



The Laboratory Called High Pond

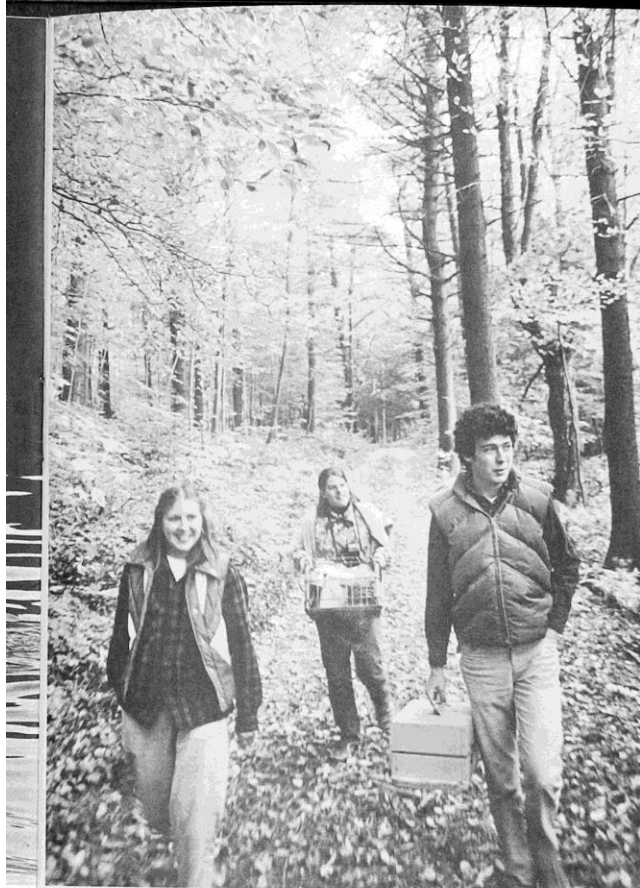
High Pond is a lush and secluded 2,000 acre tract at the 315 meter level, at the northernmost point of the Taconic mountain range near Brandon, Vermont. It is natural, primitive, uninhabited by man — pure. It is a rare setting in the Northeast: a place where one can measure energy as it flows in and is distributed without having to factor in man's presence.

The last farmers left High Pond shortly after the turn of the century. In 1930, the property was purchased by a local resident but it was eventually handed over to the Vermont Wild Lands Foundation which owns it today. It has been reverting back to its pristine state for more than sixty years.

In recent years, a small group of Middlebury students has been making a weekly trek up to the lake, the bogs, the pastures and forest that form the High Pond drainage basin. They are students of ecology and environmental science who spend a concentrated thirty hours each autumn weekend learning and applying the techniques and methodology of environmental analysis.

The majority of the students are in the general ecology program under the direction of Professor of Biology Howard Woodin, who is coordinator of Environmental Studies and a certified senior ecologist.

"There are a variety of advantages to doing our field work this way at High Pond," he explains. "First of all, it is a rare opportunity to have a base line study area like High Pond where we can perform control experiments against which we can compare our other research. There are few, if any, places left like this in New England. Because of its size — the actual



Left to right:

Early morning finds students returning to the lake for more research.

Students hike into the study area.

Water samples are taken from the lake during the night.



High Pond study area is a quarter of a square mile — and pristine state, we can offer our students something that few institutions can — the opportunity to live in, deal with and understand a complete ecosystem."

Students in the program are sophomore and junior majors in Environmental Studies concentrating in one of several Natural Sciences, plus geography and economics. Each Friday, during the fall, they gather at 11 a.m. for the half-hour ride to High Pond. Following lunch at the research headquarters, they start the first of four or five labs on the trip. The first afternoon is generally devoted to the demonstration and mastering of the analytical techniques they will need in order to carry out their research during the night and the next day.

"We get in the equivalent of twenty-five labs on five weekends," Prof. Woodin says. "What's more, students retain more of what they have learned working under these conditions — in teams of two or three out in a boat taking water samples at 3 a.m. They have nothing to distract them. It is a wonderful way to do science; students don't need that much sleep anyway and doing research in the middle of the night saves time."

Another significant advantage of this research area, according to the program director, is its size. "High Pond is small enough so that a student can understand it. Most drainage basins are much too large to comprehend all at once. At High Pond we not only know everything that is there but we can determine its specific role in the development of the ecosystem."

Students and faculty, working together on research, (High Pond provided material for twenty theses from 1966 to 1979) have measured and documented most of the physical characteristics of the area: volume studies, acreage breakdowns, chemical analyses of the lake, tree counts, analysis of the small mammal community, the geological stratigraphy and climate are all part of the lab work at High Pond.

Before students are through with the course, they will share their findings with others in the course and feed much of their material into the computer. After reviewing the current and past research in the area, each student will prepare a one hundred page lab report.

"And, in addition to this field work," according to Prof. Woodin, "no matter what science they may choose to concentrate in while in the environmental sciences program, we require students to take courses in the calculus, statistics and to have a working knowledge of the computer — we insist on a lot of hard science."

"By the time our students are through with this sequence, they have gone further than undergraduates at most any other institution. They are competent scientists, ready to be certified by the Ecological Society of America as ecologists."