

as well. Legionary ants differ from most ants in that the worker, female and male of a species bear little or no resemblance to each other. The female is wingless and somewhat termitiform in appearance, the male wasplike. Since it is impossible to associate the various castes of a species without collecting them from the same colony, the describing of species from a single caste alone has resulted in numerous errors of synonymy. In addition to such difficulties, previous American workers have been greatly handicapped by the fact that most of the types of our legionary ants are in European Museums. In revising the group Dr. Borgmeier has very conscientiously and patiently attempted to see the type of every described form. Fortunately he was able to examine approximately 80 percent of the types; those that he did not see were either destroyed, lost or misplaced. Even with the great amount of synonymy that he was able to accomplish, there are at present 140 forms recognized as valid, the names of many of which rest on a single caste alone! When all the castes of these 140 forms are known it would not be surprising if the total number of valid forms is not reduced to 100.

Dr. Borgmeier's revision is one of the largest and most comprehensive that has ever appeared on ants and will remain forever as a monument to his endeavours. Examination will show that he has carefully considered every aspect that an excellent revision should include. There are keys for the known castes of all forms from subspecies to tribes. A large number of the forms are fortunately figured once or more. The known castes of every form are adequately described and the repository of the type stated. Under each form there is a statement concerning material studied and the general distribution of that form. There are also remarks on variation and biology. Bibliographical references are arranged chronologically in order to cover all important changes in the taxonomic status of a form such as synonymy, new combinations, etc. The reader will be especially pleased to note that Dr. Borgmeier has quoted not only the original description of each form but the original description of every synonymized form as well! The revision is carefully indexed. I would have preferred, however, to list the page number of the text treatment of each form at the proper place in the key rather than in the index at the back of the publication. A statement concerning the general distribution of a form might be helpful in an appropriate place in the key. In addition to the subjects mentioned, the revision contains in the general introduction such subjects as methods and techniques, sources of material for the study, acknowledgements, relationships and limits of various taxonomic categories, status of subspecies and varieties, and a general discussion of systematics. Any publication, regardless of its excellence, must necessarily contain a certain number of errors. I have especially noted these in reference to names of localities and individuals.

What Borgmeier has accomplished for the taxonomy of the legionary ants, Dr. T. C. Schneirla has done for their biology, so that either aspect of the group is now well known. Their work will form dependable corner stones on which future contributions can easily be added.

The publications of both men should not only be in the libraries of all myrmecologists but in every department of biology and also in general libraries that give consideration to biological subjects.—MARION R. SMITH, *Entomology Research Branch, U. S. Department of Agriculture, Washington, D. C.*