

## **Karyotype dispersal in the marginal populations of two different forms of *Zootoca vivipara* (Jacq. 1787) from the secondary contact zone at the Baltic Sea basin.**

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The widely distributed Eurasian lizard *Zootoca vivipara* (Jacq. 1787) is now known to be a complex including several morphologically weakly differentiated subspecies and forms. The species is represented in western and central Europe by a mosaic array of populations which differ in karyological and molecular features as well as in reproductive mode (oviparous and viviparous populations). Among oviparous populations one newly described subspecies *Z. v. carniolica* and two cytotypes of *Z. v. vivipara* have been revealed whereas among viviparous populations – five different chromosomal forms of *Z. v. vivipara*. In eastern Europe based on the karyological data one chromosomal form of this subspecies has been found. All these subspecies and forms differ in female diploid number ( $2n= 36; 35$ ), in the type of female sex chromosomes (ZW and  $Z_1 Z_2 W$ ) as well as in size, constitution and morphology of W sex chromosome. Thus chromosomal features are good markers for identification of numerous morphologically similar populations of *Z. vivipara*. The taxonomic status of these distinctive chromosomal forms and the picture of their distributions remain uncertain. Some of them inhabit only small areas. Others are rare in a country. Karyological analysis revealed that “western” form of *Z. v. vivipara* inhabits the Baltic Sea basin, the northern part of western and central Europe and Scandinavia (Sweden). This form has been recently found in two localities in western part of Russia. However in eastern Europe other chromosomal form of the subspecies, “Russian” form, occurs in this basin, namely in northern – western part of Russia, in Estonia, in Finland. Therefore it has been suggested that the Baltic Sea basin may be considered as a zone of secondary contact between these two forms. In attempt to clarify the distribution (and the status) of these forms we collected specimens of *Z. vivipara* from several new localities in the zone of Baltic Sea basin. Including lizards previously studied altogether 25 specimens from western part of Russia at the basin have been karyotyped. The chromosomal data obtained confirm the suggestion that the Baltic Sea basin, namely western region of Russia in this basin, may be a zone of contact of “western” and “Russian” forms of *Z. v. vivipara*.

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