

A REVISIONARY STUDY OF PHEIDOLE VASLITI
PERGANDE (HYMENOPTERA: FORMICIDAE)

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During the period from 1950 to 1953 the writer observed a large number of colonies belonging to the *vasliti* complex in southern Arizona and Mexico. Samples from these colonies brought home for further study have indicated that the existing taxonomic structure of the complex is not altogether satisfactory. Much of this trouble results from the variable color of these insects, which cannot be correlated with distribution or even with differences in nest sites. But after it had been determined that the named color varieties in this complex have no distributional significance, a serious difficulty still remained. This is the exact nature of Pergande's species *vasliti*.

As is shown in this study, Pergande had a very hazy concept of the character of *vasliti*. It is not surprising, therefore, that those who later worked with this insect based their ideas of *vasliti* on something more tangible, notably Forel's variety *hirtula*. This procedure was not entirely unfortunate, for it can be shown that *hirtula* is a sound species in its own right. Indeed, there is room for the view that the status of *hirtula* has been too sound. Because it is so distinct and so easily recognized, *hirtula* has carried the unrecognizable *vasliti* on its back for nearly sixty years without anyone appreciating the drastic shortcomings of the latter species. It is evident that Forel (1899) believed that he could recognize *vasliti*, for he described *hirtula* as a variety of it. But Forel did not know that the worker caste of *hirtula* is polymorphic until Wheeler sent him nest series from Queretaro in 1900. Forel then realized that the insect which he had previously treated as Pergande's *obtusospinosa* is actually the major of *hirtula*. Then Forel (1901) took characteristic action—he protected his variety *hirtula* by declaring that *obtusospinosa* is the major worker of *vasliti*. In a few years this mistake was recognized and corrected, but Forel's equally mistaken contention that *hirtula* is a variety of *vasliti* has been accepted without question to the present.

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