THE RAINBOW SMELT

by Geoff Hogan, Springvale

Winter is typically the time when our attention is drawn towards clusters of little shacks that appear to spring up overnight on the ice of many rivers across Prince Edward Island. The people who use these shacks are after one species of fish, the Atlantic or Rainbow Smelt, Osmerus mordax, an abundant schooling species reaching 12 inches in length. 'Smelting' is a popular winter pasttime and active livelihood for many Islanders, and soon the little fish are available fresh daily in many local food stores. But what are some of the facts concerning the life history of the Rainbow Smelt?

Smelts are circumpolar fishes restricted to the northern hemisphere and, of the ten known species, only the Rainbow Smelt is common around P.E.I. Originally they occurred along the Atlantic coastal region from New Jersey to Labrador but during the early 1900's they were introduced into the Great Lakes system via Lake Michigan. The species is generally referred to as anadromous, meaning that part of the life cycle is spent in fresh water and part in marine waters. In fact, "living in the sea and entering fresh water to spawn seems to have been the usual and most successful way of life for smelt..." (Scott and Crossman 1973). Some populations of smelt however, for example in Newfoundland, Nova Scotia, New Brunswick and elsewhere, have become landlocked in inland lakes where there is no easy access to the sea and therefore complete their entire life cycles in fresh water. Quite often these landlocked smelts tend to be rather small compared to their sea-going relatives.

Smelts spend the summer months in the inshore coastal waters feeding upon a variety of invertebrates, including crustaceans and aquatic worms and occasionally small fish. By late September and October large schools of smelts begin to move into the estuaries and large rivers where they congregate for the winter months. Following the breakup of ice during April and May, the smelt, driven by instinct, begin their ascent into the upper freshwater reaches of the river and its tributaries to the spawning grounds. Thousands of the silvery-green fish make the journey,