are kept up in this way, because the workers cannot retain the fertile females in the nests by force, on account of the small size of the nests and their position on vertical walls, or because the males may not often be present simultaneously with the winged females? Would not these deälated females be fecundated later by males appearing in the same formicary? The fact remains that one often finds in *Leptothorax* nests deälated females with small abdomens and apparently not fecundated, together with others obviously fertile. I refrain from deciding the question."

The questions asked by Forel so long ago still remain unanswered, although it is clear that the colonies are not as a rule renewed and maintained by a retention of the virgin females in the parental nest. My own observations show that the little colonies of these ants are founded by single fertile females, in the very same manner as the huge formicaries of *Formica, Camponotus,* etc. On several occasions I have found deälated females of *Leptothorax* either alone or with a very few eggs, larvæ or pupæ in isolated oak-galls (*e.g., L. obturator* q. v.). Moreover, I have never found more than one queen in a nest in any of the species that I have taken, except at the very height of the breeding season (May and early June in Texas, mid- or late summer in the Northern States). Although in such nests I have sometimes seen several deälated females, which probably arose as Forel has described, I am inclined to believe that all of these, except the mother queen, must soon leave the nest and establish colonies of their own.

The question naturally suggests itself: Why are the colonies of *Leptothorax* so small? I believe that this peculiar condition may be traced, in part at least, to the following causes, either singly or collectively: 1. The females are but little larger than the workers (in *L. Emersoni* they are not even larger than the workers) and this means relatively small fecundity. This appears to be the case also in other ants that have females of the same or nearly the same size as the workers (*Myrmecina, Stenamma s. str.;* Ponerinæ). And reciprocally, owing to this reduced fecundity, the queen cannot be abundantly fed, since she produces but few workers. 2. The workers of *Leptothorax* are probably short-lived as compared with many other ants. At least one is inclined to believe this from the rather high mortality among these insects in artificial nests. 3. In most species of *Leptothorax* each colony contains only a single fertile queen.[2]

[2] Other observations on the habits of *Leptothorax* will be found in the following works: Adlerz, "Myrmecologiska Studier," II. Svenska Myror och deras Lefnadsförhollanden, *Bihang till K. Svenska Vet. Akad. Handl.,* Bd. XI, No. 18,