

CYLINDROIULUS SALICIVORUS VERHOEFF 1908: A MILLIPEDE NEW TO BRITAIN

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INTRODUCTION

Back in 1988 a new species of millipede to Britain was reported in the Newsletter of the British Myriapod Group (9) from a greenhouse of the Royal Botanic Gardens in Edinburgh. To date this species has not been properly described in the British literature and the find not fully reported.

Cylindroiulus salicivorus was found in greenhouses at Edinburgh Botanic Gardens by Charles Rawcliffe, who subsequently found it there on several further occasions. Gordon Corbet found it in the same locality in 1998 and also in St Andrews Botanic Gardens in the same year. Adrian Rundle reported to Doug Richardson (then the millipede recorder) by telephone that he had found a new *Cylindroiulus* species in the fern and orchid houses at Edinburgh Botanic Gardens just prior to this but the details of the records are not available.

Details of the dates and localities are listed below:

Royal Botanic Gardens, Edinburgh

2.11.1987 Greenhouse number 6 at a temperature of 19°C. Among bark chips. Together with *Oxidus gracilis* and *Choneiulus palmatus*. C. Rawcliffe leg.

13.11.1987 As above, greenhouse number 5 among bark chips. C. Rawcliffe leg.

4.12.1987 As above. C. Rawcliffe leg.

2.11.1988 As above (temperature 21°C). C. Rawcliffe leg.

18.3.1998 1 male, 1 female, 1 juvenile. Greenhouse 5. Temperate houses mainly containing ferns, with limestone and lots of stones. Together with *Blaniulus guttulatus*, *Choneiulus palmatus*, *Nopoiulus kochii*, *Cylindroiulus britannicus*, *Polydesmus inconstans*, *Macrosternodesmus palicola* and *Oxidus gracilis*. G. Corbett leg.

St Andrews Botanic Gardens

1.3.1998 1 male and 1 female. In temperate but heated greenhouse. Under flagstones laid directly onto soil. Together with *Blaniulus guttulatus*, *Choneiulus palmatus*, *Cylindroiulus britannicus* and *Ophiulus pilosus*. G. Corbet leg.

13.3.1998 1 male, 2 females. As above (illustrated here). 1 male *Cylindroiulus vulnerarius* was also found in a (hotter) greenhouse.

4.5.2001 1 female as above.

Glasgow Botanic Gardens

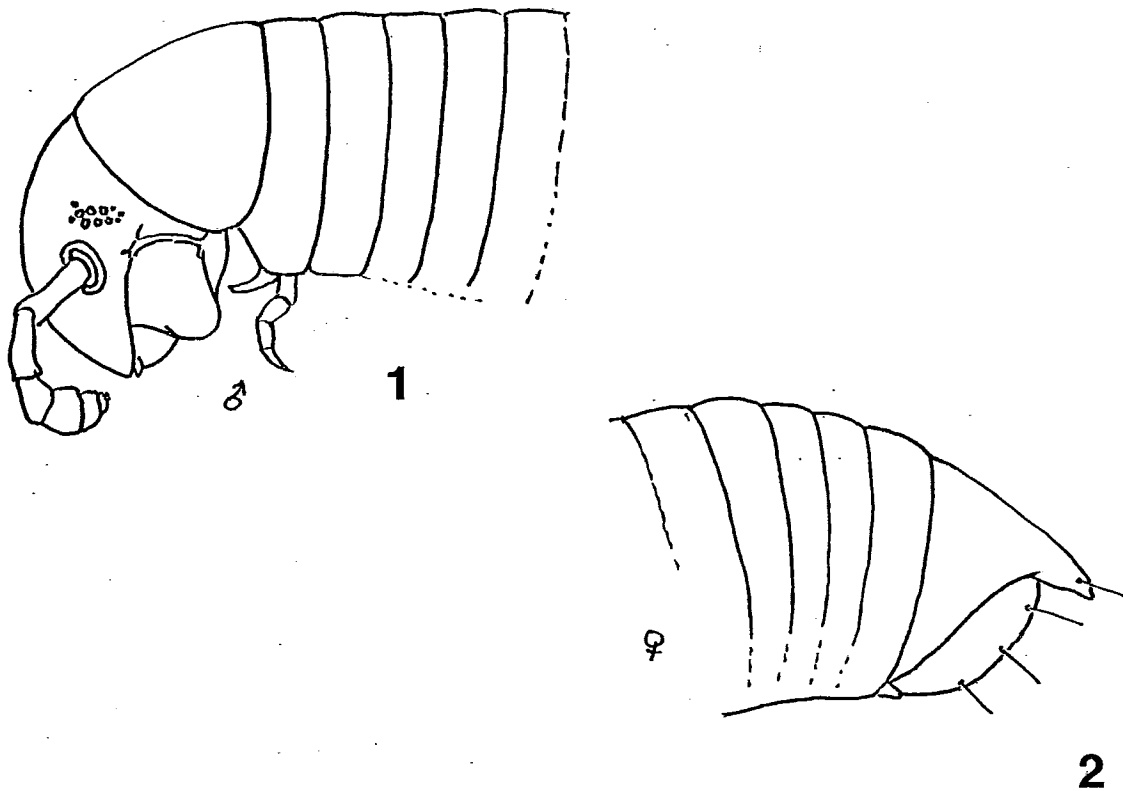
Cylindroiulus vulnerarius was found in Glasgow Botanic Gardens by Adrian Rundle (12.3.1988) and Gordon Corbet (18.11.96); on the latter occasion it was both inside greenhouses and outside.

Appearance

Cylindroiulus salicivorus is very similar to *Cylindroiulus vulnerarius* and some of the first specimens found in Britain were originally thought to be the latter species with eyes. The most obvious difference between the two species is that *C. vulnerarius* is completely eyeless; *C. salicivorus* does have ocelli but these are considerably reduced in number in comparison to most other *Cylindroiulus* species.

Verhoeff (1908) described details of *C. salicivorus* from Italy as follows:

Male 14mm with 79 leg pairs and 4 apodous segments; Females 14.5-16.5mm with 87 leg pairs and 3 apodous segments; the eyes consisting of 7-11 ocelli on each side (see figure 1), pigmented on some specimens and not on others. The projection on the telson is strong and slightly bent as in *C. vulnerarius* (see figure 2).



Figures 1-2. *Cylindroiulus salicivorus* from St Andrews Botanic Gardens

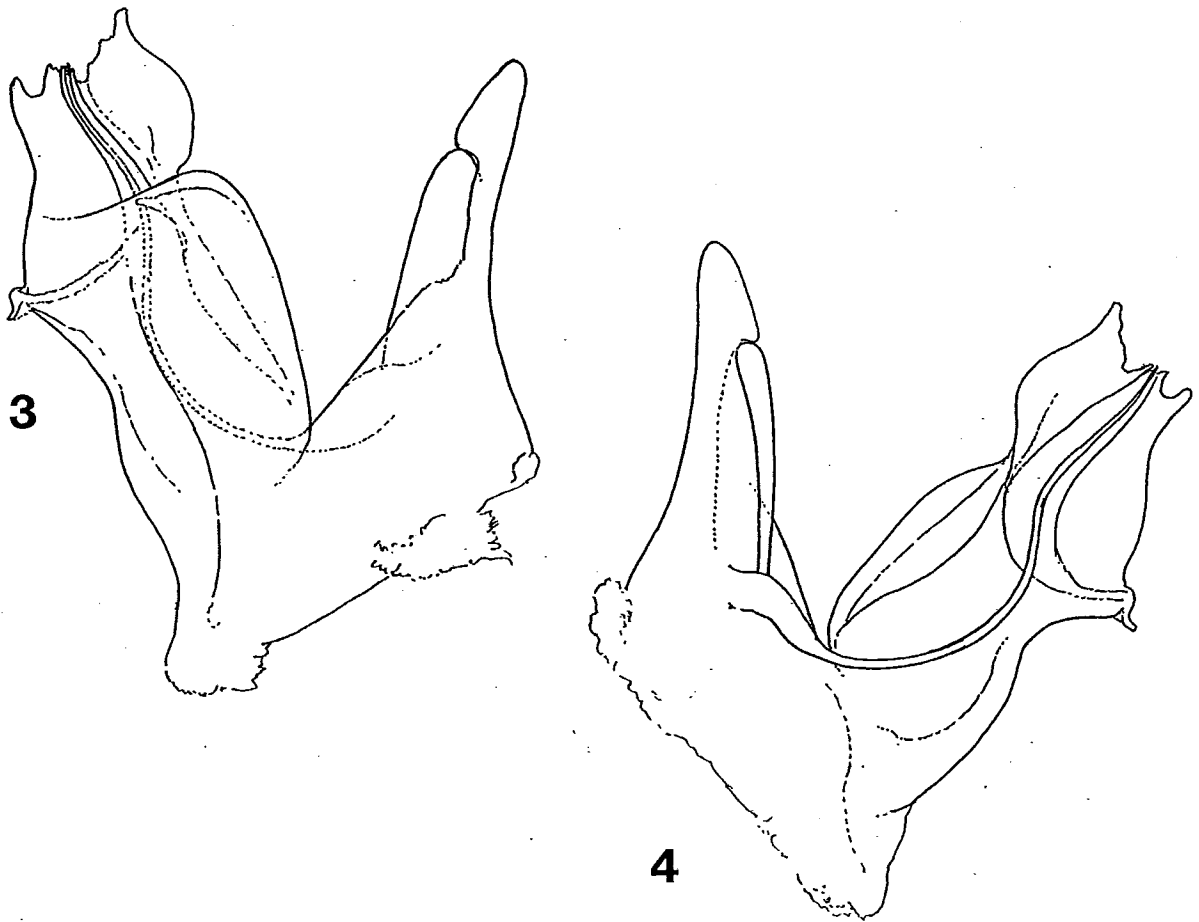
13.3.1998 G. Corbet leg.

1) Head of male. 2) Telson and apodous segments of female;

The gonopods are illustrated in figures 3 and 4. Verhoeff (1908) described various differences mostly concerned with the hind gonopods, notably that the distal margin of the brachite is concave in *C. salicivorus*. The orientation of the solenomerite also seems to be more ventrally directed in *C. salicivorus* than in *C. vulnerarius*.

Verhoeff (1908) originally placed *C. salicivorus* in the sub genus *Allotyphloiulus* along with *C. vulnerarius* and mentions that it forms a 'pretty transition' between those species with numerous ocelli and those with none. For some reason he refers to it as subgenus *Castaneoiulus* in the later check list (1932).

Verhoeff (1908) recorded that the type specimen was found at the end of April 1907 near Laveno, on Lagansee in Mulm, in muddy meadows and on trees nearby. In a later checklist of northwest Italy (1932) he recorded *C. salicivorus* from Langensee and Biella. The most recent checklist of Italian millipedes lists the species from northern Italy (Foddai, 1995).



Figures 3-4. *Cylandroiulus salicivorus* from St Andrews Botanic Gardens
13.3.1998 G. Corbet leg.

3) Left gonopod, external view. 4) Left gonopod, internal view.

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ACKNOWLEDGEMENTS

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