

Dive surveys help to track *D. vex* distribution

By Ed Ronco, KCAW, September 26, 2012

Jeff Meucci and Joe Stratman prepare for a dive in Sitka's Whiting Harbor on Aug. 27. A team of ADF&G divers surveyed the harbor over the course of two weeks, looking for an invasive tunicate called *Didemnum vexillum*.

State officials are learning as much as they can about an invasive species of sea squirt living in Sitka's Whiting Harbor. It was discovered in 2010 by citizen volunteers. The hope is to eventually wipe it out.

But before that happens, scientists need to know precisely where it is and how much is down there. And the best way to do that is to go underwater and have a look.

It's a rare sunny morning in August, and an aluminum skiff bobs in Sitka's Whiting Harbor. Jeff Meucci and Joe Stratman are wearing about 40 pounds of scuba gear, and sitting on opposite rails of the boat.

They enter the water and swim over to the shore line holding meter-long sticks, specially equipped with a compass, a clipboard and some waterproof paper. Their mission: to move along a straight line looking for *Didemnum vexillum*, or *D. vex*.

D. vex is known as a tunicate. Individuals are really, really small – smaller than the head of a pin – and they join together with their counterparts until they've formed a colony. That colony develops a rubbery tunic, and it grows and grows until it's dripping off underwater structures like docks or, in Sitka's case, coating parts of the sea floor. That can choke out life underneath, potentially causing serious harm to ecosystems.

The divers take turns underwater looking for where exactly the tunicate has taken hold. "Because if we want to eradicate it, we have to know where it is," said Tammy Davis, invasive species coordinator for the Alaska Department of Fish & Game. "I wouldn't say that the potential for spread is not here, because I do believe it is, but we haven't seen it expanding since 2010. What we found in 2010 is similar to what we're finding today."

Sitka is not alone in dealing with *D. vex*. It's been found around the world, including in the Pacific Northwest.

D. vex showed up in Washington's Puget Sound in 1998, but those records weren't discovered until later. The state of Washington didn't jump in until a 2004 discovery of *D. vex* at an underwater diving park in Edmonds.

Washington covered the *D. vex* with tarps and used chlorine and scraping to get rid of the *D. vex*.

“It appeared to eradicate that sample at the time,” said Allen Pleus, aquatic invasive species coordinator for the Washington Department of Fish and Wildlife.

But that was just one sample. Scientists found *D. vex* at nine different sites throughout the sound, and the state sank more than \$900,000 into addressing the problem.

“The difference between what’s happening in Sitka and what I’ve experienced in Puget Sound,” Pleus said, “is that the *Didemnum* up there is growing on natural surfaces, where the ones here were almost exclusively growing on artificial surfaces.”

Back in Whiting Harbor, the skiff has moved on to a new site. Diver and fishery biologist Kyle Hebert climbs out of the water and into the boat.

“Definitely saw some down there,” he says. “It’s definitely patchy. You see boulders with a patch on it, and then nothing for a while, and then you see another patch.”

Dealing with those patches will be a big challenge for the Alaska Department of Fish & Game. “Eradicating *D. vex* from the sea floor hasn’t been done successfully,” said ADF&G’s Davis. But she says it’s hard to say exactly how it will be eradicated.

“I’ve talked to people all over the world, and am hoping to get some really clear suggestions,” she said. “The response I get is, ‘Yeah, you have got a serious challenge on your hands.’”

Fish & Game asked for – and received – \$500,000 in funding to handle *D. vex*. It will take more money. How much more isn’t clear.

Davis says she understands there’s a lot of concern in Sitka about *D. vex*. But she says when the state finally goes in for the kill, it has to do it properly.

“I would hate to make a hasty decision and spend a lot of money and not do the best job that we could,” she said.

Until then, officials continue to ask the public to stay away from Whiting Harbor and prevent the spread of *D. vex*. The divers on this trip will go through decontamination back aboard the Kestrel – Fish & Game’s research vessel anchored nearby.

And what they learned – all that data on waterproof paper – will help Fish & Game develop a map of the distribution and figure out exactly what work needs to be done. Then, they’ll hire a contractor and get to work.

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