GEOPHILOUS PLANTS OF OHIO, II.

FREDERICK J. TYLER.

The underground parts of plants are often of value as a means of characterization, and if the plant is a weed they become of the greatest importance; as the worst weeds are almost invariably geophytes. Very little information is given in most of the manuals upon this subject, and what is given is not always satisfactory.

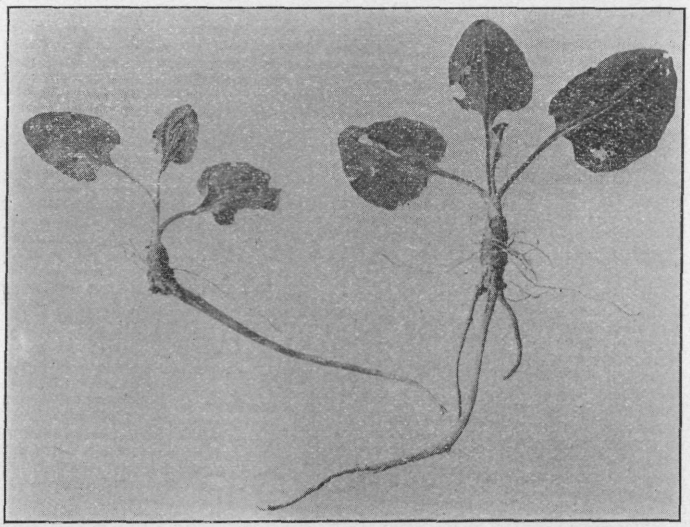

Figure 1.

The terms used in describing geophytes are in every day use, except one—the crown. This term is applied to an herbaceous perennial which has but one upright stalk the first year. This dies to the surface of the ground at the end of the season, but the short, upright, underground stem survives. It then sends up lateral branches, which in some cases grow out several feet, in others only an inch or so before coming to the surface. This branching, however, usually takes place in the Autumn and often the entire crown of lateral branches is formed some time before the parent plant is cut down by frost.

The following notes, and others, to be given later, are intended to supplement the notes on Geophilous Plants of Ohio in the *O. S. U. Naturalist*, 1:21:

Hypericum ascyron L. A large woody root, surmounted by a close crown.

Gentiana andrewsii Griseb. An oblique rhizome, about 2 in. long, with numerous fleshy roots showing root contraction.

Corallorhiza odontorhiza (Willd.) Nutt. A small bulb, sending out the coralloid roots from the base.

Lespedeza frutescens (L.) Britton. A long woody tap root, surmounted by a close crown.

Lespedeza procumbens Michx. A close crownformer.

Lespedeza violacea (L.) Pars. A long tap-root and close crown, sending up from 10 to 20 annual shoots.

Lespedeza hirta (L.) Ell. A crownformer.

Meibomia pauciflora (Nutt.) Kuntze. A rhizomatous crown former. The rhizomes are slender, a foot or more in length, and branching. At the point of emergence there is usually a cluster of annual stems.

Thalictrum purpurascens L. A crownformer.

Coreopsis tripteria L. Rhizome composed of annual segments which are about 1 inch in length.

Epigaea repens L. Rhizomes long and slender, close to the surface of the ground.

Cypripedium acaule Ait. Rhizome 2 or 3 in. long, sending out numerous strong roots. The annual growth in length is very small. In one specimen examined the growth of four years amounted to only 6 lines.

Waldsteinia fragarioides (Michx.) Tratt. Rhizome 4 to 12 in. long, slender. Lateral branches numerous.

Plantago cordata Lam. An oblique rhizome of unique habit. The rhizomes of large plants are ½ to ¾ in. thick, and are solid for 2 or 3 in., but back of this the center rots away, leaving a shell which splits up to the base. In small plants it splits but once, forming a flat or slightly incurved ribbon. This becomes rounded, and seems to perform the function of a root. It, however, dies off gradually at the posterior parts. In fig. 1 the split portion is still united near the middle of one of the specimens, and a portion of the posterior end is dead. The root-like portion of the rhizome is much longer than the true rhizome.

Plantago rugellii Dec. A short, upright rhizome.

Plantago major L. A short, upright rhizome.

Lobelia syphilitica L. A close crownformer.

Geum canadense Jacq. A short, horizontal rhizome.

A specimen of the large Noctuid moth, Erebus odora Linn., was taken by members of the class in geology who were out for a field excursion on October 5th. So far as I am aware this is the first record for the capture of this species in Central Ohio. The specimen was said to be in excellent condition when taken, but was slightly rubbed and torn in bringing it in.