Male Reproductive Cycle in a Population of the Common Lizard *Zootoca vivipara* (Squamata, Lacertidae) from Southeast of Western Siberia

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Widely distributed reptile species are characterized by reproductive plasticity, which may also appear as variations of the reproductive cycles. To understand the specificity of the male reproductive cycle of *Zootoca vivipara* in the Asian part of its range, males from the Tomsk population (the southeast of the Western Siberia) caught from April till July 2017 were studied (n = 27). The dynamics of gonadosomatic index (GSI), body fat index (BFI), germinal epithelium area (GEA), testosterone concentration (TC) in the serum, ratio of spermatogenic cell count, and the presence of spermatozoa in epididymis were analyzed. Also, the age of males was evaluated via skeletochronology. Many spermatocytes were found in males after their emerging from winter burrows (late April) in the testes. Since this time till early May, GSI, FBI, GEA, and TC increased. At this time, the greatest pull of spermatids occurred in the testes. During the breeding period (May – early June), GSI, FBI, GEA, and TC sharply decreased, and spermatozoa occurred in both testes and epididymis. In mid-June, a new spermatogenic cycle began (spermatogonial proliferation). Since this time till July, GSI, FBI, and GEA increased again along with the increased number of spermatocytes. The total spermatogenic cycle in the studied population was 12 months, but it was characterized by a short mating period and the related spermatogenic processes in comparison with the European populations.

Keywords: lacertids, reproduction, genital system, gonadosomatic index, fat bodies, spermatogenic cells, spermatogenesis, testosterone, skeletochronology.

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