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## Summer Field Courses at the Audubon Nature Center

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The Audubon Nature Center is located eight miles from downtown Greenwich, Connecticut, and only 25 miles from the limits of New York City.

Operated by the National Audubon Society and directed by Mr. Charles E. Mohr, the Center comprises 280 acres of wooded hills, of fields, brushy pastures, swamps and streams, a lake and many woodland pools. Nearby is the Fairchild Garden, a 127-acre wildflower preserve, also operated by the Audubon Society.

The Audubon Nature Center operates on a year-round basis and serves as a community center for nature and conservation education and for recreation. For a ten-week period each summer, however, it becomes a training center for teachers and youth leaders from all over the country. With the aid of the director, staff, and expert consultants from federal, state, local and private agencies, the campers may plan a study unit or outline a curriculum, organize a conservation project or a school camping program.

My motive for attending one of the workshops was to discover new materials and new techniques for conservation studies in high school biology programs. I soon discovered that our studies were not to be limited to the Center, rich as its resources are. On the Daniel McKeon Farm near Ridgefield, we saw the most advanced soil and crop management practices. This struck us as being a Connecticut "Malabar Farm". When we studied water resources we visited New York's Kensico Reservoir, a few miles away. While this huge system sends three-quarters of a billion gallons to the metropolis daily, we saw types of settling basins and water supply treatment stations similar to those in most of our own communities.

Greenwich Point, on Long Island Sound, offered much in shore and tide-pool life. We saw a dozen species of gulls, terns, and herons, including the American Egret and the Roseate Tern. Salt water swimming was a new experience for some of the campers, since they



A great windrow of kelp, on the shore of Long Island Sound, contains a rich collection of marine life. A swim in the Sound and a picnic on the beach highlight the trip.

had come from a dozen states, some far inland.

Prior to visits from the consultants, the director or other staff members familiarized the students with the day's problems. From my notebook:

Aug. 14: 8 A. M.—“What a Forester Does”—Mr. Mohr.

1. Paces distances accurately. 2. Measures height of trees. 3. Estimates board feet of lumber in trees. 4. Scales logs for lumber content.

Each step was begun with a demonstration and followed by a period in which everyone took part. By the time the campers were reasonably proficient in the four skills, State Forester Raymond Kienholz had arrived from Hartford to spend a day conducting field work and lectures.

Just back from a cross-country trip, Dr. Kienholz declared that the best cared for forests and parks are state or federal owned. “Few privately owned forest tracts are being handled in a

manner likely to insure a continuous crop of timber.”

Another consultant was Dr. C. L. W. Swanson, Chief Agronomist, Connecticut Agriculture Experiment Station. He defined *soil* as medium for plant growth; *dirt*, as matter out of place. Speaking of *hydroponics* or *nutriculture*, Dr. Swanson said, “It's working, but is not economically practical. It is more important to keep soil where it is and treat it than to try substitutes.”

Dr. W. W. Reitz, Head of Educational Relations, U. S. Soil Conservation Service, Upper Darby, Pa., lectured on “Soil Conservation for the City.” He declared that “fertile soil is the basic capital of any nation. We have depleted our soil faster than any other country. . . . Land belongs to society. Just because man holds the title should not give him reason for exploiting it.” It was pointed out that while plastics are being used as substitutes for irreplaceable minerals, plastics originate in products of

the soil. Dr. Reitz outlined many projects which have proved effective in teaching conservation and showed how they could be fitted into the curriculum at many points.

Mr. Richard H. Pough, wildlife expert and author of *The Audubon Guide to Birds*, explained his method of censusing the bird and plant life at the Center. These studies are designed to document the relentless succession of plants in the gradual change from field to forest, and the inevitable changes in bird and animal life caused by the evolution of new plant communities.

Other consultants during the two-week workshop period included officials of the State Water Commission and the State Department of Health.

While the six "guest" lecturers presented the professional viewpoints, members of the regular Center staff, conducted most of the classes and each day integrated the demonstrations, lectures, and field trips with the classroom situation. They assisted each teacher in adapting the work to his or her needs.

Sound films, color slides, charts, and soil erosion demonstrations suitable for schools were in frequent use. Among the best films screened were *This Land of Ours* (Ethyl Corp.), *Realm of the Wild* and *Lifeblood of the Land* (U. S. Forest Service), *Trees for Tomorrow* (most State Forestry departments), *Clean Waters* (General Electric), and the old, but still magnificent and dramatic film, *The River*. While some film showings were held outdoors in connection with campfire programs most were given in the museum-headquarters which houses library, laboratory, and exhibits. Discussion of the use of each film followed its presentation.

Among the unusual exhibits are mural paintings, some by nationally known artists. They include marine life studies,



Forest conservation problems and the relation of plant succession to changes in wildlife populations are studied in the field. The giant sugar maple shown here once stood in a field, now is surrounded by a stand of young black birch and maple. Photo by Charles E. Mohr, National Audubon Society.

the life of a fresh-water pond, adaptations of animals to winter, food chains and other diagrams showing interrelationships, and plant succession. Many "audience-participation" type exhibits are suitable for use in the classroom.

Students live in *Mead House*, an attractive colonial dwelling. A spacious dining hall and recreation center, in a rebuilt barn, is just a few steps away.

This summer's program includes several types of sessions:

#### *Two-week Conservation Courses*

June 27–July 9, July 25–Aug. 6,  
Aug. 15–27



Biology teachers and students, and Frank C. Edminster, Regional Biologist, U. S. Soil Con-

### *Two-week Nature Leaders Training Course*

June 13–June 25

*Five-day Courses* (for Girl Scout and Campfire Girl leaders).

July 11–15

August 9–13 (for representatives of affiliated Audubon Societies—by invitation only).

Scholarships are being provided in many communities by garden and woman's clubs and conservation groups. For information regarding courses write to: The National Audubon Society, 1000 Fifth Avenue, New York 28, N. Y.

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servation Service, watch a demonstration of soil erosion with the use of standardized "run-off" boxes, each 1/10,000 of an acre in size. Photo by Charles E. Mohr, National Audubon Society.

## The Role of the Health Co-ordinator\*

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Good health, as the optimal functioning of the physical, mental, social and emotional aspects of the individual is basic for life; it is the foundation for the existence of towns and villages, states, nations, the world. Ill health has been cited as one of the major factors leading to crime, violence and war. There is evidence that ill health has contributed to the development of fascist societies. Democracy, in order to provide the fullest measures of constructive achievement, must have an absence, as nearly as practicable, of sick bodies and minds of its citizenry. Thus, in this nation, good health is as much a basic

right of the individual as are those rights of worship, of expression, of use of the printed word.

Transcending all other needs, that of good health must have educational re-emphasis if we are to preserve our primary heritages. Recognition of this latter premise has been afforded by our leading educators today. On the other hand, while a considerable number of words, written and spoken, have given credence to the importance of good health, progress in the prevention and eradication of illness through education in the public schools has been slow; this may be partly explained by the fact that while there is agreement as to the need for health education in the public schools, few are honestly endeavoring to carry

\* Address before The National Association of Biology Teachers at Washington, D. C., December 29, 1948.