

## **BIOL 111 Adirondack Ecology and Natural History**

### **ECOSYSTEM PROJECT (Oct 20: Five References, Nov 17: Paper)**

The Adirondacks is a varied landscape, whose different forests can be interpreted by the careful observer - "reading the landscape". Traveling around the Adirondacks, we start to recognize these patterns in the forest and wetlands that are related to different elevation, soils, climate and moisture. In addition there are lakes and streams that add to the diversity of the Adirondacks.

Each student will be assigned an Adirondack Ecosystem for a 3-5 page written project.

#### Project

The project should focus on the following for each ecosystem:

- The Biotic Components: 15
  - Plants (Trees, shrubs, herbs or aquatic plants)
  - Animals (Birds, Wildlife, Fish, etc)
- Abiotic Characteristics of the ecosystem 15
  - The Physical Setting
  - Soils, Moisture, Temperature, Microclimate, etc
- Ecology 15
  - Producers, Consumers, Decomposers
  - An Example of a Food Web
  - An Example of Niche
  - Other Ecological Concepts: ie Keystone Species, Nutrient Cycles, Carrying Capacity, Primary Productivity, etc
- Natural Disturbance Processes 10
  - Succession
  - Spatial and Temporal Scales
- Human Impacts 5

#### Objectives

There are a number of objectives for this project:

- Become familiar with one particular ecosystem in the Adirondacks.
- Touch on various ecological concepts.
- Gain experience organizing and presenting material in writing.

#### Evaluation

Presentations will be evaluated on the following criteria:

- Content of Project (above) 60
- Writng and Organization of Project 25
- Use of Graphics or Visual Aids 10
- Citation of Sources 5