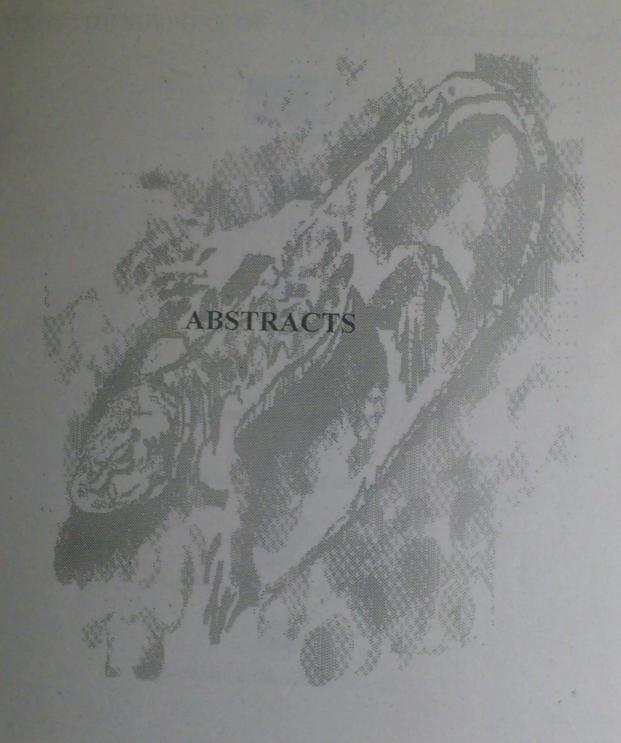
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Morphology and Taxonomic Revalidation of Lacerta agilis garzoni Palacios & Castroviejo, 1975

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318 specimens of Lacerta agilis (both conserved and alive) have been studied for 8 meristic characters in order to ascertain the taxonomic status of Lacerta agilis garzoni (synonymized by Bischoff, 1984), a very localised subspecies from Western Pyrenees, considered Vulnerable in spanish red data book (Blamco & Gonzalez, 1992).

45 specimens of this later taxon have been compared with samples of L. a. argus, L. a. bosnica, L. a. chersonensis, L. a. exigua and L. a. bosnica by means of ANOVA and Multivariate Canonical analyses separated for males and females.

The results show clearly the existence of two very different groups: Balcanic and Caucasian groups (Bischoff, 1988).

L. agilis garzoni appears well differentiated in the study, and is thus considered as a good subspecies, more differentiated than the british populations of L. a. agilis that are isolated almost since 7500 years BP (Polunin and Walters, 1985).

L. a. argus seems to be a mere synonym of L. a. agilis.

The few specimens of L. a. bosnica studied seem to indicate differentiation also from L. a. agilis.

The three asiatic-caucasian subspecies studied are morphologically different.

Finally, considerations about biogeography, origin and present distribution of L. a. garzoni are given.



The Caryosystematics of the Iberian Rock Lizards

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The results of a study carried out by conventional and banding (C-,Ag-NOR, DAPI and Alu I) staining methods on Iberian rock lizards allow us to identify two species groups within these lacertid lizards.

The first group includes: L. monticola monticola, L. m. cantabrica and L. m. cyreni that possess a karyotype constituted by 2n=36 all acrocentric macrochromosomes. Furthermore, the last subspecies appears karyologically differentiated from the other two subspecies of L. monticola possessing a different chromosomal NOR localisation and a heteromorphic and heterochromatic W chromosome. This karyological differences corroborate the morphological ones suggesting for L. m. cyreni a higher taxonomic level.

The second group includes the Pyrenean species, L. aurelioi and L. bonnali that possess a karyotype rich in biarmed elements. The specimens of three different populations of L. aurelioi show a 2n=26 karyotype with 10 biarmed + 16 acrocentric macrochromosomes and a peculiar sex chromosome system (Z_1 Z_2 W; the W chromosome is submetacentric).

Interestingly, chromosomal intraspecific variations were found within the populations of L. bonnali. In fact, the male and female specimens of two different populations from Aràn-Pallars belonging to L. b. aranica possess a 2n=26 macrochromosomes, 10 of which biarmed and 16 acrocentric. While the specimens from Bigorre (Lac Blue) and Monte Perdido belonging to the nominal subspecies possess a 2n=24 macrochromosomes (12 biarmed + 12 acrocentric, females show a Z_1 Z_2 W sex chromosome system; W chromosome is a small metacentric). Lastly, the L. b. bonnali specimens from Macizo de Posets (and, probably, those from Macizo de la Maledeta) possess a 2n=22 biarmed macrochromosomes.

We discuss the role played by these chromosome variations in speciation processes, as well as the taxonomic relationships between these and other lacertid species, namely L. horwathi, L. parva, L. fraasii and L. vivipara.