

McDiarmid, Roy W. (University of South Florida) and John W. Wright (Natural History Museum, L.A. Co.). Chromosomes and the Relationship of the Scincid Lizard Neoseps reynoldsi Stejneger.

The meager chromosomal data available for the scincid lizard are sufficient to indicate a high level of chromosomal conservatism in the family. Using this apparent conservatism as a basis for a phylogenetic hypothesis, we examined the karyotypes of Neoseps reynoldsi and 19 species of Eumeces, the group from which N. reynoldsi is thought to have been derived. These 19 species are representative of 11 of the 15 species groups of Eumeces as proposed by Taylor. N. reynoldsi and all but one species of Eumeces share essentially the same karyotype: $2N = 26$ with six pairs of biarmed macrochromosomes and seven pairs of uni- and biarmed microchromosomes. The unique karyotype is that of E. schniedereri. This karyotype consists of $2N = 32$ with no macro-micro dichotomy, and is apparently identical to the karyotype of Scincus officinalis, a representative of a group thought to be closely related to the relatively primitive E. schniedereri. Evolutionary and zoogeographic implications of these findings are discussed.