'll be curious to hear how this goes. In talking with my fish collaborators they don't seem to think they can measure densities in the top 3-5m depending

on the interference from the surface. So you can end up with gaps in understanding in those areas.

Emily Runnells

It does depend on the set-up and the equipment... and the "settings", and the weather...

Gibson Rieger

There is definitely boat/surface noise to work around, we also capture bird dive activity that has to be removed from our density and biomass estimates!

Evan Adams

Yep, rough seas can make it worse. But if you are getting good data close to the surface, I would be curious what those settings are.

Gail Davornen response: Because our transducer is not hull mounted, we can tow the system closer to the surface (which allows us to 'see' more of the water column). We have done extensive research on the prey species in the study area as well, so we know that most prey (capelin, sand lance, etc) are primarily greater than 10 m deep.

Ian L Jones (Unverified)

regarding inter-specific interactions of seabirds pursuing capelin in Atlantic Newfoundland, I'm seeing shearwaters (especially SOSH) as extreme competitors with puffins et c. off the SE end of the Avalon peninsula, including kleptoparasitism - I think this is a factor influencing breeding seabird ...

Gibson Rieger

Definitely something I want to dig further into. Shearwater species represented >1/2 of birds during our surveys!

Paul Spitzer talk: no chats

Ruby Schweighart talk:

Spendelow, Jeffrey A 11:07 AM Has the change in diet affected ROST productivity in the last two years at Country Island?

Alison Kocek 11:11 AM Ruby definitely reach out to Gemma Clucas and bring this up again tomorrow

Gemma Clucas (External) 11:11 AM Hey Ruby, excellent talk! I'll be presenting some Roseate tern chick diet results from colonies in and around the Gulf of Maine at the Waterbirds/PSG meeting in January. All that data is from fecal DNA. It would be great to chat!

Ruby Response: That's awesome to hear! I'd be happy to chat. I'll also be attending that meeting so I'll be able to see the presentation in person!

Guitart, Sarah R (FWE) (Unverified) 11:12 AM Great presentation, Ruby! My Master's thesis is really similar to yours, would you be interested/available to talk? I didn't catch your email

Ruby Response: Happy to chat! Feel free to send me an email  
rubyschweighardt@acadiau.ca

Reach out to Paula Shannon for Audubon data as she isn't on today:  
pshannon@audubon.org



Donald Lyons(External)11:17 AM Feel free to reach out to me via email regarding ROST observational chick diet data for colonies in Maine that Linda just mentioned: donald.lyons@audubon.org. Paula Shannon is out of the office for the rest of the month.

Michelle D Staudinger (External)11:17 AM for lots more about sand lance check out: <https://onlinelibrary.wiley.com/doi/full/10.1111/faf.12445>

Kocek, Alison R11:17 AM Thanks Don!

Jeffrey A Spendelow, 11:17 AM:  
Ruby: Talk to Keenan Yakola when he joins us tomorrow.

Ruby Schweighardt 11:18 AM Productivity has been low the past two years but it is difficult to delineate the cause of this as there has also been no predator control in the last two years which was a recent change, and nearly all the terns abandoned the site for the last two seasons.

Jen Rock (elle | she, her) (ECCC) (Unverified)11:18 AM It's (productivity) all challenging to tease out because we have observed: shifts in diets, change in nesting community (includes gulls, corvids) and, over the past 2-3 years, tern breeding success was basically zero. The latter also observed in SW Nova Scotia (200km+ away) - so not unique to this site. A big puzzle.

Elizabeth Craig (External)11:18 AM We also have been collecting Roseate Tern diet data from NH in recent years

Evan Adams talk:

Joan Walsh (External) 11:30 AM  
How do we close the uncertainty gap for the bird surveys? More surveys in the future?

Evan Adams response: The short answer is yes. Coverage is so variable from year to year that it makes it hard to be confident in changes at those scales. When you zoom out and look at changes across decades there are trends there, but, as we found, it's harder to drill down into the year by year changes.

Staudinger & Gownaris Talk

Ian Nisbet: Did you distinguish between Atlantic herring and river herring?

**Also Answered live**

Guitart, Sarah R (FWE) (Unverified) 12/11/2024 11:45 AM  
Hi Ian! For energetics analysis, all herring were grouped together

Elizabeth Craig (External)  
11:47 AM Tasha and Michelle -- We are collaborating with the Furey Lab at UNH on very similar analyses on dropped prey -- definitely worth connecting

Welch, Linda 11:48 AM  
Great job Tasha and Michelle!! Excited to see this data!

Yvan Satge (External) 11:49 AM  
It might be good to start looking at Menhaden in the northern part of their range, since they seem to be moving north and appearing in tern diet. Juliet Lamb did it for Gulf Mehaden in

the Gulf of Mexico (<https://www.int-res.com/abstracts/meps/v581/p149-164/>) but densities are likely different in the Atlantic menhaden, especially in the northeast.

**Answered live**

Liam Waters (Unverified) 11:49 AM

are there any thoughts on the difference between GOM and SNE sand lance? Is that possibly related to Calanus? or ?

Natasha Gownaris (External) 11:51 AM

We think they are possibly feeding on more offshore sandlance in the GOM - the 13C values were quite different!

Boettcher, Ruth (DWR) (Unverified) 11:52 AM

Is there any interest in getting dropped prey samples from the mid-Atlantic and southeast regions in the future and how time intensive is dropped prey collection?

**Yes. Answered live**

Liam Waters (Unverified)

11:53 AM interesting! so potentially A. dubius vs A. americanus?

Welch, Linda 11:53 12/11/2024

Liam - we did talk about trying to get some sand lance samples from SBNMS to look for regional differences. We can talk more about this!

Evan Adams (External) 11:53 AM

Our analysis suggests that menhaden are moving NE a little bit over the past 20 years. Butterfish are moving that direction much more. Herring is moving south, so menhaden could be becoming more important as other prey are leaving. Though note that we aren't talking about state waters with our work.

Natasha Gownaris (External) 11:54 AM

Please do let us know here if you want to be in touch about dropped prey at your colonies!

Patrick Jodice (External) 11:55 AM

We have some energy density data from menhaden in SC and the Gulf of Mexico

Guitart, Sarah R (FWE) (Unverified) 11:55 AM

In my experience, sand lance left out in the sun gets stolen regularly

Prosser, Diann J 11:55 AM

Great, Michelle. We would be happy to contribute from the northern/mid part of the Chesapeake Bay (Poplar Island, MD).

Kate Vonderbank (External) 11:56 AM

We were doing some experiments with sundrying capelin, and would recommend putting them in a hanging drying net to avoid flies! They can be a major issue!

Michelle D Staudinger (External) 11:57 AM

michelle.staudinger@maine.edu

Mark Pokras (Unverified) 11:57 AM

zoos & aquaria that purchase these sorts of fish to feed to their captive animals often do very detailed nutritional analyses...wonder if this could be another source of useful data? You might contact their professional group -- <https://nagonline.net>

Alexis Saulnier (0300706s) (Unverified) 11:58 AM

We'd also be interested in providing dropped prey samples from The Brothers in Nova Scotia.

Gail Davoren (External) 11:58 AM

We have been collecting sand lance and capelin (on boats and at the colony) on the northeast coast of Newfoundland and Kate Vonderbank has bombed a bunch for energy density (undergraduate thesis). Starting to prep the thesis for publication!

<https://mspace.lib.umanitoba.ca/items/19bb08fd-5bfe-4fe4-903e-d97d6d7269c9>

Energy Density of Capelin (*Mallotus villosus*) and Sand lance (*Ammodytes americanus* and *Ammodytes dubius*) during the summer in Coastal Newfoundland

Spawning capelin (*Mallotus villosus*) and non-spawning Atlantic sand lance (*Ammodytes americanus*, *A. dubius*) adults and juveniles are important forage fish species in coastal Newfoundland during Jul...

[mspace.lib.umanitoba.ca](https://mspace.lib.umanitoba.ca)

Welch, Linda 11:58 AM

We often just collect prey opportunistically, so it doesn't require any additional time. You just pick up items that you see while walking through the colony

Natasha Gownaris (External) 11:59 AM

It does mean we have about 50 butterfish from 2022 =)

Natasha Gownaris (External) 12:00 PM

[ngownaris@gmail.com](mailto:ngownaris@gmail.com)

## **12:45- 1:40p Colonial Waterbird Management & Monitoring**

### Yvan Stage Talk:

Evan Adams (External) 12:57 PM

Just FYI to this group, I'm a part of a coastal bird stewardship project where we have been working on standardizing colony surveys (among other things). Hopefully things will better standardized moving forward as we try to learn about how to better practice bird stewardship in the western GoMx.

<https://restoreactscienceprogram.noaa.gov/projects/optimizing-coastal-bird-stewardship>

Patrick Jodice (External) 12:59 PM Evan - we should probably do a walk through for GOMAMN at some point

Arliss Winship (NOAA NCCOS) (Unverified) 12:59 PM

Fantastic work, Yvan and colleagues. This looks like a really valuable resource. And the logo is awesome.

Evan Adams (External) 12:59 PM

I have to run for a meeting, but I'm happy to discuss more later this afternoon.

Evan Adams (External) 12:59 PM

I was thinking the same thing.

Arielle Santos (Unverified) 12:59 PM

Sorry if I missed this, but was the Atlas using Dashboards on ArcGIS?

**Answered live**

Demarest, Dean 1:09 PM

Yvan, good to see the Atlas crossing the finish line. And, Yes, great logo! How does the Atlas deal with different time periods for which survey data may have been collected? For example, how does a user know how "contemporary" the data are for a given site or area . . . or whether data from different sites represent more vs less recent information?

Yvan response: Thanks Dean. The breeding counts are always and only displayed in the three tables (one for each count unit). These table have species in rows, and years in columns. So users can see which years have data and which don't.

When selecting a single site, the "Site Summary Card" shows which years are available for that site.

Yvan Satge (External) 1:20 PM

When looking at the whole region or a selection of sites spanning several data providers, it's a bit more complex because not all data providers necessarily surveyed the same year. In this case, the count data provided in the tables should be considered an estimate. That's also why it's not possible to do trends analyses directly from the data shown in the Atlas: for this, one would have to contact data providers and get access to the raw data.

Ruth Boettcher talk:

Kocek, Alison R 1:19 PM

Please report any white PFR sightings to: vt.plover@gmail.com

Lyra Brennan (External) 1:19 PM

Thanks, Ruth! Really great to see some success after the destruction/loss of original breeding location.

Iain Stenhouse (External) 1:20 PM

Amazing story, Ruth. Well done!

Sweeney, Chelsea (External) 1:20 PM

great presentation Ruth!

Lyons, Donald (External) 1:20 PM

Thanks Ruth! Were any Common Terns banded and have there been any observations of dispersal to other colonies, particularly the raft in Maryland?

has context menu

Jeff Spendalow 1:45p

Ruth: It sounds like you have enough data on your ROYTs to run through the models that we developed for looking at age-at-first-breeding in ROSTs 20 years ago (Lebreton et al. 2003 Oikos).

Liam Taylor 1:54 (if this is of interest, I'd be happy to contribute to analyses as needed. My grad work was on life histories / prebreeding birds, so would be of major interest to me!)

Ruth Boettcher 1:46p

Hey Don, I believe Dave Brinker said he has seen banded commons on the rafts. Chelsea Sweeney is on and may be able give you more specifics.

Jeff Spendalow 1:49

Don/Ruth: We've also observed a few COTEs from the HR site show up at Poplar Island, Chesapeake Bay, MD. I read more than 440 COTE PFRs at Poplar this year.

Ruth Boettcher 1:57p

Hey Jeff, you are the resighting rock star and thanks for the citation!

Joan Walsh Talk:

Vagos, Kristina

Who did your wonderful tern drawings, Joan?

McKnight, Julie (elle | she, her) (ECCC) 1:34p

Thanks for making this project open to the public in Miradi Share!

Paul Spitzer 1:36p

Comments on prey base (at GGI)?

**Answered live**

Carolyn Mostello 1:37p

Kudos to Joan, Margaret, and Peter for taking on this beast of an island!

Kristina Vagos 1:42p

Yes, I would agree about ROST vs. COTE productivity - Falkner closely aligns with GGI in prey base

Juliet Lamb 1 minute ago

Only 2/15 GGI common terns were detected on Cape Cod and the Islands post-breeding, compared to 5/5 Roseates.

Grace Cormons 1:45p

Joan, in the late 90's Helen and I noted several years with virtually no sand lance brought in, but the Roseate population was stable; many mackerel were brought in. In about 2001 the Ammodytes came back

Joan Walsh 1:47p

Hi Grace! Yes, I remember her talking about that. The MACK year went well for the birds, and the AMMO came back. We have some great info on the prey from the fecal DNA now - I'll share with you Fascinating.

Joan Walsh 1:50p

The Ferguson Museum did a photo installation of old GGI

(<https://fergusonmuseum.org/2020/06/fort-michie-great-gull-island/>). Prepare to have your mind BLOWN!

Jeff Spendalow 1:50p

Joan, Have you ever had evidence of raccoons making it out to GGI?

Joan Walsh 1:52p

I think there is a story of two raccoons making it out there, maybe in the 1990s. The thought was they were dumped not that they swam. They were trapped and sent packing.

Grace Cormons 1:55p

Yes, that's right about the raccoons in the early 2000's. It's written up in the Linnaean Society Transactions, volume XI. We had no idea whether they were dumped or swam. They wrecked havoc for 3 years.

### **1:40-2:20 At-Sea Surveys**

#### Greg Forcey Talk

Alison Kocek 1:51p  
really neat you included insects Greg!

Liam Waters 1:58p  
Greg, did you look at wind direction as well? I would think that west or NW winds would bring more birds offshore than E winds. Also, did you record any evidence of mortality?  
**Answered live**

Juila Wilmott 2:00p  
Also saw peregrine taking YRWA and other sp.

Emily Runnels 1:59p  
Sorry if I missed this. Can you classify species/broader taxa of insects?  
**Answered live**

Stephanie Avery-Gomm 2:01p  
I would be interested to know if you saw any Monarch Butterflies!

Ruth Boettcher 2:02p  
Hey Greg, I know this isn't a bird question, but did you detect bats?

Greg Forcey 2:03p  
yes we had three bat species over the course of the three years: eastern red bat, silver-haired bat, and hoary bat were the species that we saw.

Liam Waters 2:03  
How well lit are the turbines at night? and were you seeing "entrapment" or bird/bats/insects altering behavior to spend more time in the swept zone than just passing through?

Greg Forcey 2:03  
Pretty minimal lighting unless people were out there working, which was not frequent as far as I know.

#### Chris Haney Talk:

Ian L. Jones 2:19p  
have Brown Boobies rejigged their energy budget by riding ships?

Will Mackin 2:20p  
We need to get data from cay sal

Evan Adams 2:20p  
@Chris, I'm happy to talk flight height stuff if you are headed down that road. We recently have been working through the various issues with those data and would be happy to collaborate.

Will Mackin 2:22p

Population could be increasing in caribbean. Our data are not good enough to detect it but people have been protecting them Would not explain them showing up in newfoundland

## **2:30 – 3:50p Offshore Wind Science & Mitigation**

### Julia Gulka Talk:

Ian L. Jones 2:43p

You can change light spectrum to orange for birds - evidence is inconclusive and contradictory

Kate Williams 2:45p

There are very specific FAA regulations for what light spectra, intensities, etc. you have to use on turbines. Generally the lighting on turbine nacelles are going to be red (in the US), which is based on studies of collisions at communications towers with different lighting regimes. But yes, the available literature is pretty contradictory about what light colors reduce attraction the most. We know white light is bad, but beyond that it gets a bit more confusing

Alison Kocek 2:46p

is the single black blade strategy being studied at all for offshore wind?

Ian L. Jones 2:48p

...so that cell in the chart would change from green to orange?

Julia Gulka 2:52p

Thanks Ian - the table is a bit of a simplification but we do go into some more detail in the manuscript (preprint available here:

<https://www.biorxiv.org/content/10.1101/2024.08.20.608845v1>)

### Kate Williams Talk:

Julia Gulka 2:57p

Link to survey for birds and offshore FAQ: <https://forms.office.com/r/9z78a5246X>

Alison Kocek 3:00p

[www.nyetwg.com/avian-displacement-guidance](http://www.nyetwg.com/avian-displacement-guidance)

Liam Waters 3:05p

We (SBNMS) have Great Shearwater tracking data that could be used as well. reach out if you want to chat! [Liam.waters@noaa.gov](mailto:Liam.waters@noaa.gov)

Evan Adams 3:05p

Here's my email if you are interested in Flight Height Working Group stuff.

[evan.adams@briwildlife.org](mailto:evan.adams@briwildlife.org)

Kate Williams 3:07p

If you have a moment, please fill out this (brief!) survey about what questions you tend to hear about offshore wind and birds: <https://forms.office.com/r/9z78a5246X>

Patrick Roberts 3:08p

For those interested in the RWSC Marine Bird Distribution Working Group, please feel free to reach out via email! [patrick\\_roberts@fws.gov](mailto:patrick_roberts@fws.gov)

David Mizrahi 3:13p

We usually see large concentrations of NOGA off the coast of southern NJ between Atlantic City and Cape May and near the mouth of DE Bay during the non -breeding season, when most migration has ended. Since 1995, our constant effort coastal waterbird migration survey along the southern NJ coast has enumerated 50-150K NOGA annually.

Stephanie Avery-Gomm Talk:

Pam Loring 3:16p

<https://www.biorxiv.org/content/10.1101/2024.08.20.608171v1>

Holly Goyert Talk:

Evan Adams 3:24p

If you want to check out stochLAB (the R package behind stochCRM), it's here: <https://hidef-aerial-surveying.github.io/stochLAB/>

Julia Willmott 3:39p

Do you intend to include species-movement wind-resources and account for whether blades are turning or not, in future versions of the model?

**Answered live**

Pam Loring 3:45p

We would probably need much more information on species, site, and temporal variability with respect to wind use

Pam Loring 3:47p

One thing to also consider is how weather conditions change when birds are underway with offshore movement, they may select conditions at take off that change en route

Evan Adams 3:39p

Right now we are combining two different studies on micro/meso rates. For NOGA, we'll need to start thinking about macroavoidance rates as well. That's on the to-do for Phase 3.

Pam Loring 3:41p

Thanks Joan! Always have my eye out for opportunities to fund that type (ROST migration GPS tracking) of important work

Alison Kocek 3:41p

Same

Joan Walsh 3:45p

We appreciate all the support from USFWS - we know how to get the data we need (finally), we have the international partners we need, and we know we need it to assess compensatory mitigation. We can't let seasons go by without getting data.  
has context menu

Pam Loring 3:57p

One thing to also consider is how weather conditions change when birds are underway with offshore movement, they may select conditions at take off that change en route

Julia Willmott 3:58p

That's true, especially on northbound migration. For southbound that would probably need to change within an hour or so prior to encountering most east coast developments



Iain Stenhouse 3:56

We also have good breeding population trend information for NOGAs as CWS have tracked that over decades.

Stephanie Avery-Gomm 3:57p

Yes! Also that. They are a great species to start with for the case study.

Pam Loring 3:57p

Shout out to the RWSC bird list which has lots of species information and gaps: [Bird and Bat Subcommittee - Bird List - All Documents](#)

Liam Waters 3:58p

What about non-marine birds that we know utilize the offshore environment? There's been some talk about shorebirds, but what about small migrant passerines? Obviously getting tracking info is hard, but there's been some.

Stephanie Avery-Gomm 3:58

Are you asking WRT SCRAM or the CEA case study?

Liam Waters 4:01p

Good question! I guess in this case wrt SCRAM, but also in general discussions with collision risk modeling efforts and cumulative effects, etc.

Kate Williams 4:03p

Per Liam's comment - passerine migration over the ocean feels like a pretty big data gap. We do have some tracking data, but not nearly enough to do the kinds of risk assessments we would like for this group, and we only pick them up incidentally on surveys. That is partly why the Normandeau camera study at the CVOW project is so interesting - we just don't have that many other sources of info for them offshore

### **3:50 – 4:35p Tracking Studies, Pt. 1**

Peter Paton Talk:

Kate Williams 4:10p

We saw this same inland flight pattern in the Project WOW data, where a proportion of GBBG were cutting over land to Delaware Bay or Chesapeake Bay. Very interesting

Kim Lato 4:13p

Project WOW data also shows GBBG offshore movements increase in Jan-April as they move back up north toward the breeding colonies

David Bigger 4:13p

Great talk Peter. It would be interesting to see how movements compare to the monthly predictions in MDAT models (Winship et al 2023).

Liam Taylor 4:16p

Any possibility of tagging prebreeding birds (like the occasional 3rd-cycle bird that visits the colony, if that happens down your way)? Or impossible to capture?

**Answered live**

Iain Stenhouse 4:18p

a baited noose carpet might work for non-breeders

Stephanie Avery-Gomm 4:19p

These are used in Newfoundland in the winter aren't they Ian Jones/Greg Robertson? Or maybe it's primarily HERG caught with these. I can't recall from my days on that wonderful island.

Iain Stenhouse 4:20p

Yup, I've used them with Greg for HERGs

Don Lyons 4:18p

Bait them to a large (raptor-sized) bownet?

Kim Lato 4:19p

I've tried baiting at the colony, and never had any luck but you never know

Liam Taylor 4:20p

Rob Ronconi and I tried spotlighting some prebreeding HERGs on Kent and it was a comical failure

Liam Waters 4:21

how bright was the moon? we found spotlighting to work only around the new moon with shearwaters

Liam Taylor 4:23p

It was pretty foggy, but definitely not new moon! We snuck down to the beach, tried to jack a bird, and 800 gulls flushed into the air, started screaming and flying right around our heads. The one we spotted just fluffed his feathers and flew off xD

Evan Adams 4:20p

Daniel Johnston did a comparison of GPS and altimeter derived flight heights on LBBGs. Here are his methods if you are interested:

<https://movementecologyjournal.biomedcentral.com/articles/10.1186/s40462-023-00431-z>

Alison Kocek 4:21p

Are near fledging chicks too light to put transmitters on? maybe too fast too?

#### Juliet Lamb Talk:

Stephanie Avery-Gomm 4:34p

Juliet Lamb (External) To merge my two very unrelated research interests (both of which involve NOGA), I want to ask - if you have serum for those birds would you like to know if they have HPAI antibodies (as an indication of prior exposure?)

**Juliet – yes (answered live)**

Diann Prosser 4:37p

Hi sorry - was in a multi-task! Great question Stephanie on the AIV sampling. We would be highly interested in this information be analyzed, no matter who takes it on.

Ian L. Jones 4:34p

great talk! regarding measured gannet movement... some seabirds vary a lot in where they go in winter, from one year to the next - how representative are these measurements likely to be compared to possible variation over a 20-40 year time span? are there plans to measure this over a long time span?

**Answered live**

Stephanie Avery-Gomm 4:41p

Paper of interest: <https://doi.org/10.1371/journal.pone.0230262>

David Bigger 4:41p

Great talk. Similar thought. It would be interesting to see how these movements compare to MDAT monthly predictions.

Evan Adams 4:43p

Wing compared the diving bird study birds with the previous version of the MDAT models and I think found them to be fairly similar. With Project WOW, we are interested in comparing the diving bird tags vs. the new tags as well. The precision is way different, but it would be interesting to see what might have changed.

Kate Williams 4:45p

David, we may end up looking at this for SCRAM - we'll need to think about how to incorporate survey data as well as tracking data into exposure models

Johanna Harvey 4:42p

Juliet Lamb What measures of stress and immune/overall health are you planning on looking at?

**Answered live**

David Mizrahi 4:43p

shorebirds also are much more mobile during the non-breeding season in northern South America, regularly moving between sites after a stationary period.

Ian L. Jones 4:44p

"It takes nine Crested Auklets to make a decision" Doug Forsell quote - never in recorded history has there been a more concise and pithy summary of a seabird's behaviour

## **12 December 2024: AMBC-ROST General Presentations (cont.) & ROST Recovery Group Meeting/Updates (virtual) Chat**

### **Participants & Affiliations – Self-reported in CHAT:**

(NOTE: A complete list of participant names is available on the AMBC website in spreadsheet format)

Caleb Spiegel, USFWS

Keenan Yakola - Oregon State University

Chantal MacLeod-Nolan, RSPB (UK Birdlife)

Margaret Rubega, University of Connecticut

Jill Tengeres, Maine Coastal Islands NWR/Mig Birds, USFWS

Patrick Roberts, USFWS

Eva Windhoffer, BOEM

Helen Manning - USFWS, Rachel Carson NWR

Zoe Korpi, USFWS

Collette Lauzau -Audubon Florida

Luis Ramos - USFWS Gulf Restoration Office

Steve Papa, USFWS-LIFO

Emily Runnells, University of Manitoba

Asha Grewal, Acadia University

Liz Craig, Shoals Marine Lab (UNH/Cornell)

Patty Szczys, Eastern CT State University

Shea Fee the trustees

Lyra Brennan, Mass Audubon Coastal Waterbird Program

Kate OBrien New England Field Office/Northeast Region not attending today

Claire Reilly, NC Wildlife Resources Commission

Holly Goyert, BRI

Carolyn Mostello, MassWildlife

Julia Gulka, BRI

Sophia Brown, NYSDEC

Don Lyons, National Audubon Society

Ben Gluhosky Virginia Department of Wildlife Resources

Samantha Schurr, Town of East Hampton

Griffin Archambault, Adirondack Center for Loon Conservation

Kyle d'Entremont, Memorial University of Newfoundland

Rachel Stevens, FWS New England Office

Jon Altman, Cape Lookout National Seashore, USNPS, Day 2 & 3

Taylor Ozimek, Florida Fish and Wildlife Conservation Commission

Rose Caplan, Mass Audubon Coastal Waterbird Program

Sean Kelly, USFWS Caribbean Ecological Services Field Office

Ruby Schweighardt, Acadia University

Jeff Spendelow, ROST Recovery Team Member and Director, CRTMP

Julie McKnight, ECCC-Canadian Wildlife Service

Jeff Sullivan, USGS EESC

Ricardo Zambrano, Florida Fish and Wildlife Conservation Commission

Ian Nisbet - independent researcher

Kris Vagos, Stewart B. McKinney NWR - Falkner Island (CT)

Olivia Smith, National Park Service

Diann Prosser, USGS Eastern Ecological Science Center

Ruth Boettcher, VA Dept. of Wildlife Resources

Casey Manera, USFWS - Rhode Island NWRC

Kate Robb, Town of Hempstead Dept. of Conservation and Waterways (NY)

Gavin Thomas, RSPB Ecologist and Roseate Tern species lead, Northern England.

Will Mackin, BirdsCaribbean and EPIC

Alison Doran, BOEM

Rafael Revoredo, Biologist with CEMAM and PhD Student at UFRN, Brazil

Grace Guo, Cornell Lab of Ornithology

Gemma Clucas, Cornell Lab of Ornithology

Liam Waters, SBNMS

Jen Rock, Canadian Wildlife Service

Brad Zitske, Maine Dept Inland Fisheries & Wildlife

Tasha Gownaris, Gettysburg College

Rose Kaforski, USFWS Region 5 (attended some talks 12/11 as well)

Linda Welch, USFWS

Mael Glon, USFWS

Lauren Lescure

Shelby Casas , Audubon NY

Meg Harrington, USFWS

Eileen McGourty, Monomoy NWR

Joan Walsh, American Museum of Natural History

Zack Johnson, HiDef Aerial Surveying

## **CHATS: 8:30 – Lunch (12:50p)**

### **General Presentations (Cont.)**

#### **Tracking Studies Pt. 2**

##### Keenan Yakola Talk:

Ian Nisbet 8:52a

Have you considered putting a base station in Puerto Rico or the Virgin Islands?

**Answered live**

Don Lyons 907a

If anyone has suggestions on data receiving base station locations in Puerto Rico or elsewhere in the Caribbean AND who could help install & monitor one please contact Keenan!

Julie McKnight 911a

I've contracted Gabriel Lugo in PR for surveys - I'll send you info, Keenan.

Jen Rock 908a

Suggest reaching out via the Birds Caribbean network.

Luis Ramos Vazquez 923a

Dr. Adrienne Tossas could help [agtossas@gmail.com](mailto:agtossas@gmail.com), We are looking for a project for a master student in Puerto Rico...

Also Yvan Satge [ysatge@g.clemson.edu](mailto:ysatge@g.clemson.edu) - From BirdsCaribbean Seabird Working Group

Juliet Lamb 913a

Peter and I have a proposal in (that I think Peter shared?) for some tagging in FL and USVI, collaborating with Yvan and Birds Caribbean, and we talked to folks in PR as well while putting that together. Did not manage to include them in that particular proposal because of match requirements, but at least if it comes through we should be able to get some base stations out in the Caribbean.

Steve Papa 853a

Keenan - Sorry if I missed it, but are the ROTEs flying above rotor heights

**Answered live**

Will Mackin 8:54a

Epic is working in the grenadines. There are a lot of roseates there. Also restoration work going on.

Holly Goyert 856a

What kind of restoration?

Will Mackin 905a

They are removing invasives from Battowia. Also building a local community of seabird conservation volunteers. Mostly fishermen who want the birds to come back. Natalia Collier is leading this.

Pam Loring Talk:

Holly Goyert 902a

Awesome sample size, Pam! I witness the tern superhighway every time I'm on the ferry between Falmouth and MV!

Diann Prosser 905a

Hi Keenan, Pam and tern marking group – thanks for sharing this information! We might have opportunity to mark COTE from the Ches Bay. We did some earlier work on testing out stretch-magic leg loops on COTE chicks (with communications with Don Lyons and others). If the WATT group is open to others, we'd like to join. Our current opp includes CTT units, re Pathtrack – looks like they use 166 frequency. MD DNR has a base station on Poplar Island. Overall, excited to help connect dots for the terns, and besides general ecology questions, we are interested in continuing to gain information on avian influenza in terns.

Keenan Yakola 907a

Hi Diann - shoot me an email and let's chat more about tag deployments at Poplar! (keenan.yakola@oregonstate.edu)

Jeff Spendalow 907a

Were the COTEs given PFRs so that they could be identified in the future after the GPS tags are removed?

**Answered live**

Alison Kocek 912a

Pam - sorry if I missed it - do your tags have accelerometers in them to maybe get at behaviors like foraging, etc? OR Keenan?

Pam Loring 913a

these tags don't have any extra sensors unfortunately, but with the high resolution GPS data I am interested in some of the HMM methods that Juliet presented on yesterday to model behavioral states

Keenan Yakola 913a

Not yet! However PathTracks expects to roll out tags with accelerometer within the next year or two.

John Herbert Talk:

Pam Loring 916a

amazing data in Galinhos!!!

Don Lyons 920a

Good point John that tagging in Brazil/other wintering areas allows collection of pre-breeding and early incubation movements that otherwise wouldn't be possible to obtain.

Jeff Spendalow 920a

Did any of the terns from Galinhos head further south down the coast of Brazil?

Joan Walsh 921a

I think only one wandered a significant distance south.

Don Lyons 923a

The hope is tagging at Pecan in October will be an opportunity to see potential travel further south. Birds captured in Feb/March seem unlikely to move further south during that year's remaining wintering period.

Sarah Guitart 922a

Sorry if I missed this, how long are the backpack tags expected to last?

Joan Walsh 923a

The crimping is the weak link - a few stayed on from March 1 - July.

Gavin Thomas 924a

Who funds all this excellent tagging work John? Offshore wind developers?

Joan Walsh 925a

We were funded by USFWS, in-kind support from e-NGOs, and volunteers. This was done with about \$50k.

Carolyn Mostello 925a

Excellent work and talk, John! thanks for highlighting the potential for mortality from hunting in S. America. Definitely needs to be investigated.

Ruth Boettcher 926a

Hey John, great talk and great to see you!

Jeff Spendalow 926a

Don/Keenan: Another thing we could do is pull info from the BBL on resights in the Caribbean of ROSTs with PFRs.

Don Lyons 928a

Great thought Jeff, thanks! Let's connect on that.

Keenan Yakola 930a

Yes, that would be helpful especially before our upcoming campaign in Brazil!

Alison Koczek 927a

beading companies never would have guessed their magic string would be used in such important ways

Julia Willmott 926a

Has any mortality monitoring been done at those terrestrial wind sites? Alarming seeing the planning area for OSW between the sites and ranging area.

John Herbert 931a

To my knowledge, no. I'd imagine it would be logistically difficult. Monitoring the powerlines for collisions takes a lot of effort.

Luis Ramos Vazquez 936a

Maybe with acoustic monitoring. Last year, I participate in a BirdsCaribbean webinar where someone used acoustic monitoring to detect bird collision with the powerlines.



Here is the webinar

<https://www.youtube.com/watch?v=HzkPbhlwpU&list=PLxFE1WIT5KHSVKKbYUdriegcrZptf9l8i&index=9&t=2789s>

Liz Craig Talk:

Ian Nisbet 943a

My experience trapping roseate terns at Bird Island was that birds trapped during incubation did not return to the nest for 1-2 hours, spent much of the rest of the day standing around doing nothing, and did not resume normal behavior until the next day. However, birds trapped during chick hatching (1 chick in the nest) returned to the nest and resumed normal behavior within 1/2 hour. TRAP ROSEATES ON CHICKS!

Jeff Spendalow 945a

Relative to Ian's comment, we trapped on both eggs and chicks at Falkner Island, Ct - see results reported in Jim Zingo's MSc. thesis.

Ricardo Zambrano 943a

Liz, sorry if I missed this, but were the roseate terns adults captured while on eggs or chicks?

**Answered live**

What time of the day?

**Answered live**

Varied by site (mostly afternoon)

Diann Prosser 944a

Nice work, Grace (et al)!

And here's the paper that Lis mentioned from the MD birds. If you have trouble accessing it, I'm happy to share directly, just email me at dprosser@usgs.gov

Buck, E. J., J. D. Sullivan, C. S. Teitelbaum, D. Brinker, P. C. McGowan, and D. J. Prosser. 2022. An evaluation of transmitter effects on adult and juvenile Common Terns using leg-loop harness attachments. *Journal of Field Ornithology* 93(4):3. URL: <https://doi.org/10.5751/JFO-00136-930403>

Juliet Lamb 947a

Have cited this in many permit applications!

Lyra Brennan 944a

did you say--I didn't quite catch it--that the other, nontagged ROST parent tended the nest during those long return times?

**Answered live**

(30 min range)

Grace Guo 946a

Just observationally from video footage we took immediately after trapping, the nontagged mates did return to tend the nest pretty soon after!

Chantal Macleod-Nolan 947a

Very interesting talks, great to hear about the tagging work and research into tag effects

Kris Vagos 949a

This data is so important. So glad that there seems to be a safe way to get tracking data from ROSTs. Thank you to all the researchers!

## Tracking Sessions – Q&A:

Alison Kocek 950a

this tracking data combined with project poop has the opportunity to answer so many questions

Ian Nisbet 950a

It is very important to get more precise information on times of flight, especially near wind turbines.... I meant heights of flight

Jeff Spendalow 950a

Do you think you can target tagging some Young-of-Prior-Year ROSTs in Brazil this winter? It would be great to find out exactly what the 1-yr-old birds are doing.

Rafael Revoredo 953a

We probably captured some first migration birds this september. So this could be a possibility!

Joan Walsh 953a

the challenge is getting the data back. They don't have a central place (colony) to return to - so its tough with only a very few tags in hand to gamble on a sub-adult.

Julie McKnight 952a

yes! we are looking to protect a couple key foraging areas based on tag data in NS and have used the data to insist on mitigations in response to a wharf project. [Spatial ecology of endangered roseate terns and foraging habitat suitability around a colony in the western North Atlantic](#)

Jeff Spendalow 959a

Julie: Can you send me a PDF of that paper?

Juliet Lamb 953a

Also (from a GGI perspective, at least) super interested in gathering multi-year data on variation in foraging effort/distribution across multiple years, to get at responses to interannual variation in oceanographic conditions

Alison Kocek 953a

might need some tagging on staging grounds? but same issue with getting data back i suppose

Luis Ramos Vazquez 955a

Also, replicate with other terns

Evan Adams 954a

There is some work going on in the UK now to try to get at more precise/accurate estimates of flight height. We are working with some of these folks in the Flight Height Working Group. There isn't a lot of information online on it yet, but there is a little: <https://naturalengland.blog.gov.uk/2024/10/24/to-the-rescue-understanding-flight-heights-for-seabird-conservation-and-offshore-wind-expansion/>

Ian Nisbet 956a

Roseate terns spend much more time under water than commons or Arctics.

Kate O'Brien 956a

Is there ROST data on nearshore, tidal river use of habitats for foraging or post fledging or post colony failure? Human manipulation of these areas for harbors, boating, aquaculture operations, etc. seem to be increasing. A smaller period of exposure but might be of interest for additional base stations?

**Answered live**

Liam Waters 956a

I don't want to distract from the tagging talk, but has there been any work on trying to make power lines less lethal? (Increasing visibility, etc)

Rafael Angelo Revoredo 957a

We have been working on that in Brazil. I will talk about at 3:20 PM

Joan Walsh 958a

We were funded to mark the powerlines with Power Line Sentry Bird Flight Diverters in Galinhos. Rafa will be talking about that project today at 3:20. The answer is YES, we marked the power distribution lines and reduced collisions.

Alison Kocek 1003a

it would be so neat to see when they (young of year) split off from their parents

## **COLONY UPDATES:**

### UK & Ireland:

Jeff Spendalow 1119a

Did you distribute the 2023 Newsletter?

Alison Kocek 1120a

Yes but I can again!

### Florida:

Sarah Guitart 1130a

Is the 7 mile bridge a pedestrian bridge?

Ricardo Zambrano 1132a

The new 7-mile bridge can be walked or biked but it is not a good idea due to a narrow shoulder and high speed cars.

### US Virgin Islands:

No chats

### Puerto Rico:

No chats

### Rachel Stevens Intro (ESA POC for Roseate Tern):

Julie McKnight 1138a

Jean-François Rail sent the table to Margaret on the 4<sup>th</sup> (for Quebec). One bird on a nest, possibly paired with COTE

Jen Rock 1139a

Country Island, NS can also re-send the data (I thought that was shared...)

Julie McKnight 1141a  
...sent to Rachel on 21-Nov

Jen Rock 1147a  
Data resent just now

Rachel Stevens 1157a  
A BIG thank you to the Canadian site(s) who have resent their numbers. I apologize for missing them in the presentation. Numbers will be included in the reports we are putting together for the ESA. Thank you!

Linda Welch 1139a  
Not sure what happened but I submitted info for Petit Manan and Metinic, saying we did not have any nesting pairs. We did not survey Connery Knub

Rahel Stevens 1201p  
Thank you so much for resending data - appreciated lots!

Steve Sinkevich 1142a  
Sorry, just hopped on the call. Where can we access this spread sheet?

Samantha Schurr 1143a  
At Gardiners Island (Cartwright pt.) we observed 50 ROST total. There breeding is unknown since we had to survey from a boat.

Rachel Stevens 1143a  
THANK YOU so very much. Appreciated!

Will Mackin 1144a  
Seems like we are missing a huge portion of the population in the west as we don't have data from the bahamas and most of the Caribbean.

Kris Vagos 1144  
Could this southern distribution be related to the sand lance (Gemma's presentation) in this area?

Atlantic Canada (N. Brother Island, NS):

Jeff Spendalow 1150a  
Only 2 HYs with PFRs from Nova Scotia seen on Cape Cod this year.

Liz Craig 1153a  
Shawn Craik -- how were you able to track/identify kleptoparasitic adults?

Shawn Craik 1157a  
Hey Liz. We've been identifying kleptoparasites through dedicated observations from our blinds. Fortunately most kleptoparasites are marked with PFRs, allowing us to track their behaviour throughout the season.

Jill Tengeres 1155a  
Did you test for paralytic shellfish poisoning in tern chicks? See here for descriptions of what it looks like in seabird chicks: [Paralytic shellfish toxins associated with Arctic Tern mortalities in Alaska - PubMed](#) and [Fatal paralytic shellfish poisoning in Kittlitz's Murrelet \(Brachyramphus brevirostris\) nestlings, Alaska, USA - PubMed](#)

Julie McKnight 1155a

yeah - it was suggested to the CWHC but they didn't think it was worth pursuing. We will meet with them again next week

Maine Coastal Islands:

No chats

New Hampshire:

Margaret Rubega 1206p

Liz, please do put links to papers in the chat!

Diann Prosser 1206p

Fantastic research, Liz. Please do put the links in the chat. Many topics of interest. FYI, we also have GPS locations for our nests and will be looking at different factors.

Liz Craig 1207p

Brousseau et al. 2024 paper on acoustic response of COTE to disturbance:

<https://doi.org/10.1121/10.0028204>

Laird et al 2024 paper on Hg body burden: <https://doi.org/10.1016/j.scitotenv.2024.174438>

MA - Buzzards Bay:

Diann Prosser 1216p

Thank you, Carolyn - we would like to connect further with you and those at Monomoy regarding BCNH control. The last 2y the BCNH breeding pop has skyrocketed on Poplar and we've been facing serious predation issues. We work with FWS CBFO as they are working on control to help COTE production on island. I have to jump off for another call in a bit, and plan to return, but wanted to generally reach out.

Julie McKnight 1217p

When you say interlocking re: the chevron boxes – can a chick get from one box to another at the ends? Is there a crawl space between boxes?

Carolyn Mostello 1219p

Yes. Chevrons are a big zigzagging tunnel when they are all connected. That is deliberate so birds can't get cornered as easily if a mink, etc. gets in there

Carolyn Mostello 1233p

Elizabeth Craig (External) ARTE winked out in Mass. a couple years ago.

MA - Monomoy Island:

Luis Ramos Vazquez 1220p

In Puerto Rico we have Yellow-crowned Night Heron and Boa constrictor eating LETE chicks and juveniles...

I have a scientific note under review about the first record of Boa constrictor predating LETE.

Sarah Guitart 1221p

That is such a rough (productivity) year!

Diann Prosser 1222p

Eileen and others - BCNH, FICR, some RUTU, RWBB, etc, goose trampling, potential deer, and unclear on snakes are things that we are looking at for Poplar Island... along with continued gull control/lines

Linda Welch 1226p

Since 2011, we've removed 577 garter snakes from our Metinic Island (Maine) tern colony. We sent snake poop to Gemma to try and get more information on their diet

Luis Ramos Vazquez 1227p

Did you check their stomach content?

Linda Welch 1229p

We didn't check their stomachs but we do find them trying to eat eggs, tern chicks, and songbird chicks. We are really worried about our storm-petrels that nest underground or in stone walls

Sarah Guitart 1229p

We had quite a few garter snakes in the Penikese colony this year, were there specific signs that indicated garter snake predation?

Luis Ramos Vazquez 1230p

After my thesis, the Cabo Rojo NWR implement a two-year Boa constrictor removal from their refuge (salt flat), in the first year they removed over 300 snakes.

Luis Ramos Vazquez 1233p

If you do you find feathers, you can send it to Dr. Carla Dove at the Feather lab in the Smithsonian National Museum.

She helped me with the feather identification,

Eileen McGourty 1233p

I have been wondering about snakes at Monomoy too..... and ghost crabs....

Luis Ramos Vazquez 1233p

Ghost crabs for sure

Lyra Brennan 1239p

we have ghost crabs at a lot of sites now but impact uncertain

Eileen McGourty 1225p

Monomoy prey data is draft but forgot to mention that sand lance was the primary prey brought into the colony at about 75%

MA – Nantucket (Norton Point):

No chats

Connecticut:

Jeff Spendalow 1233p

It is soooo hard to see the marker rock now at the waterline at Falkner Island.

Kris Vagos 1233p

I know

NY- Great Gull Island:

Jill Tengeres 1241

Wow!! Awesome job managing the wild radish!! I see that stuff in my nightmares...

Margaret Rubega 1246p

Thanks Jill. Big, multiple year effort by a committed team. We will have to keep it up going forward.

Linda Welch 1247p

In Maine, we've found wild radish flowering from June - November! So even if we do great at controlling it during the nesting season, the plant can still flower after we are gone

Margaret Rubega 1251p

Linda, it's that way on GGI as well; you have to keep at it in successive years to build up the perennial cover to suppress that later sprouting of the radish, and deplete the surface seed bank.

Grace Cormons 1249p

Margaret, thanks for the shout-out. I'm really glad that all that banding was worthwhile. It's great that so much resighting is being done, - a. Good luck dealing with the terrible erosion problem!

### **Colony Update Q&A/Discussion:**

Ian Nisbet 1243p

Did I understand from the lack of reports that little or no mortality of roseate terns attributable to HPAI was observed in the USA or Canada this year?

Joan Walsh 1243p

#### **Answered live**

(None at GGI

None at GGI, Faulkner)

Lyra Brennan 1244p

no HPAI detected at any Mass Audubon sites statewide

Liz Craig 1244p

No mortality in NH

Kris Vagos 1244p

No HPAI that we know about on Falkner

Eileen McGourty 1243p

No HPAI at Monomoy either

Julie McKnight 1245p

We had one positive HPAI Common Tern on North Brother Island, NS early in the season (pre-peak)

Gavin Thomas 1246p

No HPAI in seabirds on Coquet Island, UK this breeding season. But we have had cases of H5N5 in Great Black-backed Gulls this autumn so are remaining vigilant.

Joan Walsh 1246p

We were under severe HPAI protocols in Brazil as there had been an outbreak (not in terns) last winter. We were concerned with it getting into the terns on the wintering grounds, but it did not materialize.

Diann Prosser 1247p

HPAI comment -- we are so relieved at Poplar to not have had any HPAI yet. For folks up and down the flyway - is there any active surveillance going on or are folks mainly tracking any signs and trying to get them tested? And do folks have interest in active sampling? We are interested and are moving towards such hopefully at Poplar and more.

Jen Rock 1250p

HPAI also present at Country Island, NS - with a few cases of positive gulls (since 2022). None of the tern chicks tested have been positive for HPAI. So far, HPAI does not appear to explain the tern breeding failure at this site.

Sarah Guitart 1252p

I'm unfamiliar with the Caribbean ROST breeding population, are there non-U.S. monitored colonies?

Will Mackin 1253p

There are many. But little monitoring

Alison Kocek 1254p

If our Caribbean collaborators have any leads on that - we would love to include others working with the terns into our group conversation

Will Mackin 103p

I think the puerto rico and usvi colonies have the best data. We need to build a team to keep track of birds in the Bahamas, DR, Cuba, Jamaica, lesser antilles, etc. For now, Yvan Satge and I can communicate with others. I will look up info on the historical data.

Alison Kocek 104p

Thank you William - that would be great!



Banding locations & PFRs/MFRs from Alison (screen shot)

| Banding Location           | Overall number of individuals | Number of individuals: PFRs | Number of individuals: MFRs |
|----------------------------|-------------------------------|-----------------------------|-----------------------------|
| Falkner Island, CT         | 64                            | 58                          | 6                           |
| Great Gull Island, NY      | 1747                          | 1469                        | 278                         |
| S Monomoy Island, MA       | 3                             | 3                           | 0                           |
| Cuttyhunk Is, MA           | 1                             | 0                           | 1                           |
| Ram Island, MA             | 14                            | 0                           | 14                          |
| Bird Island, MA            | 23                            | 0                           | 23                          |
| White/Seavey Islands NH    | 15                            | 15                          | 0                           |
| Stratton Island - ME       | 5                             | 1                           | 1                           |
| Jenny Island - ME          | 2                             | 2                           | 0                           |
| Eastern Egg Rock - ME      | 6                             | 6                           | 0                           |
| Gull Island - Nova Scotia, | 1                             | 1                           | 0                           |
| The Brothers, Nova Scotia  | 4                             | 3                           | 1                           |

## CHATS: 1:40p - 5p

### Roseate Tern Colony Management & Monitoring Studies

Sarah Guitart 12/12/2024 1:40 PM

Really excited and already dreading how much longer this will make census take

Margaret Rubega 12/12/2024 2:00 PM

Sarah, Cindy is hoping to eventually use the results to build an app that would allow you to "shoot" a nest with your phone, and get an id with a certainty estimate. We also use a bulk of evidence approach: where it is PLUS what the shape is like PLUS what the spot pattern is like PLUS we look back after we leave the nest to see you settles on it after we walk on.

Lyons, Don 12/12/2024 2:00 PM

Cindy, I wonder if you have considered training a machine learning algorithm to address this question? Both the shape and speckling pattern are traits that seem like an AI (artificial intelligence) approach would be well suited for.

Shawn Craik (External) 12/12/2024 2:00 PM

Have you considered using a spectrophotometer to quantify egg colour?

Begin Reference, Sarah, Cindy is hoping to ... by Unknown User

Guitart, Sarah R (FWE) (Unverified)

12/12/2024 2:02 PM

That's really cool! And there will always be those tricky nests you just need to wait and see who lands (or doesn't land)

Papa, Steve 12/12/2024 2:03 PM

Are the methods to taking the pics of the nests on Great Gull outlined in a federal permit? I have to jump, but others from LIFO are on the call...

Ian Nisbet (Unverified) 12/12/2024 2:04 PM

You also need to look at shape characters such as 'pointedness' and there are several methods in the literature for assessing these shape characters.

Joan Walsh (External) 12/12/2024 2:05 PM

Once this is done it will be fascinating to see how many of the specimens in museums are mis-identified.

Rubega, Margaret (External) 12/12/2024 2:08 PM

a critical point of Cindy's methods is that she doesn't touch or move eggs in order to take pictures. She seeks out nests that appropriate pictures can be taken of without any physical disturbance.

Barreto, Cindy (External) 12/12/2024 2:08 PM

Sarah, Donald, Shawn, and Steve, I hope either Margaret or I responded to your questions. Happy to chat more!

William Mackin (External) 12/12/2024 2:09 PM

Thank you William - that would be great! Our database has 167 sites where they have nested. 23 are puerto rico and usvi. These data are old. The birds move between years and have little protection. We need a plan to monitor them.

Kocek, Alison R 12/12/2024 2:10 PM

that IS a lot of work!

.  
Begin Reference, Sarah, Donald, Shawn, and ... by Lyons, Don

Lyons, Don (External)

12/12/2024 2:10 PM

Barreto, Cindy

12/12/2024 2:08 PM

Thanks Cindy, great talk! If you have the chance, I do think it would be worthwhile just to know if AI can improve the accuracy. Someone else could develop the app later!

Kocek, Alison R 12/12/2024 2:12 PM

and could be worthwhile to see if you could get pics throughout the range - i know a big ask with permitting

Barreto, Cindy (External) 12/12/2024 2:13 PM

One of my next steps is also to measure for "pointedness" by measuring the length at the narrower portion of the egg. But I'm happy to take other measurements available in the literature and to suggestions. I'm planning to dig more on these egg characteristics - eggs are fascinating!

Joan Walsh (External) 12/12/2024 2:19 PM

Our BCNH's have so many COTE to eat they rarely get to the boxes.

Furtak, Sarah A 12/12/2024 2:21 PM

👏👏 Great presentation Jessica!

Rubega, Margaret (External) 12/12/2024 2:21 PM

Jess's data showing that the birds pick boxes with partially closed fronts suggest that the terns are paying attention to how exposed their chicks are to predators in open-fronted boxes.

Joan Walsh (External) 12/12/2024 2:22 PM:

Because ghosts are around at night... or in the rain

Kocek, Alison R 12/12/2024 2:23 PM:

we've used those cameras in tidal marshes for monitoring sparrow nests and they can handle salt water well

Spendelow, Jeffrey A 12/12/2024 2:25 PM:

Thanks!

Espinosa, Jessica (External) 12/12/2024 2:26 PM

Ghost cameras: <https://www.ghoststop.com/phasm-cam/>

Rubega, Margaret (External) 12/12/2024 2:29 PM

And, it has to be said, Jess worked her tail off to get those data -- it was hours every day to put out the days' contingent of cameras, retrieve them an hour later, download and review the video, recharge and then go again the next day.

Rubega, Margaret (External) 12/12/2024 2:29 PM:

Yes, and Cindy! Team effort!

Kocek, Alison R 12/12/2024 2:33 PM:

Hawaii also has a really big rat trap effort using CO2

Walsh, Joan 2:33 PM:

Wax bite baits.

Koch, Stephanie 12/12/2024 2:33 PM

yes please Linda!!!

McKnight, Julie (elle | she, her) (ECCC) (Unverified) 12/12/2024 2:33 PM:

[New partnership for NZ Autotraps adds firepower to hitting NZ's predator free target - Predator Free 2050 Limited : Predator Free 2050 Limited](#)

Juliet Lamb (External) 12/12/2024 2:34 PM:

The black-capped petrel team is using those for mongooses in the Dominican Republic

Ian Nisbet (Unverified) 12/12/2024 2:34 PM:

Rat eradication on islands usually requires second-generation rodenticides which pose serious risks to predatory birds. On Monomoy, rat control would best be done in winter when rats are most short of other food, but this would probably pose unacceptable risks to harriers and snowy owls.

Joan Walsh (External) 12/12/2024 2:34 PM:

A-24 Starter Trapping Kit: <https://goodnature.co/products/a24-starter-trapping-kit>

Gavin Thomas (External) 12/12/2024 2:35 PM:

Think these are the traps Linda is referring to: [Humane Rat Traps | The A24 Rat Trap | Goodnature Traps UK](#)

Arielle Santos (Guest) (Unverified) 12/12/2024 2:35 PM:

Seatuck is conducting a Long Island Mammal Survey: <https://limammalsurvey.org/how-to-participate/> We have sherman traps, pitfall traps, and trail cameras that we can potentially lend out for rat surveillance

Koch, Stephanie 12/12/2024 2:35 PM:

Also interested if anyone has a good lead on a company/person with dogs trained for rats. We know this is an effective technique in cities...having trouble getting a company to respond to us.

Juliet Lamb (External) 12/12/2024 2:36 PM

The petrel ones are NZ Auto Traps (nzautotraps.com - see Julie's link)

Ramos Vazquez, Luis A 12/12/2024 2:36 PM

Peanut butter is a great attractant for rats

Juliet Lamb (External) 12/12/2024 2:36 PM

<https://www.conservationdogscollective.org/> is currently doing skunk control on the Channel Islands

Barreto, Cindy (External) 12/12/2024 2:36 PM

I worked on an island once where they used Tomahawk traps to catch the rats as they couldn't use poison for many reasons - including identifying the rat's diet

Gavin Thomas (External) 12/12/2024 2:37 PM

Wrong side of the Atlantic but these guys are crucial in checking our seabird sites are rat free here in the UK. They have dogs trained to detect rats: [Biosecurity for LIFE - keeping the UK's seabirds safe](#)

Guitart, Sarah R (FWE) (Unverified) 12/12/2024 2:37 PM

On other islands I've worked on, it's peanut butter with a little bit of oatmeal

OBrien, Kate 12/12/2024 2:37 PM

Steph, there is someone here in s. Maine which has worked well for people I know who have had issues at farms. Remind me to see if I can get the contact from the feed store. There is also something called the ratinator or something like that which is a large live trap which captures multiple rats at once.

KHALSA, ATMA (Unverified) 12/12/2024 2:38 PM

While they only kill one rat at a time, the battery powered electric rat traps work well and don't use poison

Koch, Stephanie 12/12/2024 2:39 PM

would love the S maine contact

Gjerdrum,Carina (ECCC) (Unverified) 12/12/2024 2:40 PM (RE: Gavin Thomas-posted link)

We used these in Bermuda with great success. And they are also used in Hawaii - you can get them large enough to also "get" cats!

Mostello, Carolyn (FWE) (Unverified) 12/12/2024 2:40 PM

We always discover rats during the nesting season because we aren't there otherwise. Then immediate response is necessary.

Spendelow, Jeffrey A 12/12/2024 2:41 PM

Love your last one...

Mostello, Carolyn (FWE) (Unverified) 12/12/2024 2:44 PM

John Doe is always making us look bad by Unknown User

Banding presentation w/ USGS BBL

Ramos Vazquez, Luis A 12/12/2024 3:01 PM

How much experience do you need to have to apply for a band permit?

Mostello, Carolyn (FWE) (Unverified) 12/12/2024 3:01 PM

Jen, the new template is working well. Thanks!

Kocek, Alison R 12/12/2024 3:02 PM

I agree- the new template is so much better!

Barreto, Cindy (External) 12/12/2024 3:02 PM

I'll complement Luis's question by asking, how does the banding permit process work for foreigners?

Barreto, Cindy (External) 12/12/2024 3:08 PM

Is there a way for the person to confirm possible combinations of bands before formally reporting them? I'm asking because sometimes it's hard to fully read the band and we could minimize your work if we could have access to possible combinations before reporting random combinations

Rubega, Margaret (External) 12/12/2024 3:09 PM

You are welcome, y'all

Elizabeth Craig (External) 12/12/2024 3:09 PM

You mentioned getting information about non-USGS bands (e.g., from another country) -- what's the best way to communicate about these bands?

Barreto, Cindy (External) 12/12/2024 3:10 PM

If it's a Brazil band, you can report it to CEMAVE: <https://sna.ibama.gov.br/recuperacao.php>

they often respond pretty quick

Walker, Lauren E 12/12/2024 3:10 PM

jen also man's our foreign banding data and foreign banding scheme communications. so if you don't knwo the foreign contact, you can always email her here: [gs-b-pwrc\\_bbl\\_foreign\\_reports@usgs.gov](mailto:gs-b-pwrc_bbl_foreign_reports@usgs.gov)

Spendelow, Jeffrey A 12/12/2024 3:12 PM

Lindsay: You can use the mapping function when submitting an encounter.

Elizabeth Craig (External) 12/12/2024 3:14 PM

How do we report aux marker resights as recaptures (as opposed to encounters) if we don't know the federal band ID (i.e., we did not originally band the bird)?

Walker, Lauren E 12/12/2024 3:15 PM

i think in those cases, it makes the most sense to submit as encounters

Mckay, Jennifer L 12/12/2024 3:17 PM (RE: Luis Ramos Vazquez last posted question)

It depends on what you are doing. It does vary. But if you have experience and references that is the important part. If you have a more specific question regarding this please e-mail us.

Mckay, Jennifer L 12/12/2024 3:18 PM (RE: Cindy Barreto's last posted question)

A foreigner (not US citizen) banding within the US?

Walker, Lauren E 12/12/2024 3:18 PM (RE: Luis Ramos Vazquez last posted question)

we just want to be able to see that you've worked with the species (or a comparable species) and have experience with the techniques to capture and mark the bird. there is no hard rule like you must have banded x number of birds.

Barreto, Cindy (External) 12/12/2024 3:19 PM (RE: Jennifer Mckay's last question)

yes

Walker, Lauren E 12/12/2024 3:19 PM

if you are banding in the us, you would need to go through the same permitting process as a us citizen.

Mckay, Jennifer L 12/12/2024 3:19 PM (RE: Cindy Barreto's 3:18P posted questions)

We can provide the data we already have. You can request data from us at any point. There is a link on our website. Also, if you just send us an e-mail we might be able to provide you with that info. The problem lies between what we have authorized and what was actually put out and what was reported to us.

Kocek, Alison R 12/12/2024 3:20 PM

that rogue bird must have been an exciting resight Jeff!

Kocek, Alison R 12/12/2024 3:21 PM

That's a great logo Rafa!

Mckay, Jennifer L 12/12/2024 3:22 PM (RE: Elizabeth Criag's last posted question – 3:09 PM)

We just recently launched and tested a new internal way for us to easier take these data. If you have reports they should come to me because I am the foreign banding liaison and I am the one who hunts down and acquires the original banding data of foreign birds. There is

also a specific e-mail dropbox we have related to foreign banding birds. You can see it in the list of contacts on the Bander Portal.

Spendelow, Jeffrey A 12/12/2024 3:22 PM

Believe it or not, sometimes I really like to be proved wrong.

Walker, Lauren E 12/12/2024 3:22 PM

im gonna sign off now but if you have any other bird banding/permitting questions, feel free to reach out. my email is lewalker@usgs.gov

Kocek, Alison R 12/12/2024 3:22 PM

Thank you Lauren and Jen!

Mckay, Jennifer L 12/12/2024 3:22 PM (RE: Cindy Barreto's 3:10 question)

If it's a Brazil band, you can report it to CEMAVE: <https://sna.ibama.gov.br/recuperacao.php>  
And to us please. We share data with CEMAVE

Grace Cormons (Unverified) 12/12/2024 3:22 PM

Jeff, congratulations on such impressive resights!

Mckay, Jennifer L 12/12/2024 3:23 PM (RE: Elizabeth Craig's 3:14P question)

If you do not know the associated metal band number, you can contact us to acquire it so that you can submit as a recapture. As a lesser alternative, you can submit them as encounter via the portal as aux maker only birds.

Mckay, Jennifer L 12/12/2024 3:26 PM

I will also sign off now. But again if you have any question please feel free to contact me at [jmckay@usgs.gov](mailto:jmckay@usgs.gov) I promise I am not a monster.

Spendelow, Jeffrey A 12/12/2024 3:28 PM

I'll vouch for that, Jen.

Kelly, Sean P 12/12/2024 3:32 PM

I unfortunately have to sign off but thank you everyone for the great presentations and information. Please feel free to reach out to the USFWS Caribbean Ecological Services Field Office for any information or interest in collaborating on Roseate Tern research in Puerto Rico or US Virgin Islands.

Kocek, Alison R 12/12/2024 3:32 PM

Thanks for being here and sharing Sean!

#### Power-line markers in Brazil

Mostello, Carolyn (FWE) (Unverified) 12/12/2024 3:36 PM

Good mitigation for N. American wind companies

Holly Goyert (External) 12/12/2024 3:38 PM

This baseline monitoring data is so important for mitigation efforts because of the need to justify how many birds are "saved" through the proposed mitigation action to offset permitted take.

KHALSA, ATMA (Unverified) 12/12/2024 3:40 PM

Burying the lines also require approval of the grid regulator, which is a multi-year process.

Guitart, Sarah R (FWE) (Unverified) 12/12/2024 3:44 PM  
Thank you!

McKnight, Julie (elle | she, her) (ECCC) (Unverified) 12/12/2024 3:51 PM  
did you consider UV lighting that shines along the lines?  
**Answered live**

Joan Walsh (External)  
12/12/2024 3:56 PM

This has been an intense "incubator" project - we learned a lot, have more to do, and have a great team to keep these programs moving.

Rubega, Margaret (External) 12/12/2024 3:57 PM  
Incredibly valuable work, and great talk Rafa!!

Espinosa, Jessica (External) 12/12/2024 3:58 PM  
Awesome job, Rafa!!!

Kocek, Alison R 12/12/2024 3:58 PM  
A Roseate Tern made it on the mural behind Henry as well but Teams isn't letting me share a pic in the chat

Rubega, Margaret (External) 12/12/2024 4:01 PM  
that Saltmarsh Sparrow looks a little sinister peeking over his shoulder

McKnight, Julie (elle | she, her) (ECCC) (Unverified) 12/12/2024 4:03 PM  
US recovery plan does include objectives for Canada

Kocek, Alison R 12/12/2024 4:07 PM  
Would Birds of the World not share the breeding range portion of their map?

Spendelow, Jeffrey A 12/12/2024 4:08 PM  
I think the map should be as complete and accurate as possible with regard to breeding and wintering areas.

Kocek, Alison R  
12/12/2024 4:08 PM  
It has a polygon for Atlantic Canada breeding  
[https://www.allaboutbirds.org/guide/Roseate\\_Tern/maps-range](https://www.allaboutbirds.org/guide/Roseate_Tern/maps-range)

Phillips-Hagedorn, Melissa M 12/12/2024 4:09 PM  
I believe we started with ECOS for all species coverage in the US and then reached out to other organizations for ranges outside of the US.

Bigger, David 12/12/2024 4:10 PM  
Why not define the polygon based on telemetry data we have been seeing today  
1 Like reaction.  
Does that buffer sound reasonable to the tr... by Kocek, Alison R



Kocek, Alison R 12/12/2024 4:10 PM

Does that buffer sound reasonable to the tracking folks?

Mostello, Carolyn (FWE) (Unverified) 12/12/2024 4:10 PM

This paper extends the wintering area further

south: <https://www.seabirdgroup.org.uk/journals/seabird-27/seabird-27-1.pdf>

Stevens, Rachel A 2/12/2024 4:11 PM

I can send you the shp file I put together for colonies with nesting success for the last 3 years (Canada and US) if that's helpful. Obviously not the full breeding range but particularly important hot spots.

Stevens, Rachel A 12/12/2024 4:11 PM

I hope to share the colony spreadsheet data in mapping format eventually, if I am given permission.

Stevens, Rachel A 12/12/2024 4:14 PM

Will do!

McKnight, Julie (elle | she, her) (ECCC) (Unverified) 12/12/2024 4:14 PM

Band encounters too - talk with the BBO to get data

Joan Walsh (External) 12/12/2024 4:15 PM

Wikiaves is where a lot of Brazil birders report birds - not eBirds.

<https://www.wikiaves.com.br/>

Phillips-Hagedorn, Melissa M 12/12/2024 4:15 PM

Are there a couple of folks who would be willing to review the next draft of the map?

Bigger, David 12/12/2024 4:16 PM

There are also monthly distribution info from the MDAT models for roseate terns. [Data Explorer | Northeast Ocean Data Portal](#)

Guitart, Sarah R (FWE) (Unverified) 12/12/2024 4:16 PM

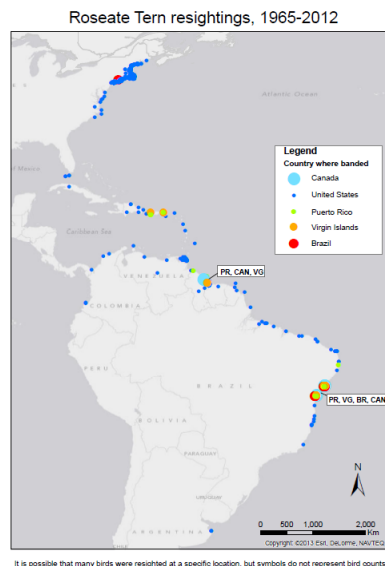
Apologies, is the purpose of this document to map where mitigation can occur? Additionally, if the end product can wait, would it be alright to wait until Team Track gets their data back from this upcoming season?

Rafael Ângelo Revorêdo (Convidado) (Unverified) 12/12/2024 4:17 PM

In Brazil you can filter in this official government website <https://cemave-sede.github.io/painel4/#%C3%A1reas-de-concentra%C3%A7%C3%A3o-de-aves-migrat%C3%B3rias>

McKnight, Julie (elle | she, her) (ECCC) (Unverified) 12/12/2024 4:20 PM

Banding data from a while ago



Grace Cormons (Unverified)

12/12/2024 4:24 PM

Major roosting areas in Bahia, BZ at Mangue Seco and south of Salvador.

Rubega, Margaret (External) 12/12/2024 4:31 PM

changes in prey abundance/type/avail applies to the Staging Grounds, too, under Climate warming of waters' effect on prey base

McKnight, Julie (elle | she, her) (ECCC) (Unverified) 12/12/2024 4:32 PM

we ran a IUCN Threat calculator for the eastern NA population in 2019 - I can share but needs updating with HPAI on the scene

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Add "sandmining" for beach nourishment as a major threat to ROSTs at staging areas around Cape Cope (if not elsewhere, too). This activity could impact prey species for the terns.

Rubega, Margaret (External) 12/12/2024 4:32 PM

Same for non-breeding grounds, where we have even less info about their feeding

Vagos, Kristina 12/12/2024 4:32 PM

What about storms like hurricanes to breeding grounds? We haven't had one in awhile but have had them in the past

Joan Walsh (External) 12/12/2024 4:33 PM

Anthro. disturbance on staging grounds

Vagos, Kristina 12/12/2024 4:34 PM

and maybe on breeding grounds if funding declines and we can't have crews out on the islands

Joan Walsh (External) 12/12/2024 4:34 PM

Anthro. take on non-breeding grounds

Rubega, Margaret (External) 12/12/2024 4:35 PM

This appears to already be listed in secondary Threats for non-breeding

Joan Walsh (External) 12/12/2024 4:36 PM

Non-breeding OSW development

Elizabeth Craig (External) 12/12/2024 4:36 PM

Have you reviewed threat assessment updates from state SWAPs? I know NH is in the process of updating their threat assessment

McKnight, Julie (elle | she, her) (ECCC) (Unverified) 12/12/2024 4:36 PM

exploratory oil off coastal Brazil ramping up too

Kocek, Alison R 12/12/2024 4:37 PM

coastal roads for wintering threat

Welch, Linda 12/12/2024 4:40 PM

for Maine Colonies - add mammalian predators (mink), SLR and increased storm surge, invasive plants

Elizabeth Craig (External) 12/12/2024 4:40 PM

NH has a list of 19 threats identified

Welch, Linda 12/12/2024 4:40 PM

Also for Maine - competition with laughing gulls

Vagos, Kristina 12/12/2024 4:41 PM

I like the form idea

Spendelow, Jeffrey A 12/12/2024 4:41 PM

Relative to Kris Vagos' comment about hurricanes, not that we can do much about them but some of the research we published years ago showed that Hurricane Bob in 1991 basically doubled adult mortality and almost wiped out the 1991 cohort of Young-of-the-Year.

Barreto, Cindy (External) 12/12/2024 4:41 PM Contaminants as a threat too (?)

Elizabeth Craig (External) 12/12/2024 4:41 PM

Threat of inconsistent/unsustainable funding: species impacts from cessation of management

Vagos, Kristina 12/12/2024 4:42 PM

Yes, we often forget about this but it is very important to have a stable source of funding

Espinosa, Jessica (External) 12/12/2024 4:47 PM

Thanks everyone, this is really helpful! I'll digest all of this and create a form to send out to colony managers about this for more feedback. Feel free to email me (jessica\_espinosa@fws.gov) and Rachel with any other comments you have!  
Barreto, Cindy (External) 12/12/2024 4:48 PM  
I'm selling my work here 🧐

Joan Walsh (External) 12/12/2024 4:49 PM  
Lack of Redundancy - can we restore any of the former colonies, establish colonies on Gardiniers or other places, can we get birds on to barges?

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maybe add genetic bottleneck(?)  
[Metapopulation connectivity retains genetic diversity following a historical bottleneck in a federally endangered seabird](#)

Vagos, Kristina 12/12/2024 4:51 PM  
we've seen that the northern colonies have a different prey base than the southern colonies - could this be because of sand lance and where it is?

Szczys, Patricia (Sustainability) (External) 12/12/2024 4:51 PM  
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Vagos, Kristina 12/12/2024 4:51 PM  
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McKnight, Julie (elle | she, her) (ECCC) (Unverified) 12/12/2024 4:52 PM  
and small colonies (at least our northern small colony) might have some interesting genes...

Welch, Linda 12/12/2024 4:52 PM  
Yes Carolyn! We are really worried about funding and our ability to manage our COTE / ARTE colonies

Szczys, Patricia (Sustainability) (External) 12/12/2024 4:52 PM  
I will follow up with some new findings - a collaboration with Liz Craig - and welcome any potential collaborations for genetic work

Rubega, Margaret (External) 12/12/2024 4:55 PM  
Patty, Cindy Barreto is working on assembling a genome for ROST, as well developing a non-invasive method for sampling for hybrids, and it would be great to put our heads together about genetic work in general. We'll email you to get together for a chat

Szczys, Patricia (Sustainability) (External) 12/12/2024 4:55 PM  
a reference genome will be awesome!

Barreto, Cindy (External) 12/12/2024 4:57 PM  
We collected some feather in Brazil in October. Hopefully we'll be able to extract DNA and see if we can ID their colonies 🧐

Stevens, Rachel A 12/12/2024 4:57 PM

YES, I am looking forward to learning from you all and especially working with Alison and Suzanne. Thanks for a great meeting.

### **Roseate Tern Non-breeding Studies**

Sean Kelly 332p

I unfortunately have to sign off but thank you everyone for the great presentations and information. Please feel free to reach out to the USFWS Caribbean Ecological Services Field Office for any information or interest in collaborating on Roseate Tern research in Puerto Rico or US Virgin Islands.

Jeff Spendalov brief update:

Alison Kocek 320p

that rogue bird must have been an exciting resight Jeff!

Grace Cormons 322p

Jeff, congratulations on such impressive resights!

Rafael Angelo Revoredo Talk:

Holly Goyert 338p

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Atma Khalsa 340p

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Julie McKnight 3:51p

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**Answered live**

(haven't tried it yet, but could be of interest)

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Jessica Espinosa 358p

Awesome job, Rafa!!!

Henry Woolley - RFI map:

Julie McKnight 403p

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Alison Kocek 407p

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It has a polygon for Atlantic Canada breeding

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Julie McKnight 4:20p

Banding data from a while ago - screenshot



Grace Cormons 424p

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Jessica Espinosa - Roseate Tern SSA:

Jessica\_espinosa@fws.gov & rachel\_stevens@fws.gov

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[Metapopulation connectivity retains genetic diversity following a historical bottleneck in a federally endangered seabird | Ornithological Applications | Oxford Academic](#)



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