

or insects, but after floundering through slush and water over boot tops, the food question still remained a mystery. At 5.30 p.m. three Robins perched in trees and started warbling, and continued so for ten minutes. The movement of the Robins and Bluebirds over the surface of the snow was an interesting sight. In the hardwoods adjoining, two Yellow-bellied Sapsuckers, one White-breasted Nuthatch, one Downy and one Hairy Woodpecker were seen. As I lingered about a Slate-coloured Junco joined the group on the ground.

Westmount, Que.

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ABERRATION IN *HEPATICA ACUTILOBA*.

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The common Liverleaf of our western Quebec woods, *Hepatica acutiloba* DC., is not only a very handsome plant, but also the subject matter of more than one interesting morphological problem. It can be, for instance, asserted that nearly every beginner in botany has been misled by the three-bracted involucre subtending the flower, thus encountering much trouble in using the keys of the manuals.

That this pseudo-calyx is strictly an involucre is evidenced by the fact that the parts of it show, in certain teratological specimens, a tendency to cleave after the manner of a well-known group of Anemones, of which *Anemone canadensis* L., is a good example. Holsted (1) hints at the fact, and Goffart (2) after a careful study of the leaf anatomy, holds that *Hepatica* cannot be separated from *Anemone*.

We wish to record here some particular instances of abnormality in *Hepatica*. Figure 1 illustrates a specimen collected in Longueuil, Que., during the month of May, 1914, in which the bracts make a partial return to the leaf form. One of them is nearly perfect in outline, though of small size; the other two are merely enlarged, retaining their original form. The flower itself, markedly depauperate, is dioecious.

In April, 1916, we observed on the St. Bruno Mountain, among a luxuriant growth of *Hepatica*, specimens departing from the type in the following particulars: flowers of an infrequent

(1) Holsted, *Bull. Torr. Bot. Club*, 14: 121.

(2) Goffart Jules, *Recherches sur l'anatomie des feuilles dans les Renonculacées*, Arch. Inst. Bot. Univ. Liège, III, 1901.