

Gouldsboro Shellfish Meeting Agenda for January 8, 2025

1. Call meeting to Order
2. Approval on meeting minutes from November 13, 2024
3. Adjustments to the Agenda
4. Election of Board Members
5. Pauline Update
6. Bill Update
7. Heidi Update
8. Green Crab traps
9. License Sales
10. Closed Area Paperwork Correction
11. Alexander Drive
12. Possible Conservation Projects for the coming year
13. Next Meeting March 12 at 4PM
14. Motion to Adjourn

Gouldsboro Shellfish Meeting Minutes for January 8, 2025

Committee Members Present: Alan B. Church, David Deniger, Wayne Bishko, Alan Church and Mike Cronin

1. Meeting was called to Order at 1607 hours by Boog
2. Approval of the meeting minutes from November 13, 2024—Motion was made by David, 2nd Wayne—Motion passed unanimously
3. Adjustments to the Agenda – Add item 10 and 11
4. Election of Board Members--- Mike Cronin is not interested in serving again, Jon Renwick was nominated to take fill the vacant position by Alan , 2nd Wayne, that motion passed unanimously. There was a 2nd motion to leave the rest of the members the same by Wayne, 2nd David—Motion passed unanimously.
5. Pauline gave a paper us from Elin about how sea otters like to eat green crabs. She also told us that the Maine Policy Review has two articles about Gouldsboro. One of the articles is about shore access and the 2nd is about the storm prep work being done in town. These articles can be found in the Maine Policy Review Volume 32 #2
6. Bill wasn't in attendance
7. Heidi told us that Gouldsboro was the first municipality to submit their annual review for 2024. She told us the next paperwork that she will need from us is the license request 30 days before licenses go on sale. She also asked if we wanted to be involved in the green crab permit this year. The answer was yes.
8. Mike showed a prototype crab trap for discussion that he had built to catch thumbnail green crabs. There was a good discussion about the current trap making one modification to the one shown, add a piece of wire to touch the ground. Mike described a trap he was calling a pancake trap. Wayne made a motion to get a couple more traps to try, 2nd Alan. Motion passed unanimously.
9. It was discussed if we could start selling clam licenses, before July 1st, it was determined that Mike would check with the Town to see if it is possible. It was asked if there could be a grace period if July 1st was during the tide if they could get a grace to dig that tide and get their license after the tide. Mike told us that he has done that in the past.

10. There was a typo in the closed area paperwork, it had Birch Harbor as EJ CA2 when infact it is EJ CA 1. Heidi corrected the mistake and Mike made copies and handed them out to everyone.

11. Mike told us that Alexander Drive area was actually EJ CA2 and that is because it is a conditional closure. That means if we have a rainfall event in 24 hours exceeding $\frac{3}{4}$ of an inch the area closes. The amount of water from the Guzzel is the reason for the closure. In the beginning when they started talking about the closure it was going to be closed all the time. After some discussion it was determined that they do it on the $\frac{3}{4}$ inch rainfall.

12. We talked some possible conservation activities for the coming spring. 1 idea was to check Stave Island Bar to see if any clams have set in and maybe add more brush. It was asked if we could plant a roll of mussels on the bar. Mike told us that he thought that if we do brush, we shouldn't put the brush so that it doesn't touch the flats, the reason for that is you won't create a place for green crabs to hide. We also talked about checking the clams at Joy Seas and maybe putting some brush down bay from that area. The last place we discussed was putting brush down bay from the clams that we panted at Alexander Drive this year. It was left that folks would consider other options to be discussed at the next meeting and decide on a course of action then.

13. Next Meeting will March 12, 2025 at 4 PM

14. Motion to adjourn to was made at 1707 hours by Alan, 2nd Jon, motion carried unanimously

Submitted By Shellfish Warden
Michael A. Pinkham

Otter control

Elizabeth Weiss USA TODAY

SAN FRANCISCO — A California ecosystem has gotten a big boost from an adorable, fluffy and hungry friend. • At Elkhorn Slough National Estuarine Research Reserve, a newly reinvigorated population of native southern sea otters has eaten so many invasive European green crabs that researchers say the otters have locally solved a problem that has plagued the West Coast for years. • States are spending millions to protect their inland waterways from the tiny crabs. Though small — they reach only four inches in width — the invaders harm native wildlife and shoreline ecosystems. At stake are multi-million-dollar shellfish industries for Dungeness, king crab and other species. • But at the reserve, otters have almost wiped the crabs out, helping the estuary's ecosystem come back into balance.

"The otters are a just super voracious predator," said Kerstin Wasson, research coordinator with the reserve. "We calculated that the current otter population here eats somewhere between 50,000 and 120,000 green crabs a year."

Green crabs are originally from Europe and arrived on the Pacific coast sometime in the 1980s. They are considered one of the most invasive species in the marine environment, destroying seagrass, devouring baby crab and salmon and basically laying waste to coastal waters from California to Alaska.

Alaska has an early detection and response plan in place, Washington has allocated \$12 million to fight the invaders, and Oregon encourages crabbers to harvest up to 35 of them a day.

In California, researchers from the University of California, Davis, spent years trying to eradicate them from the state's Stinson Beach's Seadrift Lagoon, only to have them bounce back with a vengeance.

But researchers in California's Elkhorn Slough have been watching the invasion for two decades, and they noticed something surprising.

"In 2000, the green crabs were quite abundant," Wasson said. And then over the past 10 years, they started to disappear.

A few things had happened in that time. The water in the seven-mile-long tidal estuary on Monterey Bay got cleaner. Native eelgrass beds were restored. The natural tidal exchange of water and marshes began to be restored.

And the sea otters came back.

Southern sea otters along the Pacific coast were hunted almost to extinction for their thick, soft fur, only gaining protection in 1913 when California declared them a "fully protected mammal." Even that didn't stop them from being hunted. Also at danger from oil spills, which robbed them of the ability to stay warm, the number of sea otters is believed to have declined to as few as 50 individuals down from as high as 300,000.

But by then it was almost too late. Southern sea otters were thought to be extinct until the early 1900s. Then a tiny remnant population was found surviving in Bixby Cove near Big Sur in 1914. The otters were listed as threatened and named a protected federal species in 1977.

From that small group, they began a slow comeback.

The first male sea otter arrived in the Elkhorn Slough, 35 miles north of Bixby Cove, in the late 1990s. Only in the early 2000s did females arrive, and soon thereafter pups, Wasson said.

The Monterey Bay Aquarium's sea otter rehabilitation program also released 37 pups into the Slough, helping create a thriving and robust community.

Today, the estuary is home to more than 120 otters and is the only one along the Pacific coast that has been significantly colonized by southern sea otters.

And they love to eat green crabs.

"Other marine mammals like seals have blubber to keep them warm. But sea otters don't have blubber, so they have to eat an enormous amount of food every day," Wasson said. While clams are their

Invasive crabs meet their match: Hungry sea otters

preferred food, the sinuous sea creatures were more than happy to chow down on the crabs.

As they did, a positive feedback loop began, what biologists call a trophic cascade.

"The otters eating the crabs benefited the eel grass, which contributed to better water quality" which helped the otters, said Rikke Jeppesen, an estuarine ecologist with the Elkhorn Slough National Estuarine Research Reserve who was the lead author of a paper published Dec. 10 about the otters.

The paper reported the welcome news that over the past decade, the Elkhorn sea otters have significantly reduced the impact of the global invaders.

"Back in the early 2000s, we would sometime catch up to 100 green crabs in one trap. When we set the traps in the same place today we'll get under 10 and

often not even five," Jeppesen said.

Green crab abundance was consistently lowest in Elkhorn Slough, the only California estuary with sea otters, the paper published in the journal *Biological Invasions* found.

Healing the ecosystem so the otters could come back had the win-win effect of helping manage an invasive species. "The sea otters, they're like an assistant manager for us," she said.

The pattern is striking.

"When the otter population was the lowest back in 2003-2004, we thought the green crabs were going to take over Elkhorn Slough," she said.

"And then they didn't. And for that we thank the otters."

