The Connecticut River May Produce Seed Oysters Once Again

By Timothy C. Visel

Over a century ago, Connecticut oystermen were developing an industry that would become world renowned for its ability to produce large quantities of seed oysters. They observed that the rivers and streams that flow into Long Island Sound created a brackish element that was especially suitable for oyster growing.

The technique they used was called "natural growth." It was based upon the realization that young oysters, called "spat," attached themselves in great numbers on oyster shells discarded over oyster beds. Capitalizing on the oyster's spawning characteristics and the need of a clean surface upon which that spat must be affixed, oystermen began to "farm" river mouths and estuaries in the late 1850's. Connecticut oystermen cultivated these inshore areas by first laying down clean oyster shell "cultch" (at the precise time oyster larvae would be seeing a place to set), harvesting the newly set oysters as seed, and finally transplanting seed to grow-out areas or oyster beds.

The Connecticut oyster industry grew rapidly and by 1896, oyster growers planted annually over 8 million bushels of oyster shell, gravel and crushed stone in the process of improving unproductive ground for oyster culture. In 1898, Connecticut's oyster production peaked at slightly over 15 million bushels. (Over 100 million pounds of oyster meets.) Unfortunately, the Connecticut oyster industry was to collapse as quickly as it developed. This rapid decline of the natural growth oyster industry in Connecticut could be attributed to several factors, the largest being industrial and sewage pollution of harbors in Connecticut. In his address titled *Industrial Waste Prevents Self Purification of Water Courses,* delivered to a convention of the American Health Association in 1922, Dr. Thurlow Nelson examined this decline, nothing the outpouring of industrial waste incident to the war. "Let present conditions continue," he said, "and in ten years the oyster will only be a memory."

Forty-five years after Dr. Nelson's address, production of oysters from Long Island Sound had fallen to only 40,000 bushels, or less than 3 percent of earlier harvests.

In 1967, Connecticut's oyster industry received a government sponsored resource disaster grant in the hope of reviving the setting ability of inshore oyster beds. The project cleaned 15 natural oyster beds of predators and seeded them with adult oysters. It was one of the largest applied efforts ever undertaken to reproduce seed oysters under natural conditions. It worked. In 1973, Connecticut had its first widespread and intense oyster set in almost three decades. Since then, two additional rivers have been opened to seed oystering – the Hammonasset River in 1978 and the East River in 1979. It is hoped that other rivers will go into production shortly.

Various state and federal pollution abatement programs have lessened the serious pollution of Connecticut's inland waterways. Therefore, it is not surprising that many towns have experienced a dramatic increase in seed oyster production. However, over the span of a hundred years, people have forgotten the fundamental shellfish management techniques essential for successful oyster farming.

My graduate research at the University of Rhode Island involves developing the shellfish management program for Old Saybrook, Connecticut. Old Saybrook is situated at the mouth of the Connecticut River and has several miles of shoreline bordering Long Island Sound to the south and the Connecticut River to the west. In the last two years, several shellfish surveys have revealed two large natural oyster beds in the lower Connecticut River.

In the summer lf 1082, Old Saybrook transplanted approximately 100 bushes of oysters from polluted areas in the Connecticut River to offshore areas. In theses offshore areas a natural process called depuration will allow the shellfish to cleanse themselves so they can be harvested by recreational shellfishermen. Thus while the Connecticut River itself remains closed to shell fishing, this habitat may once again produce significant quantities of seed oysters. In addition, seed oysters from nearby rivers and streams could be planted in the lower river and allowed to mature until depurated for recreational harvesting.

In October 1981, I received a small research grant form CRWC to survey and map natural oyster bed in the Connecticut River. Included in this study will be a cultch experiment using bags of oyster shells to identify potential seed oyster producing areas. The towns of Old Saybrook and Old Lyme have given me permissions to survey these oyster bed and for the cultch experiments. If the water quality remains the same, and if the spat collector bags receive d a set, the Connecticut River will once again produce seed oysters.

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