

more in search of food before returning to the nest and revealing its hidden entrance, a tiny hole like a pin-prick in the soil or bark.

None of the species are known to attend aphides, and the nests very rarely or never contain guests or synœketes of any description. The *Leptothorax* themselves, however, sometimes live as guests in the nests of larger ants. Thus *L. Emersoni* is always found as a guest in the nests of *Myrmica brevinodis*, and *L. acervorum* of Europe and its American variety *convivialis* also exhibit a decided tendency toward xenobiosis. The typical *L. curvispinosus* appears to act as the slave of *Tomognathus americanus*, an extremely rare ant, which is probably similar in habits to its European congener, *T. sublaevis*. Most of the species of *Leptothorax* are very timid, and many of them readily "feign death" when roughly handled. Nevertheless they are often extremely hostile and vindictive toward other ants, especially toward ants of their own species from strange nests.

For our first insight into the habits of *Leptothorax* we are indebted to Forel, who recorded his observations in the charming *Fourmis de la Suisse* (pp. 339-341). The more important of these observations are given in the following translation:

"April 17, 1868, I found in the bark of a pine-tree a very small colony of *L. tubero-affinis*, consisting of a fertile female, about a dozen workers and some eggs. I lost four of the workers during the capture and broke two of the legs of the female. I subsequently placed this little family in a pasteboard box with a glass cover. It prospered; the female got on well with her four remaining legs; some of the eggs hatched and the larvæ were fed. The workers would eat nothing but the honey which I gave them; they were very timid and settled down with the female in the box. They gave little heed to the female, which lived almost like them. I have noticed that it is only the workers of the genera *Plagiolepis* and *Lasius* and of certain species of *Formica* that assiduously court their fertile females. *Leptothorax* goes to the opposite extreme: the females live almost like the workers, being merely somewhat less inclined to work. Huber was wrong, therefore, in generalizing the rôle of the fertile females of *Lasius*, etc. By May 24 the female of my captive formicary had again laid some eggs, and the larvæ had grown very large. The workers ate larvæ of *Lasius* that were given to them. June 4 one of the larvæ became a worker pupa, but there remained only two large larvæ and the eggs. June 10 there were two pupæ and eight or nine small larvæ had hatched from the eggs. Of the latter two were yellow and retained this color, the others were whitish. By June 13 they had grown. I then gave my *L.*