

ABNORMALITIES IN THE COXAL PORES OF LITHOBIUS VARIEGATUS LEACH

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Lewis (1987, 1989) has described abnormal specimens of Lithobius variegatus from Lydeard Hill, Somerset (NGR ST182339). Further examples are described here.

During 1989, 326 specimens of L.variegatus from Lydeard Hill were examined. 250 of these were of the mature stadia 5 and 6. Two of the mature specimens were found to have abnormal coxal pores.

Specimen 1, a female, length 19.0 mm was collected on 31 October 1989. It was a post larval stadium 5 which normally has 6 pores on the coxae of the twelfth pair of legs and 5 on each of the thirteenth, fourteenth and fifteenth pairs (Eason, 1964). This may be written right 6.5.5.5 and left 6.5.5.5. This specimen, however, had 6.3.4.5 on the right and 6.4.4.5 on the left. The coxal pores of the twelfth pairs of legs (Fig. 1a and e) are normal, those of the thirteenth pair (Fig 1b and f) are reduced in number with the posterior one or two very small. The pores of the fourteenth pair (Fig. 1c and g) are also reduced in number and the third and fourth are very small. The fifteenth pair of legs (Fig 1d and h) have the normal number of coxal pores but the second and third are very small.

Specimen 2, a male, length 17.0 mm was collected on 12 December 1989 and was also a post larval stadium 5. It has the normal number of coxal pores but the second on each of the fifteenth pair of legs is very small (Fig 2a and b).

The abnormalities here described are bilateral, affecting equally the coxal pores of both legs of a particular segment. Eason (personal communication) believes that such abnormalities are due to problems at some critical stage in the development of the organs. In specimen 1, the pores affected are 3, 4 and 5 on legs 13 and 14 but pores 2 and 5 on leg 15. One pore is added at each moult, pore 1 first then pore 2 followed at the next moult by pore 3 and so on (Eason, 1964). Any factor influencing the development of the pores must have acted earlier on the fifteenth where pore 2 is small than on the thirteenth and fourteenth pairs of legs where pore 2 is of normal size. In specimen 2 only the pores on the coxae of leg 15 are abnormal, suggesting that their development is controlled independently of that of legs 13 and 14. This could explain the observations made on specimen 1.

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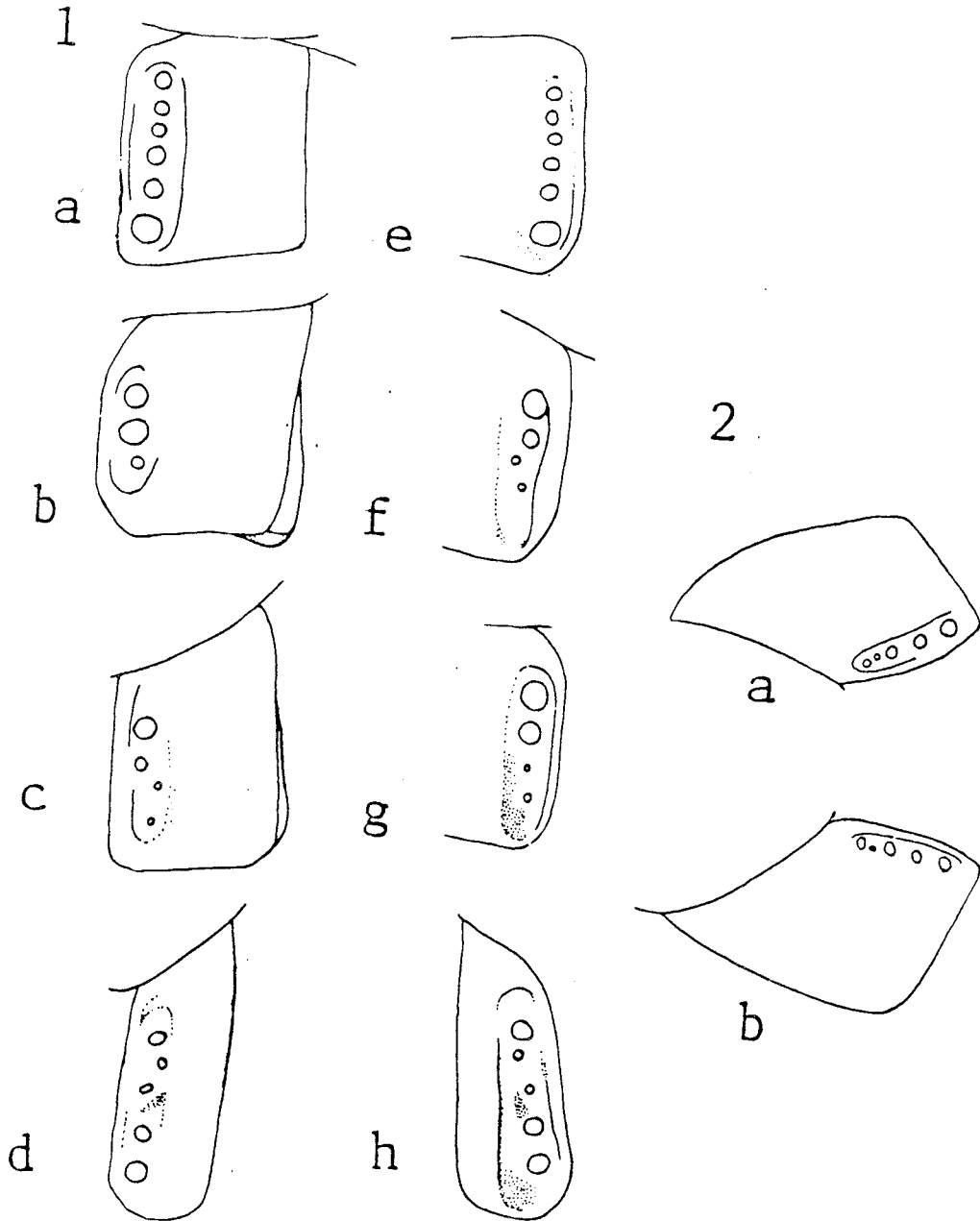


Figure 1 a-h Left and right coxae of legs 12-15 of Lithobius variegatus specimen 1. For further details see text.

Figure 2 a,b Left and right coxae of fifteenth pair of legs of Lithobius variegatus specimen 2.