First International Congress on the Lacertids of the Mediterranean Basin

Programme & Abstracts

13-17 April 1992
Mytilini, Hellas

CONTRIBUTION TO THE STUDY OF INTRASPECIFIC DIFFERENTIATION OF THE CAUCASIAN LIZARD, Lacerta caucasica.

Roytberg E.S.[1] and Lotiev K.Yu.[2]

[1]*Biol.Inst., Russ.Acad.Sci., Makhachkala, RUSSIA.*
[2]*Chechenco Univ., Grosny, RUSSIA.*

In two localities in eastern North Caucasus (Khvarshi, western part of highland Daghestan and Khorachoi, southeastern Checheno-Ingushetien) the sympatric occurence of ***Lacerta caucasica caucasica*** and ***L.c.daghestanica*** was found. The samples of ***L.caucasica*** from both the localities (72 and 75 speciments) can be divided in two groups on the basis of colour pattern differences. These divisions were strongly confirmed by a principal component analysis, using 7 meristic scale characters (numbers of preanals, femoral pores, ventrals, scales around midbody, subdigital lamellae, supraciliar granules, and temporals). Scores of the first principal component, accounting for 53-57% of the total variability, form two discrete classes with only a few intermediate scores (specimens) in Khvarshi and without any intermediates in Khorachoi sample. ***L.c.caucasica*** tends to have more preanals ~~and ventrals~~ and fewer femoral pores, scales around midbody, and scales in all the other rows counted, than ***L.c.daghestanica***.

Sympatric occurence of two forms, which are morphologically distinct from one another, suggests that some reproductive isolation between them takes place and therefore a subspecific level of evolutionary divergence has been exceeded, at least locally. In both the localities ***L.c.daghestanica*** tends to occupy open, rocky habitats, while ***L.c.caucasica*** prefers contiguous sites with more dence vegetation. This spatial separation is, however, far from complete and cannot be solely responsible for the supposed reproductive isolation.

It should be noted that a lot of traits in colour pattern, scalation, and body proportions, differing ***L.c.caucasica*** from ***L.c.daghestanica***, makes it similar to another related species, ***Lacerta praticola***. This profound similarity involves not only morphology but also the mode of life: ***L.praticola*** is and ***L.caucasica*** tends to be a ground dwelling (rather than a rocky) lizard, inhabiting sites with grassy vegetation. Further study of the relationships of these three taxa may be a substantial contribution to the knowledge of evolutionary trends in the group of Caucasian Archaeolacertas.