M I D - C O A S T A U D U B O N

The Merganser

Mid-Coast Audubon

Mid-Coast Audubon's mission is to promote long-term responsible use of natural resources through an informed membership, education, and community awareness

Published three times a year **Volume 42, No. 3 - November 2018**


Don Reimer

Seabirds and Summer Heat Waves

This past summer saw another record-breaking marine heat wave occur in the Gulf of Maine. In early August, water temperatures at the ocean surface climbed above 20°C (68°F) in some areas of the Gulf. Such temperatures had not been seen for at least the last two decades. These warm surface waters have dramatic impacts on all sorts of marine wildlife, including seabirds.

The most direct way warming ocean waters affect seabirds is by influencing their prey — including forage fish like Atlantic herring, white hake, and haddock. Often, these essential elements of the food chain respond to warming surface waters by moving to deeper depths or leaving the Gulf all together. Both of the responses can be very difficult for seabirds nesting along the Maine coast, like puffins, guillemots, terns, razorbills, and others!


Sue Schubel

Razorbills and Common Murre (center)

Members of Audubon's Seabird Restoration Program (aka Project Puffin) have been monitoring seabirds nesting on sanctuary islands in Maine for decades now and are collecting valuable data to document these climate dynamics.

This past summer, we saw quite different types of responses to the warmer conditions, depending on the timing of breeding and behavioral flexibility each species could offer. The warmest conditions occurred during late July and early August. Razorbills had the most straightforward of responses: because they fledge chicks about three weeks after hatch, their chicks were in fact already away from the islands by the time the worst heat occurred.

Terns, however, were attempting to finish raising their chicks just as the most severe heat occurred and fish became scarcer, particularly at the surface where terns forage. We found the carcasses of a lot of fledging-age young terns at the colonies this year and productivity was

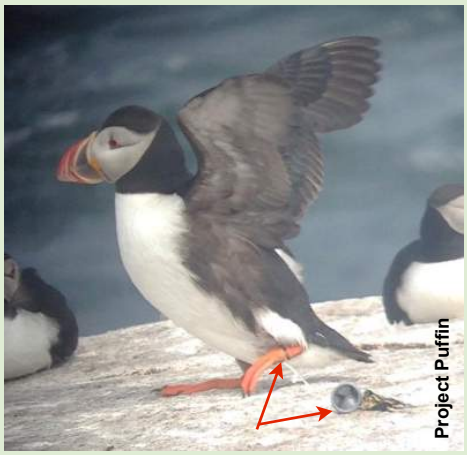
Continued on page 3

PRESIDENT'S CORNER

Sue Schubel

Revise the message!

The moment I inquired about the balloons I knew it was a tactical error. "What's up with these balloons?" I asked, though I knew they were to increase visibility of the signage. I was at the Northern Maine Children's Water Festival, a biennial event that attracts 4th-6th graders to Orono to learn all about water. I hurried to add that my lesson included a game in which balloons in the ocean were a problem. It might be a mixed message. "We aren't going to release them" she explained, a little defensive I thought, but, of course I didn't think she'd do THAT.



An Atlantic Puffin on Seal Island National Wildlife Preserve with the remnants of a balloon around its leg.

Balloon releases are in the same category with smoking cigarettes to me—not in my immediate world, and I thought people had smartened up years ago. But no, both are still active, harmful pursuits. "They might just get away in the wind," I explained, but suddenly realized we needed a solution, not just the recognition of a problem. "Perhaps we could use colorful banners next time" I suggested, and backed away, thankfully with nods of assent at that point.

There is so much conflict in the world – I don't want to add to it. In that moment, I revised the angle for my lesson, pairing PROBLEM immediately with SOLUTION.

The puffin game was laid out for the students, with various dangers found in the sea (predators, trash, fishing gear, boats, oil), and desirable prey. The kids help the pufflings catch fish as they traverse the ocean and avoid the hazards. Throughout the game we alter the components of the habitat to affect their survival.

I held up a water bottle, "I think this is a Problem. What is this plastic bottle made of?" "Plastic!" came the response. I tried again, "Yes, but what is the plastic made from?" "Paper!" said one. Blank looks from others. Quickly I outlined the complex chain from dinosaur to oil refinery to grocery store shelf. "Solution?" I asked. "Recycle!" some said. "Don't throw bottles in the ocean," said another. "Pick up trash!"

Continued on page 3.

CRITTER CORNER -

Don Reimer

As the saying goes, "it's a jungle out there!" and Nature's inter-species food chain is endlessly complex and fascinating to observe. Dragonflies in particular, fit equally well into predator and prey categories. These flying helicopters become obvious targets for several species of Maine flycatchers, including Great Crested, Alder, Willow, and Eastern Kingbirds; Common Grackles and Red-winged Blackbirds also feast on some of the marsh-dwelling species.

Eastern Kingbird with Green Darner

Despite their swift and agile flight, dragonflies are favorite fare for several raptors as well. Captured in flight by Merlins and American Kestrels, some individuals are consumed in mid-air, while others are carried to a perch where the insect's wings and legs are removed prior to consumption. Any indigestible parts are later expelled as pellets.

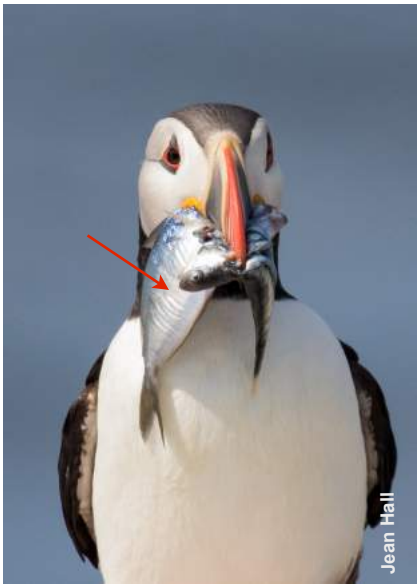
Dragonflies are also eaten by arthropods, fish, tiny mammals, frogs and fellow insects. Equipped with sharp mandibles and near-360-degree vision, adult dragonflies prey on midges and mosquitos, also butterflies and moths. Like hummingbirds, they can fly backward. Some dragonflies attempt to avoid detection by changing color to match the surrounding environment.

American Kestrel with dragonfly tail remaining.

Certain North American dragonflies are migratory, but knowledge about where they are coming from and where they are going is rather incomplete.

Seabirds and Summer Heat Waves . . . *cont'd*

very low compared to other recent years. Puffins displayed the most novel response. As waters warmed in mid-July, we saw puffins deliver fewer fish to their chicks and those chicks stopped growing or even lost mass. Many pufflings succumbed to starvation over the few weeks, but the chicks that survived into mid-August started getting greater food deliveries again, as apparently fish became more available when waters cooled a bit at that time. Many of those surviving chicks grew rapidly and eventually fledged at or near normal fledging body mass. The delay in growth for those chicks translated into some of the longest chick-rearing periods ever observed by Project Puffin, as much as 70 days after hatch. A normal rearing period is usually 37-45 days following hatch.



Atlantic Puffin with selection of fish, including Butterfish (arrow) which is too large for seabird chicks to swallow.

The various outcomes different seabird species experienced this year exemplifies how complex the impacts of climate change may be. The flexibility that some puffins displayed to extend their breeding season may be a small sign of hope that puffins and some other species may be able to mitigate for some impacts of warmer climates.

Don Lyons joined Audubon's Seabird Restoration Program this past summer as the new Director of Conservation Science, coming from an academic position at Oregon State University. He has over 20 years of experience conducting seabird science and conservation in a variety of locations across the U.S. and internationally. He is new to the Gulf of Maine, however, and looks forward to getting to know both the local birds and bird lovers!

Revise the Message! . . . cont'd.

said a few. Only one said, "Use a cup" and the teacher offered, "What about a re-useable water bottle?" When I presented the plastic straw as a problem it was the same scenario. And again with a plastic spoon.

Somehow the Reduce Reuse Recycle equilateral triangle needs to be revised to emphasize a lot more of the Reduce and Reuse. Especially the reduce. These students, at least, were not focused this way. Recycling is good of course, but doesn't really give you a free pass. It still costs raw materials and energy each step of the way. I was surprised they didn't know the answers I sought—the most ecologically beneficial solutions—even if they weren't used to implementing them. But they really didn't seem to.

Luckily a wave of enthusiasm is making it easier—removing the temptations of plastic grocery bags, plastic straws, and styrofoam containers in some towns.

A new generation, and new opportunities to explain the basics. Renew your enthusiasm, revise your message and have at it. Take heart mateys - we sail through space on this earth ship together.

Annual Lobster Bake at Hog Island

Even this Coyote pup at Clary Hill could catch the aroma of lobsters, potatoes, corn, onions, and seaweed simmering over hot coals at Hog Island!

A curious Coyote pup at Clary Hill

A short boat ride, a leisurely hike, meeting old friends, making new ones, gazing out to sea from a comfortable Adirondack chair, a little shopping at the island store—what more could one ask of a sunny August day.

Sixty-eight hungry visitors enjoyed the perfectly cooked seafood, potatoes, and oh those caramelized onions! Of course, everyone enjoyed finishing the meal off with cute and tasty cream puffins.

If you missed this year's fundraiser, be sure to mark your calendar for next year. The proceeds from the lobster bake help fund programs, scholarships, and maintenance of our four preserves.

Calendar of Events

FREE bird walks (no pets please) and programs; donations are welcome to help defray costs.

Program chair: Kathy Cartwright 832-5584. Field trip chair: Dennis McKenna 563-8439

NOVEMBER

Program: Thursday, November 15, 7 p.m.
Camden Library
Seth Benz, former director of Hog Island Audubon Camp and current director of Schoodic Institute at Acadia National Park's Bird Ecology Program, coordinates citizen scientist's efforts to monitor bird migrations, pelagic seabird concentrations, and biodiveristy observations in the Acadia Region. He also leads history tours for the Maine Birding Trail.

DECEMBER

Friday, December 14
Christmas Bird Count: Damariscotta/Pemaquid. Contact compiler Dennis McKenna at 563-8439.

Saturday, December 15
Christmas Bird Count: Thomaston/Rockland. Contact compiler Don Reimer at 273-3146.

Monday December 17
Christmas Bird Count: Bunker Hill. Contact compiler John Weinrich at 846-1211.

FEBRUARY

Friday, February 9
Pemaquid Point with Don Reimer. Meet at lighthouse at 8:00 a.m.

For updates on the calendar, check our website https://midcoast.maineaudubon.org/

What *is* a Christmas Bird Count?

For over 100 years, thousands of volunteers annually take part in an early-winter bird census over a 24-hour period to count birds. This year's count is the 119th count.


Lew Purinton

A Christmas Bird Count is made up of hundreds of count circles 15 miles in diameter, nationwide. Each circle's compiler organizes the observers and compiles and reports the number of birds and species to National Audubon. Each circle is divided into loose segments, and each segment is assigned an observer team.

Weather! What happens if it is raining, snowing, freezing cold, windy—the count goes on! Often from the shelter of a car. Most hardcore observers love just being out doing their favorite thing: looking for birds. They are usually undeterred by weather unless visibility is nil.

Can I participate in a CBC from my living room? Absolutely. Get a hot drink, a notebook, your binoculars and keep an eye on your feeders and the view from your window. Count the most bird species you see at one time. For example, a cardinal comes to your feeder 12 times. You did not see 12 cardinals but probably one or two. If, on the other hand, you see three cardinals at one time on your feeders and on the ground, then you count three cardinals.

Join us. Catch the fever. You'll be surprised at the camaraderie and the number of birds. For more information visit: https://www.audubon.org/conservation/science/christmas-bird-count. Or contact the compilers listed in our Calendar of Events.

Bird Quiz—Winter Waterfowl

In winter, even ducks are black and white.

1. What dark duck has an oval white spot on its face?
2. How do you distinguish a male Hooded Merganser from a male Bufflehead?
3. Common Loons are always black and white, but how are they different in winter?
4. With variation in plumages, what is the best way to recognize an Eider?
5. What kind of cormorant are you most likely to see in winter?
6. Which merganser is most likely to be found in salt water?
7. What dark-colored dabbling duck winters farthest north?
8. What sea ducks fly in long string formations along the ocean surface?
9. Which sea ducks are the whitest and also the most vocal?
10. Horned Grebes and Red-necked Grebes have a similar shape; what is the difference?

Answers on page 6

Mid-Coast's Jackson Memorial Library Project

The feeders that Mid-coast Audubon donated to the Jackson Memorial Library in Tenants Harbor this past May have had a lot of use this summer.

The kids, both pre-K and grades K-8, have been helpful in filling the feeders and have enjoyed observing the birds. Their experience has resulted, with the help of the children's librarians, in some artwork and learning about migration.

The feeder station shown has just been signed up for Cornell's Feeder Watch program which we hope will build excitement and enthusiasm.

Steve Barnes

What Do You Know About Plastics?

1. In which of the following products are plastics commonly found? (a) clothes, (b) health and beauty products, (c) cellphones. (d) all of the above.
2. How long does it take for plastic to decompose? (a) 100 years, (b) 200 years, (c) 300 years, (d) more than 400 years.
3. True or False: Plastics can fully biodegrade once in the ocean? (a) true, (b) false.
4. A garbage truck's worth of plastic is dumped into the ocean every (a) second, (b) minute, (c) hour, (d) day?
5. By what year is it estimated that the weight of plastic in the ocean will exceed the weight of all the fish in the ocean: (a) 2030, (b) 2050, (c) 2070, (d) 2100?
6. Factories worldwide had produced 8.3 billion metric tons of plastic by 2017, but only (a) 9, (b) 17, (c) 22, (d) 30 percent was recycled.
7. True or False: As of 2015, 79 percent of plastic waste had accumulated in landfills and the natural environment? (a) true, (b) false.
8. In the next 20 years, global plastic production is expected to: (a) be cut in half, (b) stay the same, (c) double, (d) triple.
9. Which of the following can be used as an alternative to single-use plastics: (a) reusable bags, (b) stainless-steel mugs and water bottles, (c) metal straws, (d) all of the above.

Answers on page 7

Leave those Leaves!

A key way to support pollinators and other invertebrates is to provide them the winter cover they need — fall leaves and standing dead plant material. Resist the urge to "tidy up" for winter. By raking, mowing, and blowing away dead leaves, we eliminate habitat that is essential to the survival of moths, butterflies, snails, spiders, and dozens of arthropods.

Most butterflies and moths overwinter in the landscape as an egg, caterpillar, chrysalis, or adult. In all but the warmest climates, they use leaf litter for winter cover. Great spangled fritillary and wooly bear caterpillars tuck themselves into a pile of leaves for protection from cold weather and predators. Red-banded hairstreaks lay their eggs on fallen oak leaves, which become the first food of the caterpillars when they emerge. Luna moths and swallowtail butterflies disguise their cocoons and chrysalis as dried leaves, blending in with the "real" leaves.

Red-banded Hairstreak

Bumble bees also rely on leaf litter for protection. At summer's end, mated queen bumble bees burrow only an inch or two into the earth to hibernate for winter. An extra thick layer of leaves is welcome protection from the elements. So many animals live in leaves: spiders, snails, worms, beetles, millipedes, mites, and more—supporting chipmunks, turtles, birds, and amphibians that rely on these insects for food. Leaves help sustain the natural web of life.

According to a 2005 NASA estimate, lawns in the United States making turf grass the single largest "crop" we grow. To mimic the natural ecosystem an animal needs, a layer of leaves must be at least a two inches thick. This is too much for turf grass to handle—research shows that lawns actually benefit from a thin layer of leaves; the rest can be piled up around ornamental trees, shrubs, and perennials to no ill effect.

If you must clear the lawn of leaves, rake or use a leaf vacuum to keep them whole, rather than shredding them with a mower then make a leaf pile in a corner of your yard.

Shredding leaves may destroy eggs, caterpillars, and chrysalis along with the leaves. Leave the leaves whole in garden beds and lawn edges. *Continued on p. 6*

Make 2019 a Special Year

Do you know a special teen who would love to go camp?

Do you know a well-deserving teacher who needs a break while earning credits toward training?

Teens heading out to Egg Rock to see puffins.

At Hog Island Audubon Camp, you'll find great food, great scenery, expert instructors, terrific staff, boat trips, field trips, hands-on experiences, and much more. The week whizzes by. All the while, you're learning.

Yes, at Hog island it is possible to have fun while you learn. Yes, you can go to camp. Mid-Coast Audubon gives scholarships to teen students and teachers wanting to attend Hog Island Audubon Camp in Bremen for a one-week session. You'll not regret it. Share a week with your "peeps."

For younger students, we also have a Joe Gray Scholarship available for the Tanglewood 4-H summer camp in Lincolnville.

Make plans now! Contact Sue Schubel at sschubel@tidewater.net for a scholarship application.

Learn more about the camps at: www.hogisland.org and www.extension.umaine.edu/tanglewood/tanglewood-lincolnville

Welcome New and Rejoining Members!

Jere H. Davis, *Washington*
Molly Frost, *Newcastle*
Shane Hunt, *Brookline, MA*
Barbara Kinder, *Vinalhaven*
Michael Lasker and
Christopher Meyer. *Belfast*
Kristen Meservey, *Hope*
Barbara S. Mogel, *Rockland*
Sharon S. Mitchell, *Searsmont*
Paul M. Stout. *Searsport*

Waterfowl Quiz Answers

1. Common Goldeneye
2. The Bufflehead has a white body, Hooded Merganser a brown body.
3. White throat and darker back, no speckles.
4. Wedge-shaped head and large body.
5. Great Cormorant, which has pale patches on its flanks.
6. Red-breasted Merganser; Common Merganser prefers fresh or brackish water.
7. American Black Duck
8. Scoters, all three kinds. Can you tell them apart?
9. Long-tailed Duck
10. Horned Grebe in winter has a white neck, while Red-necked is gray.

Leave the Leaves . . . cont'd.

Create a leaf pile and let it to break down naturally, or add them gradually to your compost pile over time.

Leaves provide valuable organic matter, build healthy soil, have the same weed suppression and moisture retention properties of shredded wood mulch, and they're free!

Fall leaves, matted down by snow or rain, provide a thick layer of additional insulation against bitter cold weather, and can protect newly planted perennials when frost-heave may expose tender roots. Anyone who has spotted fragile spring ephemerals popping up in the woods knows that all but the frailest of plants will burst through the leaf litter in spring without trouble.

You gave them flowers and a place to nest. You tended your garden and avoided pesticides. Don't carry all of that hard work out to the curb. Simply put, when we treat leaves like trash – we're tossing out the beautiful moths and butterflies that we'll surely miss and have worked so very hard to attract.

Excerpted from an article "Leave the Leaves," by Justin Wheeler, Xerces Society. Visit : https://xerces.org/

Mid-Coast Audubon

Organized December 6, 1969

a 501(c)3 tax-exempt nonprofit organization

P.O. Box 458, Damariscotta, ME 04543-0458

OFFICERS

Sue Schubel, President
John Weinrich, Vice President
Sherry York, Secretary
Lew Purinton, Treasurer

DIRECTORS

Stephen Barnes, Tenants Harbor
Kathy Cartwright, Waldoboro
Phyllis Coelho, Belfast
Bill Goodwill, Friendship
Dennis McKenna, Damariscotta
Kristin Pennock, Whitefield
Gail Presley, Rockland
Lew Purinton, Somerville
Don Reimer, Warren
Juanita Roushdy, Bremen

COMMITTEES

Field Trips: Dennis McKenna, 563-8439
Nest boxes: Lew Purinton, 215-1913
Membership: Juanita Roushdy, 529-2355
Preserves: Bill Goodwill, 354-0669
Programs: Kathy Cartwright, 832-5584
Scholarship: Sue Schubel, 380-1370
Special Events: Sue Schubel, 380-1370
***The Merganser* editor: Juanita Roushdy, 529-2355**

The Merganser is published three times a year in February, May, November. **News items and photos are welcome.**

Deadline for next issue is January 15!

Send to juanitar@tidewater.net

Collaboration Makes Things Happen

The Northwest Territories in Canada conjures up all sorts of images and stories but most of all what comes to mind is the remoteness of the location.

In June of 2018, three organizations came together to make it possible for a First Nation participant, Florence Catholique, to come to Hog Island as a camper: the Boreal Songbird Initiative, Hog Island Audubon Camp, and Mid-Coast Audubon. All three were thrilled at the opportunity to make this happen.

The Boreal Songbird Initiative works to protect Canada's Boreal Forest—*the largest intact forest left on earth.* It also works closely with the communities living there to conserve this treasure.

Florence lives in Lutsel K'e, a fishing community, in the Northwest Territories. The NWT comprises 17% of the Boreal Forest and 25 aboriginal communities.

For Florence it was a long, long journey, but once on Hog Island surrounded by water, she felt a bit more comfortable once again in nature. For those of us who managed to spend time with Florence we learned of her work as an educator, an active leader in her community, and a strong voice for a national park that the youth in her community is planning and helping build trails. We were captivated by new ideas, new ways, and new viewpoints.

Florence kept in touch with her family and community through her cell phone sharing her experiences in real time. We enjoyed viewing her homeland. We learned a lot from each other and look forward to helping other indigenous people come to Hog Island.

To learn more about the Boreal Songbird Initiative and the indigenous people leading the way in its conservation, visit:
https://www.borealbirds.org/

Plastics Quiz Answers

1. (d) all of the above. Plastic is an inexpensive, durable material found in many items that we use daily, including some facial cleansers, toothpastes, and clothes.
2. (d) more than 400 years. Plastic has been around for only a little over 100 years, but studies show that plastic beverage bottles, for example, will take more than 400 years to decompose. This means the first plastic bottle that was ever produced is likely still around.
3. False. Most commonly used plastics never fully degrade in water, instead breaking down into small pieces. If they are less than 5 millimeters, about the width of a pencil, these pieces are considered "microplastics," which can be very harmful to the ocean and marine life.
4. (b) minute. An estimated 5 million to 13 million metric tons of plastic flows from the land and enters the ocean each year. This is equivalent to emptying a garbage truck into the ocean every minute.
5. (b) 2050. In its 2016 report "The New Plastics Economy: Rethinking the Future of Plastics," the World Economic Forum estimated that by 2050, there will be more plastics in the ocean than fish by weight.
6. (a) 9. According to the Journal of Science, only 9 percent of plastics ever produced have been recycled.
7. True. According to the peer-reviewed journal Science Advances, about 12 billion metric tons of plastic waste will be in landfills or the natural environment by 2050 if current plastic production and waste-management trends continue.
8. (c) double. The World Economic Forum predicted in its 2016 report "The New Plastics Economy: Rethinking the Future of Plastics" that plastics production will double in the next 20 years.
9. (d) all of the above. Reusable bags, stainless steel, and even plant-based materials are among the alternatives for plastic.

Source: www.pewtrusts.org article "Plastic Pollution Affects Sea Life Throughout the Ocean," sidebar "9 Startling Facts About Plastics in the Ocean."

Photo credit: www.pewtrusts.org. A seahorse wraps its tail around a plastic cotton swab in Sumbawa, Indonesia. Courtesy of Justin Hofman, photographer

Mid-Coast Audubon
P.O. Box 458
Damariscotta, ME 04543-0458
https://midcoast.maineaudubon.org/
An all-volunteer, 501(c)(3) chapter of Maine Audubon

Nonprofit org.
U.S. Postage Paid
Permit #862
Damariscotta, ME
04543-0458

Save the dates
for the
Mid-Coast Christmas Bird Counts
See page 4 for details
December 14, 15, and 17

A Wonderful Gift!

Buy a house for your feathered friends! Only $25 and made by our talented board members!

Contact: Lew Purinton at 215-1913

Happy Holidays and Thanks . . .

. . . to all our members who make our programs, scholarships, newsletter, and preserves possible and to all our volunteers.

M I D - C O A S T A U D U B O N

MAINE AUDUBON

MEMBERSHIP FORM

Midcoast Chapter

YES! I want to protect and conserve wildlife and habitat in Maine as a ☐ **new** ☐ **renewing** member.

Annually ☐ $30 Senior/Volunteer/Student | ☐ $40 Individual | ☐ $50 Household | ☐ $100 | ☐ $Other _____

Monthly ☐ Enroll me in the Frequent Flyer Program and charge my credit card *each month:*

___ $5 ___ $10 ___ $15 ___ $25 Other $_____

View all member benefits online by visiting maineaudubon.org/memberFAQ

Name(s):_____

Address:_____ City/State/Zip: _____

Home Phone:_____ Email: _____

Seasonal Address: _____ from _____ to _____

☐ Check enclosed for $_____ ☐ Please charge $_____ to my credit card (below)

Card # _____ Exp. date: _____ / _____

Join or renew online:
maineaudubon.org/join

Our community of members is integral to our success on behalf of Maine's diverse wildlife and habitat. When you join or renew your Maine Audubon membership, you ensure that work can continue.

Thank you!

Please make checks payable to Maine Audubon | 20 Gilsland Farm Rd, Falmouth, ME 04105 | 207-781-2330 ext. 230