

AN INTERESTING BOTRYCHIUM HABITAT.

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A common experience for a botanist is to go collecting in a well-worked locality and find some interesting plant that was not known there before. Such an experience came to me the past summer on Cedar Point, Erie County, Ohio. The Point has been worked botanically for many years by various collectors, including myself.

One day in the last week of June, I visited the north bank of the large lagoon in the woods north of the summer resort. I gathered a number of plants of no special importance and took them to the Laboratory in my vacuulum for study. The following morning while throwing out the material, I noticed a broken specimen of *Botrychium simplex* Hitch. clinging to one of the plants. I was naturally delighted, for no specimens of this plant were known from Ohio although the name was on the State list. I returned to the place and soon found the plants in abundance. A little farther on I found *Botrychium neglectum* Wood, also in abundance. This was another rare Ohio plant, being known only from a few localities in the north-eastern part of the state. Then I concluded that there certainly must be others. So a little search brought to light *Botrychium obliquum* Spreng. besides *Botrychium virginianum*, which was on the Cedar Point list, being quite common. No more *Botrychiums* were found although I thought there should be others, but the search, made partly on hands and knees, ended with adding *Ophioglossum vulgatum* L. to the collection. This made six of the *Ophioglossaceae* growing in an area not over two rods in diameter.

Not only were the sporophytes found but gametophytes of all the species were dug up. These were mostly located by the tiny juvenile sporophytes projecting above the surface of the soil. *Botrychium dissectum* has the first tiny leaf of the typical shape. A whole series of juvenile stages was seen without the slightest indication of a generalized type of leaf. I naturally supposed that the first leaf would have some of the characters of *Botrychium obliquum* of which species it is by some thought to be a variety or form. The plants could, however, not be more clearly defined. They show the specific character from the beginning. This seemed especially interesting since so commonly there is a very decided similarity of juvenile forms in closely related species.

The place is an open thicket of *Rhus hirta* and other small trees and shrubs. The soil is sandy and rich in humus, partly dry and partly swampy. It is hoped that notwithstanding its nearness to the summer resort, this habitat will be undisturbed for

some time to come. The two rare species, *Botrychium simplex* and *Botrychium neglectum*, were past their prime. They probably begin to ripen their spores about the 15th of June. Time prevented making a thorough study of the surroundings and there may be other surprises in the future for the careful observer.
