



Figure 10.19. Radiation of diapsid reptiles. Open lines indicate primitively terrestrial lineages. Solid lines are aquatic derivatives. Dashed lines indicate probable relationships or range extensions. Asterisks show approximate taxonomic and temporal positions of genera studied by Caldwell (1995). Adapted from Carroll (1985).

best known in *Hovasaurus*, for which the largest number of specimens was available (Fig. 10.21). Although sixteen specimens were available showing the hands or feet, this was not enough to sample every stage of carpal and tarsal ossification. Two or three carpals or tarsals would ossify from one growth sample to the next, giving the impression that they ossified simultaneously. The order of appearance of the carpals was as follows (simultaneous appearance of elements is shown by parentheses): ulnare, (distal carpal 4, intermedium), (lateral centrale, distal carpal 3, distal carpal 1), (radiale, medial centrale, distal carpals 5 and 2). The pisiform is the last to appear; this bone is not part of the basic carpal series, but develops as a