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NOTES ON *LITHOBIUS PICEUS* L. KOCH, 1862 NEW TO WALES

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A *Lithobius* was collected with many other specimens on 2.11.2001 from the partially wooded floor of a small limestone quarry at Abersychan in the valley of the Afon Lwyd, north of Pontypool, Torfaen (G.R. SO2703) in vc35 Monmouthshire (in the company of Mike Kilner). First appearances were that it was a subadult *L. forficatus* but leg 15 clearly had a double claw and spine 15VaC. At last, had my persistence at looking at innumerable specimens paid off; was it *L. piceus*? As *Lithobius* can occur with extra or missing spines or claws, I acquired two more for confirmation as tabulated below:

Date collected	Age/sex	Length	Ocelli	Antennal articles	15 VaC	14 VaC	Coxal pores
2.11.2001	subadult M	18mm	14L 14R	56L 59R	L and R	R only	4, 5, 5, 4
6.11.2001	immature M	9mm	5L 5R	38L 37R	L only	no	2, 2, 2, 2
23.11.2001	adult F	25mm	12L 13R	56L 57R	L and R	no	6, 7, 7, 6

Notes on table: M = male; F = female; length, preserved in 70% ethanol; L = left; R = right; VaC = diagnostic spine on rear legs; coxal pores of legs 12, 13, 14, 15.

Reference to Barber's (1996) key and Eason (1964) showed that the specimens were indeed *Lithobius piceus.* Tony Barber (pers. comm.) has confirmed that this is the first recorded occurrence of the species in Wales. Its previous known range in Britain was a relatively small area of Surrey, Sussex and Hampshire where it is locally quite common, typically from woodland. In that, the Abersychan quarry site is similar being just within ancient woodland. At the same time it is adjacent to an old mining/industrial conurbation which may explain the presence also of both *L. forficatus* and *L. variegatus.* As I said of *Haplophthalmus montivagus,* (Harper 2002), I have little doubt that the *Lithobius piceus* is native to the area and the two species represent relict populations together with other ancient woodland indicator invertebrates such as the molluscs *Limax tenellus, L. cinereo-niger* and *Phenacolimax major.*

Using Barber's (1996) key and referring to Eason (1964), the information may be insufficient to confirm identification of sub-adult specimens. Eason's drawings are based upon subspecies *L. piceus verhoeffi* from Italy (Barber, 1969) and the leg spinulation upon one English specimen. Barber's (1969) paper does give further useful information but may not be readily available so I summarise some of the points that I found helpful:-

i) The double claw of the 15th leg is diagnostic (also for *L. peregrinus*), but the very similar *L. forficatus* occasionally has it on one leg so there must a chance of finding a specimen in which both legs will show it.
ii) Spine 15VaC is diagnostic for *L. piceus* (and *L. peregrinus*) but may be missing in immatures. Whereas the ventral spines on the leg articles (distal to the coxa) are close to the ventral angle of the article, VaC (on the coxa) is much higher, just below the chitinised hinge/pivot (midway between dorsal and ventral), and is short and stumpy.
iii) 14VaC was present on one side in one specimen above which would be misleading if one followed the key too slavishly.
iv) In the female above there are three gonopods on each side - diagnostic for *L. piceus*; also the gonopod claw has a very clear side lobe as drawn by Barber (1969), quite unlike that drawn by Eason from Italian material.
v) The coxal pores of legs 12 to 15 are often used for diagnosis but they are pretty misleading, except as an indication of age, perhaps! I find sub-adult *L. forficatus* have round or oval pores which become strikingly slit-shaped in older, larger animals; just the same occurs with *L. piceus* - while the sub-adult male above had slightly oval pores, the female's were markedly slit-shaped rather than the round ones shown in Eason.
vi) The number of ocelli is very characteristic being far fewer, at a given age, than in *L. forficatus*.
vii) The teeth of the forcipular coxosternite help to key the specimens in the right direction but seem quite variable; for above specimens they are, in order, 4L 5R, 3L 4R, and 5L 4R.

As with many Lithobiid specimens, the ones above had their share of peculiarities:
a) In the female above, there is the normal complement of ventral prefemur spines 15VaP, VmP,
and VpP, but there is an additional spine just above VpP on the left leg; and spine 15DpF is bifid.
b) The hinge point on the coxal anterior edge (where a peg on the trochanter/prefemur pivots) is normally darkly chitinised; in the sub-adult male above, the chitinised hinge is missing on the right legs 14 and 15 as are the legs themselves beyond the coxae; I suspect that the legs were lost before the latest moult so there was no stimulus at moulting to develop hinge joints properly; exactly the same is shown by the adult female which is missing left leg 12.

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