

ON A CASE OF ABNORMAL SEGMENTATION IN *LITHOBIUS VARIEGATUS* LEACH  
(CHILOPODA: LITHOBIOMORPHA).

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Minelli and Pasqual (1986) described eight structurally abnormal centipedes and listed the previously recorded cases. They distinguished three principal types of abnormality, namely spiral segmentation (helicomerism), homeotic mutations (the mutation of one structure into another, such as that of an insect wing into a haltere) and schistomely (the bifurcation of appendages). The term spiral segmentation appears to be applied to any abnormality in segmentation. Lewis (1987, 1989 and 1990) has described abnormalities in the number of coxal pores, the forcipular (prehensorial) coxosternum and gonopods of *Lithobius* spp. and an abnormal forcipular coxosternum in *Cryptops parisi* Brölemann. Some of these abnormalities he suggested were developmental, others due to regeneration after damage.

On 9 February 1993 a further abnormal specimen was collected during routine sampling by pupils of Taunton School at Muchcare Wood, Lydeard Hill, Somerset (Grid Reference ST182339). It is a male, second post-larval stadium *Lithobius variegatus* Leach, body length 11mm. This specimen shows an abnormality in segmentation and leg number.

Viewed from the dorsal side the specimen shows the normal number of tergites and, on the right hand side, the normal number of legs (15) but on the left hand side there are only 14 legs, one of the last three is missing completely (Fig. 1).

The ventral parts of the last four leg-bearing segments (12-15) show a considerable degree of disorganisation (Fig. 2). Sternite 11 is normal but sternite 12 is divided longitudinally into two widely separated parts, here termed hemisternites, that on the left being far larger than that on the right which is vestigial. The coxae of each side show three gland pores, characteristic of the twelfth pair of legs of post-larval stadium 2 *L.variegatus*. Legs 13-15 have 2 coxal pores in this stadium (Eason, 1964). There are only two rather than three more legs on the left-hand side each associated with a large hemisternite. On the right-hand side legs 13-15 are present, each associated with a small hemitergite. The hemitergites of each side are separated by a wide strip of delicate, seta-free cuticle. A damaged area, sealed with brown secretion, is indicated by stipple in Fig. 2.

Remarks

It seems most likely that the condition seen in this specimen is

the result of a developmental abnormality. The suppression is the result of a leg markedly affecting the sternites but not the tergites suggesting that the development of legs and sternites are linked not that of legs and tergites.

#### ACKNOWLEDGEMENTS

I am very grateful to Dr D. J. Stradling and The Royal Society and Association for Science Education Research in Schools Committee for advice and support. Mr W. H. G. Warmington kindly gave his permission for pupils of Taunton School to collect in Muchcare Wood.

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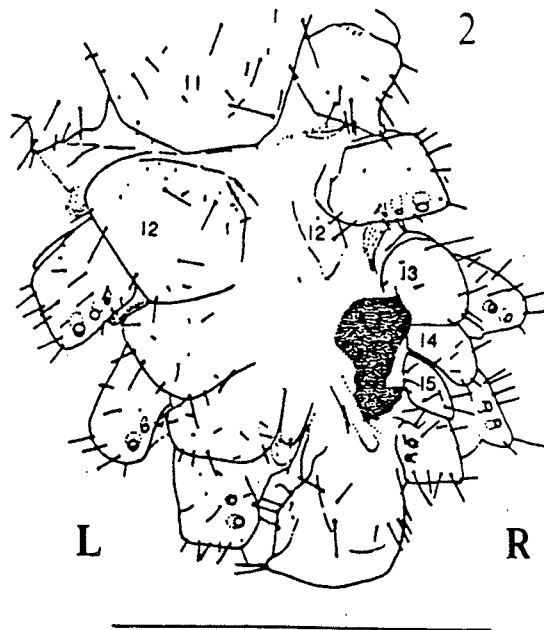
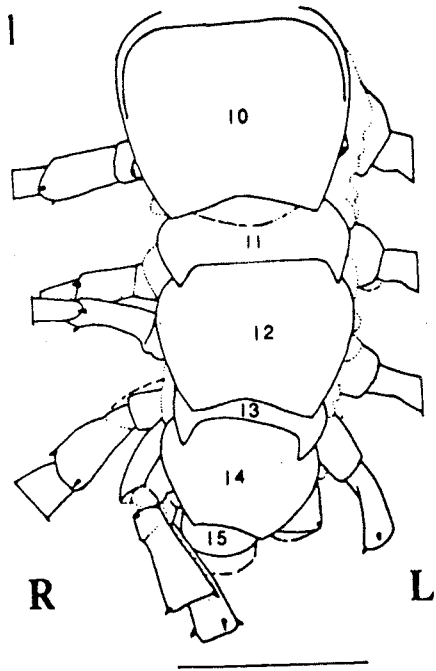
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Figures 1-2 *Lithobius variegatus*, Muchcare Wood.  
 Fig 1) Dorsal view of last six trunk segments of abnormal *L. variegatus*. Tergites 10-15 are numbered. Setae are not shown.  
 Fig 2) Ventral view of the last five trunk segments. Sternites 11-15 are numbered. Scale line = 1mm.