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Reproductive systems and life histories

Poster presentation

Ontogenetic aspects of sexual dimorphism in the Caspian Whip Snakes (Dolichophis caspius)

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Sexual dimorphism in body size has been observed in several snake species. Natural and sexual selections and their interaction lead to differences in morphological traits between males and females. During the ontogeny, various changes in body parts can occur between the sexes. Different body sizes can reflect different behaviours and reduce interpopulation competition for resources. We examined sexual dimorphism in Caspian Whip Snake (Dolichophis caspius). We analysed the suburban population in Belgrade (Serbia). The sample consists of 72 females and 66 males of three age categories (juveniles < 40 cm of SVL, subadults from 40.1 to 70 cm of SVL and adults > 70.1 cm of SVL). We analysed eight morphometric parameters (standard body length -SVL, tail length - TL, jaw length - JL, cranial length - CL, postparial length - PPS, head width - HW, mouth length - ML and mouth width - MW) and body weight - BM. Descriptive statistics showed that the values of all analysed traits were higher in adult males (the mean values of total body length were 137 and 117 cm for adult males and females, respectively), and ANOVA showed that these differences were statistically significant. The same analyses showed significant sexual dimorphism in the relationship between body length and tail length (SVL/TL). After correction for body size (ANCOVA with SVL as a covariate), sexual dimorphism was not expressed in any of the analyzed traits. In juvenile and subadult individuals, sexual dimorphism is not pronounced. The observed differences in morphological traits may be related to distinct features of life history, so our further research will consider the differences between the sexes in the growth rate, the size at which they reach sexual maturity, diet, predation, and activity patterns.