JAMES WATMOUGH, University of New Brunswick

Modelling the spread of aquatic invasives in tidal currents with both drift and maturation delay.

The Vase Tunicate (*Ciona Intestinalis*) is a nuisance species troubling Mussell farmers in Prince Edward Island, Canada. The life-cycle of the tunicate consists of a drifting larval stage, followed by settlement and a long maturation delay before the reproductive stage. Suitable habitat for settlement is patchy, and the drift is due to tidal currents. In this talk we present some results for a partial differential equation model including a maturation delay for the spread of the tunicate. This is joint work with Lisa Kanary and Andrea Locke.