

## The diversity of male space use in *Lacerta saxicola* in the deciduous forests of the Navagir mountain ridge

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Studies on behavioral ecology of *Lacerta saxicola* not far from Novorossiysk showed that, in optimal biotopes (beech forest) with resource abundance and low temperature, males displayed two main life strategies: cryptic males with large home ranges ( $449.8 \pm 73.3 \text{ m}^2$ ) and males with little home ranges ( $205.8 \pm 122.8 \text{ m}^2$ ). Males occupying small home ranges spend much time basking with females in the basking sites (sunlight is limitative in this biotope because of the shade below the thick forest canopy). Such kind of intersexual communication plays a relevant role for these males. During two years, the individual space use of the same species was also studied in another kind of biotope: oak-forest on the south mountainside. This biotope is characterized by patched distribution of resources, fine illumination and high temperature conditions. In this case, females bask much less, males cannot spend the same amount of time with them as in the beech forest. So, in this kind of biotope some males have large home ranges ( $383 \pm 37.2 \text{ m}^2$ ) with several areas of intense use, where their activity is concentrated, often moving between these areas. These males have stable home ranges which do not change from year to year, but they can move their areas of intense use. Other males display small home ranges ( $118.3 \pm 38.8 \text{ m}^2$ ) with one area of intense use, where they spend most of the time. The second category could be divided into three, differing in their behaviour and relation with females. Cryptic males as those from the beech-forest are also found. Male space use is determined by the female distribution which depends on resource distribution. So, in unpredictable conditions, when males do not know exactly where to find females (oak forest) they use numerous strategies, and when females are potentially available for males, they have only two main strategies.

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