

# Winter Sea-Run Rainbow Smelt Survey on the Kennebec River and in Merrymeeting Bay

## SAMPLING PLAN 2013

### Objectives:

- 1) To estimate the recreational catch of sea-run rainbow smelt during the winter fishery.
- 2) To gather information about the population dynamics of rainbow smelt over-wintering to better understand the growth, mortality, and sex ratio of the population.

### Sampling Plan:

All sampling data will be collected on a voluntary basis; no angler will be required to participate in this survey. Sampling will be conducted at all commercial smelt camps on the Kennebec River and in Merrymeeting Bay that agree to participate, including Worthings and Webbs in Randolph, Bakers, Sonnys, and James Eddy in Pittson, and Jims, Leightons, and Riverbend in Bowdoinham.

Catch Card boxes will be placed at each camp if the camp agrees to participate in this part of the survey. Boxes will be supplied with catch cards and pencils and a slot for anglers to deposit the cards. An explanatory sign will be placed above the box.

Samplers will visit one of the participating sites to collect biological information twice a week, and two weekend days a month. The sites will be visited on a rotating schedule; the frequency and number of times each site is visited will be determined by the number of angler fishing at each site from week to week. Samplers will ask anglers if their catch can be handled. If agreed, samplers will count all smelt measure smelt to the nearest millimeter up to 100M/100F per day, determine the sex of all smelt, take scale samples and complete the angler questionnaire.

### *Length/Sex/Count Sampling*

For each visit, measure up to 100 male and 100 female smelt between all anglers. All other smelt will be sexed and counted. All data will be recorded separately for each angler on separate forms. All other species will be identified and counted. If it is impossible to sex all smelt, the first hundred smelt will be chosen at random and will be measured and sexed.

### *Scale Sampling*

Scale samples will be taken in accordance with the separate Scale Sampling Technique.