## A shallow dive into molluscan behavior

- John Lugthart

- I. Introduction to Molluscs
  - a. Defining structural characteristics
  - b. Brief peek at mollusc taxonomy
- II. Reproductive behavior of freshwater mussels
  - it takes a village (or at least a fish) to raise a mussel!
- III. Predator avoidance in marine & freshwater gastropods multiple strategies
  - a. Marine nudibranchs making due without a shell with help from nasty chemicals, stolen weaponry, and by strutting their stuff ... "Go ahead, make my day."
  - b. Freshwater snails making due with a wimpy shell but a love of climbing When the going gets tough, get out of the water!
    - Predator Avoidance by the Freshwater Snail *Physella virgata* in Response to the Crayfish *Procambarus simulans* (Alexander & Covich 1991)
- IV. The wonders of cephalopod behaviors!
  - a. Brief introduction to the cephalopods
  - b. Nautilus a much diminished ancient group still hanging on to their external shell
  - c. Predator avoidance without an external shell squid, octopuses, and cuttlefish --- "Well, something's lost and something's gained in living everyday..." – Joni Mitchell
  - d. Those brilliant octopuses learning by watching!
    - Observational Learning in *Octopus vulgaris* (Fiorito & Scotto 1992)
  - e. Camouflaged cuttlefish: Don't mind me, I'm not here.

## Articles:

Alexander JE Jr, Covich, AP (1991) Predator Avoidance by the Freshwater Snail *Physella virgata* in Response to the Crayfish *Procambarus simulans*. Oecologia 87:435-442

Fiorito G, Scotto, P (1992) Observational Learning in Octopus vulgaris. Science 256: 545-546.