THE ROOT PARASITISM OF EUPHRASIA SALISBURGENSIS Funck.

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It is usually held that the genus Euphrasia is a root parasite upon various grasses and *Carices* (Koch, 1891; Wettstein, 1896; Townsend, 1897). Although there have been occasional reports of Euphrasias growing without the aid of root parasitism, it is generally stressed that such plants were depauperate, failed to flower, or died quickly. Heinricher 1898A, 1898B, 1901), however, working in Germany, listed as hosts species of the following genera:—*Poa, Avena, Festuca, Carex, Luzula, Senecio, Trifolium, Capsella* and *Epilobium*, but this work appears to have been almost completely ignored (Boeshore, 1920).

In August 1949 the root systems of *E. salisburgensis* were investigated on the Altiplano of Monte Majella in the mountains of the Abruzzi, Italy. Individual plants averaged 3 cms. in height, their root systems often growing down more than 10 cms. All were flowering and colour variations occurred. The data presented below indicate that plants of this species, at least, have an even wider range of hosts than has been reported previously and from an equally wide range of families.

Name of Plant.	No. of cases of parasitism observed microscopically.	No. of cases of probable parasitism observed in the field (hand lens).
**Dryas octopetala* L.	4	6
Helianthemum grandiflorum DC.	3	2
Saxifraga Aizoon L.	1	
**Draba aizoides* L.	1	
Salix retusa L.		3
**Silene acaulis* (L.) Jacq.		2 + †
**Trinia glauca* (L.) Dum.		1 + †
Thymus subcitratus Schreb.		1

* = British Species. † = Host dead.

Typical plants were also found growing at points up to 30 cms. removed from any evident plant material either living or dead, on or below the soil surface, but this point requires further investigation.

It is hoped to continue this work, both in this country and abroad, with special reference to the various species of *Euphrasia*, in order to see if any vary in their range of hosts. In view of the number of families of flowering plants involved it would be interesting to see if any differences are detectable between individuals of a species growing unaided, and those upon hosts of different families. Similar problems are raised by other root parasites such as *Melampyrum, Bartsia, Pedicularis, Rhinanthus* and the *Orobanchaceae*.

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