

SUMMER WITH THE SEABIRDS

The life of a Maine Coastal Islands National Wildlife Refuge Island Researcher

Archive 2021 – May, June, July and August

Welcome!

Welcome to the Maine Coastal Islands National Wildlife Refuge Island Researcher blog! Here you'll find posts and multimedia projects created by island researchers spending the summer on the refuge's many islands. Please check back often for updates!

Archive for May, 2021

One Good Tern Deserves Another – Metinic

Posted in [Metinic 2021](#), [Uncategorized](#), tagged [Arctic Tern](#), [Courtship display](#), [Courtship feeding](#), [FOMCI](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Tern Nest](#) on May 31, 2021

With our first tern egg found just under a week ago, the nesting season is well underway on Metinic. Unfortunately, early season rain and wind events the past couple of days have prevented us from entering the colony to monitor the nests as much as we would like to. Lincoln, our third crew member, stepped right into the drearier side of the island, as he arrived right before the weather got bad. Nevertheless, it's nice to have a complete crew and we're looking forward to our next sunny laundry day.

While we stay hunkered down inside, it's amazing to see the terns flying back and forth to the colony while wind gusts are reaching almost 30 mph. It's becoming a common sight to see terns flying into the colony carrying a fish and with our first chick still weeks away, the fish are primarily being used for displays and for feeding females at their nest.



Arctic tern with a fish

While sitting in blinds when the weather was more agreeable, we enjoyed witnessing feeding courtship displays, which are performed early on in pair establishment. Males will initially show off their catch to potential mates. Eventually, once the pair is more established and the male proves himself worthy, the male will feed the female leading up to egg laying and during egg laying until the clutch is complete.

I never get tired of watching the entertaining feedings that are often accompanied by ground courtship displays. One of these displays, accurately named the “parade”, involves the male and female walking in circles around each other with wings drooped and tails raised.



Male Arctic tern with a fish displaying to a female.

Once the eggs are laid, we will see less courtship as the terns will spend most of their time rotating incubation duties. The eggs themselves are fascinating as well, ranging in color from buff to gray and

even sometimes bluish! Suitable nesting locations may be anything from gravel to a bed of shell fragments to a carefully formed bowl in the soil.



One of our first eggs – laid on bare soil with minimal nesting material

In the next few days, we hope that most of our terns will be settling down to start incubating and then it's just a matter of waiting a few weeks before we can expect our first chick.

-Emma

[‘Terning’ Up the Noise on Ship!](#)

Posted in [Ship Island 2021](#), [Uncategorized](#), tagged [MCINWR](#) on May 27, 2021

The past few days have been eerily quiet here on Ship Island, there have been very few terns around lately. Luckily things are looking up as the squeaks of the terns have returned to the island, in both artificial and natural ways...

Yesterday members of the refuge came out to the island with a solar powered sound system that plays the sounds of an active tern colony, along with tern decoys. We set up the decoys around the gravel plots, as well as on the beach, in hopes that the decoys and sound system will trick the terns into thinking there is already an active colony nesting on the island. If the terns see others on the island they will know it is safe to nest here.



Biologist Linda Welch and I filling tern decoys with sand to weigh them down.



The speaker playing sounds of the tern colony, with a decoy tern pair behind it.

At 5am this morning not only did I see beautiful streaks of color from the sunrise peaking through the clouds, but I saw an even better sight. The sky was filled with terns!! While they didn't stick around all day this was a huge improvement from the numbers we have been seeing.



Terns in the sky at 5am on 5/27/2021

Along with setting up the imposter tern colony yesterday, and enjoying some of the best cookies I have ever tasted brought out by Jim, the Small Craft Operator, made by his wife fresh that morning, we also ventured to the nearby Trumpet Island to look for any signs of predation. Because Trumpet is so close to Ship, having insight on Trumpet can help us get a better idea of what could be happening on Ship.



Suited up in a float coat and hip waders ready for the ride to Trumpet island located behind me.

While walking the perimeter of Trumpet Island we found many Herring Gull nests along with a Mallard nest with an Common Eider egg tucked inside. This was my first time getting to see a seabird nest and hold some of the eggs. Even though I've seen Herring Gulls my whole life (although only now learning there proper name) seeing their eggs, while very common, was really exciting for me. I never would have thought I would be excited to find the eggs of a bird who I have seen hundreds of times in parking lots and stealing food on the beach, but that's the thing about spending a summer with the seabirds, I'm surprised everyday.



Herring Gull nest with three eggs

Until next time! -Jorja H.

A Dose of 'Seality' – PMI

Posted in [Petit Manan Island 2021](#), tagged [FOMCI](#), [Maine Coastal Islands NWR](#), [marine debris](#), [MCINWR](#), [ocean plastics](#), [seabird conservation](#) on May 25, 2021

As we wait for the terns to start nesting to send our season into full swing, it seemed like the time to mention a few things we do early on before the seabirds start to arrive. After a long winter and with no full-time steward, PMI and many of the other islands in the Maine Coastal Islands Wildlife Refuge see a large amount of trash and debris wash ashore in between breeding seasons.

With all the recent discussion about the documentary 'Seaspiracy' (I haven't personally seen it yet) and having been posed the question during one of our daily talks with the Bar Harbor Puffin/Whale Watch cruise in what one takeaway I'd want people to know about helping these birds and islands was, my mind immediately went to the thing I'm far too accustomed to, marine debris.

Having worked very near to the North Pacific Gyre's ocean garbage patch and witnessing the amount of trash that washes onshore other islands and in the remains of young albatross chicks, I wasn't entirely shocked when we got to PMI and I saw the outer berm dotted with buoys, bottles, and even a familiar plastic toy telescope lying there at my feet. Though it's a new ocean, the issue of trash and debris is just as evident but thankfully here, the island is small enough and close enough that we can do something about it.



Pull cart used to haul debris in from the outer berm.

Without nests to monitor during our first days on island, Joe and I took a day to collect as much of the debris as possible which amounted to eight trash bags of plastic bottles, jugs, and buoys as well as seven stranded lobster pots and one giant bundle of derelict line and net. Collecting what's on the island isn't solely about enhancing the beauty or image of it but also because it helps to eliminate entrapment and entanglement hazards for the birds here. This was evident when Joe described having seen two gull

chicks late last season on nearby Green Island trapped inside an old lobster pot, with their parent also stuck attempting to try and feed them inside.



Collected debris at the boat ramp ready for removal (minus 5 additional bags in the shed).

You don't often fully realize the impacts these things have on the environment, especially seabirds, until you witness it firsthand. Aside from entrapment, ocean plastics are also commonly found in the diets of a vast number of seabirds worldwide so it's a multi-pronged attack from both what is on the island and out in the water.

With all this, I feel we can all help make a difference each in our own ways. Our impact can extend far beyond the length of our reach, and if there was one way to connect people's everyday actions to helping the birds here on PMI, reducing the use of single-use items and being smart about our recycling and

disposal of waste could stand near the forefront. Contributing to a local beach cleanup wouldn't be a bad option either.

It's hard and dirty work but cleaning up the island is part of our job and part of the privilege in having the opportunity to live with, study, and help protect these birds directly during the nesting season as we are fortunate to be able to do. It remains an ample dose of the reality that we still have a long way to go in conservation and wildlife ecology and just how important our efforts are in protecting and restoring the ocean every bit we possibly can for the seabirds and other wildlife that use them.

– PMI Island Supervisor, Ryan

Metinic Terns are Settling In

Posted in [Metinic 2021](#), tagged [Arctic Tern](#), [Common Terns](#), [FOMCI](#), [Leach's Storm-petrel](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Night Survey](#), [Tern Monitoring](#) on May 23, 2021

Greetings from Metinic. My name is Caitlin and I am one of the technicians here on the island this year. I have a degree in Wildlife and Fisheries Biology from Clemson University. While this is my first season working with seabirds, I have previously worked with wading birds, ducks, red-cockaded woodpeckers, and sea turtles in South Carolina and Florida. This week I finished my quarantine and was able to move into the cabin with Emma. Although it wasn't bad sleeping out in a tent, I won't miss the middle of the night wake ups from the Leach's Storm-Petrels that were burrowing and calling right by my head.

This past week, activity has been picking up in the colony. We are starting to see over a thousand terns, which have begun to stay later in the day. Each morning we take turns in the colony and get a front row seat to all the courtship displays, nest preparations, and territory disputes.



Banded arctic tern offering its partner a tasty fish.

We have also been lucky enough to spot two common terns that are sporting an orange flag on their leg. After some digging, Emma and I discovered that these birds were likely from a banding project in Argentina.



Common tern with orange flag on its left leg.

On Thursday, we assisted Refuge staff in conducting a Leach's storm-petrel census in the forest to try to learn more about their distribution and habitat preferences. We were able to locate several burrows but not at many as we hoped. Last night, Emma and I went out and located more potential burrows by playing calls and listening for a response.



Emma reaching her hand in the rock wall trying to locate a petrel in the burrow.

In other news, the killdeer nest that we discovered at the beginning of the season has hatched and we now have 3 baby killdeer running around the cove at the north end of the island.



Killdeer parent with 1 chick. The other 2 were hiding under the parent to stay out of the wind.

With the busy week ahead, hopefully the weather won't delay Lincoln too long.

Caitlin W.

First Week on Ship!

Posted in [Ship Island 2021](#), tagged [FOMCI](#), [garlic mustard](#), [Maine](#), [Maine Coastal Islands](#), [MCINWR](#), [seabird conservation](#), [Ship Island](#) on May 21, 2021

Hello from Ship Island! My name is Bethany Spiegel and I am the Island Supervisor on Ship Island this summer. This will be my second field season working in a seabird colony and I am very excited to be here! I have a degree in Biology as well as Veterinary Technology, and for the past several years I have worked primarily as a wildlife rehabilitator in many different locations including Hawai'i, Missouri, South Carolina, and the Florida Keys. I am definitely thrilled to have the opportunity to now work in Maine as I've been wanting to experience it for quite some time. Avian conservation is a passion of mine and I have a particular interest in both raptors and seabirds. I am working on getting more field experience before possibly pursuing my masters in the hopefully not too distant future!

The 2021 field season here on Ship is off to a great start. We have seen Common Terns showing up in greater numbers every day and each day they are spending more and more time checking out nesting locations. Lately we have also observed lots of courtship displays and are expecting to see the first egg of the season any day now. Besides taking time to get to know the island, our living quarters, and our equipment we've been using our current "downtime" to work on many of the less glamorous but no less important duties of island fieldwork which include removing invasive garlic mustard, weeding the gravel plots the terns will use as a nesting site, mowing, and monitoring for predators.

As an avid birder being on Ship has been an absolute delight. Though it is a relatively small island Ship still acts as a stopover for many migrating passerines. A stand of cherry trees directly behind our cabin seems to be a favorite spot for many of the migrants both for food and cover. This makes for easy viewing of many of the interesting species passing through. Some of the recent sightings include: Least Flycatcher, Chestnut-sided Warbler, and Yellow-rumped Warbler. There is also always something interesting to be seen on the water, so far seeing Black Guillemots (a life bird for me) and Long-tailed Ducks have been highlights. Between watching the Common Terns and taking time to enjoy the excellent birding opportunities on and around the island it seems there is almost no time I don't have my binoculars at hand.



Our home for the summer plus the cherry trees behind it.

Besides the birds getting to experience the natural beauty of the island has also been very cool. I am really looking forward to being here for the next three months to experience all the things Ship has to offer. Stay tuned for more updates from Jorja and I as the 2021 field season progresses!



View of Trumpet Island from Ship

First Week on Metinic!

Posted in [Metic 2021](#), [Uncategorized](#), tagged [FOMCI](#), [Maine Coastal Islands NWR](#), [marine debris](#), [MCINWR](#), [Migration](#), [seabirds](#), [Sheep](#), [Terns](#) on May 16, 2021

Greetings from Metinic! Another season has arrived and so far we're off to a good start. The terns are back, the sun is shining, and the field crew (or at least two-thirds of the field crew) is on the island.

My name is Emma and I'm excited to be kicking off this year's Metinic blog. I worked as a technician on Metinic last season and I loved it so much that I decided to re-tern this year (can't have too many tern puns!)

Caitlin and Lincoln are the other two members of the field crew this year and soon enough they will also be introducing themselves on the blog. Caitlin and I arrived on May 10th and Lincoln will be joining us in just over a week.



Emma (left) and Caitlin (right) straight off the boat!



First sight once on land: marine debris collected by the dedicated island sitter, Sara Williams, prior to our arrival.

The terns are routinely arriving on the island at dawn and they are already inspecting nesting locations and performing courtship displays. We expect that they will be staying later and later in the day throughout the next week and eventually spending the night.

While activity in the tern colony is still low, we've filled up our free time birding in the forest. The forest on Metinic is a fantastic stopover site for migrating songbirds. There are so many birds – we don't even know where to look! The other day, we were so focused on identifying warblers we didn't notice the trail of gear and layers we left as we followed the birds from tree to tree. While exploring the island, we have

also discovered a few early nesters including a female mallard with eight ducklings, a pair of Canada geese with five goslings, a killdeer nest, and two common eider nests.



Yellow Warbler

On Friday, we helped Refuge staff round-up the sheep (yes, there are approximately 120 sheep on the island!) and move them to the southern end where they will stay when the terns are here. The sheep help to control the vegetation from fall to spring but as you can imagine, the combination of tern eggs on the ground and hooved mammals roaming the fields is not an ideal situation.



One last family photo before the round-up.

We have also worked on some yard improvement projects, the most important being the hummingbird feeder we put up for the ruby-throated hummingbirds passing through. We already had a few visitors!



One of our first visitors

More updates to come soon as we continue to monitor the terns and prep the island for the season.

Until next time,

Emma

[Tern-ing to Another Season – PMI](#)

Posted in [Petit Manan Island 2021](#), [Uncategorized](#), tagged [FOMCI](#), [Maine Coastal Islands](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [migrants](#), [Petit Manan Island](#), [seabirds](#), [Wildlife](#) on May 16, 2021

Greetings from the 2021 Petit Manan Island crew! Myself, Ryan, as well as interns Joe and Gwendolyn are excited to be writing for those of you following along this summer as we get set for another seabird season here at the Maine Coastal Islands National Wildlife Refuge.

Joe and I arrived to the island May 10th (Gwendolyn is set to join us in about 10 days) after getting the sudden phone call that due to poor weather forecasted the day of our planned departure, we would be headed out a day early and needed to get to the office as quickly as possible. After packing two weeks' worth of food into plastic tote and loading our personal gear for the three-month season, we climbed aboard the boat and were under way for the 40-minute ride out to PMI where we got a brief overview before being left on our own.

Since it's still a little early for the seabirds to start nesting, Joe and I have been busy familiarizing ourselves (or mainly Joe answering my every question since he was here last year) with the island and prepping it for when the birds start breeding. Over the course of the week, we've set up observation blinds (small wooded huts to watch birds secretly from), picked up marine debris trash, collected and painted puffin burrow markers, and flagged Leach's storm petrel burrows while the vegetation is still low from over the winter. The island looks much different now than it will in the coming weeks when everything grows tall and the air gets thick with the constant swirl of gulls and terns.



Panoramic view of PMI from the western observation blind.

Though the puffins, razorbills, guillemots, and terns have occasionally started visiting the island to check potential nesting areas, the real excitement for us to this point has been a plethora of songbirds and migrants that hit the island last week giving us a little extra to search for. Growing up on the west coast, I've quickly accumulated over 30 life list species to include Veery, Gray Catbird, Baltimore Oriole, various warblers, American Oystercatchers, and the many seabirds we'll be studying all season long.

As we patiently await the arrival of more birds and our first eggs, we're doing our best to keep busy and enjoy the 'quiet' days but the anticipation and excitement grows more and more each day!



One of our first Common Terns landing on the island.

Crew introductions:

Ryan P. – As this year's Island Supervisor, I'm excited for the opportunity to FINALLY work in Maine as these islands have been on my bucket list since I started working with seabirds in 2012. I've worked on

various seabird studies over the years ranging from the Northwestern Hawaiian Islands to the California coast to as far away as New Zealand so though these are all new birds here on PMI for me, they each hold a similar spot in my heart to species I've worked with before. I look forward to learning their biological habits and ecological stories as I am a seabird nerd and passionate advocate for the conservation needs of island ecosystems and the birds that use them.

Joe C. – Hi all, Joe here, I'm currently a student at the University of Maine in Orono studying Wildlife Ecology and I'm thrilled to be returning to Petit Manan Island for the 2021 field season after working here in 2020, my first experience in the field. Last year was exciting and filled with rare bird sightings and memorable moments, and based on our findings so far, this season promises to be just as grand. Being from Midcoast Maine in Lincoln County, I feel right at home out here with the chugging of lobster boats, wild weather, and vibrant sea life. Looking forward to what this season has to offer!

The First Few Days on Ship!

Posted in [Uncategorized](#), tagged [Maine](#), [Maine Coast](#), [Maine Coastal Islands](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Sunsets](#) on May 15, 2021

My name is Jorja, and I am excited to be writing today from the beautiful Ship Island. We arrived on the island a few days ago, just in time to welcome the Terns as they have begun spending the morning circling the island, and even beginning to land in the gravel plots. This is my first field season, and my first time working with birds so I'm currently just trying to absorb as much as I can in preparation for the rest of the season.



I'm from the small town of Bowdoinham, Maine, a farming and arts community on Merrymeeting Bay. I just completed my first year as a wildlife ecology student with a concentration in fisheries at the University of Maine, and It's been really exciting to put what I learned in the classroom to the test. Every day my species identification has been improving and I'm loving getting to know the different wildlife on and around the island.

As the Terns seem to be wanting to spend more and more time on the island, we have been trying to prepare the gravel plots to make them as inviting as possible. The goal is for the Terns to nest safely there, rather than along the beach where a strong storm could wash them away. So what goes into making a nice inviting gravel plot? Lots, and lots, of weeding.



So far my favorite part of island life, is the beach and the sunsets. Each night the sky breaks into a dance of pinks and oranges across the harbor, it's absolutely breathtaking. There is also something amazing about the beach that makes it perfect for finding sand dollars, sea glass, and lots of periwinkle shells. I'm not sure if I will ever really get used to the beauty that is all around me.



Archive for June, 2021

Dinner Rush – PMI

Posted in [Petit Manan Island 2021](#), tagged [Arctic Tern](#), [Common Tern](#), [Fish](#), [FOMCI](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Petit Manan](#), [provisioning](#), [Tern chicks](#) on June 29, 2021

Just as you could expect an array of service and meal options at any local restaurant, much is the same during our tern provisioning watches here on PMI. Since the chicks started hatching, the three of us on island have been increasingly involved conducting diet surveys for the types and abundance of fish being brought back and fed to a small sample of nests within the colony.

Before eggs started hatching, each of us picked a cluster of five to seven nests to monitor in close view from one of the wooden observation blinds or the house window looking down onto the nearby lawn. Once the chicks hatched, the goal is to conduct three-hour stints in the blind, four times a week, observing the individual types of fish being fed to each given chick as well as the size of the prey item in comparison to the adult's upper bill and the rate at which the adults return with repeated feeds throughout that period.



Adult Arctic Tern feeding a small hake to a young nestling.

Because terns carry their prey whole crossways in their bill, you can readily ID and record the species of forage fish with a quick eye and keen observation skills. This allows wildlife refuge staff and other regional groups to gauge trends in relation to annual breeding success and to monitor and assess the general state of fisheries throughout the Gulf of Maine. Seabird diets act as a great indicator for the health and wellbeing of the nearby waters so if a lot of good, high quality fish like hake and herring are being incorporated into the chick diets, this usually might mean a better year for the birds and our own fisheries down the line when those small fish grow bigger.



Adult Common Tern flying into the provisioning plot with a decent sized herring.

As our crew has already seen, the variance between 'service' and dining options can vary greatly between any given day, nest, or area on the island. We have seen a lot of the good fish like big herring and an abundance of hake being flown in along with the occasional sand lance, pollock, and euphausiid shrimp as well as a few obscure moths as terns will occasionally feed on insects. As Joe and Gwendolyn have witnessed in their plots, times can get slow and have the somber flow of a fine dining atmosphere as adults may only bring a fish or two back throughout the entire monitoring period whereas I seem to have found the fast-food chain of dine and dash on the island with an astounding 69 feeds in a three-hour period. One nest alone had 10 feeds in an hour's time which undoubtedly ranks near the top of adult effort and what I am going to hope is one fat, healthy little chick.



Two Common Tern chicks adamantly expressing their want for fish.

Time will tell if the good trends we're seeing hold throughout the season and can give us any indication of the possible success for the chicks we're seeing. Till then, we'll continue enjoying the views, meals, and ruckus clamor of chicks begging for more while we sit in the confines of our observation boxes till the last chick fledges.

-PMI Supervisor, Ryan

Results Are In on Metinic

Posted in [Meticinic 2021](#), [Uncategorized](#), tagged [Arctic Tern](#), [FOMCI](#), [GOMSWG](#), [Gulf of Maine](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Meticinic Island](#), [Roseate Tern](#), [Tern Census](#) on June 21, 2021

Last Friday marked one of our most anticipated days on the island this summer: the annual Gulf of Maine Seabird Working Group (GOMSWG) survey. The GOMSWG survey is a one-day effort in June that gives us our estimate of nesting common and Arctic tern pairs on the island.

This year we had help from Refuge staff and a couple of committed volunteers who managed to keep a smile on their faces despite the onslaught of diving common terns. The sight of newly hatched tern chicks also helped keep spirits high with a whopping 70 counted during our survey!



All lined up for the census! From left to right: Austin, Lincoln, Kate, Eddy, Caitlin, and Michael. (Brian and Emma present but not pictured)



Our fuel for the GOMSWG survey: a box of gourmet donuts brought out by Eddy and Kate. Thank you!!!

After our correction factor was added to account for any nests we may have missed, our total number of nesting pairs on the island came to just over 1,100. This is approximately 100 more pairs than last year and a new record for Metinic Island! It is rewarding to know that restoration efforts through the years are making a difference and that the colony continues to expand. This is especially noteworthy for our population of Arctic terns, which is around 420 nesting pairs.

Arctic tern populations are showing a declining trend worldwide and the cause is unknown. As of 2020, the Gulf of Maine supported all Arctic tern pairs breeding in the lower 48 states, with the exception of one pair in New Hampshire. Monitoring and protecting Arctic tern populations in the Gulf of Maine is therefore exceedingly important, as there is still much unknown about threats facing the population. While the recent increase in nesting pairs on Metinic is a positive indication for the island's ability to support Arctic terns, it still leaves unanswered questions about declining numbers on other islands and the population on a global scale.



One of our first Arctic tern chicks on the island this year.

In other news, we had two sightings of roseate terns this weekend! Roseate terns are a federally endangered species and although they have been observed in small numbers in recent years, there is no breeding record on the island since one pair nested on Metinic in 2010. Needless to say, it was an exciting moment to find them loafing on the rocks among the other terns.

Yesterday, Caitlin was able to read the band on one of the adults and after a quick search we found that it was banded as a chick in 2019 on Eastern Egg Rock in Maine. It's fascinating to know that this bird is only two years-old and could be searching for potential nesting locations nearby.

So far, we have seen at least four different adult roseate terns on the island this year (including two banded adults seen earlier in the season) and although we haven't been able to confirm breeding yet, we are hopeful that this will be a possibility in the near future.



A banded adult roseate tern seen by Caitlin on June 20th. We later found out that this bird is 2 years-old and was banded on Eastern Egg Rock in Maine.

-Emma

Annual Island Census – PMI

Posted in [Petit Manan Island 2021](#), tagged [Common Eider](#), [Eggs](#), [FOMCI](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Petit Manan](#), [seabird census](#) on June 21, 2021

"Tern one!" "Got it!"

"Tern two, tern three!" "Alright, alright!"

If you happened to be on PMI for the better part of two days last week, these would be some of the loud audibles heard beckoning through the colony under the din of crashing waves and calls of terns flying overhead.

If you're asking why, last week marked the annual GOMSWG (Gulf of Maine Seabird Working Group) census aimed at counting the total number of nesting terns, Laughing Gulls, and Common Eiders on the island which requires its own unique set of monitoring parameters.

To efficiently and effectively record the total number of nests on PMI, after the peak of egg laying, those of us on island are joined by a number of helping hands to walk transect lines from one side of the island to the other, documenting each and every nest we come across. Because adult terns don't often stay at the nest as we approach, each nest is recorded for the number of eggs present (which helps give an estimate for average clutch size) and marked with a small popsicle stick to show it has been counted. Afterwards, a designated species ratio is applied to denote how many of the total nests we expect belong to Common or Artic Terns.



A 'Tern two' nest counted with a popsicle stick marker.

In a side-by-side line, the group walks down a 15-meter area calling out the nests they find to a data recorder who must then acknowledge they heard them back, hence the loud audibles. Once the group reaches the end of a grid line, we flip around the edge person and repeat the process in the opposite direction, dipping down again and again to place your sticks as you and your neighbor do your best not to double count the same nest.



Side-by-side transect line searching for Laughing Gulls within the tall grass area.

After the finely knit dance is finished, we are left with a better sense of the island's annual breeding numbers which after preliminary calculations, hovers right around 1350 nesting pairs of adult terns, a small uptick from the 1300 counted last year. These numbers help document seasonal trends for how the population may be growing or shrinking year-to-year and is a critical measure as part of adaptively managing the colony when further compared to similar counts for other islands within the Gulf of Maine. Additionally, we counted 36 Common Eider nests and were able to opportunistically band a handful of adult females for future identification efforts.



PMI interns Joe and Gwendolyn banding a female Common Eider during a shoreline census sweep.

With the census over, this pretty much marks the mid-point of our field season and now begins the rapid change from eggs to chicks as our efforts shift to documenting forage fish deliveries and seeing just how many of those 'Tern ones' and 'Tern Twos' turn into young fledglings in a few weeks of time.

– PMI Crew, Ryan

Stormy Events on Ship Island

Posted in [Ship Island 2021](#), tagged [Common Tern](#), [FOMCI](#), [Injured COTE](#), [Maine](#), [Maine Coastal Islands](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Ship Island](#) on June 20, 2021

Over this past week Jorja and I have been watching the Common Tern colony start to settle in and nest in earnest. The number of nests have been growing steadily each day and the birds have become much more faithful to their nests, returning quickly after they fly off. We have also seen a distinct uptick in their aggression towards intruders in the colony (namely, us). Even though this means getting dive-bombed and pooped on when we are working in the colony, we endure it happily as it is just another sign that things are heading in the right direction.

Yesterday, we had a disruption to our week of smooth sailing in the form of an unexpected microburst on the island. We were watching the storm clouds approach in the afternoon and were expecting some weather, but we were not prepared for the sudden and extreme storm when it hit. We watched from the cabin as the rain beat down and wind speeds ramped up to 57 mph. The rain then quickly turned to large pieces of hail. The whole thing only lasted for 5 to 10 minutes, then as quickly as it began, it ended and the sun was back out.



Hail covering the ground after the storm.

Somewhat stunned, we went out to survey the damage only to find one of our bird blinds had tipped over and smashed apart.



After looking at the blind we moved on to check out the gravel plots and beach where the Common Terns nest. At this point we began to realize that there was significant damage to the colony, many of the eggs had cracked and there were several injured adult Common Terns unable to fly on the ground. We quickly worked to corral and contain the injured birds. After letting them calm down for a bit we then assessed their injuries to see if any of them were going to need additional rehabilitation or if they were just wet and stunned.

Unfortunately, we found that most of them had fractures in their wings. We stabilized their fractures and made them as comfortable as we could for the evening.



Some of the stabilized COTE, spending the night until they could be transported off the island.

We are very grateful to Jim Fortier who came out this morning to pick up the injured terns and transport them to a licensed rehabilitation center for further care.



Jorja passing off some of our injured terns.

After a really intense afternoon and morning here on Ship I have been reflecting on how suddenly things can change and the impacts that this storm has had on the colony. We haven't fully assessed the damage to the eggs in the colony but hopefully the birds whose eggs have broken will renest and still be able to have a successful breeding season.

Until next time,

Bethany

A Productive Week on Metinic Island

Posted in [Meticin 2021](#), [Uncategorized](#), tagged [Arctic Tern](#), [Bird Banding](#), [Black Guillemot](#), [FOMCI](#), [Maine](#), [Maine Coastal Islands](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Meticin Island](#), [nesting](#), [seabird](#), [seabird chicks](#), [seabird nesting](#) on June 15, 2021

This week we began banding terns in the colony! Refuge staff joined us on the island to show us how to trap and band the terns, but now we have "spread our wings" and have been banding on our

own. So far, we have banded 38 Arctic Terns and 3 Common Terns. Our goal is to have banded 40 Arctic Terns and 20 Common Terns by the time the chicks begin to hatch. We stop trapping the adult terns once chicks start to hatch to limit the chicks' exposure to the elements. We expect to have little tern chicks to be running around any day now, because yesterday we found our first tern egg "pipping", meaning that the baby inside is starting to peck its way out!



A tern egg "pipping"



Lincoln banding an Arctic Tern



Emma taking the wing measurement of an Artic Tern

One of the most interesting things to me this past week has been entering our tern banding data into the Seabird Finder database. This database includes the band numbers and banding locations of all banded birds in the Gulf of Maine. What makes this so interesting to me is that when we trap a tern that has been previously banded, we can look up its band number in the database to see all of the places it has been trapped before. There was one tern we had that was banded here as a chick in 1998, which was two years before I was even born! It is awesome to be contributing to decades of data on these beautiful birds.

We have also begun to survey and mark Black Guillemot burrows for monitoring. These birds burrow in rocky crevices along the coasts of the island, which made finding the burrows challenging yet fun! Yesterday, we went along the west coast of Metinic to look for burrows that are in use this year. Active burrows were marked by painting a blue circle on the nearby rock so we can come back to monitor the burrows later in the season. We were able to check burrows that were used in previous years because the researchers before us had also marked their active burrows with paint. Many burrows that were used by guillemots in years past are active this year as well! In total, we found 36 active burrows on the west coast of the island, and we will be surveying the east coast of the island this week.



Caitlin (left) and Emma (right) searching a potential Black Guillemot burrow for eggs



A Black Guillemot we found incubating eggs in a burrow



Emma marking a Black Guillemot burrow with our signature white circle with blue border

Moving forward, we are excited for the chicks of the island to begin hatching and monitoring their growth. We will also be starting to monitor the diet of the terns to determine what their primary sources of food are this year, which is going to be very interesting, as terns can have a varied diet; insects, fish, marine invertebrates, and I have even seen them eat earthworms! There is a lot happening here on Metinic and a lot to look forward to!

~Lincoln

Productivity Plots and Puffballs – PMI

Posted in [Petit Manan Island 2021](#), tagged [burrow checks](#), [FOMCI](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Petit Manan](#), [Productivity Plot](#), [Puffins](#), [Terns](#) on June 14, 2021

Quite possibly the greatest thrill or most awed over aspect of the work we get to do here on PMI lies in getting to see newly hatched chicks in their ever-adorable first days' puffball state. There's something delicately special in seeing a chick so small and helpless before it quickly grows to become just like the adults we have been watching all these weeks now.

Over the past week, we've wrapped up active burrow sweeps for our puffin productivity monitoring in the various shoreline Alcids Zones as well as erecting small fenced-in plots for select clusters of tern nests to be able to start recording species, clutch size (# of eggs), and each egg's fate up to when the chick hatches. Each of these efforts will give us an indication of the overall breeding success for the island as we look for hatching rates and fledging percentages to compare to previous years.

If you've never searched for puffin burrows, to give you an accurate idea of what it is like, there's no better way to describe it than walking along the shoreline until you see a suitable hole between a few rocks, bending down to place your knee here, flipping upside down contorting your body there, craning an arm out to keep from hitting the ground, and then peering at every angle into the tunnel to see if you can see if there is an adult, egg, or nothing at all.



PMI interns Joe & Gwendolyn alongside US FWS staff assisting with grubbing for active puffin burrows.

With practice and a keen eye, you soon learn some of the tell-tale signs of what might make an active burrow such as fresh poop or stray nesting material but even still, it sometimes it takes the use of a long-necked burrow scope to reach far into the depths of the dark abyss to see what's inside. This is especially true for some of the multi-feet deep sod burrows a select number of puffins have dug long the grassy berm.

Thankfully with the terns, the search for nests isn't as hard but because each chick will be mobile and not contained to the confines of its own individual burrow, we have to put up small fences to keep the birds we are monitoring from running off or mixing with other nearby nests where we can't find them. After construction, each nest inside a plot is numbered and checked daily for the number of eggs to know when each egg hatches or eventually fails. As chicks hatch, we'll apply metal identification bands to know who's who and conduct growth measurements every other day to see how they're faring until they are old enough to fledge as a young juvenile heading off into the big wide world.

With the bulk of birds on eggs right now, the next few weeks will heavily consist of monitoring each of our plots and active burrows which adds to our ever-abundant excitement of being on PMI with days like yesterday finding our FIRST TERN CHICK marking another highlight for the year! Of course this also means the number of times getting pooped on is hitting that exponential curve upward so from now till late July, we'll be dawning our jackets and pulling the hoods on tight because a little 'rain' as they say ain't going to ruin our season's parade.

– PMI Island Supervisor, Ryan P.



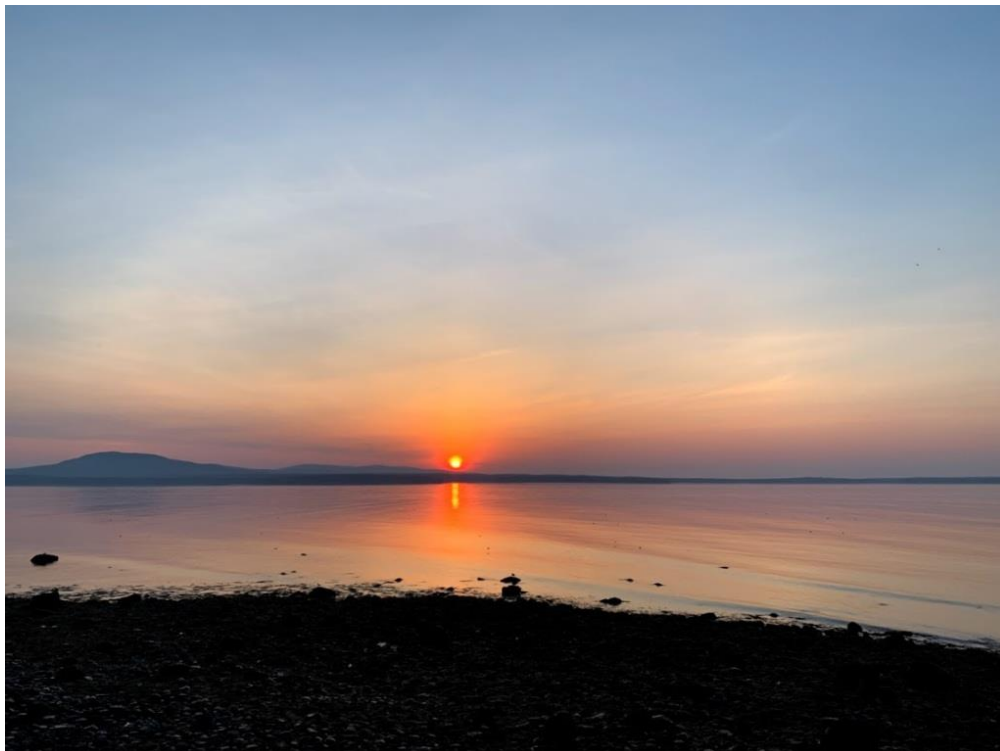
• The island's first day old tern chick hiding in the grass.

Brighter Days on Ship

Posted in Ship Island 2021, Uncategorized, tagged Common Tern, Maine, Maine Coastal Islands, MCINWR, seabirds, Ship Island on June 12, 2021



It has been a beautiful week on Ship Island. We've had mostly warm, sunny days and an increase in tern activity! I'm feeling very optimistic that finally the terns are ready to settle in for the season! It's been a long wait, but based off of what we have been seeing this week, I know it's well worth it.



This week we have really been focusing on getting a clear idea of the Common terns behavior, both during the day and throughout the night. I've been enjoying a 4am wake up to monitor the terns activity, while Bethany has been taking the late night shifts. We can now account for the terns typical patterns every hour of the day. Originally we had been seeing the terns leaving after 11pm, and arriving again around 5am, however they wouldn't stick around and would disperse throughout the day until arriving on the island again at 9pm. This behavior is pretty atypical of the terns in past seasons, basically a reverse of what we would hope to be seeing. Now, things seem to really be improving. The terns are staying all through the night, and while some do leave throughout the day, many are staying and being protective of there nests.

We are still keeping a close eye on the behavior of our terns, but we are supplementing some of our night watches with trail cameras. The cameras are set around the colony to capture their actions throughout the night, while also watching for any predators.



Another sign that our Common tern colony is progressing is the amount of nests and eggs we are seeing on the beach and in the gravel plots. Each day we are finding more eggs in nests and more nests in general. We have been trying to get an idea of how many nests we have, which can be extremely challenging as tern eggs camouflage into their surroundings exceptionally well.



As we come across nests, we have been marking them with an orange popsicle stick with the date and amount of eggs in the nest at that time noted on it. We then will turn the eggs up so we can monitor whether or not the nest is actively being tended. When we count the eggs the following day and come across an egg still turned up, we know it hasn't been visited by a tern in the last 24 hours. We can then mark that nest with a blue popsicle stick so we can keep track of activity. Yesterday I saw 63 nests in total. While we are anticipating and hoping for many more as the season continues, it's a big step for our little Ship Island!

Until next time,

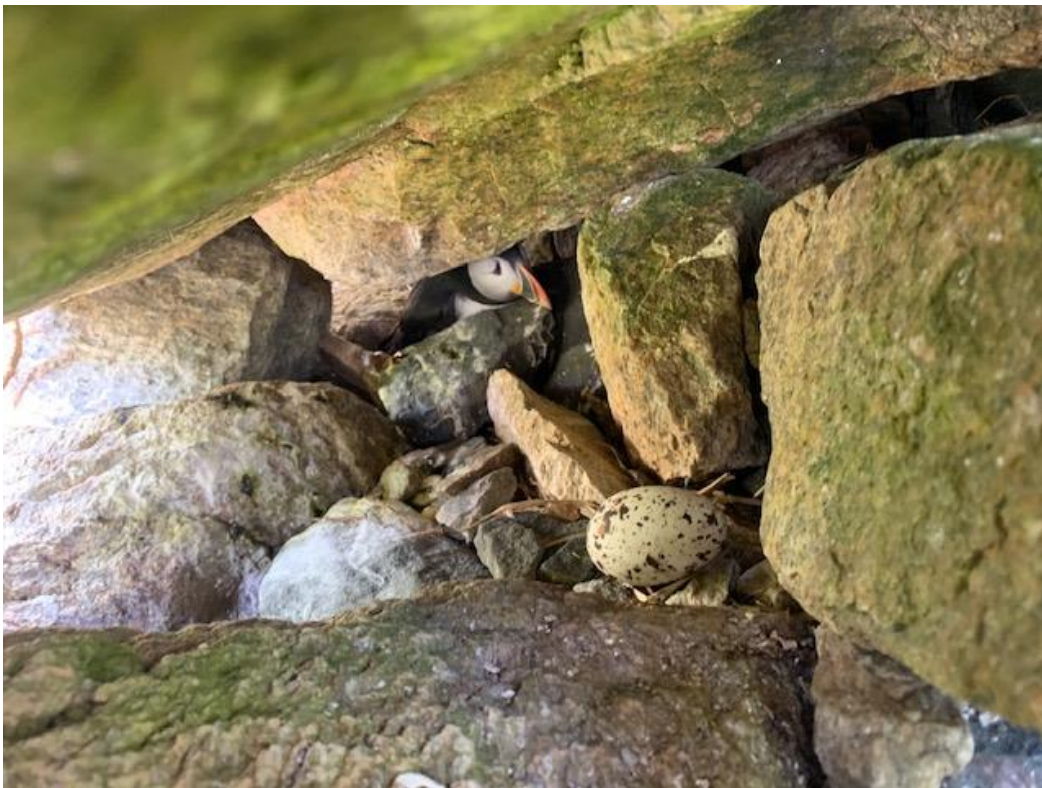
Jorja H.

Metinic Crew Assists With the Razorbill Survey on Matinicus Rock

Posted in Metinic 2021, Uncategorized, tagged Atlantic Puffin, audubon, Audubon society, bird survey, coastal islands, FOMCI, Maine, Maine Coastal Islands, Maine Coastal Islands NWR, Maine Islands, Matinicus Rock, MCINWR, Metinic Island, puffin, razorbill, seabird, USFWS on June 6, 2021

On June 3rd, we had the wonderful opportunity to go to Matinicus Rock to assist with surveying the Razorbill colony that lives on that island; an opportunity that only comes around every five years! Matinicus Rock is 26 miles off of the coast of Maine, making it the furthest island from land in the whole state.

When we arrived on Matinicus Rock, we were greeted not only by their welcoming staff, but also by a plethora of birds! Large groups of Razorbills, Common Murres, and Atlantic Puffins swam and flew all around us as we unloaded our gear for the day. We then divided and conquered, splitting into 3 teams we made our way to the survey location. It was quickly apparent to us from Metinic that Matinicus Rock is quite different from our own island. To get to the Razorbill colony, we were climbing over long stretches of very large rocks, very different from our grassland and forest habitat. As we got closer to the colony, Razorbills and Puffins alike began to flush from the rocky crevices that they call home. It was nothing short of impressive watching hundreds of birds fly out from a previously empty stretch of rocks. Once most of the birds had flushed, we began our survey.



An Atlantic Puffin in a rocky crevice, along with a Razorbill Egg. Photograph by Caitlin Walker

The goal of our survey was to find Razorbill eggs and record their locations. To do this, we had to crawl into the dark rock crevices where the birds nest and look around with flash lights to locate eggs. One time I had crawled downwards into a large crevice and accidentally crashed a family reunion; when I shined my flashlight, four Razorbills were looking back at me! Luckily, they were very hospitable hosts and did not mind me peeking around for eggs. It was a great day and it was nice to meet the Matinicus Rock technicians as well as the workers from Project Puffin.



Razorbills in a rock crevice. Photograph by Caitlin Walker

Until next time!,

-Lincoln



Our crew on Matinicus Rock! From left to right: Emma, Lincoln, and Caitlin. Photograph by Eddy Edwards

Waiting for a ‘Tern’ of Events

Posted in [Ship Island 2021](#), tagged [Browntailed Moth](#), [Common Tern](#), [FOMCI](#), [Maine](#), [Maine Coastal Islands](#)

[NWR](#), [MCINWR](#), [Ship Island](#) on June 4, 2021

This past week on Ship has been an exercise in patience and observation. We had high hopes that the tern decoys and audio attraction which were deployed on Ship the previous week would do the trick in getting this colony more settled. Alas, this has not been the case!

Due to this we have spent the week continuing to try to solve the riddle of where our terns are and what might be causing them to not commit to the island. Primarily this has meant being observant for any and all signs of predation or predators on the island which may give us clues as to why the colony is less present than they should be. In addition to keeping a close eye on things during the day we have also been doing late night and early morning stints watching the terns to see if it can provide us with any more information as to what is going on.

Yesterday, with refuge staff, we visited Three Bush Island to see if some of our missing Common Terns might be found there as many have relocated to this island in past seasons. Unfortunately, while there was a small number of Common Terns on the island and approximately 40 scrapes (tern nests) found, it was not enough to account for the numbers we are missing on Ship.



Three Bush Island

For now, the mystery continues as our observations so far have not pointed to one specific thing that would cause the behavior we have been witnessing. Of course, it is also possible that the colony may just be off to a late start this year. Though the beginning of the season here on Ship has not looked exactly like previous field seasons there is still reason to believe based on previous seasons that we might yet see this colony establish itself mid-June.

In the meantime, we are continuing with the removal of invasive garlic mustard as well as the removal of another invasive species, browntailed moth caterpillars. Though refuge staff were able to remove a sizeable portion of the browntailed moth larvae before the season started, it is proving to be a bit more difficult to be fully rid of them. The larvae are now caterpillars, which is the stage that is most problematic for people. This is because the tiny hairs on the caterpillars become airborne and can cause skin and respiratory irritation to humans. So, as you can imagine we are eager to be rid of them. Besides manual removal of the tree limbs that we find them in, we have also discovered that burning them with a flamethrower has been extremely effective!



One of many browntailed moth caterpillars on the island



Jim Fortier, refuge staff, taking care of business with the flamethrower.

Until next time, Bethany

Cozy Comforts and Flying into Full Swing – PMI

Posted in [Petit Manan Island 2021](#), tagged [FOMCI](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [PMI](#), [rain and fog](#), [seabirds](#), [Terns](#) on June 1, 2021

On seabird ecology projects, a standard work schedule is a rather uncommon thing as you always have to adapt and encapsulate the bulk of your work into the segment of time when all the birds happen to be nesting. It often means strange hours like pre-dawn starts, night shifts, and even working seven days a week when things are at their peak. It's the type of commitment you make in choosing to come work on an island like PMI but it certainly comes with reward and the occasional downtime.

These islands and seabird colonies are special places to live within so you quickly find yourself not wanting to miss anything because you only get a few chances to see certain events before the birds migrate off around the world when the season ends. As much as we might want to always be out in the field watching and working, there are times Mother Nature schedules a break against our will such as the day of rain and thick fog we stayed inside for over Memorial Day.

As we sat within the small space heated by the house's woodstove, we could barely make out the floating figures of birds within the veil of fog and beyond the rain drops whipping upon the window panes. On days like this you get to relax and take it slow and now that our field team is at full force with the arrival of Gwendolyn, our second intern for the summer, it gave us the chance to really start getting to know one another as we cycled through topic after topic to make the time pass by.

The day off couldn't come at a better time either as in good news, the terns have started nesting and the number of nests and eggs increases each day. This means with the rise of the sun today, the fast pace blitz of all our studies will be hitting full swing as we aim to complete our species ratio counts, set up and start tern productivity plots, check and mark puffin burrows, and much more because before we know it, chicks will be hatching and our time on PMI will already be coming to an end. The excitement from waiting has grown enough that we couldn't be more ready for the moment to start and we can't wait to see what the rest of this season holds for the three of us!



2021 PMI Crew – Gwendolyn, Joe, & Ryan

Greetings from Gwendolyn: Hello friends, I am Gwendolyn and I am from Annapolis, Maryland. I currently study at the University of Maryland, aiming to receive a degree in Environmental Science and Policy focusing in Wildlife Ecology and Management. I originally began my quest searching for seabirds, getting to band them, and dealing with ArcGIS maps at Patuxent Wildlife Refuge in Maryland. In this opportunity on Petit Manan, I look forward to being with such experienced people. Their knowledge of various seabirds and other types of birds will help me immensely throughout this internship. It is a great change coming up to Maine and I look forward to a superb season. I cannot wait to get hands on experience with terns, razorbills, eiders, puffins, and so many other shorebird species!

Archive for July, 2021

A Successful Season on Metinic

Posted in [Meticin 2021](#), [Uncategorized](#), tagged [FOMCI](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Meticin Island](#) on July 31, 2021

I'm writing this final post back on the mainland and though I can't complain about having running water and other amenities that island life lacks, I can't help but feel nostalgic knowing that the seabird season on Metinic has come to end.

On Thursday morning, Caitlin, Lincoln, and I woke early to catch our last sunrise on Metinic Island and it was one of the best we've had this season, with streaks of pink and orange reaching across the sea. But before the thought of leaving had really settled in, it was time to load our packed totes onto the boat and start our journey back to the mainland. Driving away, it was strange to see the island that we knew so well from a different perspective as we looked back at North Cove where we always stood to watch the boat leave after resupply runs.



One last sunrise over the tern colony.

We were leaving a place that was our home for the past three months and it was difficult to say goodbye to all that we were familiar with – the calls of terns above our heads, guillemot chicks in their burrows, our cozy cabin, and the peaceful nooks across the island that we knew so well.

With the island behind us, we could see the whole north stretch of the coast with our cabin sitting empty atop the cove and the treetops of the forest forming a thick dark line on the horizon. The sky over the northeast point, once crowded with terns, seemed more open than weeks past. Many of the adult terns and fledglings were loafing on rocks in the intertidal and will soon start their long journey to the southern hemisphere. With the terns almost ready to start their migration, our work on the island had come to an end.



A tern fledgling just days before our departure.

It was a difficult season for the terns this year, with low chick survival rates across the Gulf of Maine and Metinic not being an exception. Though it was challenging to witness nature's course firsthand, I think I speak for the entire 2021 crew when I say I am so grateful for the opportunity and wouldn't trade it for anything.

As we passed the terns loafing on the rocks, we could see this year's fledglings among them waiting for their parents to bring them food. It was a hopeful sight that helped balance out the hardships of the season and a gratifying moment to know that the work we did contributed to their success. We can only hope that they will return a couple of years down the road to raise their own chicks in a time with plentiful food.

Thank you to the Refuge staff, the Friends of Maine Coastal Islands, and everyone else we got to meet on the island this summer – we will miss you!!



The Metinic crew (Caitlin, Lincoln, and myself) departing the island.

-Emma

RAZO's Edge – PMI

Posted in [Petit Manan Island 2021](#), tagged [Fledglings](#), [FOMCI](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Petit Manan](#), [razorbill](#), [razorbill chick](#) on July 24, 2021

For three consecutive nights, we patiently sat upon the lighthouse deck waiting for a chance to see what may be one of the rarest occasions on Petit Manan Island. As dense fog rolled past and collected in tiny dew drops upon our pants, we squinted trying to see the shoreline below under the last remnant rays of daylight. The goal of our efforts was to catch a glimpse of our last Razorbill chick fledging from the island.

A lesser-known cousin of the Atlantic Puffin, the Razorbill (RAZO) is a hefty contrast of bold black and white with a bill apt for its established name. Although we've had high counts of 80 adults and consistently seen upwards of 20 around the island throughout much of the season, PMI's breeding population sits at the low total of five individual nests at this point in time.



Adult Razorbill perched outside its burrow entrance.

A general thought for so few breeding pairs is from a potential lack of ideal nesting crevices across the island and, in some areas, high levels of competition with puffins jostling to use the best burrows. One hope for the off-season is to build and install artificial burrows specifically for RAZO using pieces of culvert tube covered in stone that they might prefer to try and help bolster the island's breeding numbers, a project made possible through donor support.

One thing that makes Razorbills and a few other species of Alcids unique is that the chicks fledge and leave the island before they are capable of sustaining flight. Although it may seem counterintuitive, the need to travel above water isn't as critical for them as the ability to travel in it where prey fish are. They aren't exactly built for efficient flight either, but are profound swimmers that dive underwater in search of food much like penguins.



Adult bringing in a long Sandlance before its chick heads out to sea.

Once a chick is about 14-17 days old, an encouraging father tries to coax it out from the confines of its burrow around sunset to make the arduous scramble across the rocks into the nearshore water. After the pair reaches the ocean, they'll stick side-by-side for the next month or two as the adult continues to feed small bits of food to the chick and teaches it how to forage until they part ways for the winter.



Approximately 12 day old RAZO chick just short of fledging.

You might now see our reasoning to stick out the cold, wet air to witness such a journey and cherish the moment of the chick's maiden voyage. We missed seeing the island's first chick fledge by a single day and sadly, luck wasn't on our side for seeing the second and final chick walk out either. During the first night we watched we thought we struck gold as everything seemed perfect for it but the chick was reluctant to budge and stayed hunkered in its little 'bat cave'.

Passing thunderstorms kept us from returning the following two nights out of safety concerns not being atop the lighthouse with lightning nearby, and as things would have it, the burrow was empty when I stopped to check this morning. BUT... our efforts weren't entirely in vain, as a couple hours later we heard a faint cry beckoning off the water and saw little RAZO 5 swimming within eyesight. I want and like to think that just maybe it was it telling us it made it, the final goodbye.



Adult and fledgling pair parting ways with the island.

-PMI Supervisor, Ryan P.

Gwendolyn's Garbage Odysseys

Posted in [Ship Island 2021](#), tagged [Common Tern](#), [Garbage](#), [Maine Coastal Islands](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [seabird conservation](#), [Ship Island](#) on July 23, 2021

Hello everyone! It's Gwendolyn. I know that some of you are probably wondering, *wasn't she on Petit Manan?* Well, yes, I was! I just *shipped* over to Ship Island about a week ago. What a difference between the two islands! On Petit Manan, we were practically done with our provisioning watches (watching the fish the terns bring in to their chicks until chicks are about 21-30 days) and this has just begun on Ship Island! As in past years, the terns have nested much later than any of the other of the islands!

Anyway, today I am here to chat with you all about the garbage that I have found on Petit Manan and Ship Island. The amount is expansive, enormous, and catastrophic. On Ship and Petit Manan, we found several items including: balloons, random toys (a little elephant and a spyglass), loads of buoys, rope, lobster traps, plastic containers, and much more. Every day, I go out and walk across the beach on Ship Island cleaning up whatever there is to be found. It is extremely depressing to see such items wash up on the shore of the islands. It just made me wonder, are people throwing the items overboard or are they escaping from the garbage bags?



Garbage on Petit MananA gull chick in the garbage



This has prompted me to provide you with some simple ways for you to try to reduce the amount of garbage that you produce in your own life:

- Cut down on your plastic use by using shampoo and conditioner bars instead of bottled products.
- Buy bamboo toothbrushes that break down more easily than toothbrushes with plastic handles.

- Use hand towels instead of paper towels.
- Choose to use reusable bags instead of plastic bags for your produce.
- Buy clothes from a second-hand store instead of new, they are just as good!
- Drive less often if you can (walk/bike everywhere!).

Simply start off small and you can build up to more! There are so many things that YOU can do to save the environment and protect species that live in the wild. It all starts with YOU first. I really hope that this little bit of information has made you think about wildlife and the things that one finds that shouldn't be a part of it. So go out there and set a great example for those around you!



Photo of Gwendolyn after collecting garbage on Ship Island

This is Gwendolyn, signing off for this week!

The Final Weeks on Metinic

Posted in [Meticnic 2021](#), [Uncategorized](#), tagged [Arctic Tern](#), [Common Tern](#), [FOMCI](#), [Leach's Storm-petrel](#), [Maine](#), [Maine Coastal Islands](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Meticnic Island](#), [Petrel](#), [Storm petrel](#) on July 22, 2021

As the end of the season draws closer, we have been quite busy here on Metinic! As shorebird migration has picked up during this time, we have our eyes stuck to the skies as short-billed dowitchers, whimbrel, American oystercatchers, and a variety of sandpipers pass through. We have also been monitoring the nesting Leach's storm petrels that nest around the island. They prefer to nest in the ground under features such as exposed rocks, the man-made rock walls, in piles of driftwood, and even under our house! The refuge recently brought out a new burrow scope for us to use to monitor these birds, so we have been able to confirm that there are nine petrel chicks on the island. We have also been able to use the new scope to capture photos of petrels in their burrows (see below).



An adult Leach's storm petrel in burrow, photo taken with the burrow scope.



This is a photo of some of a Leach's storm petrel's feathers (in red circle) poking out from underneath an adult incubating it.

This week, we had the pleasure of hosting some of the members from the Friends of the Maine Coastal Islands group for a day and show them around the island! With good weather on our side, we brought our guests into the tern colony to show them the chicks, as well as the few pairs of black guillemots that nest in the tern colony. We were even able to wrangle a Leach's storm petrel from its burrow! It was a great day to share with them what island life is like and how our birds have been doing.



A photo of us with our visitors from the refuge and the Friends of the Maine Coastal Islands.

As of right now, we only have eight days left out here on Metinic. It is hard for me to believe it as I write that. It seems like yesterday that we got to the island and eggs had yet to even be laid! However, our work is far from over, and we will be using our remaining days making sure that everything is in order for our birds' migration to their wintering grounds!

Slow and Steady on Ship

Posted in [Ship Island 2021](#), tagged [Common Tern](#), [FOMCI](#), [Maine](#), [Maine Coastal Islands](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Microplastics](#), [Ship Island](#) on July 14, 2021

Over the last week we have begun to see more Common Tern chicks hatching around the colony as well as in our productivity plots. After such a difficult start to the season being able to see things unfold as they should has been a relief as well as pretty invigorating for the island crew.

Because our colony has had such a late start we have the benefit of insights from the other islands where their Common Tern colonies are wrapping up their breeding season. So while we are hoping for the best on Ship we are also aware that many other Common Tern colonies near and afar have had a difficult season and low success rates. Still, perhaps a later start to the season may yield better results for this colony. Time will tell!

For the time being we are just enjoying seeing more chicks hatching each day and will take the rest as it comes. Soon we will begin monitoring the type of food the adults are feeding their chicks as well as the frequency of food delivery. This will provide us with valuable information about food availability for the colony.

Something else we have been working on has been collecting fecal samples for two different studies. Recently we have been focusing on collecting samples for a microplastic study that is assessing the threat of microplastics to nesting seabirds. The study will be identifying and quantifying the microplastic particles in the fecal samples which are collected. We are focusing on collecting samples from Common Terns and gulls since those are the species we have access to on Ship and Trumpet Island. Yesterday, with the help of refuge staff I went over to Trumpet Island to collect our gull samples from Herring Gull chicks.



If you've ever wondered how we obtain these samples from chicks, it goes a little something like this: grab a chick and hold some aluminum foil under its bottom until it produces a sample. Some of the more stubborn gull chicks required a bit of cajoling and patience to get a good sample, but in the end Jim and I were able to get every sample we needed from the gulls.



Patiently waiting for a sample.Jim helping collect gull samples.



Another happening on the island this week has been the switching of two of the refuge's island researchers on Ship and PMI. Yesterday Gwendolyn arrived from PMI; she will be here on the island with me until her internship is over at the end of this month, with Jorja taking her place on PMI. We will be spending some time going over the ins and outs of the island over the next few days.



Gwendolyn getting the lay of the land on Ship.

I'm sure she will come to love the quiet tranquility and beauty of this island over the next few weeks just as much as I have. Welcome Gwendolyn!



Sunset on Ship.

Puffling About It – PMI

Posted in [Petit Manan Island 2021](#), tagged [Atlantic Puffin](#), [FOMCI](#), [Grubbing](#), [Maine Coastal Islands](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Petit Manan](#), [Puffin Chick](#), [puffling](#) on July 12, 2021

After our most recent post about the poor breeding season for terns on PMI, it felt like the best follow up should be with better news and that shimmer of light I always like to find on a job.

Not to say that the rest of the birds on the island aren't glorious in their own right, I know the one people probably want to hear most about is our beloved group of Atlantic Puffins. As one of only four islands in the United States on which puffins breed (all in Maine), the three of us working here consider ourselves very lucky getting to see and witness their playful antics almost daily.



Atlantic Puffin under the soft glow of sunrise.

Just over a week ago, I got to celebrate the momentous occasion knowing our first puffling (name for a baby puffin) was finally with us. As I sat there in the confines of the wooden observation blind during a tern provisioning watch, I happened to catch a glimpse of an adult puffin flying by with an obscure set of objects protruding from its bill. Taking a quick look away from my hungry terns, I noticed the bird had a beak full of fish and as soon as I got my binoculars on it, SWOOSH it went into a burrow and out it came a minute later, bill empty. I nearly hit my head on the roof and fell out of my chair I was so excited!



One of the island's first pufflings for the season.

Since then, we've completed two burrow checks for other newly hatched chicks and started growth measurements on a small subset to analyze how they develop until they fledge. It's pretty much a rite of passage for anyone on PMI grubbing their first puffin burrow, and there's a certain energy to it when you know there is a puffling waiting there inside it. I will note we never grub when there are eggs and first use a burrow scope to check before we try a hand at it.



A young puffin having its wing cord measured.

Some of the greatest moments are when you're lying there bent in half between two rocks, shoulder deep in a burrow, reaching to feel that fluff on your fingertips as the chick tries to evade your grasp or

nip your hand. Having the longest arms on the island means frequently getting called over when no one else can reach and there's a strange sense of pride being able to contort yourself in such a way to delicately pull out a chick you wouldn't have been able to measure otherwise.



The glory of fieldwork – grubbing a puffin chick while simultaneously conducting a naturalist talk via radio.

With so few terns left, this is what the majority of our season will now consist of and we aren't arguing against it. We certainly look forward to sharing more photos and stories along the way as our little puffling grow more and more each day!

– PMI Supervisor Ryan P.

Bird's-eye View – Metinic

Posted in [Meticnic 2021](#), [Uncategorized](#), tagged [Arctic Tern](#), [Banding](#), [Black Guillemot](#), [Common](#)

[Tern](#), [Fledglings](#), [FOMCI](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Meticnic Island](#) on July 12, 2021

The days seem to come and go in the blink of an eye and with only a few weeks left on the island, the end of season reality is setting in. It feels like just yesterday our first egg was hatching and now we have young fledglings taking to the air to make short experimental flights through the colony. It's a thrilling moment to watch the young birds with their newly formed juvenile feathers attempt a few flaps of the wings and to their amazement, as well as ours, actually achieve lift-off! They briefly get to join the dance of terns above our heads, but it's not difficult to pick them out of the crowd with their slightly awkward flight patterns as they learn to master the graceful flights of the adults.

With more and more terns taking to the air for the first time, we are doing banding sweeps through the colony to band chicks outside of our productivity plots. Increasing the number of chicks we band will help track the movements of this year's cohort of fledglings and tell us more about these birds in the future. If they are resighted in years to come, then their band number will tell researchers that it was banded as a chick on Metinic Island in 2021! This helps us collect information on survival rates in addition to movement patterns.

We are not able to differentiate between common and Arctic terns based on their coloration alone, so we have to measure their tarsus length to determine species before we can band them. The tarsus on a bird is equivalent to the area between the ankle and toes on a human and on larger chicks, Arctic terns will have a tarsus length less than 19mm and common terns over 19mm. The less scientific and less reliable "tern personality" test is a fun way to guess the species based on their level of calmness in hand. We've found that Arctic terns are the most cooperative when it comes to getting their flashy new bracelet and are able to stay calm and collected, while the same can't always be said for the commons.



Emma

measuring the tarsus of a tern during a banding sweep

While we aren't in the tern colony, we are busy monitoring other nesting seabirds on the island. Many of our black guillemot chicks have hatched and are growing at healthy rates. Our routine guillemot checks involve walking the rocky coastline to visit burrows we picked out earlier in the season and checking their status. If chicks are present, we weigh them, measure their wing length, and band them once their legs are big enough to hold the band in place.



A young black guillemot chick



Caitlin weighing a guillemot chick during a routine burrow check

There is surely enough to keep us busy here and while our days may be long, we are also taking the time to stop and enjoy the beauty of the island while we can. It feels as though we will always be able to fall asleep to the sound of waves on the shore and watch the steady stream of terns fly by our kitchen window but of course this isn't the case and our time will soon come to leave as well.



Sunrise over the tern colony

-Emma

Sour Weather – PMI

Posted in [Petit Manan Island 2021](#), tagged [Arctic Tern](#), [Climate Change](#), [Common Tern](#), [FOMCI](#), [Maine Coastal Islands](#), [Maine Coastal Islands NWR](#), [MCINWR](#) on July 9, 2021

It would be wonderful to always have great news to write about but as it goes in wildlife biology, that isn't always the case. Coming into this season, I personally hoped and felt that it was going to be one of those boom years where the birds have phenomenal breeding success and hit record numbers and when the birds started to arrive in May, all things pointed towards that being the case and I was extremely optimistic.

During many of our early counts, we recorded record numbers for many of the island's Alcid species and saw a small increase in the overall number of nesting terns, Arctic Terns in particular, compared to 2020. There was an early start to egg laying, which can at times mean good things, but as it stands now for reasons not yet fully known, Common and Arctic Terns are having a dismal year in regards to breeding success not just on PMI but throughout much of the Northeastern United States. Time is still out for how

our Atlantic Puffins and Black Guillemots will fair as chicks have just started hatching, but word from other islands is that they are seeing struggling numbers early on as well.

Within our tern productivity plots alone, we are looking at over a 70% rate of loss for chicks that have hatched which would leave us with a fledging success far below any average we would like to be close to. So far we believe our low success stems from the weather anomalies we've had, such as the tropic storm expected to hit the island later today and rising and higher than average sea surface temperature in nearby waters that can potentially be linked to poor prey availability.



Three Arctic Tern plot chicks collected for growth measurements, one not far from fledging.

In the long term, poor years are bound to happen, but the hope with any bad year is that it is just an outlier and isn't going to become a common trend. Unfortunately, given the information we know and the fact that the Gulf of Maine is currently one of the fastest warming bodies of water in the world's oceans paired with an increase in the amount of annual precipitation in the state of Maine, things aren't painting the brightest image for years to come. That said, a benefit of seabirds is that they are long-lived species and can overcome rough spells to breeding seasons and at times even adapt their foraging strategies. In the end, however, there is only so much they can handle changing.



Wet adult Common Tern perched during a rainy morning.

Seabirds serve as a great indicator for the state and wellness of our oceans, so this year's struggle is a pressing reminder that things may need to change quickly in order to allow these birds to flourish in a manner we'd like them to. From the ten years I have spent living and working with seabirds and other wildlife, I don't want to believe this is the reality of our time but more leads me there each day. But as I have also learned, within the bad times and poor years there are still many signs of success and reasons to hope and push for better days as changes can be made where these birds then rebound quickly.

As I get to tell the tour boat during our daily naturalist talks with onboard passengers, these birds and islands are incredible animals and places capable of remarkable feats that can captivate and inspire the soul even if only getting the chance to see them once and know they share this world with us. It may be tough to be a part of such a season but there is still so much joy to take from it and it won't deter us from the love and fight to see the times ahead when more young birds get to take their first flight and we get the chance to share that news with you.

– PMI Island Supervisor, Ryan P.



Recently hatched Common Tern chick and one more reason for hope.

Exciting Times on Ship!

Posted in [Ship Island 2021](#), [Uncategorized](#), tagged [Common Tern](#), [Maine](#), [Maine Coastal Islands](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Ship Island](#) on July 7, 2021

Settle in, as it's been a busy two weeks on Ship Island, and there is lots to share! A few weeks ago we completed a census of the tern colony. In this process Bethany and I, along with many helpers from the refuge, spread out in a line and walked through the colony calling out every nest we saw, and how many eggs in each clutch. This census data was collected for the Gulf of Maine Seabird Working Group for their own seabird studies, however it is also very helpful for our own records. We recently completed a second census, two weeks after the first, and were able to see a huge improvement in the colony. There were almost 200 new nests since the last census for a grand total of 417 nests. It's been really amazing to see these numbers after such a rough start for this colony.

Another project lately has been working on monitoring the vegetation on the island. Our focus is in the areas where the terns are nesting, however we also examined some quadrats outside of the colony to collect data on the areas we have been mowing. We are collecting information on the different species in each plot along with their density and height. This information will be used as part of a grazing study as there is talk of introducing sheep to the island to help control vegetation.



Working on a vegetation management quadrat.

With Bethany needing to leave the island for a few days, my sister Ali joined the Ship crew for the weekend. We spent our time mostly inside the cabin as the weather was not very cooperative, however when we were able to be outside and go into the colony, we saw some exciting island firsts!



My sister Ali and I before she left the island.

On July 3rd, we saw our first pipping chick! This means that the chick is getting ready to come out of it's shell and will begin to work it's way out. The chick develops a small tooth on the tip of its bill to aid in breaking through the shell. This is called the egg tooth, and will eventually be lost once it is no longer needed.



Two pipping chicks!

On July 4th, we had our first chick hatch!



A newborn Common tern chick!



July 6th, a one day old chick!

Once the chicks are about a day old we begin to weigh them, measure there wing cord, and place a small metal band on there ankle which allows for us to identify them, as well as for future researchers to be able to identify tern as an adult and see where the bird is from and where else it has been located.



Collecting measurements on the tern chicks wing cord



Using a spring scale and cloth bag to weigh a tern chick.

It's been super exciting to see so many new developments and continue to see chicks hatching each day. We will continue to monitor the chicks growth and band them as they come into the world!

Until next time, Jorja

Dose of Herpetology

Posted in [Metinic 2021](#), tagged [FOMCI](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Predators](#) on July 1, 2021

Tuesday we were visited by Derek Yorks, a wildlife biologist with Maine Dept. of Inland Fisheries and Wildlife who's work focuses on reptiles and amphibians. While Derek's current work is largely concentrated on Maine's black racer, as well as Blanding's, spotted, and wood turtles, he took some time to visit our island and garter snake population.



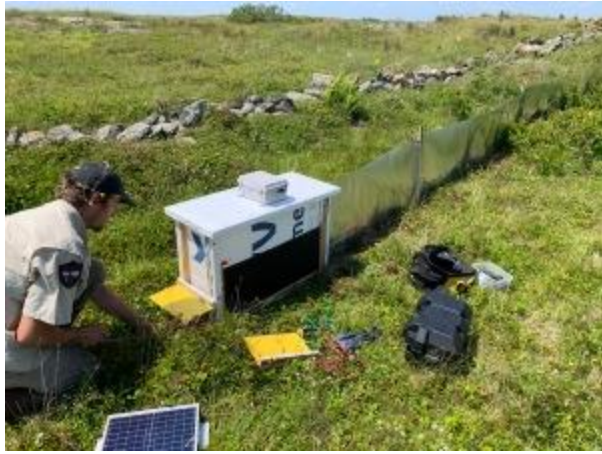
Derek with 3 captured garter snakes

In 2011, technicians on the island reported garter snakes predating on tern eggs and young chicks. Since then, efforts have been made to remove the snakes from the island. To date, roughly 350 snakes have been relocated from the island to the mainland. While in the past snakes were caught by hand, this year we have begun to trap them using a variety of trap designs. Although we are still capturing garter snakes by hand, we have found the minnow traps to be the most effective.



Garter snakes in one of our minnow traps placed in the colony

Derek was able to give us some advice to improve our trapping efforts including lengthening our drift fence and making sure our traps are flush to the ground so that smaller snakes can't go under them. In addition to providing valuable feedback and insight into garter snake ecology, Derek deployed a new trap that he has been working on, only this one is designed to take photos of animals that pass through it.



Derek setting up his camera trap

When the trap is triggered, a photo is taken of the animal inside and sent to a server. Photos are then tagged by the computer as to what species passed through with the help of coding and AI, and to Derek's phone. As more photos come in, he will be able to change the program so that it only sends pictures of the desired species, in this case garter snakes, and not other animals that may pass through like savannah sparrows or Leach's storm petrels. Although this trap is still being tested out, Derek hopes that this can be a new tool used to survey wildlife species.

When we aren't out playing with snakes, we have been spending time monitoring our tern productivity plots and feedings, searching petrel burrows, recording black guillemot hatching, or pulling invasive wild radish from the cobble.



Emma with a handful of wild radish

– Caitlin

Archive for August, 2021

End of Season Snapshot – PMI

Posted in [Petit Manan Island 2021](#), tagged [Arctic Tern](#), [Atlantic Puffin](#), [Common Tern](#), [FOMCI](#), [lighthouse](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Petit Manan](#) on August 27, 2021

It may be a little late since we left the island on August 10th, but it felt right to give one final glance back on the 2021 field season on Petit Manan Island. As you could imagine, the days after PMI have been busily spent reincorporating back into a 'normal' way of life and for many of us, getting ready to head back to school or for myself, navigating the open road of unknown I'm accustomed to after seasonal field work.

As was predicated in previous posts, 2021 was not the year of years. Quite frankly, it was one of the worst on record in the past 20-plus years in regards to breeding success and productivity. Common and Arctic Tern productivity rates sat at a feeble 0.12 and 0.16 chicks fledged per pair while Atlantic Puffins barely tipped the scale at 0.10 chicks/pair. To put this in perspective, of the 85 tern nests we monitored with over 150 eggs, only 12 chicks made it and of the 87 puffin burrows, only nine fledged.



Fully feathered puffling, one of the last on island and ready to go.
(Note, under normal conditions, the chick would be much heavier.)

Things seemed to fair better for Black Guillemots and Common Eiders which fledged 1.03 chicks per pair for guillemots and at least 100 eider ducklings based on consistent high counts since we don't directly monitor them. We also saw two Razorbill chicks fledge from five total nests which is another sign of hope more made it.



Partially feathered Black Guillemot chick waiting for its day to fledge.

Reasons for the poor tern and puffin success are yet to be fully determined but from the looks of things, it seemed weather played the biggest factor for terns and prey availability for puffins. Terns maintained feeding rates of 1.08 and 1.86 fish/nest/hour for Common and Arctic Terns with hake and herring, the fish we like to see, making up over 70% of the diets for each species. What was most noticeable though is that after several bad weather events and in dense fog, many of the chicks got too wet and couldn't

thermoregulate and likely perished from exposure. Puffins fed less frequently and feeds we observed were often filled with low quality butterfish which were often found discarded during burrow checks. Oddly too, many of the pufflings exhibited slow or abnormal growth development which we termed 'micro-puffins' which is also indicative that food seemed to be the issue.

Interestingly enough, this season did however see high counts for many of the alcids with tallies topping out at 378 puffins, 316 guillemots, 75 Razorbill, and 24 Common Murre. Overall numbers of terns went up 32 pairs from 2020 census data so with such robust attendance and prospecting, the hope is that many of these birds return and start breeding on PMI in the years and seasons to come. One focus for the offseason is to build more artificial habitat to supply more suitable nesting areas for birds that may not have found a spot yet.

Given seabirds are long-lived species, the hope is that they will all rebound and have better luck next year unless what we saw in 2021 becomes the trend. The state of the ocean and global climate hang in intricate balance quickly tipping in the wrong direction for many of these birds and ecosystems elsewhere. There's no saying this is just a blip or new normal but regardless, everything possible should still be done to optimize the chances for these birds into the future.

As I have learned, these birds are indicators for many things for ourselves so if there isn't want for them, there should be want for us. We can each do our part and simply following along with our blogs is one way for that as you have heard the story and can hopefully share it. We truly appreciate each and everyone of you that tune in once or regularly.



Three months of what 'home' looked like aside Petit Manan Light.

With that, the time to put a close on the season at PMI has officially come. I'll forever cherish the many moments of my time there; all the new firsts, the chicks I grew most fond of, the time with the crew, and the simplicity of being back under island-life. I look forward to carrying forward my experience and am excited for the many to come after us. My thanks to everyone who was a part of this season and made it possible, it was still very much worth it.



The final farewell as we sailed off the island.

PMI Supervisor, Ryan P.

Quiet Times at PMI – PMI

Posted in [Petit Manan Island 2021](#), tagged [FOMCI](#), [Leach's Storm-petrel](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Petit Manan](#), [Puffins](#), [seabirds](#) on August 2, 2021

Walking down the main house steps, it's hard not noticing the almost eerie silence settling in across the island. Apart from the occasional high-pitched squeal of Black Guillemot chicks running under the boardwalk, there's little to signal there were any birds left at all which certainly means the season's end is not far off.

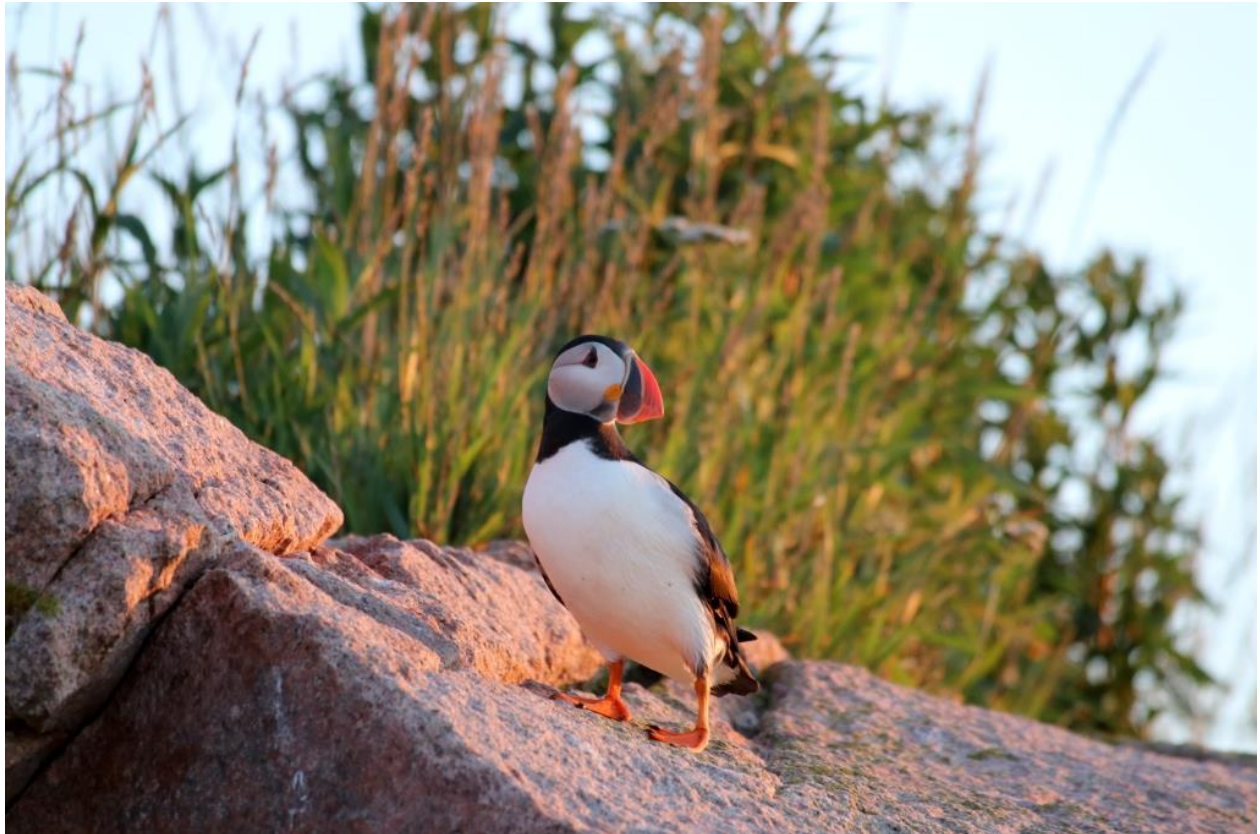


The field crew coordinating the never easy task of grubbing Black Guillemots chicks out from under the boardwalk.

Having come to the island in May before many of the birds started to arrive, the silence now mirrors those early days but still somehow feels different. The difference stems from the reality that in a few short days, our time on PMI will definitively be over and we'll be faced with the return to the mainland

and 'normal' life once again. The simplicity and joy of being within a seabird colony ends the moment we step aboard the boat following this coming weekend.

For the past few weeks, the number of terns on the island has dropped precipitously and aside from the one lone fledgling reluctant to leave our front lawn, we're lucky to see or count 20 individuals any given day. Even given the fact puffins don't make much noise, the rocky shoreline feel bare as more adults make their way out to sea where they'll stay for the winter. The few birds that remain speckling the intertidal areas are surely the proud parents of the 25 or so remaining pufflings still making the final push to fledge.



An adult Atlantic Puffin perched after exiting from feeding its chick.

Having worked as part of many projects and seabird seasons before this, it's the waning days when a nostalgic feeling sets as you look back on the time you had yet it carries the somberness knowing once you leave, you may never see these birds ever again. Looking back, it may not have been the vibrant season I had hoped for in regards to breeding success, but it has still held it's wonderful moments and been special, memories and experiences to cherish forever.



Island intern Jorja in from Ship Island enjoying getting to see a Leach's Storm-petrel chick for the first time.

With the fact our boat ride back looms just over a week away, we'll be busy our last remaining days closing out the little tasks like taking GPS points for every nest and burrow, cleaning up field supplies, and pulling down and putting away our observation blinds. There will be more yard work than bird work but thankfully we still have the few remaining puffin and guillemot chicks to check in on as they finish their own time on PMI time and fledge making the voyage out into the sea.



Ryan holding a near fully feathered puffling, the nemesis chick from burrow E14 which only his long wingspan can reach by a fingertip.

We've certainly enjoyed the time to write and share what has happened during our time here, and as I've learned before, never count out something incredible happening even in the latest hour so stay tuned as who knows what might still take place before we finally say goodbye to PMI!

-PMI Supervisor, Ryan P.

A Little Bit of Everything on Ship

Posted in [Ship Island 2021](#), tagged [Common Tern](#), [FOMCI](#), [Maine](#), [Maine Coastal Islands NWR](#), [MCINWR](#), [Ship Island](#) on August 1, 2021

Fledglings? We've got them! Nestlings? We've got them! COTE still incubating eggs? You better believe we've got them too! Seems like we have a little bit of everything here on Ship Island at the moment.



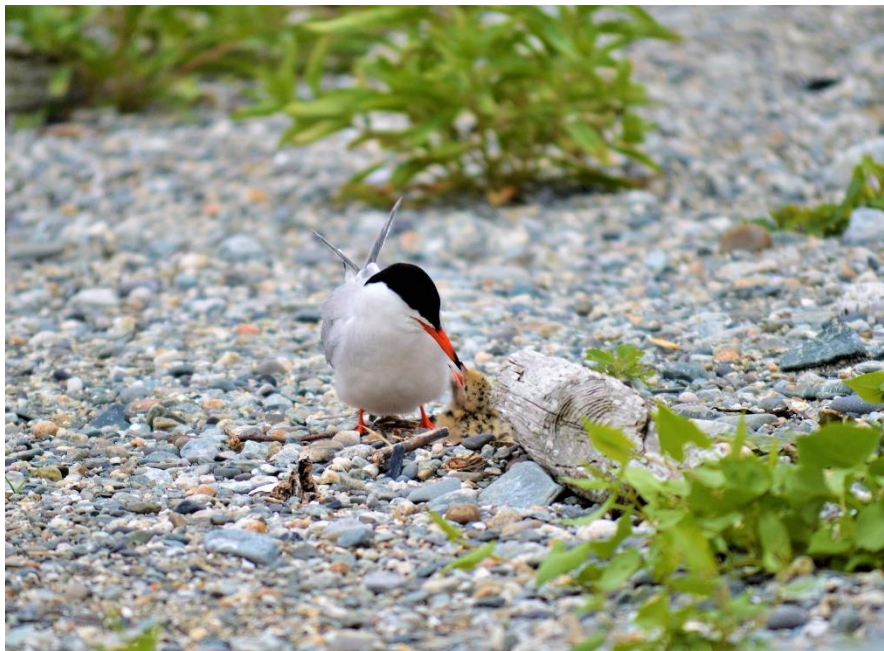
A hungry COTE chick waits for food.

You may be wondering just why it is that we are seeing such a huge variation in the ages of the chicks right now, and even still have terns incubating eggs. As best we can tell, the reason for the hatch date of many of the eggs/nests being so asynchronous is due to the microburst that hit the island in June which damaged many eggs or even fully destroyed many nests. At that time those birds which lost nests renested, resulting in a significantly later hatch date for their eggs. We are effectively seeing a 2 phase nesting season for this colony which will be interesting to see how it fully plays out over this coming month.



A familiar sight, adults bringing in fish for chicks.

Our time now has mostly been divided between monitoring chick provisioning and checking our productivity plots and, of course, weeding. Speaking personally, this is the moment in the nesting season, delayed though it was this summer, which I appreciate and enjoy the most. Being able to spend time watching the colony in close proximity from a blind and seeing the chicks hatch and grow up is a very unique and intimate experience. It's one of those things that, while being on the island and having it be part of your daily duties, is easy to take for granted. But I know that once this job is over seeing the chicks grow up and fledge are some of the strongest memories I will carry with me from this summer. Of course, there is work involved while we are in the blinds collecting data on chick provisioning, but it's still very special to me all the same, and really makes all the challenges of this field season feel worth it.



"Where's the fish?"

We also currently have the luxury of being able to monitor the colony without the worry and the strain that accompanies a difficult provisioning season as, so far, the adults do not seem to be having any issues bringing in good food for their chicks. So, we are still hopeful that this colony may prove to be the exception this season and we may see a good success rate for our chicks.



Lunch time!

I am still shocked that it is already August, which means our field season will be wrapping up in just a little under 2 weeks. It still seems like this colony has a long way to go before their nesting season is over but as they say, time waits for no man (or bird).

Until next time,

Bethany