

International Invasive Tunicate Workshop - Outline

Scotian Pride Conference & Tradeshow – January 2006

Background:

Invasive tunicates have now become a major concern on Canada's East and West coasts. The solitary species *Ciona intestinalis* and *Styela clava*, and colonial species *Botrylloides violaceus* and *Didemnum* spp. are currently severe impediments to shellfish farmers with a growing concern amongst all coastal resource users. Specifically on mussel farms in Nova Scotia and Prince Edward Island, invasive tunicates have proven to be fierce competitors for space and food, with their sheer mass causing mussels to be pulled off their lines and/or becoming completely engulfed and smothered.



Left-Middle: *Ciona intestinalis* on mussel farms in Mahone Bay, Nova Scotia

Right: *Styela clava* covering mussel lines on farms in Prince Edward Island

Internationally, tunicates are a growing concern, not only for aquaculture, but also for benthic fisheries where the habitat is become overwhelmed with invasive colonial tunicates. One such species group, *Didemnum*, is currently expanding across the Northeast Atlantic along Georges Bank, one of the most world's most productive and lucrative fishing grounds. This colonial species has been observed covering more than 110 square kilometers of the ocean bottom blanketing all life including commercially harvested invertebrates such as scallops and clams. Even more importantly is the concern raised by scientists is that this expanding tunicate population will drastically reduce benthic species diversity in its wake destroying critical fish habitat.



Left: *Didemnum* covering the ocean floor, surrounding a sea anemone

Right: GROWING FROM THE BOTTOM UP—WHOI Scientist Mary Carman examines the invasive, filter-feeding sea squirt species of the genus *Didemnum* living in the tidepools at Sandwich Town Beach on Cape Cod. This species spreads up from the bottom of rocks as it grows, covering everything in its path, including vegetation and shellfish. "Anyone who likes to eat seafood should worry about this," Carman said. (Photos by Tom Kleindinst, WHOI Graphic Services)

Proposed Workshop:

This workshop will bring together researchers from Canada, the United States and Europe along with affected industry and public stakeholders involved in aquatic farming and the wild fisheries. The emphasis of the workshop will be to bring awareness of the encroachment of these animals with a focus on how these animals can be managed.

The proposed venue for the workshop will be during the Aquaculture Association of Nova Scotia's annual Scotian Pride conference in January 2005. This nationally acclaimed conference has been a focal meeting for aquaculturists for over thirty years providing coordination and support to the development of the aquaculture industry in Atlantic Canada.