

ON THE DISTRIBUTION AND ECOLOGY OF THE REPTILES IN THE MIDDLE URAL (P)

V. V. Malimonov

Institute of Plant and Animal Ecology, Uralian Branch of Russian Academy of Sciences, Ekaterinburg, Russia

Fauna of the Middle Ural reptiles consists of six species (*Natrix natrix*, *Vipera berus*, *Coronella austriaca*, *Anguis fragilis*, *Lacerta agilis* and *Lacerta (Zootoca) vivipara*). Three species are included in regional Red Data Book. About 130 sites along the territory of Middle Ural were investigated in 2000-2002. A detailed analysis of 2 population of viviparous lizard and 2 populations of adder snakes has been studied.

It was captured about 30 specimens in the each population. Preliminary data on density and number of population have been obtained, also on spatial, sexual and age structure, shedding and feeding of these reptiles. Air and substrate temperature were registered, too.

The population density of viviparous lizard varies from 0.11 to 0.26 ind/m² and of adder – 0.01-0.08 ind/m², sex ratio 1:1. Melanistic formes of reptiles were compiled 0.75% (*Zootoca vivipara*) and 22% (*Vipera berus*).

Our results are very close to the data has been estimated earlier by other authors in the regions neighbourhood with Ural.

Key words: reptiles, *Zootoca vivipara*, *Vipera berus*, density of population, spatial structure, sexual structure, age structure, melanistic form

CLONAL DIVERSITY IN PARTHENOGENETIC ROCK LIZARDS *Darevskia rostombekovi* ANALYZED BY DNA FINGERPRINTING (P)

D. N. Malysheva¹, I. A. Martirosyan¹, V. G. Petrosyan², O. N. Tokarskaya¹

¹Institute of Gene Biology, Russian Academy of Sciences, Moscow, Russia

²Yerevan State University, Yerevan, Armenia

Rostombekov's lizard (*Darevskia rostombekovi*) is one of the seven parthenogenetic, all-female, Caucasus rock lizard species of hybrid origin (parental species *D. portschinskii* and *D. raddei*). The species consists of several isolated populations of different size from northern foothills of the Caucasus Minor, Northern Armenia, adjacent regions of north-western Azerbaijan, and a remote small highly mountainous (2000 m a.s.l.) relict ($\gg 12000$ years) population of the southeastern coast of the Sevan Lake. As the other parthenogenetic species from the genus *Darevskia*, *D. rostombekovi* has diploid chromosome set, high fixed heterozygosity of allozyme loci and low variation of mtDNA. The allozyme data for 35 loci of *D. rostombekovi* did not show variation in population of the species. Thus in contrast to *D. dahli*, *D. armeniaca*, *D. unisexualis*, *D. rostombekovi* is considered a monoclonal species.

Multilocus DNA fingerprinting was used to analyze genetic variation in samples of 21 animals from three isolated populations of North Armenia and in a sample of 5 animals from relict population of the Sevan Lake. The mean intrapopulation similarity index (S) was 0.995; 0.946; 0.951 and 0.946 for each of the four populations examined respectively ($p \gg 0.05$). However intraspecific similarity index, calculated using a sample of 26 animals (3 populations of the North Armenia and population of southern coast of the Sevan Lake) was equal to 0.815. Comparative interpopulation analysis of S values indicated that relict population of the coast of the Sevan Lake is different from other populations of North Armenia ($S=0.536$; $p \ll 0.001$). Taking into account that *D. rostombekovi* is considered monoclonal on the basis of allozyme data, the problem of clonal variation is discussed with regard to the evidence on nuclear DNA markers. It is suggested that hybrid unstable karyotype of *D. rostombekovi* generates a series of chromosomal mutations which may lead to the appearance of a geographically isolated chromosome race (clone) in the population inhabiting the southern coast of the Sevan Lake.

Key words: clonal variation, mini- and microsatellites, DNA fingerprinting, parthenogenetic rock lizards *Darevskia rostombekovi*