

It's birding festival time in Maine

I went looking for Trouble this week. I didn't find him. The Maine Coastal Islands National Wildlife Refuge reports that there is a particularly bold spruce grouse that confronts anyone daring to use his trail. The refuge biologists have named him Trouble.

I went searching for Trouble because this weekend marks the first of three consecutive birding festivals. I guide for all three, and I generally get the tough assignments. The luckier guides just stand on the rail of a boat and say, "Hey, there goes a puffin," while pointing at one of the hundreds in plain sight. Me? I have to go find a spruce grouse and other unusual birds. Thus, I scout.

The Wings, Waves, Woods Festival kicks off in Stonington this Friday. I confess, I get to be a puffin spotter during that festival. Then, Memorial Day Weekend is reserved for the Down East



BOB DUCHESNE
GOOD BIRDING



A spruce grouse.

BOB DUCHESNE

Spring Birding Festival in Lubec. I've already got grouse scouted out for that one. Finally, the Acadia Birding Festival occupies the first weekend of June. That's my trouble festival.

There are spruce grouse on Mount Desert Island, but only a few, and they tend to be on the summits. Spruce grouse are native to northern forests, and they don't live much below Bangor. It's

a coveted bird for festival goers. During the Acadia festival, it's best to take the diehard birders off the island and up the coast. That's my job every year. For the last several years, I've been trying to find pockets of reliable spruce grouse closer to Acadia. Lately, I've been searching the land trust trails of the Frenchman Bay Conservancy.

And so it came to pass that I parked my car at one trailhead, walked a mere hundred yards and there he was — a male spruce grouse, strutting. For goodness sakes, it's never this easy: my first stop of the day and I found a grouse within a minute!

Then I heard the call of another grouse, a female. And in the tree, beside her, there was a second female. I had walked into a menage a trois. The decent thing for me to do was to walk away. Naturally, I stayed. I sat down on the forest floor and watched. Now, I'll confess, nothing lurid happened. The girls stayed in the tree. The boy stayed on the ground, fanning his tail, fluffing his wings and puffing out his chest. Some-

times he would pick a sunnier spot to strut. Sometimes he would flutter up to a tree branch, then flutter back to the ground.

He was aware of me, of course, and he would leave the girls and come over to check me out now and then. Mostly, he was satisfied that I had no intention of eating him or wooing them, so he lost interest and quickly went back to strutting. Sometimes if you just sit quietly, you become part of the background and nature happens.

One of the girls was a wanton hussy. I knew that female spruce grouse make a church-churring sound, though I had never heard it before. I've heard them clucking quietly to each other, but I've never heard loud churring. This wench was singing her siren song, leading him on, and he was doing his utmost to please her.

Eventually, he walked behind me and up onto the jeep path. He was farther from the hens, but more visible. A grouse putting on a show wants a stage so that his performance can be appropriately admired. I walked over to the hens for a better look. The loud one blinked at me

once, determined that I was insignificant and resumed her churring. I returned to the path and said goodbye to the male grouse. By then, he was munching on a few needles and ignored me.

I know from experience that these grouse won't be there when I need them. The odds are that I will lead a van load of birders to this spot in couple of weeks, and we will search in vain. To improve my chances, I need about four good sites for every good sighting.

The next day, I went looking for Trouble again. Sure enough, at the appointed spot, I was confronted — by a hen! Maybe I had misunderstood the gender, and he was a she. A male grouse on his territory may ask you to leave, but a female grouse will demand it, pecking your shoelaces. As she stared me down, I knew she was Trouble.

Bob Duchesne serves as vice president of Maine Audubon's Penobscot Valley Chapter. He developed the Maine Birding Trail, with information at mainebirding-trail.com. He can be reached at duchesne@midmaine.com.

Floating turbines key to Pacific wind energy

BY JENNIFER A. DLOUHY
BLOOMBERG NEWS

WASHINGTON — When turbines start spinning at the first U.S. offshore wind farm near Rhode Island later this year, some energy developers will already be eyeing a bigger prize.

There's a steadier, harder wind blowing off the California coast. Those reliable Pacific gusts could yield nearly a terawatt of electricity, 13 times the capacity of all the wind turbines installed on land in the U.S. — without consuming real estate or blocking anyone's views.

But Mother Nature isn't going to make it easy. The continental shelf plunges fast and deep off the West Coast, making it impossible to install conventional turbines into a seabed hundreds of feet underwater. Some developers think they've found the solution: harnessing this renewable resource with technology borrowed from the fossil-fuel industry to keep turbines afloat.

"We can't fix turbines into the ocean floor out there," Nancy Sopko, manager of advocacy and federal legislative affairs for the American Wind Energy Association, said. "To tap into that great offshore wind potential, we're going to need these floating structures."

The Department of Energy is expected to decide next month whether to award some \$40 million to as many as five floating wind projects that have already won previous funding. And the Interior Department will soon ask if there's commercial interest in leasing Pacific waters near California and Hawaii — a critical step toward future floating wind projects there.

The technology is in its early days. Globally, there are just 15.33 megawatts of floating wind capacity, mostly coming from a handful of pilot projects involving one or two turbines, according to Bloomberg New Energy Finance. That's less than a percent of the total 11.6 gigawatts of capacity from traditional wind projects in waters around the world.

More are on the way. Seattle-based developer Trident



BDN FILE

Habib Dagher, director of UMaine advanced structures and composites sector, speaks to the crowd during a trip to celebrate the first year of the University of Maine's floating wind turbine, VoltturnUS, in Castine in 2014.

Winds LLC is aiming to float some 100 offshore wind systems about 15 miles off the central California coast, near the city of Morro Bay. The project, which would be developed over the next decade, would link up with existing electric infrastructure, funneling power from the turbines to a decommissioned PG&E Corp. power plant.

The federal Bureau of Ocean Energy Management just completed an initial review of Trident Winds' request for a lease at the site, which would be the first wind development in federal waters off California. But permitting may take years as it would be subject to reviews by the bureau and at least two state agencies.

Meanwhile, Statoil ASA is taking advantage of its experience designing and building some of the world's biggest and most complex offshore oil facilities to erect a floating wind farm off the coast of Scotland. The project, expected to go online in 2017, involves five 6-megawatt turbines.

The company — Norway's largest oil producer — hasn't launched any floating wind ventures in the U.S., but during a recent swing through Washington and New York, a Statoil executive was unabashed in highlighting the opportunity. "We think the U.S. is ripe for offshore wind," Irene Rummelhoff, executive vice president of new energy solutions, said. "We are seeing potential in the Northeast. We love California."

For wind developers, California has special appeal not just because of the strong gusts buffeting its coast but also a new law that requires state utilities to derive half of their electricity from wind, solar and other renewable sources by 2030 — up from about 20 percent now.

Trident Winds Co-Founder Alla Weinstein, a former Honeywell engineer who ran another wind company, Principle Power Inc., until February 2015, said floating projects also can capitalize on lower installation costs

than their conventional cousins, which are installed with steel pilings into the sea floor.

Traditional offshore turbines must be customized to account for varying water depth and soil conditions. Installing them is a time-consuming task that requires specialized vessels. It took roughly 200 workers four months to install five jacket foundations at a 30-megawatt wind farm near Block Island, R.I. Turbines still need to be put in place before that project can go online as expected later this year.

By contrast, floating wind systems can generally be assembled on shore and then towed to sea where mooring lines are all that's needed to tether them to the ocean floor.

"I don't need the boats. I don't need the cranes. I don't need the equipment that's going to cost a lot of money," Weinstein said. "You just need a simple anchor handling vessel to do all the installation, because every-

thing's done onshore."

Statoil's Rummelhoff envisions cost-effective, mass fabrication of the wind production systems. "Eventually, when this is industrialized, you can imagine just having a factory popping these out, and they'll all be the same," she said.

Floating turbine foundations cost about eight times more than seafloor-based supports for their conventional counterparts, according to BNEF. But they can be reused to support replacement turbines when old ones reach the end of their quarter-century lifespan.

"Every 20 or 25 years, no matter what you do, you have to replace the turbine," Habib Dagher, executive director of the University of Maine's Advanced Structures and Composites Center, said. Since the biggest expenses of offshore wind projects are foundations and associated infrastructure — not the turbines — floating designs that allow reuse of those expensive structures are more cost-effective.

One of floating wind's

other benefits just can't be seen. Literally. The projects disappear when installed a dozen or more miles from shore, appeasing residents who fret about spinning blades spoiling their ocean views. Such opposition helped topple the Cape Wind project off Massachusetts, and presumed Republican presidential nominee Donald Trump fought the construction of a wind farm near his luxury golf resort in Scotland.

Offshore wind projects aren't free from environmental criticism. Fishermen and conservationists have warned that some projects could disturb seabirds, marine mammals and fish spawning grounds.

But the major challenge is cost. Floating wind could cost around \$8.95 million per megawatt by 2020 — more than double the \$4.03 million per megawatt projected for conventional offshore, bottom-fixed wind projects — said BNEF analyst Tom Harries.

Those price projections are pegged to small-scale demonstration projects with sometimes a single turbine in the water — even though they shoulder many of the same costs as large wind farms in terms of permitting and infrastructure. A recent Statoil floating project got costs lower — to \$7.8 million per megawatt — by using more than one turbine and drawing on lessons learned from an earlier venture, Harries said.

Cost concerns may be throwing off Seattle-based Principle Power Inc.'s plan to install up to five 6-megawatt floating turbines off Coos Bay, Oregon. The so-called Wind-Float Pacific project received Energy Department funding but so far hasn't found willing buyers for the power it would generate after utilities in Oregon said it would be too expensive.

"If floating wind wants to seriously join the offshore party it needs to scale up with more megawatts," Harries said. "More importantly, it needs to reduce the size and weight of the foundations in order to bring down costs. Otherwise it will remain an expensive experiment."

Ticks

Continued from Page C1

"We don't want people to be afraid," Dill said. "We aren't trying to scare people from going outside and playing in the woods, hiking and fishing. This is a general awareness issue. There are relatively simple precautions you can take to minimize your exposure to ticks."

These precautions include dressing appropriately, avoiding tick habitat, using tick repellents on your clothing and skin and performing regular, full-body tick checks after spending time outdoors.

"The big thing that people need to do is just getting in the habit of performing tick checks after being outside," Dill said. "In the northeast, none of us grew up with ticks. It was never an issue. So people just aren't conditioned to do tick checks like they are in other places where ticks are more common."

In Maine, ticks are more common along the coast and in southern Maine, where the climate is more temperate, than they are inland and in the northern half of the state, as are the reported cases of tick-borne diseases. People most often pick up ticks when they wade through tall grass or brush,

which is tick habitat. Ticks actually cling to the end of grass blades and branches as they search for hosts with outstretched legs, a behavior called "questing."

"They're really bad this year," Jaffray said. "Yesterday, I was out taking pictures in a field [in Brooksville] and I got home and had four ticks crawling on me."

The Blue Hill Heritage Trust, which owns and maintains trails on several properties throughout the Blue Hill Peninsula, posts warning signs about ticks near the parking area for all its properties.

"This is all kind of new to us, this epidemic of ticks," said Chrissy Beardsley

Allen, Blue Hill Heritage Trust outreach and development coordinator. "We need to make sure we're on the same page about how to be safe out there."

In addition, the Blue Hill Heritage Trust is planning educational programs about ticks to offer the public starting next spring.

"I know on the Blue Hill Peninsula that there are parents who don't want their kids outside right now," Allen said. "And I sympathize. I'm a parent, and last summer, my daughter woke up with three deer ticks on her, and I freaked out."

"From the standpoint from someone who's orga-

nizing all these outdoor programs, I want people to understand the risk-to-benefit ratio — the benefit of being outside and being in the woods to the risk of getting a tick on you and contracting Lyme disease," she said.

Allen is concerned that people don't always have accurate information about ticks and tick-borne diseases because of inaccurate information available on the internet. The land trust plans to collaborate with local pest experts, such as the entomologists at the University of Maine Tick ID Lab, to provide accurate material to the members of their

community about the issue.

"A lot of our programming is about trying to get kids outside and in the woods," Allen said. "So we need to be educated on this and make sure we're safe in the woods and help people really understand what's happening here."

In honor of May being Lyme Disease Awareness Month, Lyme disease specialist Dr. Bea Szantyr will be giving a "Tick Talk" at 6 p.m.

Tuesday, May 24, at Belfast Free Library at 106 High Street. The free event is sponsored by the library and the community-owned Belfast Co-op.