

*POLYPODIUM VULGARE* L. (Common Polypody). Found on the tops and upper ledges of rocks where the soil is well drained; the usual shade-producing plants associated with it in this habitat are poplar, paper birch, small hard maple and hemlock. Also found rarely on clay banks where the soil contained a little sand; in this habitat it was practically unshaded as the slopes were typical hemlock ridges. The plants under the latter conditions were dwarfed, probably from lack of shade rather than from the nature of the soil.

*CAMPTOSORUS RHIZOPHYLLUS* (L.) Link. (Walking Fern). Is found usually in crevices in limestone and sandstone rocks, but sometimes rooting in moss on narrow ledges. Appears to prefer the shady side of the rocks, but thrives fairly well in the sun. It is found in abundance on the rocks that cover the clay slope at Credit Forks.

*ASPLENIUM TRICHOMANES* L. (Maidenhair Spleenwort), and *ASPLENIUM VIRIDE* Huds. (Green Spleenwort) are found rooting in the crevices of shady rocks and cliffs: usually limestone or sandstone. They are not sensitive to lack of moisture, but *A. viride* does not stand exposure to the sun so well as the other species. Both the ferns are associated at Credit Forks among the talus on the clay slope.

*ASPIDIUM THELYPTERIS* (L.) Sw. (Marsh Fern). The ideal habitat of this fern is decidedly wet, as it is found growing usually with cat-tails. Shade is not an indispensable factor, but the fern is sheltered when thriving best. The shade producers are commonly cedar, black ash, soft elm, hemlock and occasionally basswood. In moist situations, under full illumination, the fern thrives and it will grow in a fairly dry situation until crowded out by grasses and sedges. It shows a high degree of plasticity in relation to the environment, more so than any of our native ferns, unless perhaps *Pteris*.

*ASPIDIUM NOVEBORACENSE* (L.) Sw. (New York Fern). In direct contrast to the preceding species, this fern is found in dry soil, but always under dense shade in the typical "cool woods." It is very abundant in a woods near Lake Huron; there it is associated with partridgeberry, pyrolas, and shaded by birch, hemlock and maple. Maple and beech underbrush were also important factors in shade production. As only a few inches of humus was covering a somewhat impervious substratum of sandy loam, sufficient moisture was ensured. The rootstocks of the ferns did not penetrate below the humus. In mucky parts of the same woods *Polystichum acrostichoides* and *Adiantum pedatum* were associated with this fern.