THE CAUCASIAN GREEN LIZARD, *LACERTA STRIGATA*, EICHWALD 1831, WITH NOTES ON ITS REPRODUCTION IN CAPTIVITY

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Description

Length: 106mm (male) – 112mm (female). The characteristic colour of the adult is clear bright green over the first two thirds of the body, while the hind quarters including legs and tail, are olive brown. The female is similar, but the green is not as intense, and the body retains some of the spots and a trace of the stripes of the juvenile colouring. In the breeding season, the head, throat, and sides of the neck turn deep blue in the male; the throat of the female is greenish yellow. The belly of the male is greenish or greenish-yellow, that of the female white. The juveniles are olive brown in colour with five clearly defined narrow, whitish, longitudinal stripes, between which are irregular small dark spots. The stripes fade and gradually disappear with the onset of maturity, but may be retained longer in the female.

Distribution

N.E. Anatolia; the Caucasus; West Central and N.E. Iran, and the south western extremity of Turkmenistan (Central Asia).

Habitat

Lacerta strigata occupies a wide variety of habitats within its range. It is found in steppe, mountain-steppe, semi-desert, by the banks of rivers or small streams, in meadows, the borders of steppe-forest, windbreaks in cultivated land, the margins of vineyards and gardens, roadside and canal banks. Within these areas it avoids barren places or low vegetation, but lives by preference around small bushes, bramble, wild rose or dense weeds. Cover is sought in the holes of rodents or in rock piles, – the lizards themselves sometimes dig burrows of 50-70mm in length. In the mountains, this species reaches an altitude of 3000 metres in some regions. In favourable localities population densities may be high. At Stavropol a density of 460 per hectare has been recorded (Bannikov and Darevski, 1977); in eastern Georgia 400 per hectare (Mus-gelishvili, 1970); by Lake Sevanin in Armenia, 27-34 individuals were counted in a walk of 1 km. (Bannikov and Darevski, 1977).

Period of Activity

The lizards emerge from hibernation in mid-March when temperatures reach 16-18°C. In mild winters in Georgia activity may commence in February. The adults usually begin hibernation in September, but the young remain active through October into November.

Reproduction

Mating begins early in May, with a peak period in the second half of May. Egg laying commences towards the end of May and extends until early July. Each female usually lays two clutches each of 6-11 eggs. The first clutch is normally laid at the end of May/beginning of June, the second at the end of June/beginning of July. The eggs measure 8-10 x 15-18mm. The incubation period is about six weeks. The young emerge from the end of July until mid-September. At hatching, the young have a snout-vent length of 30-32mm. Maturity is reached at an age of 22-23 months.

Food

Beetles (20-60% of stomachs examined), spiders (12-30%), woodlice (-25%), snails (13-22%), ants (-26%), flies (4-18%), bugs (-11%). Also grasshoppers, moths, cicadas.

Parasites

Trematodes (Brachylaemus), nematodes (Physocephalus); ticks (Haemophysatis).

Lacerta strigata **in captivity**

About four years ago I received from a friend in Eastern Europe 2 males and 1 female *L. strigata.* From the beginning they proved to be a very easy species to keep in my garden-terraria. *Lacerta strigata* is closely related to *Lacerta viridis, L. agilis* and *L. trilineata,* in that order. They have been crossed successfully with both *L. viridis* and *L. agilis* by Wolfgang Bischoff. The young are very similar in appearance to those of *L. trilineata,* and years ago *L. strigata* was regarded as a subspecies of *L. trilineata.* It was to be expected, therefore, that in captivity they would be as easy to keep as *L. agilis* and *L. viridis.* Breeding in garden vivariums proved to be very easy, almost exponential: in 1977 I was lucky to breed 6 *L. strigata,* while in 1978 26 young were born, and in 1979, 131.

I keep the lizards in different kinds of vivariums:

1) A brick-walled glass covered enclosure of 3 sq. m, facing south, in good weather 1/3 of the glass is removed.
2) A glass covered enclosure similar to the above, of 12 sq. m.
3) An open air enclosure of 600 sq. m.

The lizards thrive in all of these enclosures, where they live all year round, hibernating successfully. The winters within their natural range can be very severe, so the lizards are well able to survive the winters of North West Europe. In this regard, I noticed a most remarkable thing; in the warmest vivariums the lizards went into hibernation earlier than in the open-air enclosure; this applied particularly to the females. It seemed as if the females, after laying their three clutches of eggs automatically go into hibernation after a short period of activity of a few weeks. In the open air enclosure, of course, mating and egg laying are later. In the hot summer of 1976 the lizards in the glass covered enclosure had already disappeared by the end of August when temperatures outside exceeded 30°C (=90F). Yet in the same enclosure I saw the first lizard emerge from hibernation on 29th January 1977 during sunny weather, at an outside air temperature of 10°C. In 1977 the *strigata* were hibernating by 17th September in beautiful weather. In 1979 in the warmest glass covered enclosure the lizards were gone by 28th August, while in the same year in the open air enclosure some females laid eggs on 20-22 September. In 1980 the first males appeared in one glass covered enclosure in February, and in another on March 25th. In the open air enclosure the animals did not appear until the beautiful weather of mid April.

Mating takes place mostly in the second half of April and in May. Eggs are laid from the end of May in the glass covered enclosures and a month or more later in the open air enclosures. A female may lay up to three clutches at intervals of about 3-4 weeks depending on food and weather. The number of eggs in a clutch varies from 8-10 in the case of young females to 10-15 in the case of old females. Therefore, one female can produce up to 40 young each year. My impression is that the more food the lizards are given, the more eggs are produced.

In the glass covered enclosures it is necessary to give calcium and vitamin D3 to the lizards, otherwise the eggs will not contain sufficient calcium for proper development: they may develop to the point of hatching but will die because the skeleton of the young lizard will be too weak to enable escape from the egg. This problem does not occur in open air enclosures. I give calcium in any way possible: egg shells in the enclosures, and calcium lactate in the drinking water are good methods. Vitamin D3 I give in amounts of 10,000–20,000 International Units per litre of water; the water is changed and a fresh mixture given each 2-3 days.

When the females are given good food, conditions and vitamins the incubation time is quite short. At a temperature of 28-30°C the incubation period is 50-54 days. The shortest incubation period I have observed was 44 days at 29-30°C. The sand in which the eggs are incubated must be fairly loose and not compacted, so that the eggs have sufficient oxygen.

The young grow very quickly; if they are kept warm and active through the winter they can reach maturity and breed the following spring. If the young (hatched in July–September) are kept outdoors during the winter in glass covered enclosures, they enter hibernation during November which is much later than their parents. They will reach maturity about a year after birth, and be ready to breed in their second spring.

Like other species of *Lacerta,* the males fight during the mating period. They can be kept with other species of lizards; I have kept them with smaller lizards; *Lacerta monticola, L. saxicola, L. praticola* and other small wall lizards; with species of about their own size: *Lacerta agilis, L. viridis, Agama stellio, Agama caucasia,* and also with larger ones: *Lacerta lepida pater,* adult *Gerrhonotus multicarinatus.*

I feed the lizards mostly on crickets, mealworms and flies.

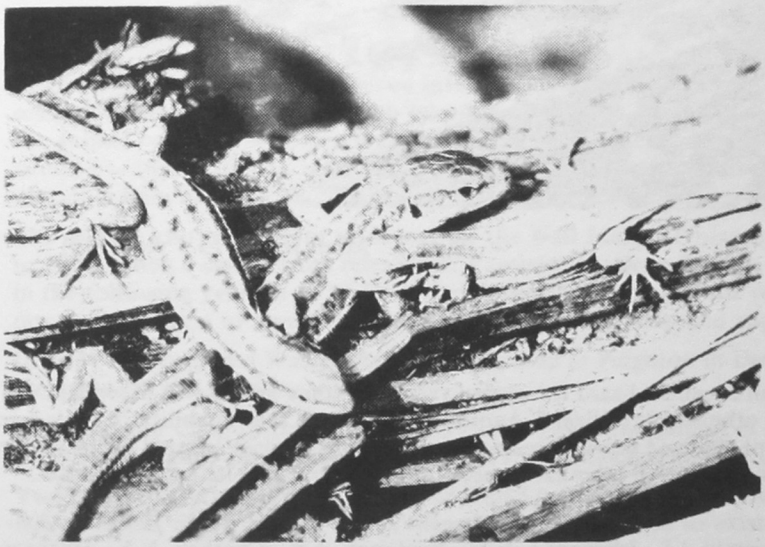

Plate 1 Young *Lacerta strigata.* The two on the left are some months old, and have developed dark spots. The one on the right is less than two months old and has the characteristic pattern of the new-born.

Plate 2 Adult male (3-4 years old)

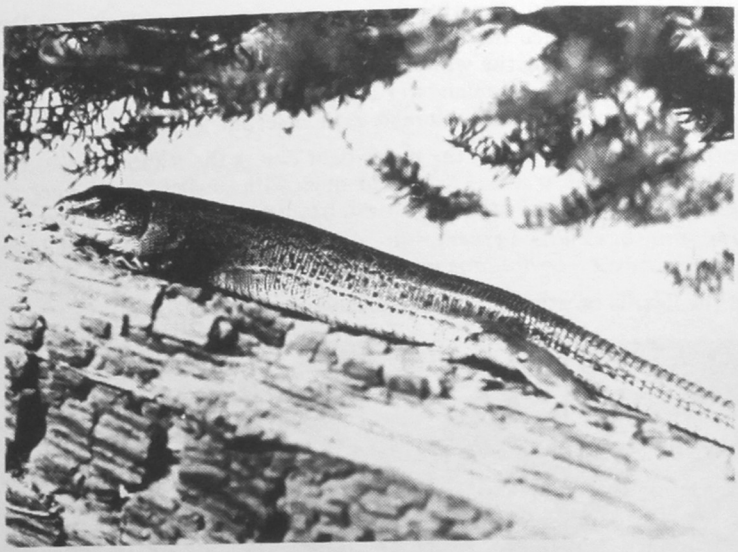

Plate 3 Adult female (3-4 years old)

Conclusion

Lacerta strigata is an excellent lizard for garden vivariums; they are easy to breed and can be kept with many other kinds of lizard. Another attraction is the variability of their own colour with different ages and sexes. It seems the conditions in glass covered enclosures in gardens in NW Europe are even more favourable for this lizard than its natural habitat.

Literature

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