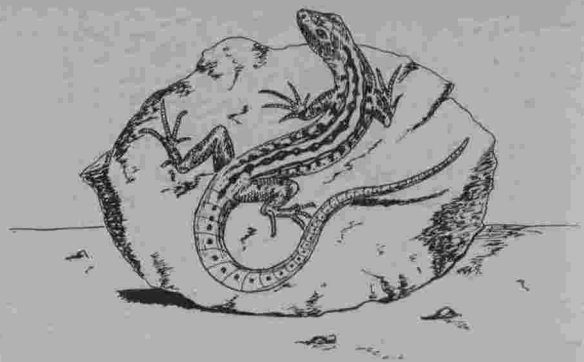


Breeding

Lacerta sicula *campestris*

By H. G. B. Gilpin



I WAS FORTUNATE enough to find a number of these handsome Lacertids in a Brighton pet shop last April and hastened to secure a couple of healthy looking specimens, which were slightly larger than Viviparous Lizards, for myself. One had a bright green throat, that of the other being pale yellow. In other respects they were almost identical. Each had a bright, grass green back with an irregular line of dark brown patches running down the centre. The green band was bordered on either side by a series of fawn dashes along the lower side of which passed another line of large dark brown spots almost merging into each other. Below this came a further line of dark spots on a fawn background. The tail, long and tapering to a fine point, was brownish as was an area at the base of the tail extending a quarter of the way up the body. The legs were brown, sparsely broken by yellow spots, and the top of the head was olive green.

On reaching home the lizards were placed in a vivarium measuring 30 in. x 14 in. x 10 in. and heated to 70°F. This was already occupied by two geckos (*Tarentola mauritanica*), a Red-tailed Rock Lizard, a Viviparous Lizard and a young Ocellated Skink, bigger than its companions but not large enough to be dangerous. The floor of the vivarium was covered with a two inch layer of rounded gravel and it was furnished with several rocks, cactii, aloes and African Violets. A water vessel was supplied.

The two new-comers soon became familiar with their future home and from the first fed freely on mealworms, small spiders and freshly hatched locust hoppers. After a few days they also ate young stick insects. These make good food for lizards but most species in my experience are slow to take them initially although they eat them avidly after a few days, probably because their relative immobility makes it difficult for the lizards to see them.

The *campestris* were absolutely non-aggressive and appeared to take no interest in either each other or the fellow inhabitants of their quarters. In fact, as vivarium animals they were, and are, a great success showing little sign of nervousness. They are constantly on view and their bright colours and lively behaviour make them an asset to a collection.

Somewhat on the slim side when first obtained, the two lizards steadily increased in bulk, one of them to such an extent as to raise hopes that it would produce a family. Suspicions that one was on the way were confirmed by the

discovery of a pure white egg on May 27th. The egg was deposited on the surface of the gravel. On carefully spooning it out, it was found to measure four eighths of an inch in length and three eighths of an inch across its widest part. It was roundish in shape and enclosed in a membranous shell.

During the following week four more eggs, each almost exactly similar to the first, were produced. Like the first they were dropped, apparently haphazardly, on top of the gravel. At this stage the female delivering the eggs scratched out a burrow under a stone and spent much of her time inside it. No eggs were found in it subsequently and its only use seemed to be as a retreat.

Considering the number of lizards occupying the vivarium and the general activity resulting from their presence there was little likelihood of the eggs remaining unscathed in their exposed positions. This danger has been underlined in the past when eggs left on the gravel have been scuffed about by the other lizards or even, in the case of Green Lizards, buried by the parent several inches under the material covering the floor and subsequently disturbed by her further digging operations. Left in the open, even in a fairly secluded part of the vivarium, a further hazard is the loss of the eggs through undue drying.

In an attempt to give them some measure of protection on this occasion three of the eggs were carefully removed from the gravel with a teaspoon and transferred to a small pot of damp sand. More sand was added until the eggs were covered to a depth of half an inch. The pot was then suspended by a bent wire from the rim of the vivarium and the lid replaced. The supporting wire was thin enough to ensure that the gap between the lid and the rim of the frame was too narrow for even the smallest of the geckos to squeeze through.

In this way the eggs were maintained at the constant temperature to which the lizards were accustomed and were at the same time reasonably safe from accidental disturbance by the lizards. Twice a week, two or three drops of water were added to the sand to prevent it drying out too much.

The eggs left on the gravel soon shrivelled and dried up but in due course the eggs in the pot of sand hatched and on June 25th the first baby *campestris* was seen streaking for cover under the leaves of one of the plants. It was strong

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Experiences in keeping PIRANHAS (*Serrasalmus nattereri*)

By William Mellor

JUST OVER FIVE months ago, I bought six *S. nattereri*. The fish were roughly $\frac{3}{4}$ in. long and about five weeks old. I put them in a 40 gallon tank, lit by a 40 watt Gro-lux, and filtered by a Dynaflo Super Filter half-filled with peat fibre. Temp. 76-78 deg. Fahr.

The piranhas were fed on raw haddock and raw liver twice a day, occasional earthworms and live daphnia as a special treat. The haddock and liver were chopped-up to enable easy swallowing. The fish were very nervous but healthy, and most of the food was eaten with relish. Floating plants were provided for shade; Indian Fern, Water Lilies. Coarse gravel covered the bottom of the tank, but this was removed after a month to facilitate easier cleaning. The back of the tank was darkened by black carpet underfelt.

The fish were silver grey with irregular black spots, fins light red, except dorsal fin (clear), and tail fin (black with white splash in middle). The fins were ragged at first due to persistent nipping, but after a week of good feeding all battling ceased and the damaged fins healed up. After a month the piranhas were $1\frac{1}{2}$ in. and the red in the fins was becoming stronger; after 2 months 2 in., body darkening from back down, swimming in a school, still very nervous.

I tried feeding them "Lucky" cat food and they liked it but very messy. Unfortunately, on 14th August, one

of them jumped out of the tank and wasn't found until later, dead.

Four months old, $2\frac{1}{2}$ in. long. I started feeding them small live goldfish and these they really enjoyed; 2-3 dozen goldfish per week. Very expensive!

Five months old, 3 in. long, eating well (too well!), and very healthy. Egg-shaped. As the body becomes darker the scales seem to sparkle as the light catches them and the belly is tinged golden-red; body spots fading slightly and the dorsal fin is black-edged. The piranhas still swim in a school, but, as from the start, one eye on me watching them, and one eye on their tank-mates; I don't blame them! Still nervous.

At the age of five months they started behaving like young Cichlids; circling each other, bodies vertical, fins quivering, charging and ramming each other with their mouths closed. From their behaviour I reckon I might have two males and three females. No fins are torn nor scales missing.

Now that the piranhas are six months old and perhaps approaching maturity, things should begin to get interesting.

I have evaluated the following points concerning young piranhas from the past six months of keeping them.

(a) Feed small young piranhas on small chopped-up pieces of fish or meat that can be easily swallowed. It is useless to throw in a largish piece of meat and expect them to tear it to pieces; when I examined the jawbone of my dead piranhas it was very brittle and fragile; the only exceptions to this rule are raw filleted haddock and raw liver, the former being flaky and the latter having the consistency of jelly.

(b) Keep the tank covered as piranhas are good jumpers. Preferably use floating plants as this is more natural.

(c) Piranhas like warmth, so Temp. at 75-80 deg. Fahr.

(d) Remove uneaten food as soon as possible.

(e) Frequent water changes are extremely beneficial; I remove half the water in my tank twice weekly (usually Wednesday and Sunday), and my filter works continuously.

(f) Give piranhas a good basic food, preferably fish, but don't forget the occasional earthworm or any insects you may find. I once had a 7 in. red piranha that used to go crazy about live daphnia, snapping them up one at a time. Most fish like occasional daphnia. No piranha I have ever had would touch Tubifex worms. Variety is the keyword when feeding fish.

I plan to raise my piranhas to maturity and try to breed them without having to split them up into separate tanks.

Perhaps other readers may find this article interesting and it may encourage more people to write about piranhas.

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and very active and spent much of its time running over the rocks in the open part of the vivarium, retiring smartly into a convenient crack or fissure at the too close approach of one of the adult lizards. A second baby arrived on June 26th and a third on June 27th.

The newly born lizards were about two and a half inches in total length, the slim tail exceeding that of the combined head and body. Basically olive green in colour they were marked with four longitudinal lines of tiny, pale yellow spots and carried a darker olive dorsal line passing down the middle of the back. From the beginning the young lizards did well and fed readily on tiny spiders, very small mealworms and other forms of minute insect life. Unfortunately, eight days after the birth of the first one, I had to leave home for a couple of weeks and although all the adult lizards flourished, in the competent care of my temporary "stand in," the babies were too young to survive the experience.