

ACARINE PARASITES ON THE LIZARD, *LACERTA VIVIPARA* JACQUIN

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Ticks are believed to be of very rare occurrence on British lizards in the wild. However, our preliminary observations suggest that the sheep tick (*Ixodes ricinus* L.) may, in certain regions, be a common parasite of the viviparous lizard.

## OBSERVATIONS

In mid-April, 1972, a pair of viviparous lizards carrying ticks were captured in a New Forest inclosure. Both lizards had three to five small ticks (abdomen 2 to 4 mm long), about and behind the base of each forelimb (as in Fig. 1). None were seen near the hind limbs or elsewhere on the body. Attempts to remove the ticks by painting them with vegetable oil were unsuccessful and painting them with paraffin oil caused them to shrivel up without dropping off. Cetrimide cream ("Savlon") was applied and the remains of the ticks were cast with the next slough, leaving no signs of infection.

A third lizard (male) was captured one week later at a spot about three miles from the first. This lizard had four ticks near the base of the left forelimb, three of which were gently worked out by holding the abdomen with fine forceps, without apparently inconveniencing the host. However, the lizard jerked as the fourth was being removed, shredding the abdomen so that the head could not be worked out. Cetrimide was again applied and no evidence of infection was seen subsequently. Ticks which had been present by the right forelimb appeared to have dropped off of their own accord within a day or so of capture.

The removed ticks were identified at the British Museum as nymphs of the sheep tick, *Ixodes ricinus* L.

On a subsequent visit (24/6/72) to the second site, two gravid females were seen basking in weak sunlight. One of them (Fig. 1) had four ticks, similar to those seen on the captured lizards, about the base of the left forelimb; the other side was clear. The second female had a solitary tick near the right forelimb. No other adults were seen sufficiently clearly for detection of ticks, but of four juveniles glimpsed, three appeared to be free of them. None of the four adults seen sufficiently clearly on each of two subsequent visits (29/7/72 and 12/8/72) carried ticks.

## DISCUSSION

From our observations, admittedly on a small sample, it appears surprising that ticks have been reported so rarely on wild lizards in this country. The sheep tick normally ceases to feed during the summer (Arthur, 1963)—its occurrence on hosts as late as June in 1972 may be related to the cold spring—normally it feeds from March until May, when lizards may be more easily observed than later in the year. However, adult sheep ticks only rarely appear to parasitise mammals smaller than the stoat and they have not been reported on reptiles. Ticks at all stages in the life cycle require an extremely humid microclimate, and ticks do not appear to move very far from the place they land on dropping from their host (see Arthur, 1963). It may be that apart from the New Forest, in this country a habitat suitable for both ticks and lizards is rare.

It is curious that the ticks were confined to the region of the forelimbs. Conceivably, lizards could use their mouths to remove ticks from near the hind limbs yet they are also capable of scratching at the forequarters with the hind limbs.

## SUMMARY

In parts of the New Forest adult *L. vivipara* Jacquin were seen to be host to one or several nymphs of the sheep tick (*I. ricinus* L.) in the months of May and June, 1972, though not at the end of July or in mid-August. Ticks appeared to be confined to the region of the forelimbs. Juvenile lizards may have been free of ticks at a time when adults were infested.

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## REFERENCES

ARTHUR, D. R. (1963). *British Ticks*. Butterworths (London).



FIGURE 1:

Female *L. vivipara* Jacquin photographed in the wild, showing four ticks, nymphs of *Ixodes ricinus* L. about the base of the left forelimb.

REPRODUCTION TWICE IN ONE YEAR IN A CAPTIVE VIPER  
(*VIPERA ASPIS*)

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## INTRODUCTION

According to numerous authors the female viper (*Vipera aspis*) reproduces annually in nature and under optimum conditions (Saint-Girons, 1952, 1957; Duguy, 1963).

Under generally stable artificial conditions however, the reproductive cycle may be reduced to 9 or 10 months spread over two years (Naulleau, 1970). In the case reported here a female reproduced twice in the same year