

The ventral scales are almost quadrangular in shape, arranged in six or eight longitudinal rows.

The frontal bone is usually paired. Teeth are located on the intermaxillary and supramaxillary bones, and not separated by a gap from each other. There are usually nine teeth on the intermaxillary bone (rarely 10). Teeth are also present on the pterygoid bones. In hatchling green lizards, the postorbital and postfrontal bones are usually separated from each other (only in *L. schreiberi* are they fused). The usual number of presacral vertebrae is 27 in males, and 28 in females (in the Sand Lizard often 28 in males and 29 in females), with the range being 26–28 in males and 27–30 in females.

All species of *Lacerta* lay eggs. Green lizards are territorial animals; they are active during the day.

The genus *Lacerta* has long served as a "wastebasket" of innumerable species, most of which are currently allocated to separate genera, mainly on account of biochemical differences. Based on these data, the genus *Lacerta* currently comprises 10 species.

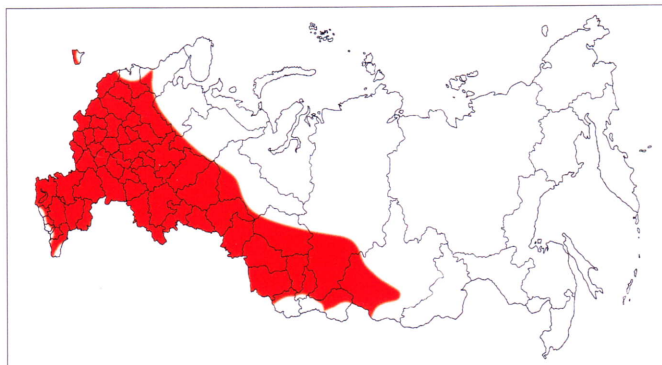
The range of the genus covers Europe, the Asian part of Turkey and the Caucasus region, western Syria, Israel, western Jordan, as well as western and northern Iran. Three species occur in Russia. One of them, the Sand Lizard, has a vast distribution that reaches to Lake Baikal in the east.

Sand Lizard

Lacerta agilis (LINNAEUS, 1758)

Figs. 337–341, Map 69

This is not the largest, but the most widespread species of *Lacerta*. In Russia, there are two more species of this genus: the Caspian Green Lizard and the Caucasian Green Lizard.



Map 69: *Lacerta agilis*.

External appearance: The Sand Lizard may reach a body length of 11.4 cm, and a tail length of 19.1 cm. In some populations, males grow larger than females, while in others, it is the opposite. Specimens reach larger sizes in the southern parts of the species' range.

The dorsal scales are narrow and distinctly keeled. Females have slightly more ventrals than males. There are 1–3 postnasal scales, and 1–2 loreals (rarely none). The tympanic shield, as a rule, is not pronounced. Along with other characters, the number and location of scales on the snout are used for distinguishing subspecies. Femoral pores number 9–18 and always reach the knee joint.

Colour and pattern are variable. The dorsal surface of juveniles is pale fulvous or brown with 1–2 wide, dark stripes narrowly edged with a paler colour. Adult males are coloured in shades of olive or green, and females are brown or brownish-fulvous. However, in some areas, such as the high mountain meadows of Kabardino-Balkaria, both females and males have a bright green colour. Along the vertebral line, there are 1–2 rows of dark or black



Fig. 337: Male Sand Lizard of the subspecies *Lacerta agilis boemica* photographed in Dagestan.

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Fig. 338: Ventral colouration of the Sand Lizard.

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Fig. 339: Dorsal colour pattern of a female Sand Lizard of the eastern subspecies, *Lacerta agilis exigua*.

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spots, and on the sides of the body, there are two rows of elongate, white spots with a black edge. Some specimens are monochrome, reddish-brown or black above, lacking any pattern. The belly is greenish-blue or brownish-yellow, with small dark spots.

Distinguishing features: The Sand Lizard differs from the Caspian Green Lizard by lacking a tympanic shield, having a stouter build and a dissimilar juvenile pattern; it differs from the Caucasian Green Lizard by having more femoral pores.

Distribution and subspecies: The Sand Lizard is widespread in Europe and Asia, with its range extending from southern Great Britain, central France and northern Spain to the Southern Transbaikalian Region, north-western China, and north-western Mongolia. In the territory of the former USSR, it occurs from the western borders to the Northern Baikal and Southern Transbaikalian regions in the east, and, southwards, to the Caucasus, Kazakhstan and the mountains of eastern Central Asia. It reaches northwards up to 60° northern latitude.

Of the 10 or 11 recognized subspecies, the eastern form, *L. a. exigua* EICHWALD, 1831, is the most widespread in Russia. North Ossetia, Ingushetia, Chechnya, and Dagestan are inhabited by the Dagestan Sand Lizard, *L. a. boemica* SUCHOW, 1929, which some experts consider a distinct species. Also, in the Leningrad Region and in the south of Karelia, the subspecies *L. a. chersonensis* ANDRZEJOWSKY, 1832, occurs in a fairly extensive zone, in contact with the eastern subspecies. The recently described subspecies *L. a. mzymtensis* TUNIYEV & TUNIYEV, 2008 was based on specimens originating from the Mzymta River basin in the Western Cauca-

sus. *Lacerta a. grusinica* PETERS, 1960 inhabits the south-east of the Krasnodar Territory, Abkhazia and Ajara, Western Georgia and the Black Sea coast of Turkey east to Trabzon. Some authorities question the validity of this subspecies.

Natural history: The Sand Lizard inhabits the forest, forest-steppe and steppe zones, and locally penetrates the semi-desert zone and the outskirts of the sands. It occurs in dry habitats, including synanthropic ones; in the south of the species' range, it is found in more humid places. In the mountains, it lives at elevations of up to 3,500 m a.s.l. The largest populations occur in the steppe zone. The activity of this species is diurnal. Overwintering lasts from

Fig. 340: Dorsal colour pattern of a male of the eastern subspecies, *Lacerta a. exigua*.

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Fig. 341: An adult male Sand Lizard.



the end of September or October to March–May, depending on location. Lizards fall into inactivity at an air temperature of +7.5 °C. The breeding season begins shortly after the end of hibernation; fights are observed between males. Pairs remain together for the reproductive season. Sand Lizards dig deep burrows of up to 70 cm length. Between the end of May and the beginning of June, females produce 1–2 clutches, each containing 4–15 eggs. The incubation period lasts for about two months. Hatchlings with a body length of 2.3–3.4 cm emerge in July. They become sexually mature after the second or third hibernation, at a body length of 7–8 cm. The longevity of *L. a. boemica* is 6–7 years in Dagestan. Sand Lizards feed on various insects and their larvae, spiders, woodlice, earthworms, and molluscs. Large individuals may eat smaller lizards, including their own young.

Conservation status: The Sand Lizard is included in the Red Data Books of Karelia, Moscow, Tver, and the Tomsk regions, as well as the Khanty-Mansi Autonomous Area.



Fig. 342: Head scales of a male Caucasian Green Lizard, *Lacerta media*.

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Fig. 343: Juvenile Caucasian Green Lizards are easily distinguished from adults by their pale longitudinal stripes.

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Caucasian Green Lizard

Lacerta media LANTZ & CYRÉN, 1920

Figs. 342–345, Map 70

The Caucasian Green Lizard often settles among dense, prickly bushes on steep, stony slopes and drops itself from a height of 3–4 metres at the slightest disturbance. Large lizards, especially males with strong limbs, are capable of making long jumps from stone to stone. When mulberries ripen, these lizards show no aversion to eating the sweet fruits.

External appearance: This is the largest species of the genus *Lacerta*, reaching a body length of 17 cm, tail length of 25 cm or more and a body weight of 70 g. In the Russian part of the species' range, specimens are typically smaller than in Transcaucasia. Males grow larger than females. A masseteric scale is absent, and the tympanic scale is usually pronounced. There are usually four pairs of infralabials, less often five. The dorsal scales are hexagonal and elongate, with strongly developed keels, and arranged in 42–56 rows at midbody. The row of 11–16 femoral pores is short, and does not reach the knee joint; at the same time, external pores are smaller than internal ones.

The dorsal surface of juveniles is dark brown or fulvous with five narrow, greenish longitudinal stripes. Adult lizards are bright green with numerous small black spots and speckles, with a vermiculate or reticulate pattern on the head. The upper side of the hindlegs on females has round black spots. The venter is yellowish-green in males, and yellowish or white in females. During the breeding season, the lateral side of the head, throat, and sometimes the edges of the body along the venter on the male acquire a bright, pale blue to mid-blue colour, and the body becomes emerald green. Often, there are also rounded blue spots on the sides of the front third of the body. The tail and hindlegs are always green.

Distinguishing features: This species differs from the Five-streaked Green Lizard by its larger size and a short row of femoral pores that do not reach the knee.

Distribution and subspecies taxonomy: The Caucasian Green Lizard is common in eastern Turkey and north-western Iran. In the Caucasus, it occurs sporadically in eastern and northern Georgia, in the foothills and mountainous regions of Azerbaijan and Armenia, and on the Black Sea coast in Abkhazia and Ajaria.

In Russia, it lives in the valleys of the rivers of inland Dagestan, and in isolated localities on the Black Sea coast of the Krasnodar Territory.

Of the three to five currently recognized subspecies, the nominotypical one, *L. m. media* LANTZ & CYRÉN, 1920, inhabits the Caucasus. Previously, the Caucasus Green Lizard was considered a synonym of the polytypic species *Lacerta trilineata* BEDRIAGA, 1886, which was then divided into more than ten subspecies.

Natural history: The Caucasian Green Lizard lives in shrub thickets, in juniper and pistachio–juniper arid, open forests, or deciduous oak forests. It is also found in vineyards, gardens, prickly and rocky hedges. In mountains, it is found up to 2,600 m a.s.l. but, in Dagestan, it does not occur at such high elevations. Population densities are uneven within the species' range. Whereas in Dagestan, in the surroundings of the villages of Akhty and Rutul,