

CONNECTICUT CURRENTS

Excerpted from the:
NEWSLETTER OF THE SEA GRANT MARINE ADVISORY SERVICE

Eutrophication Of Coastal Salt Ponds And Estuaries – A Growing Concern By Tim C. Visel Regional Marine Extension Specialist

Field observations in neighboring states and some preliminary research here in Connecticut indicate eutrophic conditions exist in many coastal salt ponds and estuaries.

This problem of eutrophication and oxygen depletion is often of concern to coastal residents, especially fishermen. Oxygen depletion is particularly noticeable during the summer when water temperatures rise, lowering dissolved oxygen levels in sea water. In areas where circulation is slow, anoxic conditions can reduce or eliminate species of fish and shellfish from these areas.

Unfortunately, it is the same near-shore environments that provide spawning and juvenile habitats critical to the life cycle of estuarian-dependent species of finfish and shellfish. Some of the danger signs of coastal eutrophication are easily recognized:

- 1) Increased build-up of organic matter or debris such as leaves, sticks, logs, dense mats of marine algae – especially sea lettuce—and garbage on pond or cove bottoms. This debris can partially decompose forming a soft, black gelatinous material which may accumulate rapidly. Depths of one to five feet are not uncommon.
- 2) Absences of usual finfish and shellfish such as eels, blue crabs, flounder, clams and other shellfish. (Some coastal residents keep logs of season changes and/or Fishing seasons. These provide important historical background materials for specific locations or areas.)
- 3) Unusual smells or cloudiness of the water, especially white bottom films or white cloudy waters.
- 4) Fish and shellfish kills. Evidence of die-offs of shellfish populations and finfish, presence of dead fish or large numbers of dead fish cast up on the shore.

Those who wish to learn more about the problems of eutrophication should read “an Elusive compromise: Rhode Island Coastal Ponds and Their People,” by Virginia Lee, Coastal Resources Center, University of Rhode Island, Marine Technical Report 73. Copies of this publication are available from the University of Rhode Island, Marine Advisory Service, Publications Unit, Bay Campus, Narragansett, Rhode Island 02882.