

THE ASTONISHING ADDER *VIPERA BERUS*

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When I was five I still vividly remember being taken for a walk and meeting a man who warned us to be very careful not to tread on an Adder, saying that a man he had just passed had caught one and was playing with it. This filled me with amazement and fear.

One Spring in my early teens, I caught my first Adder, a young one seven inches long and immensely fat. Covering my hand with my handkerchief, I picked up this charming little animal. In a fury it attacked the handkerchief and I saw the flash of the fangs from which oozed two drops of amber-coloured poison. In a sudden impulse, I let it go again, placing it on bare ground with my hand in front of it, palm upwards. Reaching my warm hand it pushed its little blunt nose between my fingers.

I tried this a second time with the fingers hanging down, and this time it held on to my fingers and in this position it astonishingly allowed me to take it back to school. This was quite a long walk of about 20 minutes during the whole of which the little snake clung to my fingers. As I put it down into a vivarium, it was evidently frightened and tried to bite me but missed and hit the glass instead. By the next day it had disgorged an adult Viviparous Lizard (*Lacerta vivipara*), much larger than itself. A day or two later it ate four or five little frogs. It quickly learned to enjoy lying on my warm hand.

Soon after this, I caught a large Adder; they can be picked up with a bare hand if grasped just forward of the tail and lifted at the same moment with the head hanging down. They cannot climb up their own bodies as some snakes can, to bite the hand that holds them. This delightful animal tamed so quickly that I was loathe to let it go in two or three weeks when it would need to feed. So I decided to try and keep it a little longer by forcible feeding. Using a thistle funnel, I filled the snake up with beaten-up raw egg. Not only did it appear to thrive on this unnatural diet, but it even held its head up afterwards as if not wishing to waste a precious drop. Five weeks later it escaped in the Isle of Wight, giving me a bite as a parting gift. Perhaps this strange diet was making it liverish and irritable.

A few years later, in 1926, when reading Zoology at Cambridge, I was shown an intriguing model in wood, with elastic bands to show that when an Adder opens its mouth its fangs erect ready to bite, and when it shuts its mouth they fold away. The snake has no option. I pointed out that when it yawns it often raises and lowers its fangs when its mouth is open. This, I was told, was quite impossible. All the muscles that the viper has, were shown in the model. So I had to lay on a couple of Adders to prove my point. They duly opened their mouths and moved their fangs up and down. To get them to do this in the Zoological laboratory would, I could see, be very difficult. As I expected they would not open their mouths as a crowd of people had tapped on the glass, hoping to get them to move or strike. As they knew nothing about Adders, they were duly astonished as I lifted one out with my bare hands, using the usual piece of wire to lift it out of its vivarium so as not to frighten it. It was not until 1992 that they agreed that Adders can move their fangs up and down when their mouths are wide open, so that as they said "We are both right".

My next encounter with Adders was when my wife and I went to live in Dartmoor, just below the 1.000 ft contour, to find seven or eight Adders living fairly close together in one part of the garden where they got the most sun. To our surprise, one February after a snowfall, the snakes came out to find their favourite basking places where the snow had already melted. Where it had not, they crept under the snow and also did not hesitate in some cases, to crawl several yards on top of the snow; at this time the temperature was 49°F. One of these garden Adders became astonishingly tame and reliable and did not bite. For example, it used to climb up onto my shoulder. There it saw my left ear which it used as a convenient step to get up on to my head from which, of course it fell off. But it persisted until one day it put its head between my spectacles and my eye. Clearly I could not allow it to establish a right of way behind my glasses, so I removed the snake and my glasses and disentangled them on my lap.

Years later we moved to Dorset, and in our Swanage garden were delighted to find two Adders on one side of our kitchen garden, and three more in a field on the other side. To find out how effective they were as mousers, I picked up these five and put them in a bag overnight, to find in the morning that four of them had disgorged a partly digested mouse as is their custom when captured after having fed.

Many herpetologists state that new-born Adders probably feed on insects, spiders and worms. As my first Adder I caught was seven inches long, I did not see why new-born Adders at six and a half inches long should not be able to do the same. I saw that I must test this, but it was not until we moved near to the Chesil beach that I had the opportunity to do so. I took in a large pregnant female and put it in my sun-porch to wait events. When the sun was too hot, more than 120°F, it could and did get into our bedroom to find some shade. Adders rarely eat in captivity but this one ate a dead shrew given us by our neighbour's cat. One morning we saw eight most wonderful little snakes. When we went near them, they struck at us so violently that they slid forward on the tiled floor. We put them all into a jam-jar which my wife turned upside down onto my bare hand, which they did not bite as they were not frightened. I then tipped them into a small vivarium. The astonishing results were published in "British Journal of Herpetology" Vol. 3, No. 6, pp 161-162. Here I need only recap and say as expected a full-grown Viviparous Lizard (*Lacerta vivipara*) was attacked and swallowed by an Adder much smaller than itself. The swallowing took seventeen minutes. Quite unexpectedly they tried to bite the glass or anything that the lizard had touched, including each other. In some of these attacks the fangs were not used, in some they were. So it seems they are immune to their own venom. They ignored young Slow-Worms born in their vivarium, but would obviously have eaten them if they had come into contact with a lizard and got the lizard smell.

An unexpected encounter occurred when we were in Vienna. A Curator in the Natural History Museum there kindly invited me to come and see his snakes. They turned out to be three or four *Vipera berus*. I asked if I could take them out and he said they had never been handled and I would be bitten. However, a suitable piece of wire having been found, I fished them out of their small vivarium one after another without frightening them and lowered them onto my hand where they at once settled down to enjoy the warmth, much to the surprise of the Curator.

On one occasion, as so often, I was asked to remove an Adder from a neighbour's garden, and instead of letting it go in mine, I put it in a small glass vivarium to show a friend whom I was expecting to call on me any minute. When he came I managed to remove the lid of the vivarium without being bitten, and surprisingly the Adder climbed straight out onto my hands and then on to my arms where, not being alarmed it settled down in the warmth of my hands and I was able to handle it freely.

One final word, this time a warning. Adders do sometimes attack human beings. I have managed to arrange this more than once: it is only necessary to put one's foot between an Adder basking in the open and its nearest cover. If one tries to stop it with one's foot it will violently attack the foot instead of going round. Anyone in unsuitable footwear stepping between an unseen Adder and a bush outside of which it was lying, is liable to be bitten several times before escaping.