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SUMMER FIELD WORK
PROGRESS REPORT
OF THE
RESEARCH PROJECT
ON
THE FLORA AND VEGETATION ECOLOGY
OF ISLE ROYALE NATIONAL PARK

Fall '78

Submitted by

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Chief Investigator

This report will describe the field work accomplished during the summer of 1978. Our efforts during this period were primarily directed toward data collection. The remainder of our research year will be devoted to processing this data. In May of 1979 we will submit a final annual report of our findings.

Logistics

I arrived on Isle Royale in mid-May via motor vessel Ranger III. Two student field assistants were each hired for a period of five weeks. In addition, three other students helped out as volunteer workers at various times during the summer. A base camp for these personnel was set up in mid-June at the Rock Harbor Research Camp. Transportation from this point to study sites was via 18-foot outboard runabout, canoe, the motor vessel Voyageur II or on foot. Field work ended on August 26, when the remaining personnel returned to the mainland.

Procedures

One of the projects that was started in this year's research was an inventory of all vascular plants of Isle Royale. This is to include a determination of their habitat preferences and their relative abundance. We visited several representative areas of each habitat type (bog, swamp, dry open ridges, exposed rocky Lake Superior shores, boreal forest type, maple forest, etc.) throughout the year. Plant collections were made to verify identification and each species found was classified as rare, scarce, common, or abundant in that particular site.

A second project in this year's research activity is the study of recent burns and blowdowns. Two of these, one at Card Point and the other at McGinty's Cove, resulted from natural fires which were permitted to burn

under the new "let burn" policy for Isle Royale National Park. These had been previously studied in the summer of 1977, at which time permanent plots had been established. The vegetation in these plots were sampled again this year using the same methods as in 1977.

Three other recent burns, all man-caused, were studied somewhat less intensively. These were located (1) on the Greenstone Ridge about 1 mile northeast of Mt. Ojibway, (2) about 200 feet from the Daisy Farm Trail and downslope about 1/4 mile from the crest of the Greenstone Ridge and (3) at the terminus of the Lake Mason Trail on the north shore of Lake Mason. On each of these a reference line was established approximately parallel to the longitudinal axis of the burn. Sampling lines were then established perpendicular to the reference line at intervals which varied with the size of the burn. Ground cover vegetation was sampled along these lines using the line-intercept method. Tree seedling counts were made in 2 meter wide strips straddling the sampling lines. Trees were sampled (counts and d.b.h.) in 4 meter wide strips similarly oriented.

Two recent blowdowns were also sampled. One was located on Locke Point about one mile southwest of the tip. The other was located across Houghton Point about 3/4 of a mile southwest of the tip. Both were sampled by the methods described above for the three burns.