



Chromosomal characteristics and karyotype evolution of Oxyopidae spiders (Araneae, Entelegynae)

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ABSTRACT. We made a cytogenetic analysis of four species of Oxyopidae and compared it with the karyotype data of all species of this family. In *Hamataliwa* sp, the mitotic cells showed $2n♂ = 26+X_1X_2$ and telocentric chromosomes. The $2n♂ = 28$, which has been described for only one oxyopid spider, is the highest diploid number reported for this family. *Peucetia* species exhibited distinct karyotype characteristics, i.e., $2n♂ = 20+X_1X_2$ in *P. flava* and $2n♂ = 20+X$ in *P. rubrolineata*, revealing interspecific chromosome variability within this genus. However, both *Peucetia* species exhibited telocentric chromosomes. The most unexpected karyotype was encountered in *Oxyopes salticus*, which presented $2n♂ = 10+X$ in most individuals and a predominance of biarmed chromosomes. Additionally, one male of the sample of *O. salticus* was heterozygous for a centric fusion that originated the first chromosomal pair and exhibited one supernumerary chromosome in some cells. Testicular nuclei of *Hamataliwa* sp and *O. salticus* revealed NORs on autosomal pairs, after silver impregnation. The majority of Oxyopidae spiders have their karyotype differentiated by both reduction in diploid

number chromosome number and change of the sex chromosome system to X type; however, certain species retain the ancestral chromosome constitution $2n = 26+X_1X_2$. The most remarkable karyotype differentiation occurred in *O. salticus* studied here, which showed the lowest diploid number ever observed in Oxyopidae and the second lowest registered for Entelegynae spiders.

Key words: Chromosome fusion; Cytogenetic; Diploid number; Nucleolar organizer region; Sex chromosome system