

or decayed remains of other plants; while others like *Monotropa uniflora* . . . obtain part of their food from living plants."

In Ealfour's Class Book of Botany, 3rd Ed., p. 848, the only statement I find is "Monotropaceæ; parasitic plants . . . chiefly found parasitic on firs in Europe, Asia and North America."

Sachs, translated by Bennett and Dyer, 1875, p. 620: "Parasites draw the products of assimilation directly from their hosts, while saprophytes (as . . . *Monotropa*, many fungi, &c.) make use for the same purpose of the materials of other plants which are already in a state of decomposition."

To add to the uncertainty it has been asserted that a connection has been observed between the *monotropa* and its supposed host. If so, that settles the matter. But as I am aware of only two cases in which this is alleged, may we not withhold our assent until more observation have been made. It is possible the observers may have been mistaken, and any one who examines the root of *Monotropa uniflora* will find it is not at all like a parasitic root. This is only presumptive evidence; apart from this I have carefully looked for the connection between the *monotropa* and the root of some other plant upon which it might be fastened, but I have been unable to trace the connection. Perhaps the appearance of the plant has misled some observers, a colorless plant being commonly regarded as a parasite. This is an assumption. *Monotropa* is apparently without a particle of chlorophyll in its composition, and therefore has been assumed to be incapable of living and growing by making use of any food that has not been elaborated and prepared by a means of chlorophyll.

The analogy of the action of the germ in seeds, utilizing starch, oil, &c., contained in the seed for the growth and development of the very young plant, would give some encouragement to the contention that our *monotropa* may be able to use the organic matter of decaying leaves, &c., in its growth and development. The analogy may be set over against the assumption; but if it can be shown that our plant can grow and develop when only such material is supplied, the assumption should be abandoned as untenable. The following happened with me: A mass of soil and *monotropa* was put in a glass vessel, watered and set aside to await a convenient time for the examination of the roots,