

Viviparous Lizard*Zootoca vivipara* (LICHTENSTEIN, 1823)

Figs. 223, 290, 365–368, Map 75

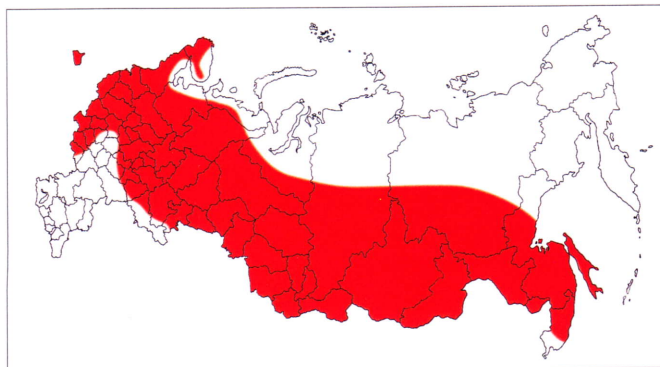
The Viviparous Lizard occupies a special place in the family Lacertidae. First, it has the largest range of any true lizards and second, it is reproductively bimodal, i.e., females in most populations give birth to fully formed young but lay eggs in the south-west of the species' range.

External appearance: A small lizard with a small, moderately high head, and relatively short limbs and tail, reaching a maximum body length of 7.6 cm and a tail length of 11 cm. Males attain smaller sizes than females, and their tail is thickened at its base.

There is always a large tympanic shield. The dorsal scales are large, elongate, and either keeled or smooth. Usually there are no granules between the supraocular and supraciliary scales.

Adult Viviparous Lizards are fulvous or brown above, with dark and pale spots and stripes. However, patternless, including black, specimens also exist. Melanistic individuals are most often found in the mountains and at northern latitudes. The belly is orange or brick red with black spots in males, and whitish-grey, yellowish or greenish, sometimes yellow or yellow-orange in females. Juveniles are dark brown, with a bronze tint or black, and almost patternless.

Distinguishing features: The Viviparous Lizard differs from the Sand Lizard by its smaller size and habitus, colour and pattern features, by having a tympanic shield, and selecting different habitats.

Map 75: *Zootoca vivipara*.

Distribution and subspecies: The species range covers almost the entire temperate forest zone of Eurasia, from the Pyrenees, Ireland and Great Britain in the west, to the Kolyma, Sakhalin, the Shantar Islands, and northern Japan in the east. The north of the range extends beyond the Arctic Circle, the southern boundary passes between the forest-steppe and the steppe limit.

Four subspecies are currently recognized, of which the nomotypical one, *Z. v. vivipara*, inhabits Russia and adjacent territories.

Natural history: The natural habitats of the Viviparous Lizard are forest edges, regenerating clearings and burned areas in deciduous, coniferous and mixed forests, shrub thickets along the banks of water bodies, and wet meadows. This lizard settles in upland bogs, both along their edges, bordering forests, and away from them, on mossy hummocks. In the tundra, it is also often found on tussocks

Fig. 365: Viviparous Lizard, *Zootoca vivipara*, gravid female.



Fig. 366: Its bulking belly indicates that this female Viviparous Lizard carries young. E. DUNAYEV



Fig. 367: Juvenile Viviparous Lizard.

M. SOKOLOV



Fig. 368: Melanistic Viviparous Lizard photographed in the Moscow Oblast.

E. DUNAYEV

surrounded with water. Viviparous Lizards may appear near human settlements, too, where there are wet areas, and often cohabit with humans, basking on logs near houses or wooden steps. In mountain regions, this species occurs up to an elevation of 2,500 m a. s. l.

On forest edges and clearings, lizards are most likely to settle near isolated stumps, fallen trees, at the base of bushes, and between the roots of trees. They do not dig their own burrows but shelter in rodent burrows, under loose bark, and in thick leaf litter, or hide under stones in the mountains. The Viviparous Lizard not only swims and dives well, but it also moves along the bottom of the water bodies and, in case of danger, buries into the silt or fallen leaves covering the bottom.

In spring, it may awake from hibernation when there is still some snow cover in the forest, and air temperatures are as low as +4 °C. However, the daily temperature at the time of spring emergence is generally about 10° C. The timing is determined by climatic and weather conditions and may be very different

in the different parts of the species' range. Lizards overwinter in non-freezing shelters but can tolerate temperatures below zero (–2 to –2.5 °C). In Russia, females may deliver as many as 12 young, but younger females only have 2–6 offspring. The babies, 1.8–2.2 cm in body length, are usually born around early July. Embryonic development is completed inside the female and the young are born in a thin, transparent egg membrane from which they must break free. In the wild, the birth of young lizards takes 15–30 minutes. The maximum lifespan of Viviparous Lizards in the wild, based on observations of tagged specimens in Valdai, is eight years.

Viviparous Lizards feed on a great variety of insects, spiders, molluscs and worms, which they catch on the ground, under stumps or on tree trunks.

Conservation status: The Viviparous Lizard is listed in the Red Data Books of the Republic of Sakha (Yakutia), Lipetsk, Moscow, Murmansk, Ryazan, Samara, Saratov, Tambov regions and the Yamalo-Nenets Autonomous Okrug.