

# Experiences with Guernsey Green Lizards

Three *Lacerta viridis* Specimens Successfully Acclimatised to Life in an Outdoor Vivarium

By K. Jolly

**I**N the *British Journal of Herpetology* for September, 1949, there is an article entitled "The Reptiles and Amphibia of the Channel Islands and their Distribution". Beneath the heading "Guernsey" three species are listed: the Slow-worm (*Anguis fragilis*), the Common Frog (*Rana temporaria*) and the Green Lizard (*Lacerta viridis*). It was the remarks on the Green Lizards I found interesting, particularly when I arranged a July holiday in Guernsey a couple of years ago. As a boy I had kept as pets either the Jersey or Continental variety of the Green Lizard and, at the time, they had given me much pleasure. So much so that years later the prospect of seeing the species in its natural haunts greatly appealed to me.

My chances of doing so may be judged from the Journal's information. This was as follows: "Green Lizard (*Lacerta viridis*). Found in Guernsey by Sinel and others forty years ago and earlier, having apparently been introduced from Jersey. By 1902 it had apparently become very rare, but is still to be found around Fermain Bay. Said to have been fairly plentiful there a few years ago. Also known at Vallette Cliffs".

## The Lizards Located

As it happened, we found the Green Lizards at Fermain Bay on the steep hillside above the cliffs and managed to bring three home with us, an adult and two young specimens. These latter were brown in colour but one had an underlying suffusion of green, the other tending more to a reddish tint. The white or light yellow lines were definite on each. Between the lines was a number of black or dark brown blotches. All three lizards were of a daffodil yellow on their undersides. The adult specimen was the usual delightful green shade on his upper parts.

How we cared for the lizards in the early stages may be of interest. Some weeks before we started our holiday I ordered a 4 ft. × 1 ft. × 1½ ft. aquarium. This was waiting for us when we returned home. It was a simple job to make a cover for it out of a wooden frame and a length of muslin. Furnishing the tank with sandy earth, bark, broken flower-pots, rocks and a dead tree branch I placed it on some bricks in the garden and then introduced the reptiles to



[Photographs]

[N. Pinn

The author's two male Guernsey Green Lizards photographed in the well-arranged garden vivarium where they thrived.

their new but temporary home. Their water for drinking was provided in a saucer.

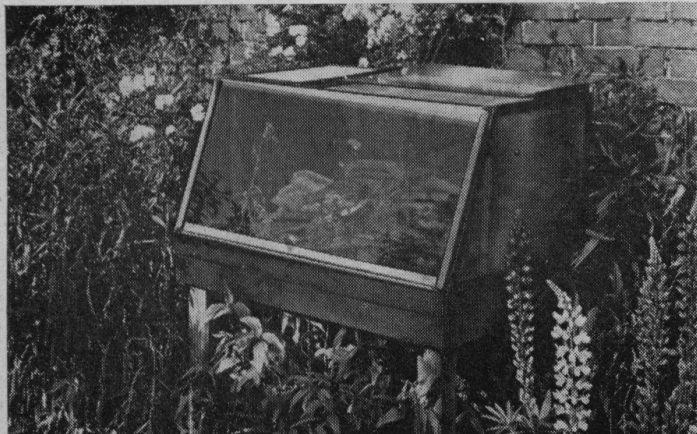
They soon took to feeding regularly. In these first days I gave them Earthworms, wood lice and flying ants. The flying ants were very plentiful for a few days in August as they emerged from their nests and were greatly relished. When I had made a sweep net I was able to collect many species of spiders from the hedgerows. These were also enjoyed. On other excursions we collected grasshoppers, some of them being of a large, brown, wingless species and all found a permanent place on the lizards' menu.

As soon as I was able, I built a vivarium. This was of the following dimensions and construction. The base was made of tongued-and-grooved pine boards finished to overall measurements of 3 ft. × 2 ft. Along each side was fixed a board making it into a tray of about 3 in. deep. At each back corner was fitted an upright 1½ ft. in height. Inclined grooved posts were screwed at the front corners. The grooves were to hold the glass viewing panel that covered the entire front of the vivarium.

## Roof Arrangement

A top frame was joined to the top ends of the four posts. This was divided into two portions; one, two-thirds of the area, was made to take a pane of glass that could be withdrawn, if necessary. In the remaining area was fitted a hinged door of perforated zinc which lifted upwards. The back and one end were covered by asbestos sheeting. The remaining end (the one farthest from the door) was of perforated zinc. On the inside of the asbestos walls I spread Scotch glue waterproofed with added bichromate of potash, and sharp sand was scattered on to this. When dry, it provided a surface over which the lizards could climb with ease.

The finished article was placed on a table against a wall of the garden facing south. Before arranging the rockwork, etc., two ¾-in. holes were bored in the base. Into each was pushed a glass tube until its top was flush with the wood.



A view of Mr. K. Jolly's vivarium which houses his Green Lizards. Its construction is described in this article.

The bottom of each tube was drawn out to a narrow neck to make the egress of any lizard by this way impossible. Into the top of each tube was fitted a shallow funnel of about 4 in. diameter. Over each was placed a flower-pot, so that its drainage hole was central over the funnel. By this arrangement I could have plants that could be watered in the vivarium, safe in the knowledge that any excess would drain away and not dampen the whole floor of the cage.

When putting in the earth, of which I used a great amount, I buried a wooden box in the middle of it. Inside this was a smaller box, half filled with straw and fitted in such a manner as to be surrounded by an insulating layer of air. A small entrance way was left and loose stones and rock were placed around this entrance so that the lizards could always reach it. I had in mind their forthcoming hibernation and wished to supply them with a frost-proof retreat.

A pool was made from a pie dish let in level with the surface of the earth and filled with washed gravel to over the top of its sides. The gravel was then pushed out from the centre. When water was poured in, a natural-looking pool was formed. It did not work very satisfactorily, however, for the reason that livefood often found its way into the water and drowned eventually, fouling the pool. The lizards, also, were responsible for introducing a certain amount of earth, etc. It was not until the Spring that I put all this to rights.

Having completed the layout I somehow caught the lizards and transferred them from the tank to the vivarium. Shortly after doing so the young one of a greenish hue shed its skin to reveal a brighter, more lustrous green, with many of its dark patches having disappeared or grown smaller.

When October came I put in large quantities of caterpillars of the large white butterfly and blowflies (these I was able to collect from a cellar). Mealworms were also offered as food and these latter were all I saw eaten and even then only one or two. I was perturbed as, from what I have read, it was essential to feed the lizards well to fatten them for their long retirement through the Winter months. To me their appearance was no different from what it had ever been.

On October 23, the lizards not having shown themselves for the previous three to four days, I accepted that they had started their hibernation and made preparation to transport the vivarium to an old lean-to greenhouse built into the angle of the end and side wall at the bottom of the garden. Unfortunately the heavy weight resulted in the rockwork, etc. being upset. I therefore dismantled the vivarium and found the lizards safe. The two smaller ones were curled up together deep down in the earth, which I found to be damp, possibly as a result of some overflowing of the pool. Both were covered in mud.

#### Prepared Site Ignored

The large green one, although rather torpid, sluggishly crawled out by himself. None had paid any attention to the little straw-lined box I had made for them. The problem was met by placing all three in a Kilner jar partly filled with straw. This was buried, without its top on, in the earth of the vivarium. The vivarium was covered by layers of straw and sacking.

It was not examined again until March 26 the following year when, to our joy, we found all three lizards had emerged and were resting on top of the earth very lethargically but apparently quite fit. To my eye there was no change in their appearance. They were no thinner as perhaps one might imagine they would be. Their skins, were possibly duller and more leathery looking, but as the two smaller ones were coated in dried mud this could be expected. These two had difficulty in opening their eyes and I sponged them with warm water.

For the first month after their awakening I kept them once again in the 4-ft. tank but this time in the kitchen

## Fish Philately Ocellated Toby



THIS 30-centavo stamp, its lettering printed in red against a background of neutral grey, is another in the magnificent series of fish in full natural colours issued by the Portuguese East African colony of Mozambique in 1951.

The fish depicted is the Ocellated Toby (*Canthigaster margaritatus*), a six-inch long inhabitant of tropical coastal waters, coral reefs and pearl banks. Its colour is very variable, some specimens being brilliant, others insignificant and dull.

On the stamp, the body and tail of the fish are shown as warm red, with pale blue stripings on the upper parts and blue spots below. Fins are bright yellow. The dark eye-spot, or ocellus, is characteristic of the species.

The small Family *Canthigasteridae*, the Tobies, belongs to the Order *Plectognathi*, which also includes the Puffer, Trigger, Trunk and Porcupine Fishes. It comprises several small species of prettily coloured Globe Fishes, none exceeding six inches in length. As with the Tetraodonts, the Tobies have the teeth in both jaws, fused to form a sort of beak.

*Canthigaster rostratus* is found in West Indian waters, *C. solandri* (orange with blue spots) is abundant throughout the South Seas and *C. rivulatus*, around Japan.

John Wakefield

which receives a good measure of sun. To guard against frost I kept a shaded 25-watt lamp burning both day and night, for the first two weeks. For a week or just longer they did not feed but, as the temperature rose, they started. By digging in the garden I was able to find a number of beetle larvæ. These supplemented the usual fare which at this stage consisted of gentles, mealworms and Earthworms.

At the end of three weeks the first lizard started to slough its skin and by the end of the month all had done so; each took two days to complete the task apart from some skin on their tails. The small green one was now approaching more closely in colour and looks to the adult specimen, the dark blotches having diminished to mere vestiges of what they were. Although brighter looking, the brown specimen appeared much the same as it had done previously as did the large green lizard.

During their sojourn in the aquarium I was making certain refinements to the vivarium. I had removed the sliding glass top and replaced it with perforated zinc. I then fitted the glass in runners above the zinc so that it ran from back to front at a gentle slope; the idea of this arrangement was that in fine weather the glass could be removed altogether to permit good ventilation. On wet days it could be put in position as a roof, the water draining away over the front edge.

The pool was dispensed with entirely and replaced by an

automatic water provider. This was made on the same principle as those supplied for poultry. Into a log I let in a porcelain medicine measure of one teaspoonful capacity. Above this, fixed to an upright, by a metal spring clip, was an inverted test tube filled with water. This tube could be adjusted so that the mouth was just below the rim of the measure. When the water in the measure was over the mouth of the tube the water in the tube was kept there by atmospheric pressure. When, by evaporation or the lizards' drinking, the level fell below the end of the tube water was released to replenish the small reservoir. I have found it lasts about a week before needing further attention. It is not obtrusive and, if less attractive than a pool, is far less trouble.

A month after taking the lizards into the kitchen I put them outdoors in the prepared vivarium. The two green specimens (which we believed were males) now had clearly defined patches of green-blue just behind and lower than the angle of their jaws. In neither did it extend under the throat as is recorded for other varieties of *L. viridis*.

During May a certain amount of fighting took place between the two green lizards (the males). These two are, for most of the time, very friendly, basking together and generally following each other about but, on the odd occasion, when either took to closely examining the other, there would be a sudden vicious flurry, and the offending lizard would be thrown quite forcibly for some distance. These same attentions, when paid to the little brown specimen, did not follow the same pattern. She was often

only too anxious to escape from them after a short period. She never showed an interest in either of the males. All of these displays I believed to be in the nature of courtship and certainly the brown coloured lizard showed some fullness of body.

About this time large white butterflies were appearing in the vivarium. These were breaking free from the chrysalids of the caterpillars I had put in the previous Autumn. The butterflies were left alone by the lizards which was strange, as they are often quoted as being suitable food for *L. viridis* but then, in my experience, other foods recommended have also been without appeal to our three specimens, such as flies, moths and beetles. Other foods of a hard skinned nature offered—weevils, bugs, etc. have also, up to now, been rejected. The most enjoyed are smooth caterpillars of all types, flying ants (the large ones), grasshoppers, mealworms (despite the tough skin), gentles, larvæ of beetles, spiders, small wood-lice and Earthworms. It is sometimes said that Green Lizards can often be induced to accept Earthworms. I found they were taken straight away.

In conclusion I would affirm that these lizards are fascinating creatures to keep, but to anyone hoping to maintain *Lacerta viridis* I must be honest and say that the provision of food requires effort, but, once made, the reward is great. It is true to say that they can influence one's outlook. At one time it would have been difficult to believe I should ever visit my cabbage plants hoping to find them infested with caterpillars!

## Moor Goldfish (2)

Spawning Times—Breeding Tank Size  
—Useful Ponds—Keeping Full Records

By T. L. Dodge

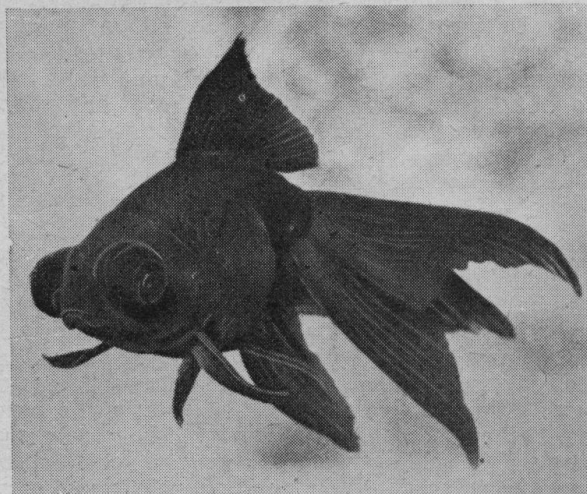
Photograph  
[L. E. Perkins

**C**OLDWATER fishes almost invariably spawn when the barometer is falling and there is a falling temperature and daylight. This is one of the reasons why spawning nearly always commences in the early hours of the morning, especially after a moonlight night which follows a sunny day. There are, of course, exceptions to this rule but observation will usually provide the answer. The water in the spawning tank should be clean and fresh. Fishes will rarely spawn in old or stale water.

If the fishes are kept in warm water throughout the year then spawnings become much easier because the above conditions can, to some extent, be artificially created. On the other hand, those same fishes will obviously enjoy a much shorter span of life than will their coldwater brothers and, unfortunately, will never thrive if kept in cold water. Although fishes will grow more quickly when kept in warm water it is not a bit of good trying to transfer such species to outdoor pools during the Summer. The water is usually around 60 deg. F. by such a time and that, added to the more natural conditions, in no way prepares the fishes for life in freezing water the following Winter.

Coldwater spawnings are more difficult because natural climatic conditions are the deciding factors and advantage must be taken when those conditions are recognised. This is not always possible for varying reasons. If the conditions arise in mid-week, when the breeder has to attend work, he is very lucky indeed if he can utilise them. The aquarist who boasts of his ability to spawn his fishes on any given day is an extremely clever person.

Moors, by reason of their hardiness, can be expected to



spawn earlier in the season than the Calico type of Twintail. Provided they are well looked after during Wintertime and sensibly nurtured for the forthcoming breeding season there is no reason why the first spawning should be later than the month of March.

### Aquarium Sizes

The ideal size for a Moor spawning tank is, in my opinion, about 36 x 15 x 15 in. A tank of such a size can be kept clean and it provides a fair amount of water for a heavy spawning. Spawnings are best divided into two or more tanks, dependent upon the size of the spawning and the number of tanks available. Young fishes can be thinned out into further tanks when they are about three weeks old or about 3/4 in. in overall length. I find it expedient to apportion about 50 young fishes to each tank of the above size, gradually reducing the number per tank as their growth proceeds. Larger tanks are available once the youngsters are past the fry stage. Very large tanks are useful for Winter housing, but even more important are good, clean conditions and intelligent dieting.

After having taken great pains to ensure a good spawning and having tanks swarming with healthy young fry, the