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Cytogenetic Analysis in Teiidae (Squamata, Lacertilia) Species from the Brazilian Semi-arid Region

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Cytogenetic studies in the Teiidae family (Squamata, Lacertilia) have shown that karyotype data are important tools in phylogenetic and systematic studies within this group. In this study, we describe the karyotypes of 2 Teiidae species from the semi-arid region of Brazil: *Ameivula ocellifera* and *Salvator merianae*. The karyotypes were analyzed by C and Ag-NOR banding, and in *S. merianae*, we also applied FISH with 18S rDNA, telomeric and microsatellite sequences as probes. In both sexes of *A. ocellifera*, we found identical karyotypes, with 50 telocentric/subtelocentric elements (24 macrochromosomes and 26 microchromosomes). Constitutive heterochromatin was observed in the pericentromeric and telomeric regions of most macrochromosomes. A single NOR was observed in the terminal region of the long arm of chromosome pair 5. These data do not show divergences regarding individuals from other regions of the country discarding any doubt about the taxonomic status of the analyzed individuals, presently denominated *Ameivula cf. ocellifera*. Concerning *S. merianae*, we found $2n = 38$, identical in both sexes, of which 5 pairs corresponded to biarmed macrochromosomes, and 14 pairs were microchromosomes. Discrete heterochromatic segments were found in the centromeric region of most chromosomes. Clusters of 18/28S rDNA were located in the terminal portion of a single metacentric chromosome pair, corresponding to pair 2. Telomeric probes produced the characteristic signals in the terminal region of chromosomes. In addition, we detected pericentromeric signals in some biarmed chromosomes of *S. merianae*, suggesting the occurrence of fusions during the karyotype diversification of this species. Microsatellites produced signals uniformly distributed in all chromosomes, in addition to more intense ones in specific telomeric and pericentromeric regions in some chromosome pairs. The comparison with other studies indicates that despite the wide distribution of the *S. merianae* species, the macrostructure organization of the karyotype remains unchanged, showing stability in the diploid number and chromosome morphology of the group.

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