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fractionation do not show particular deviations except some petty differences in the weight ratio of the protein components.

Rather significant differences have been established in the venom of *V. berus* between the forms of the snakes from Brest, Pskov and Kharkov provinces. The first two samples of the venom were relatively similar in content, although not identical, whereas the samples from Kharkov province were significantly different.

Key words: venoms, proteins, viperid snakes, *Vipera ursinii*, *Vipera berus*

SEXUAL INTERACTIONS IN TRIADIC ENCOUNTERS INVOLVING PAEDOMORPHIC AND METAMORPHIC ALPINE NEWTS *Triturus alpestris* (P)

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Sexual selection theories suppose that morphologically-contrasting alternative morphs may exhibit different mating tactics. Facultative paedomorphosis in newts is a suitable process to explore this question because it implies the coexistence of two morphs differing by the presence of gills and epigamic traits. The aim of this study was to find out whether paedomorphs (i.e. adult retaining larval traits) and metamorphs use similar behavioural patterns to attract mates in the presence of a rival and whether there are differences in sexual activity and success between alternative morphs. Sexual interactions in triadic encounters were staged and analyzed in a standardized experimental design. The two kinds of males did not differ in terms of sexual activity, spermatophore deposition or female responsiveness. Both rival paedomorphic and metamorphic males exhibited sexual interference, but in most encounters, intruders just disturbed the courting pair. Sperm transfer success was lower in triadic encounters than in dyadic encounters. These results illustrate that inter-morph breeding also occurs in the presence of competitors, but that the success rate of the newts is considerably decreased in such competitive situations. Moreover, newts do not use alternative reproductive tactics depending of their status (i.e. paedomorph or metamorph).

Key words: facultative paedomorphosis, alternative mating tactics, sexual selection, mate choice, *Triturus alpestris*

FEEDING HABITS IN A DIMORPHIC METAPOPULATION OF THE TIGER SALAMANDER *Ambystoma tigrinum nebulosum* (O)

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Facultative paedomorphosis in salamanders refers to the presence of two ontogenetic pathways in natural populations – paedomorphosis, in which individuals retain gills at the adult stage, and metamorphosis, in which larvae metamorphose. The Mexican Cut Nature Preserve (Colorado, USA) is composed of numerous ponds which are inhabited by paedomorphic and metamorphic tiger salamanders. While paedomorphs usually stay in the same aquatic habitat all their life, metamorphs may leave water and colonize other ponds. The aim of this study was to determine the feeding habits of the two morphs from this metapopulation. To this end, adults were caught by dip-netting, stomach-flushed, measured and marked. Paedomorphs were only found in permanent waters. Metamorphs were present in all habitats, but particularly in the temporary ponds. Diet differed between ponds – reflecting their invertebrate composition – with a preponderance of either microcrustaceans, fairy shrimp or insect larvae. In ponds inhabited by the two morphs, paedomorphs consumed more prey items. Because dry mass and energy

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