Tunicate invasion a threat to Oregon fisheries

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Oregon has been invaded by a species of tunicate which could cause widespread loss of shellfish in Oregon waters as well as fouling the surfaces of boats, fishing nets, water intakes, docks and buoys. The infestations have been found at Winchester Bay and Coos Bay. The colonial tunicate, Didemnum vexillum, grows in mat-like colonies that cover the feeding siphons of shellfish such as oysters and the feeding orifices other sessile creatures such as anemones and tube worms. The mats could also be a problem on the power generation buoys that are about to be deployed in some selected locations off the Oregon coast.

"This is not a welcome addition to our bays and now the clock is ticking," said Sam Chan, an invasive species specialist from Oregon State University and chair of the Oregon Invasive Species Council. "The fouling potential from tunicate invasions can be severe, given its ability to reproduce asexually by budding, or breaking off as fragments, and through sexual reproduction where tadpoles emerge, swim and attach themselves to surfaces to form new colonies.

"Didemnum vexillum was found in Puget Sound several years ago and the expense for treating this invasive species can be quite high," added Chan, who is affiliated with the OSU-based Oregon Sea Grant Extension program. "So it is important to determine how widespread the invasion may be."

A team of scientific divers, coordinated by the Oregon Coast Aquarium, will begin looking in Newport's Yaquina Bay – and perhaps other locations – for colonies of Didemnum vexillum while the Oregon Department of Fish and Wildlife (ODFW) assesses the risk and devises an action plan.

"We’re reviewing the literature for successful eradication projects on rocky outcrops or jetties, but we’re not finding a lot," said Rick Boatner, ODFW’s aquatic invasive species coordinator. "This is new ground for Oregon, and we’ll have to be creative with our solutions.”
Despite their ability to "foul" marine structures, tunicates also are being studied as a source of natural unique compounds that may have biomedical applications, particularly for the treatment of various forms of cancer.

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