

CHAPTER VI

THE COMMON LIZARD, *LACERTA VIVIPARA*

DISTRIBUTION—DESCRIPTION—HAUNTS—HABITS—FOOD
—COLOUR VARIATION—REPRODUCTION.

Distribution. — The common lizard has a wide European distribution, characterised on the whole by a marked preference for high lands and mountainous districts, the low-lying areas being generally avoided, a feature which at the very outset provides one point of contrast with the sand lizard. Thus, *Lacerta vivipara* occurs in the mountains of Switzerland, and in all the following countries, namely, France, Germany, Italy, Belgium, Poland, and Russia. In the area to which this work particularly applies, the common lizard is to be noted as occurring in the four divisions of England, Scotland, Ireland, and Wales. Herein it differs from the slow-worm, which species, like the snakes, is absent from Ireland. It may be remarked in passing, that the statement so commonly made that there are no *reptiles* in Ireland is therefore inaccurate, the truth being that while there are no indigenous

snakes in that country, lizards are not at all uncommon. Its local distribution in this country will be dealt with later, but I would just say here that, personally, I have not found this species in England to be markedly restricted to mountainous counties. Thus, while rather abundant in Norfolk, it is extremely rare in the hills of Monmouthshire; but the latter county is so rich in "cover" that the small lizards easily escape observation. It is peculiarly interesting from the distribution point of view, inasmuch as it is the only reptile to be found in Ireland, the sand lizard as well as the slow-worm having apparently come under the decree of banishment ascribed to St. Patrick. Why this species alone should have been permitted to set foot upon Irish soil is not quite clear, but very likely the viviparous lizard preceded the others in the spread of reptiles to the British Isles from the Continent at a time when the mainland was continuous from the Continent to Ireland. Ireland then became cut off from Great Britain, and Great Britain from the Continent, but in the case of Great Britain the viviparous lizard had been followed by the slow-worm and the sand lizard, as well as the three species of snakes before the separation occurred. Whether this is actually what took place or not, it is one view which gives a feasible explanation of the curious distribution of the British reptiles.

On the Continent this common or viviparous lizard is, as we have said, widely distributed, ranging "through



COMMON LIZARD (FEMALE).
LACERTA VIVIPARA.

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Northern and Central Europe and Siberia to the Amoor country and the Island of Saghalien. It does not occur south of the Pyrenees or south of the Alps.”¹ In Ireland its distribution seems to be irregular and somewhat local, “occurring, for instance, in the county of Meath, and in the south-eastern counties, *e.g.* Waterford.”¹ A writer in *The Zoologist* (p. 7172) describes it as being unusually numerous in the year 1860 in the county of Down, where, he also states, the common lizard had never occurred before except in rare cases of single specimens.

Description.—A careful examination of the illustrations in this book, all of which are from photographs of living specimens, will convey a better idea of the appearance of the lizard than any amount of written description. Coloured plates are very misleading, because all our reptiles have such a great extent of colour variation, and the most that any coloured plate can do, even if it be absolutely accurate, is to depict the appearance of one particular specimen. The observer is apt to get the impression therefrom that all lizards of the species represented are of that colour. For this reason, we have preferred to illustrate from photographs alone. “The general colour of the adult is brown or reddish above, with small darker and lighter spots; many specimens have a blackish vertebral streak and a dark lateral band edged with yellow. The under parts are orange to

¹ Gadow, *Amphibia and Reptiles*, p. 553.

red in the male, with conspicuous black spots; yellow or pale orange in the female, either without or with scanty black spots. The newly-born specimens are almost black. The males are slightly smaller than the females; males of a total length of 6 inches, and females 7 inches long, may be considered rather large specimens.”¹ It is important to remember that the viviparous lizard is smaller than the sand lizard. Much confusion seems to prevail amongst field naturalists about the two species, and the sand lizard is constantly being reported from new localities, in Scotland for example, in mistake for the common viviparous lizard. The absolutely distinctive characters are few, but most specimens are clearly defined by their colours. If the distribution be compared, it will be at once noted that the sand lizard is very local and comparatively rare. In the common lizard no teeth are to be found on the palate bone, and in normal specimens there is a single post-nasal shield, and a single anterior loreal shield. The scales covering the dorsal surface are elongated and hexagonal, and indistinctly keeled as compared with those of the sand lizard. The general shape of the head is more flattened than in the rare species, and the snout more pointed. The ventral scales are arranged in from six to eight longitudinal rows: the marginal rows being the smallest; “the second series on each side from the median ventral line,” the largest.¹ In these and other

¹ Gadow, *Amphibia and Reptiles*, p. 553.



COMMON LIZARD (FEMALE).



COMMON LIZARD (MALE).

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lizards there are no glands in the skin, unless the femoral and pre-anal pores which occur in this and many other species are to be regarded as glands. These pores are found on the under-surface of the thighs, particularly in the males, and also in front of the anal opening. Those on the thigh of the common lizard number from nine to twelve. "Each of these organs perforates a scale and leads into a tubular invagination, which is lined with epidermal cells, the proliferation of which produces a horny yellowish débris, and this fills the tube and appears above the surface in the shape of a little cone."¹ The function of this excretion is not definitely ascertained, but possibly it is concerned in gratifying some sense-perception. Professor Cope remarks upon this: "The use of this substance is uncertain, but it is probably an important aid to the animal in maintaining its hold on smooth surfaces. Lizards which move on the ground rest much on the thighs, which are not elevated above the ground in many types, but serve as the principal point of contact from which they make their leaps. The same is true of some genera which leap among trees from branches and trunks. A similar secretion issues from the pre-anal scales in some Iguanidæ (*Liolaemus*, etc.), and in an African Lacertid a rudimental structure of this character is found on many of the abdominal scales (*Poroidogaster*). An approximation to this structure I have seen on

¹ Gadow, *Amphibia and Reptiles*, p. 553.

the pre-anal scales of an adult male of *Sceloporus horridus* of Mexico. Here the epidermis is greatly thickened above the middle posterior part of the scale, so much so as to make a deep impression in the true skin, simulating a true pre-anal pore. I suspect that the nature of these structures is similar to that of corns in higher Vertebrata.”¹

The relative size, the colour, and the viviparous character of the common lizard, will be the points that the field naturalist will keep in mind as distinguishing this species from the sand lizard, not forgetting the wide distribution of the former compared with the very restricted distribution of the latter.

Haunts.—It has been noted that, as far as Europe is concerned, this lizard shows a preference for mountainous areas, but in England it will be found in flat districts as well as hilly.) My own experience has been to see more specimens in dry sandy spots than in well-watered and greener places. Moors and commons and heaths seem to be its haunts particularly, as well as sandhills near the coast. I took half a dozen of these lizards one morning on the sandheaps on the coast of Norfolk, near Stalham, where they scuttled across the sand from one stunted bush to another, or into tussocks of grass. I also saw a good many on a gorse-covered common in Dorset, so that they are not very particular as to the kind of

¹ Cope, *Crocodiles, Lizards, and Snakes*, p. 198.

place they dwell in. Open country they certainly prefer to deep valleys and woods.

Habits.—Reptiles are frequently described as being sluggish and slow of movement. This is certainly not true of many lizards, and is very wide of the mark in the case of the viviparous lizard. A more difficult creature to catch it would be hard to mention. The pace at which one of these creatures will cross a piece of open ground to the nearest cover is simply astonishing, and almost defies capture by the hand. The observer sees the lizard first here, then there, and then not at all, and it is a hundred to one against finding it, unless it has sought the shelter of an isolated tuft of grass, from which it may be dislodged. Even then it is very difficult to see the little creature amongst the roots, and just as it is exposed and you are about to grasp it, like a flash it darts out and away to another more secure hiding-place. As to attempting to see the individual movements of the limbs it is a sheer impossibility. In fact, all the movements of this lizard are rapid. Feeding is carried out in desperate haste, as well as locomotion.

During the hot summer months they may be seen sunning themselves in the open, especially the gravid females, at which time, of course, their movements are more deliberate and less speedy, and therefore they are at this period more easily captured.

L. vivipara is said to be a good swimmer and to take readily to water. It is also stated that when

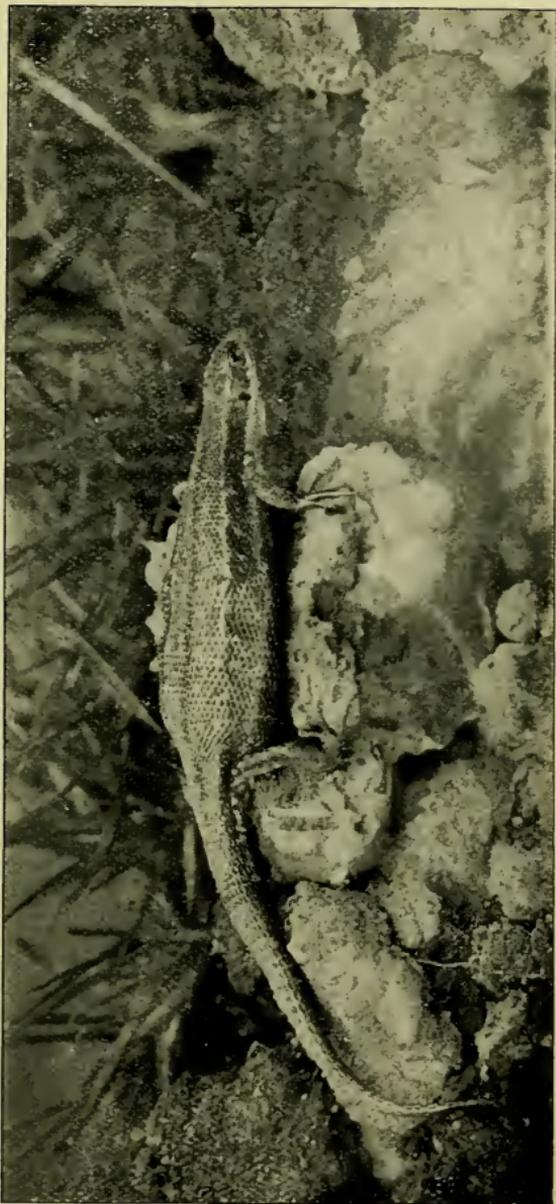
the young are first born they remain with the parent for a time, and, like the adder, she has been credited with swallowing them for purposes of protection. Personally, I have never observed any indication of parental relationship in these lizards, either in nature or in captivity.

This lizard has a greater objection to being handled than either the slow-worm or the sand lizard; very hard it is to retain one in the hand without injury if it is attempting to wriggle out.

Sloughing occurs at intervals as in other lizards, it being somewhat rare to obtain a perfect slough in one piece (see page 39).

J. A. thus describes some habits of this lizard (*Newcastle Weekly Chronicle*, 1881):—

“Some years ago I remember being on a bird-nesting excursion in Belford Cragg. Seeing a bird flying about with food in its mouth, I concealed myself up the branches of a tall, thick holly-bush, and there waited quietly to see where the bird would go to feed its young. I had not sat more than a few minutes, when a small lizard crept out from the side of a stone and laid itself quietly down to bask in the sun’s rays. It was presently joined by a second, and then a third, fourth, and fifth. I watched the motions of these little creatures for nearly an hour, and so interesting and amusing were they that I forgot to observe what became of the bird with the ‘bait’ in its mouth. Sometimes they would lie motionless, separated from each other by a few yards; then suddenly one would dart swiftly towards his neighbour, who, in turn, with equal agility, would avoid the attack; then a general darting to and fro, helter-skelter, would occur amongst the lot. Suddenly there was a pause, and all would lie still; then one would dart at some insect, secure it, and resume his vigils; then in a moment all was commotion again, a general darting here and there in all directions. Could not I secure one of these little lizards, thought I. But how was it to be done? The slightest movement on my part alarmed the whole, and they were all out of sight in an instant. In a short time they would return and resume their manœuvres. I thought



COMMON LIZARD (GRAVID FEMALE).
LACERTA VIVIPARA.

the best way to secure one was to overturn the stones under which they had taken shelter. Accordingly I began to turn over first one stone and then another, and after seeking for a considerable time, and turning over several stones under which I felt *sure* one at least had taken shelter, I was compelled to give up the search in despair, without getting a glimpse of the animals again. Such is the capacity of the lizard for keeping out of sight that it is next to impossible to capture it when once it gets among rough stones, grass, or heath; and the rapidity with which it darts about on a surface of loose sand can only be likened to the movements of a dragon-fly on a pool of water."

Food.—The insects furnish the main food supply of this species. Flies of various kinds, blue-bottles, the small blue dragon-flies which abound in July in some places, June bugs, and beetles. In captivity meal worms are generally depended upon, and these the lizards take with evident satisfaction. An insect which ventures within seeing distance of the lizard is instantly captured and swallowed with great celerity. Caterpillars in their season are not despised, and they seem to vary the diet during successive months, doubtless as the different insects become more numerous. Miss Hopley found that her captive lizards took flies in the early summer only, and later on refused them; and she hazards the opinion that the flies may be obnoxious when depositing their eggs. All her lizards refused centipedes, and ejected any if swallowed accidentally. Spiders they all took eagerly.

Reproduction.—As the specific name implies, the common lizard is viviparous or ovo-viviparous. The number of the family varies from six to twelve. The young burst the egg-membrane just after extrusion or

within the mother; in the latter case, therefore, they are born quite free. No nest of any kind is made. The mother simply deposits the young upon the ground and leaves them to their own devices. As they have the perfect use of their limbs from the moment of birth, this apparent carelessness of the mother has no disadvantageous effect upon the young, who, in obedience to the dictates of hunger, very soon commence the search for small insects. These little ones, as already mentioned, are nearly black at first. In size they measure about an inch at birth, or a fraction less. Within a week they are actively engaged in feeding, but for the first few days they remain under leaves, and apparently subsist upon the remaining yolk from the egg, which has passed into the body. "Their first food consists of Aphides and similar tiny insects."¹

Synonyms.—The various names by which this lizard is known are as follows:—

The common lizard.

The viviparous lizard.

The scaly lizard.

In addition to the correct specific name of *L. vivipara*, the name *Zootoca vivipara* will be found in many writings applied to this species. The classification is given on page 101, and the specific scaling characters which distinguish it from the sand lizard are described in the chapter on "Specific Characters."

¹ Gadow, *Amphibia and Reptiles*, p. 554.