

5 PHYLOGENETICS

This is the first phylogenetic analysis within the Ixodoidea. Table 2 is the data matrix for the outgroup *Ixodes sculptus* and for the seven members of *Ixodiopsis*. The most parsimonious tree that accords with these data is presented in Fig. 157. As expected, the monophyly of *Ixodiopsis* is supported by characters 8 (female hypostome pointed), 9 (length/width ratio of female palps >3:1), 10 (venter of female basis capituli elongate), 11 (auriculae absent), 14 (spurs of female coxa I about equal in length), and 17 (nymphal hypostome not on extension of basis capituli). However, three of these characters undergo autapomorphic reversals: 9 in *I. soricis*, and 8 and 17 in *I. woodi*.

The remaining 16 characters describe three distinct species clusters within *Ixodiopsis*. The least-derived assemblage consists of *I. eastoni*, *I. angustus*, and *I. soricis*, which are united by transformation series affecting characters 13 and 18 (female and nymphal lateral carinae distinct but not massive). Within this group, a closer relationship between *I. angustus* and *I. soricis* is indicated by characters 6 (female dental formula 3/3), 7 (female hypostome not on extension of basis capituli), and 21 (4 pairs of marginal ventral setae). The second and third clusters constitute a monophyletic group recognized by character 12 (transverse suture distinct). Species pair *I. pomerantzevi*-