Rainbow smelt are small, silvery fish, about 6-8 inches long. Smelt are native to Maine’s coastal bays and estuaries. They are sea-run or anadromous, meaning they spend most of their life in salt water but spawn (mate and lay eggs) in fresh water.

Smelt begin migrating into small tidal tributaries in April and May. Visiting the waterfront during the day, you may not see the smelt because they tend to run at night. The eggs can be seen as small specks on rocks and underwater plants along the shore.

Smelt and other sea-run fish provide a linkage of nutrients and protein between the ocean and inland watersheds. Smelt are eaten by mammals; other fish, including Atlantic salmon and striped bass; and birds such as ospreys, eagles, and gulls.

Rainbow smelt now range from Newfoundland to Massachusetts and are abundant in Maine, although populations are much smaller than they were historically. Smelt can’t jump over six inches, so their range is naturally limited by small falls and rapids. Human-made barriers such as culverts and dams further limit their distribution. If smelt can’t get far enough upstream, they may not reproduce successfully because salt water can kill their eggs. In 2008, the Maine Department of Marine Resources began monitoring populations of rainbow smelt and water quality in coastal rivers and streams as part of a regional conservation project with the National Marine Fisheries Service.

Large quantities of smelt were once harvested by commercial fishermen in Maine. Today, people fish for smelt with hook and line through the ice in winter and with dipnets in spring. In spring, up to two quarts of rainbow smelt may be harvested by anglers who have signed up with Maine’s Saltwater Recreational Fishing Registry.