

## Background for Biological Inventory Project at ILCS

Researchers in the Adirondack region are interested in initiating a All-Taxa Biological Inventory of the region (see attached article). Indian Lake Central School Living Environment students propose to test a system of inventory for small mammals and residents of vernal pools (in later years we added adult amphibians, worms and other soil invertebrates) that can be used in this inventory by high school students. Students will satisfy NYS science standards in both science, math and technology and english language arts as they research their animals, study sampling techniques, plan their research, carry it out and then present it at a conference. Students will work closely with the SUNY College of Environmental Science and Forestry staff at Huntington Wildlife Forest as they learn about and plan their inventory

Research Organisms (with English teacher)--short paper about a salamanders, frogs or small mammals (in later years we added adult amphibians, worms and other soil invertebrates)

Eastern redback salamander, spotted salamander, Eastern newt, Jefferson salamander, Dusky salamander, two-lined salamander,

red squirrel, chipmunk, deer mouse, white footed mouse, red backed vole, meadow vole, woodland jumping mouse, meadow jumping mouse, short-tail shrew, star-nose mole.

Prepare a short paper on one organism, including identification characteristics, habitat, habit, role in ecosystem... bibliography with at least three references. **January-February**

Visit from Research Scientist and Research Survey Techniques

Learn about the methods scientists use to study populations in the wild, radio collaring, sampling, trapping, etc...

Research technicians from SUNY College of Environmental Science and Forestry will talk to you about their research and help us answer questions about our own. **February**

Field Trip to research plot on ILCS Nature Trail. Develop sampling method

Visit the Adirondack Ecological Center in Newcomb to see their research facility and set up for gathering information about wildlife on Huntington Wildlife Forest (HWF). **tent. March**

Prepare a proposal for a poster board presentation on our work for the annual meeting of the Adirondack Research Consortium (with English Teacher) **by March 29th**

Plan and conduct sampling                      late April early May

Each group will spend at least 5 days collecting data from the sample plots

vernal pools Indian Lake area or if necessary HWF

## Small Mammals in Indian Lake

In later years we established artificial habitat boards for amphibians and other soil inverts on the nature trail, also we set up pitfall traps for beetles and shrews, sampled for worms using grids and mustard. The first year we borrowed small mammal traps from ESF, in following years we made tracking tubes to record animal footprints

Prepare materials (with English teacher)

Using the data we have collected prepare a poster board presentation for small mammals and one for salamanders

Present May 24th and 25th at Adirondack Research Consortium conference (with English teacher)

In May the ARC holds its annual conference. We send our poster up ahead of time with ESF staff and attend during one of the poster slots. Your team will set up your poster board and answer questions about your research and findings by people participating in and visiting the conference which will include the media, interested citizen's, scientists, government officials, policy makers and academics.