

The Cynipidæ or gall wasps present an entirely different condition so far as the relation to the flora is concerned. They attack plants referable to only six botanical families, and assignable to but eleven plant genera. There is, however, a most striking concentration in food habits, since a very large proportion of the more than 300 gall makers subsist at the expense of the Fagaceæ which, for this group, means the genus *Quercus*, the exact number in our list being 277, though this figure, like those above, is an approximation. Thirty species have been reared from the Rosaceæ, 21 (*Rhodies*) living at the expense of the genus *Rosa*. The other species referable to the Cynipidæ are scattered in their food habits, the most evident concentration, and this far from marked, being the 12 species reared from various Compositæ, the genera *Silphium* and *Lactuca* producing four and three, respectively. This marked limitation in food habits is accompanied, as might be expected, by a high degree of specialization in structure.

The Aphididæ or plant lice live on a great variety of plants, though the gall-making forms occur upon relatively few plant families and genera, the most evident concentration in food habits being in the genus *Phylloxera*, with its 29 species producing galls on *Carya*.

The nearly allied jumping plant lice or Psyllidæ present a similar condition in the genus *Pachypsylla* and its relation to the numerous types of gall occurring upon *Celtis*.

The occurrence of a number of galls produced by closely related insects upon food plants belonging to a genus or even species, indicates a physiological relationship, and some of these groups at least offer excellent opportunities for the investigator who would study the relation between the specific identity of gall makers and the galls they inhabit. It is undoubtedly true that marked diversity in gall structure usually indicates the work of different insects, though there is a possibility that variations in the structure of these deformities may be related to some extent at least, to the period when the infestation occurs; in other words, oviposition before the tissues have swollened to any extent in the bud may result in a somewhat different deformation than if egg laying be delayed until the leaves are partly unrolled. There are a number of cases where apparently identical gall midges produce markedly different deformations in the same or closely allied plants, and we are inclined to believe that the time of infestation in relation to the development of the host may be an important factor as well as the part of the plant attacked.