IS MONOTROPA UNIFLORA A PARASITE?

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This note had its origin in a chance question put at one of Mr. R. B. Whyte's admirable afternoon lectures on botany. The discussion which followed showed that members of the Ottawa Field-Naturalists' Club were divided in opinion in regard to the parasitism of *Monotropa uniflora*, or Indian pipe, some holding the plant to be a parasite, others disposed to believe that it was not. Now, what is a parasite? It is desirable to know precisely what is meant by this term, because one person may mean one thing by it, another person may understand a different thing. To settle the usage a number of authors were examined. They mean by a *parasite* a plant which has an organic connection with another living plant, and thus derives nourishment from the latter. Parasites differ in the extent to which they draw sustenance from the plant to which they are attached. The relation may be illustrated by what is commonly known to be the relation between animals and their animal parasites. The parasitic plant bears the same relation to another plant that a louse or a tapeworm bears to the animal which supports it. A plant parasitic on another may be said to steal a part or the whole of its living, its food, from the plant to which it is attached.

To answer the question at the head of this note, the following plan can be adopted:—

We can consult standard books. This has been done. The authors do not agree. Macoun, Spotton, Wood, Gray, Goodale, and Balfour either positively assert that *Monotropa uniflora* is a parasite, or their language would lead a reader to believe it to be parasitic. Gray is self contradictory. Sachs speaks of monotropa as a saprophyte, and therefore not parasitic. By saprophytes he means plants which make use in their growth and development of the materials of other plants, dead ones, which are already in a state of decomposition. The position of Murray is this: "No case has yet been satisfactorily made out for the parasitism of this group (monotropa)."