

SOME MONSTROSITIES IN TRILLIUM.*

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The genus *Trillium* occasionally shows interesting variations, not only in the form, but especially in the number of the parts of the foliar and floral parts. These changes in form and phyllody are especially conspicuous about this region in the species *Trillium sessile* and *Trillium recurvatum*. Of these some notable variations have been observed. Two specimens were found growing within a meter of one another, one being *Trillium sessile* and the other *Trillium recurvatum*. In both of these specimens no trace of the usual stamens or pistil were present. All parts of the flowers were completely transformed into floral leaves, which in *Trillium recurvatum* were considerably larger, with the exception of the central ones, than the usual parts of normal flowers growing near them. In *Trillium recurvatum* the number of these leaves in the flowers without reproductive organs was twenty-three (23) and in the *Trillium sessile* fourteen (14). No gradation from petals to stamens was observed in these specimens, such as is sometimes seen in the Nymphaeaceae. The number of sepals and floral leaves, the venation and other features were normal in both of the specimens above named.

A third interesting variation was seen in another specimen of the *Trillium sessile* in which the usual parts were present, but varied in number. To enumerate—there were four floral leaves, somewhat smaller than in normal specimens, three small sepals, four large partly greenish petals, three small stamens and four styles. This change in the size and especially the number of very close successive whorls of the foliar and floral leaves was all the more striking inasmuch as the individual members of the whorls were very uniform in number and size. This particular plant was considerably smaller than normal specimens.

Some other specimens of *Trillium sessile* and *recurvatum* showed a sepal and petal either partly, or in some instances wholly, grown together. In these cases the sepal half, which could be distinguished by its position, was much greener than the other or petal part, which was partly white.

*See also *Bott. Gaz.*, vol. 16, pp. 163 and 231, and vol. 19, pp. 137 and 460.

Trillium erectum also deviated somewhat from the usual appearance, without a multiplication of parts but apparently merely a partial substitution. For example, one specimen had the usual floral leaves, three sepals, five petals, four stamens and two styles. In all other respects these plants were normal. Some flowers of the other species have shown a tendency to unite two or more of the parts. Some slight deviations in *Trillium nivale* have been observed in the way of a union of the floral parts.

It would be an interesting point to determine whether or not the plant arising from a rhizome showing such changes as here mentioned would appear afterward. Accordingly experiments of this nature are in progress.