

Abstract

Spiders (Araneae) are diversified order of the subphylum Chelicerata. Majority of the order belongs to group Entelegynae, as well as representatives of cobweb spider family (Theridiidae). Their noteworthy genus is *Latrodectus*, also known as “black widows“. This thesis summarizes basic information about the genus, it's biology, phylogenetics and cytogenetics, with an overlap to genomics of cobweb spiders and their related species. Even though spiders' cytogenetics is an interesting field, particularly due to the occurrence of unusual systems of sex chromosomes, some of the questions remain unanswered. A leading trend in entelegyne spiders is the reduction of diploid counts, where most mechanisms of the process remains unclear. Main aim of the thesis was to verify a potential of cobweb spiders as a model system for future studies of these changes. The genus *Latrodectus* may have potential because of showing suprisingly diverse karyotypes, which is unusual in Entelegynae. Despite their popularity, quality of karyotype data is poor and deserves to be revised. Nevertheless, the cosmopolitan *L. geometricus* is purposed as a keypart of promising model system for comparison of genome with modern cytogenomic approaches. Establishment of such model system could adress the questions about mechanism of karyotype and sex chromosome evolution in entelegynes.

Key words

Araneoidea, genome, *Latrodectus*, sex chromosomes, spiders