

## Researchers on the lookout for invasive organism

Derwin Gowan. Telegraph-Journal  
October 3, 2011

LORDS COVE, Deer Island - A scientist from the Atlantic Veterinary College says Charlotte County folks can help keep didemnum vexillum out of Canadian waters. "They have to keep going to church," Dr. Jeff Davidson said in a recent interview in Lord Cove. He and other researchers spent a couple of days on three vessels looking for this invasive "sea squirt" commonly called "pancake batter tunicate" on wharves and elsewhere around Campobello Island and Deer Island. By early afternoon when the Huntsman Marine Science Centre's vessel Fundy Spray and the Department of Fisheries and Ocean's Viola M. Davidson docked at Lords Cove wharf they found none - a good thing. With this exotic species already at Eastport, Maine, across a very narrow water from Campobello Island, a scientist - not completely joking - suggested going to church and saying prayers.

He and other researchers, divers and ships' crew spent two days looking for something they did not want to find. Jennifer Martin from the Fisheries and Oceans Biological Station in St. Andrews brought samples of pancake batter tunicate from Maine. "They've been dead for a year," she said. They will not grow if she drops them overboard.

This Pacific tunicate spread up the coast from the Damariscotta River in Maine, likely arriving with Japanese oysters for an aquaculture experiment near Booth Bay in the 1980s, Martin said. Pancake batter tunicate is a 'fouling organism' covering surfaces, altering marine habitats and interfering with fishing and aquaculture gear. It covers scallops, interfering with their growth, although they can breathe beneath this blanket. It has no known predators. Does it pose mainly an environmental or economic threat? "I would say it's both," Martin said. Besides the Atlantic Veterinary College on Prince Edward Island, and the Biological Station and the Huntsman centre in St. Andrews, researchers came from the Fisheries and Oceans Gulf Fisheries Centre in Moncton, the Bedford Institute of Oceanography in Dartmouth, N.S., and Institut Maurice-Lamontagne in Rimouski, Que.

They used underwater cameras on metal poles. Wires connected the cameras to computer monitors. Others donned diving gear. They also did beach walks. "We have not found any so far," Martin said. Didemnum vexillum has yet to show up in the Gulf of St. Lawrence but Prince Edward Island does contend with four other exotic tunicates - vase, clubbed, golden star and violet, Davidson said. "Those are the four major ones, so our work on P.E.I. is understanding the tunicates well and understand how they work," he said. "Why I'm here, in part, is now we don't have didemnum, so we want to come here and learn more about it."

On Wednesday Renee Bernier from the Gulf Fisheries Centre, watching the computer monitor, identified golden star. Her colleague Thomas Landry pulled up samples for others to see. Golden star does not cause a problem in the Bay of Fundy yet. "To get rid of them, I don't think we're going to," Davidson said. "Pest management" might include chemical and biological agents and timing activities. "It's not just treatment, it's a whole co-ordinated program," Davidson said. Early identification to set in motion a "rapid response" forms part of the program, Martin said. The annual search for pancake batter tunicate in the Bay of Fundy started in 2009.

Davidson helped develop probes using molecular biology to identify the larvae of exotic tunicates around Prince Edward Island before they attach themselves to wharves, boats and fishing gear. Scientists might develop a similar probe for pancake batter tunicate, he said. "So we can have an earlier system," Davidson said. "We can intervene a lot earlier." "They're hitchhikers," Davidson said. "They can come in ships' ballast water. "Just because you have an organism in the water or in the ship doesn't mean its going to establish in an area," he said. "It's quite an operation for them to take hold."

Pancake batter tunicate hooks onto pontoon wharves as well as boat bottoms because it stays under water, said biologist Murielle LeGresley from the St. Andrews Biological Station. Pulling boats and

pontoons out of the water can get rid of pancake batter tunicate, which dries out and dies in the air. Fresh water and vinegar will each kill it, too, LeGresley said. Scraping a small patch from a boat on dry land can work as long as it does not get back into the water, LeGresley said. Scraping large areas, especially from wharves or boats in the water, can make matters worse, LeGresley said. Pieces can break off and spread.

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