



MAINE CLAMMERS ASSOCIATION

Press Release

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FREEPORT'S GREEN CRAB STUDY A SUCCESS

Study confirms that predation is primary cause of soft-shell clam mortality, but also shows hope for the future

Freeport, ME, January 30- The green crab study commissioned by the town of Freeport, and utilized thousands of hours of volunteer labor, to assess the extent of the town's European green crab invasion has yielded quite a bit of valuable information, say clammers that worked on the research project. This data will help the state, towns, and clammers protect the soft-shell clam resource from total devastation.

"The data from this study will assist us moving forward as we develop fisheries management strategies to address the invasive green crab crisis and reorient our Municipal Shellfish Programs towards resource protection," said Chad Coffin, President of the Maine Clammers Association (MCA) and one of the clammers that worked with scientist Dr. Brian Beal in collecting data for the study. "This survey brought to light the need to transition our municipal and state Shellfish Wardens to focus on the oversight of resource protection efforts so that we can put the 'fish' back in Maine's fishing communities."

The study confirms some of what clammers had previously observed, including important findings about green crab population dynamics. For example, the study showed that invasive crabs change location when the water temperature changes—moving offshore in the winter. Also, the study showed that the best time of year to capture breeding females is in the fall season. This fact will allow other green crab trapping programs to be more successful in reducing crab populations through more targeted seasonal trapping efforts.

"One of the biggest findings that there is still a great amount of juvenile clams circulating in Casco Bay's water column. These juvenile clams are settling into the mudflats but are not surviving due to the high rate of crab predation," said Clint Goodenow, another clammer who assisted with the study and a board member of the MCA. "This finding is actually great news for Maine's clamming industry - it shows that if we implement protective measures, such as fencing and netting, we can stop invasive green crab predation and rebuild our soft-shell clam populations".



Overall, the study confirmed that invasive green crabs, not ocean acidification, are the primary cause of juvenile clam mortality.

“Invasive green crabs are the most significant factor in declining soft-shell clam populations. Through the study, we saw that in each area where protective netting was used over the clams that we had increased juvenile clam survival- in some cases dramatic increases in clam survival, “said Goodenow.

Other findings included confirming that smaller invasive green crabs inhabit and consume the inshore intertidal habitat. It is these smaller crabs that are responsible for considerable shoreline erosion. The study provided *Acer I* crab traps, built by Brazier Trap Co. in Waldoboro, to a joint study between the US Geological Society (USGS) and the Freeport and Brunswick Marine Patrol Divisions. This joint study confirmed that invasive green crabs are to blame for the almost total destruction of Casco Bay’s eelgrass beds. The loss of the eelgrass is a severe blow to the bay’s marine habitat and biodiversity.

Much was also learned about invasive green crab fencing design, construction, and installation. Green crab fences need to be strong enough to withstand tides and wind over the course of a season, and preventing crabs from burrowing under the fence is critical for fence effectiveness. During the study, maintenance of the fence was a problem from both a logistical and cost-effectiveness standpoint, which did compromise detailed scientific analysis. However, clammers are currently working on an improved fence design for a similar study planned for 2014.

All in all, Maine clammers are excited by Freeport’s findings, and ready to put them to work to continue the work of combating invasive green crabs and restoring health to Casco Bay.

“By funding this study, Freeport is to be commended for its environmental and economic leadership. The town’s commitment to stewarding their shellfish resources should be an example to other municipalities that are struggling with green crab invasion and the loss of the valuable soft-shell clam resource”.

The Maine Clammers Association brings together wild Maine clammers to protect the shellfish resource and the profession of clamming - an important part of Maine’s culture, economy, and food supply. The MCA promotes stewardship of marine resources through scientific research, education, and community-building. For more information see: www.maineclammers.org.

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