

Discussion of Characters

Part I: Cladistic Analysis of *Rhinoseius* (sensu Lindquist and Evans 1965)

The following discussion presents our rationale for polarization of characters in the data matrix as well as speculations on the character and taxa evolution derived from the parsimony analysis. Note that porotaxy, comprising characters frequently used in systematic studies on Mesostigmata, is not discussed in this section and often is not illustrated in figures. The distribution and arrangement of opisthonotal pores could not be reliably observed in all specimens because of variation in preservation techniques and in the condition of specimens under study.

Numbers in parenthesis denote the number of the character as presented in Table 1; character states coded as "1" or "2" in the table are considered apomorphic (for example, "char. 3[1]" indicates character number 3, state 1).

Ventrianal Shield in Male (Characters 1–5). A large ventrianal shield covering most of the opisthosomal venter of the male probably represents the ancestral condition in Melicharini. Within the genera *Tropicoseius* and *Rhinoseius*, several independent tendencies toward reduction in the size of the shield can be observed. In species of *Tropicoseius*, the shield is constricted such that setae *Zv3* are on soft cuticle on either side of the shield (char. 2[1]). Several species of *Rhinoseius* (*antioquiensis*, *richardsoni*, *androdon*, *haplophaedia*) have large ventrianal shields that cover most of the opisthosomal venter and bear setae *Zv3*. The remaining species of this genus are characterized by the ventrianal shield divided into a small, transversely elongate ventral shield (which may or may not bear some setae of *Jv* and