

THE BIOLOGY OF ROPALIDIA.

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Ropalidia, a large genus of social wasps found in all warm countries except America, is the least-known of the major groups of such wasps. Caste differentiation is slight or absent but it appears there is often a number of egg-laying queens, colonies being founded by swarms. The more familiar type of colony builds a comb very like that of Polistes though often with more than one peduncle. Other species, however, build a series of combs, one below the other, enclosed in an envelope. It is proving very difficult to reconcile the classification of the adults with the classification of the nests. In the wasps, there is a wide range of structure but the species do not fall into clear-cut groups because there are too many transitional species. There are two features in their biology of special interest. In multi-comb nests, there is a tendency for combs to send projections down to the one beneath, producing an elementary spiral ramp such as is known to be fully developed in one species. There is also a tendency, well established in at least three species, for colonies to be made up of several adjacent independent combs which are worked jointly by a number of wasps. In the extreme case, this involves millions of cells, hundreds of combs and thousands of wasps.