

**THE SHAPE OF THE LAST LEGS OF *SCHENDYLA NEMORENSIS* (C.L. KOCH)
(CHILOPODA, GEOPHILOMORPHA)**

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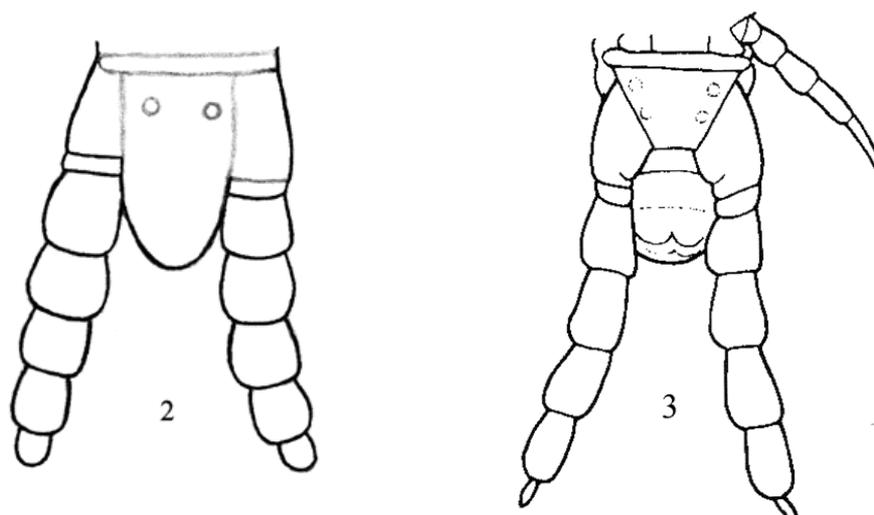
The Soil Biodiversity Group of the Natural History Museum, London has been studying soil and leaf litter invertebrates in a range of mainly southern English woodlands of National Vegetation Classification types W1 to W17 (Hall, Kirby and Whitbread, 2004) for nine years. Invertebrates were obtained from leaf litter samples collected in these woodlands using a three day Winkler extraction (Krell et al., 2005). Centipedes were identified to species where possible using keys (Barber, 2008, 2009) although a large proportion of individuals were juveniles some of which can only be identified to genus, family or order, with the later juvenile stages generally being easier to identify than the earlier ones.

Schendyla nemorensis has been found frequently in samples from W10 (*Quercus robur*- *Pteridium aquilinum*- *Rubus fruticosus*) woodlands, with smaller numbers in samples from W17 (*Quercus petraea*- *Betula pubescens*- *Dicranum majus*), W14 (*Fagus sylvatica*- *Rubus fruticosus*) and W5 (*Alnus glutinosa*- *Carex paniculata*) woodlands. After identifying over 700 specimens as *S. nemorensis*, it became apparent that the metatarsi of the last legs of some of the smallest individuals were proportionately wider than shown in the identification keys and that their last legs were more swollen than usual, leading to doubts over their true species. A specimen showing these features particularly clearly, collected in a W14 stand of Burnham Beeches on 3.6.2008, was referred to A.D. Barber and to L. Bonato for confirmation. The terminal segments of a similar example collected in Whitley Wood (W10), New Forest on 19.5.2009 and measuring approximately 7mm from the front of the head to the end of the terminal segments is shown in Fig. 1. In a selection of 59 individuals with representatives from woodland types W10, W17, W14 and W5, specimens with last legs as shown in Fig. 1 are 6 or 7mm long (9 specimens), those with intermediate last leg shapes are mostly 7 or 8mm long (13 specimens, including one 6mm and one 9mm long) and those with shapes as described by Barber are mostly between 9mm and 16mm long (37 specimens, including four 8mm and one 18mm). All are preserved in 80% alcohol.



FIGURE 1: *Schendyla nemorensis*. Ventral view of last legs of a 7mm specimen from Whitley Wood showing shape of metatarsi.

The *S. nemorensis* centipedes studied appear to show a gradation in the shape of the last legs corresponding to the approximate size and colour of the animal. Small, white individuals have last legs as shown in Figure 2 with metatarsi almost as wide as long, while larger, pale orange-brown individuals have last legs as shown in the figures in the identification keys (Fig. 3), with metatarsi about three times as long as wide. In 1987, Kime, Lewis and Lewis reported variation in the ratio of length of tarsus to metatarsus of between 1:0.66 and 1:0.45 in larger specimens collected in Forêt de Bellême, Normandy, France which suggests that the metatarsi of *S. nemorensis* of all sizes can be quite variable in shape. It would be interesting to study the life history of *S. nemorensis* and to assess what contribution sexual dimorphism and individual variation make to the differences seen in the appearance of the last legs.



FIGURES 2 & 3: *Schendyla nemorensis*

2. Ventral view of last legs of a 7mm specimen from Whitley Wood (as fig. 1).
3. Ventral view of posterior extremity, female (from Barber, 2009).

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