

Robinson, M. H. and B. Robinson, 1980. Comparative Studies of the Courtship and Mating Behavior of Tropical Araneid Spiders. Pacific Insects Monograph No. 36, 218 pp. Bishop Museum, Honolulu. \$22.50.

This book-length monograph on araneid sexual behavior is obviously a labor *of* as well as being about love. From the high quality photographs to the careful detail of the descriptions, from the range of side topics touched upon (the alarming world-wide shortage of taxonomists, the habitats and webs of the species studied, male kelptoparasitism on females) to the patience I know from personal experience was necessary to see all that they saw, and to the very observations themselves ("massive, massive high intensity tugging, . . . vigorous pulling, it's a magnificent slow motion tug, . . ."), the authors' excitement and enjoyment of the study shines through. The Robinsons continue the admirable tradition, established with their work on attack behavior and *Nephila*, of giving rounded, summary views of what they have seen rather than splitting off pieces to publish as separate papers. This makes for longer papers (and shorter curriculum vitae), but means each paper is a gold mine to be visited again and again. In fact the broad survey nature of this work, reflecting the Robinsons' unusually wide travels in the tropics, is not likely to be duplicated in the near future, and they are undoubtedly destined to go down as the Masters and Johnson of araneid sexual behavior.

The monograph's basic aim was the detection of behavioral differences between higher order groups of araneids, and to this end the Robinsons observed 53 species in 15 genera in two of Simon's subfamilies (Nephilinae, Argiopinae), and found and categorized 18 major types of male behavior. The accounts of their observations make up the bulk of the text. It is difficult to know in a pioneering work like this which kinds of observations will prove useful and in what contexts they will be used, so the detailed nature of the descriptions is justified. As M. Robinson has written elsewhere, watching araneids court without being able to monitor the vibrations they produce is like watching a symphony orchestra play without hearing any sound; this simile dramatizes the possibly limited nature of their data. The overall patterns of variation in behavior are then summarized and discussed. What emerges is puzzling. There are clear groups of species which share entire suites of characters, but contrary to expectations, the groupings do not follow taxonomic lines

(there is at least one species of *Argiope* or *Gea* in each of the three major groups). The Robinsons' tentative attempt to trace the evolutionary sequence of the development of these suites is somewhat unconvincing; in particular they lack observations of related groups such as tetragnathines, metines, theridiosomatids, theridiids, metids, etc. (filling this gap would make a nice thesis project). Other surprises are the relative lack of variety in male behaviors (perhaps the variety of vibrations produced is greater), and the apparent lack of stereotypy in the order and duration of the behaviors the males perform. I had supposed, reasoning from the assumption that male courtship functions to isolate different species reproductively, that each species would have a distinct male courtship code; the authors wisely stop short of trying to assess the value of male courtship in preventing interspecific mating, but I suspect the other two functions they discuss – reduction of predatory drive and arousal of the female (i.e. sexual selection by female choice) – may be very important. A final note on the substance of what they saw concerns the anomalous behavior of *Mecynogea*; the taxonomic position of this genus with the strange sheet web is even less clear than it was before.

The production of the monograph is excellent, and there are very few errors of any sort. The price is not unreasonable for a specialized work of this sort.

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