Wild Life Sanctuary Developing On College Grounds at Amherst

Outdoor Scientific Laboratory Started This Fall Under Direction of Prof Goodale, Head of Department of Botany—60 Acres of Woodland East of Campus Discovered to Be Natural Aboretum—Herbarium Contains Largest Collection of New England Flora

AMHERST, Dec. 22 — The development of a wild-life sanctuary and outdoor scientific laboratory for undergraduates has been started at Amherst college under the direction of Prof Alfred S. Goodale, head of the department of botany. During the fall 30 students who sought financial assistance were given work through the acceptance of federal emergency relief funds. The boys not only have been given the aid needed to help put them through college, but they have benefited from a physical standpoint and have acquired an intelligent interest in its educational aspects.

Some time ago the college acquired the 60-acre tract of woodland and meadow as part of its general policy of buying land nearby for possible future expansion. It is located directly east of the campus and is within 10-minutes' walk of Prof Goodale's laboratory in Appleton hall. Except amid the pines most of the land was rough and covered with brush and wild grass and weeds. In 1929 Charles A. Andrews, treasurer of the college, suggested it be cleared to make it more valuable and attractive and to help those students who had applied for scholarships.

Natural Aboretum Found

When the worthless growth had been cleared away a valuable natural aboretum was found. Many plants and trees indigenous to the region were growing in their rich, natural soil. Prof Goodale quickly saw the recreational and educational possibilities of the tract and the sanctuary idea took form. A brook of sparkling water from natural springs has been cleaned out and dammed, producing two pools for aquatic, animal and plant life. From a scenic standpoint the value of the tract has grown greatly with this improvement.

Already 3500 new trees have been set including white pine, red pine, spruce and balsam. The rarer trees have been cultivated and given a chance to absorb sunshine. More trees and shrubs will be planted and as the soil is well adapted to orchid growth the cultivation of rare wild flowers will become a part of the program of development. Pink and white lady slippers may now be found there in season. With the growth of seed-bearing shrubs bird life will be wooed and they will be fed during the winter. Deer, pheasants, partridge and quail sought refuge there during the recent open season. The tract will furnish an interesting experimental ground for the study and control of fungous diseases and insect pests. Visitors who are willing to cooperate in the preservation of the wild life, are welcome at the sanctuary. Firearms, traps and snares, of course, will not be tolerated and fires will be prohibited.

In care of Prof Goodale and his department the college also has placed the Hallock tract south of Pratt field with its old growth of pine and oak. Scientific forestry will be practiced there and it will be made a garden of wildflowers always under protection. Working in these two tracts for the students is a constant joy and inspiration.

Largest Herbarium of N. E. Flora

Prof Goodale is a native of Amherst and is a graduate of the Amherst high school and of Amherst college with the class of 1898. Through association for 31 years with the department of botany at the college no one is better informed on the flora of Western Massachusetts. Under his skilful direction the Amherst college herbarium has grown greatly the past few years. It now consists of 77,600 specimens mounted on separate sheets. The oldest is dated 1814. It is the largest herbarium of New England flora in existence. For two seasons Prof Goodale and an assistant were roaming over the new metropolitan watershed and contiguous territory gathering specimens in the towns of Enfield, Ware, Dana, Greenwich, New Salem, Petersham, Shutesbury, Orange and Athol. As a result of this painstaking, scientific work Amherst college has the only complete herbarium of the Swift river valley.

About 20 years ago Prof Goodale saw in one of his favorite wildflower nooks at Granby a fringed gentian plant three feet high with 70 blossoms. Of course he did not disturb the plant, which was one of the most extraordinary he has ever seen, but returning in subsequent years he never could discover its counterpart. The plant died apparently leaving no descendants. Walter Markert, who this year was appointed assistant to Prof Goodale in the department of botany, discovered an unusually fine specimen of showy lady slipper at Shelburne Falls. Mr Markert was graduated from Springfield college in 1931 with the degree of bachelor of science.

In the list of herbaria of New England compiled in 1901 by the late Mary A. Day, the Amherst college herbarium was described as containing "about 12,000 species, of which 2000 sheets represent European species and the remaining 10,000, American; the latter exhibiting chiefly the flowering plants from that part of the United States east of the Mississippi river." During the 33 years elapsing since the publication of that statement the size of the collection has increased more than six times.

Its nucleus was assembled by President Edward Hitchcock, an enthusiastic collector and a critical observer of the plants occurring in Amherst and nearby towns. He published the first list of plants of this vicinity. He was the first teacher to be appointed to a chair of botany in any American college. The Amherst herbarium has a very full representation of the local plants, which he gathered and this is a valuable supplement of the work begun by President Hitchcock. The Hitchcock and Tuckerman collections from the local area were still further enriched from the activity of the late Prof Henry G. Jesup, who, before going to his long service at Dartmouth college, held a pastorate at Amherst.

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Valuable Chinese Ferns

A valuable set of Chinese ferns gathered by the late Rev Charles Hartwell, for many years a missionary in Foochow, was given to the college and in 1929 came the J. E. Walker collection gathered in the province of Fukien. From India came the collection of Samuel B. Fairbank, who for years was a missionary in that country. Former Western Massachusetts students of Prof Levi H. Elwell of the department of Greek recall that as an avocation he was keenly interested in the pursuit of botany. Prof Elwell was graduated from the college in 1875. Of his zeal as a collector Prof Goodale has written:—

"He might be often seen starting out at any time in the spring for some secret haunt where the rarest specimens grew and would return to tantalize us here with his findings, though he would seldom tell us where he obtained them. He knew very well the flora of the local region and exchanged widely. Even when on sabbatical absence in Europe his beloved vasculum accompanied him to Greece and he did not return empty handed. In fact one species of Grecian plant bears his name. Mrs Elwell has generously presented his herbarium to the college."

When Prof Goodale was a student in college the head of the department of biology and botany was Prof John M. Tyler. To him Prof Goodale paid this notable tribute: "Those of us who were fortunate enough to be in his classes will always regard him as an exemplification of keenness of observation, accuracy of statement, breadth of vision and openness of mind. Yet the glib youngster who essayed to bluff the genial professor was hauled up short with the remark that it was 'mighty lucky that the Almighty did not make animals (and plant) that way.' He had a thorough knowledge of the local flora and often went on excusions with us and with his long stride made us bestir ourselves to keep in speaking distance. He inspired us to master the facts and to think for ourselves. To him Nature was an open book to be approached with an inquiring, but reverent mind."

The former President Pease of Amherst, now on the Harvard faculty, gave a new impetus to the study of local flora at Amherst and he contributed to the Amherst herbarium many sheets of his own collecting in the New England states, the northwestern states, Europe and Canada. Prof Goodale and associates have explored carefully the Connecticut river watersheds and the valleys of the Westfield, Chicopee, Deerfield and Millers rivers.

Need More Common Plant Lore

"We are glad to find rarities," says Prof Goodale, "because of their value in orienting the possible relationships and origins of our flora, but we are firmly convinced that we need to know much more about our common plants which determine as it were, the physiognomic characteristics of our area."

Prof Goodale says that probably the most famous botanist to be graduated from Amherst college during the past 40 years was Edward L. Morris of the class of 1891. The year following graduation he spent at the herbarium of the Worcester Natural History society and the second year in graduate study at Harvard. Returning to Amherst he was for three years laboratory assistant and instructor in biology.

"While here he made a reputation as an enthusiastic worker, a patient investigator and a close observer," says Prof Goodale. "His main interest was botanical. He was called to teach biological science in the high school of Washington, D. C. After 10 years in this position he resigned in 1907 to assume the curatorship of the Brooklyn Institute of Arts and Sciences. He collected extensively in the Amherst region and later in the southern and western parts of the United States and many of his specimens may be found in our herbarium. In addition to his teaching he was employed as an expert by the department of agriculture and found time to contribute many articles to the leading journals in plant science. His accidental death in 1913 removed an outstanding educator and systematist in the very zenith of his career."

ONE OF THE PONDS IN NEW WILD LIFE SANCTUARY OF AMHERST COLLEGE