

**THE CHARACTERISTICS OF AN ADOLESCENS STADIUM *GEOPHILUS LINEARIS*
C.L. KOCH (= *CLINOPODES LINEARIS*) (CHILOPODA: GEOPHILOMORPHA).**

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A single specimen of a small bright red geophilomorph was taken under dead wood from Scratch Wood near Woodmansterne (Grid ref. 51271592) by A. N. K. on 19th May 1993. It appeared to be a species of *Geophilus* quite unlike any other species in the British fauna. It ran down to *G. sorrentinus* Attems in Attems (1929) key. Subsequent examination of the type of *sorrentinus* by Lewis (1994) showed it to be an adolescens stadium *Geophilus linearis* (= *Clinopodes linearis*). Eason (1964) stated that the adolescens stadia of *C. linearis* were unknown and Barber and Keay (1988) reported that smaller specimens of the species could be mistaken for several species of geophilomorphs. The British specimen is also an adolescens *Geophilus linearis* and as its identification proved such a problem it is here described in detail.

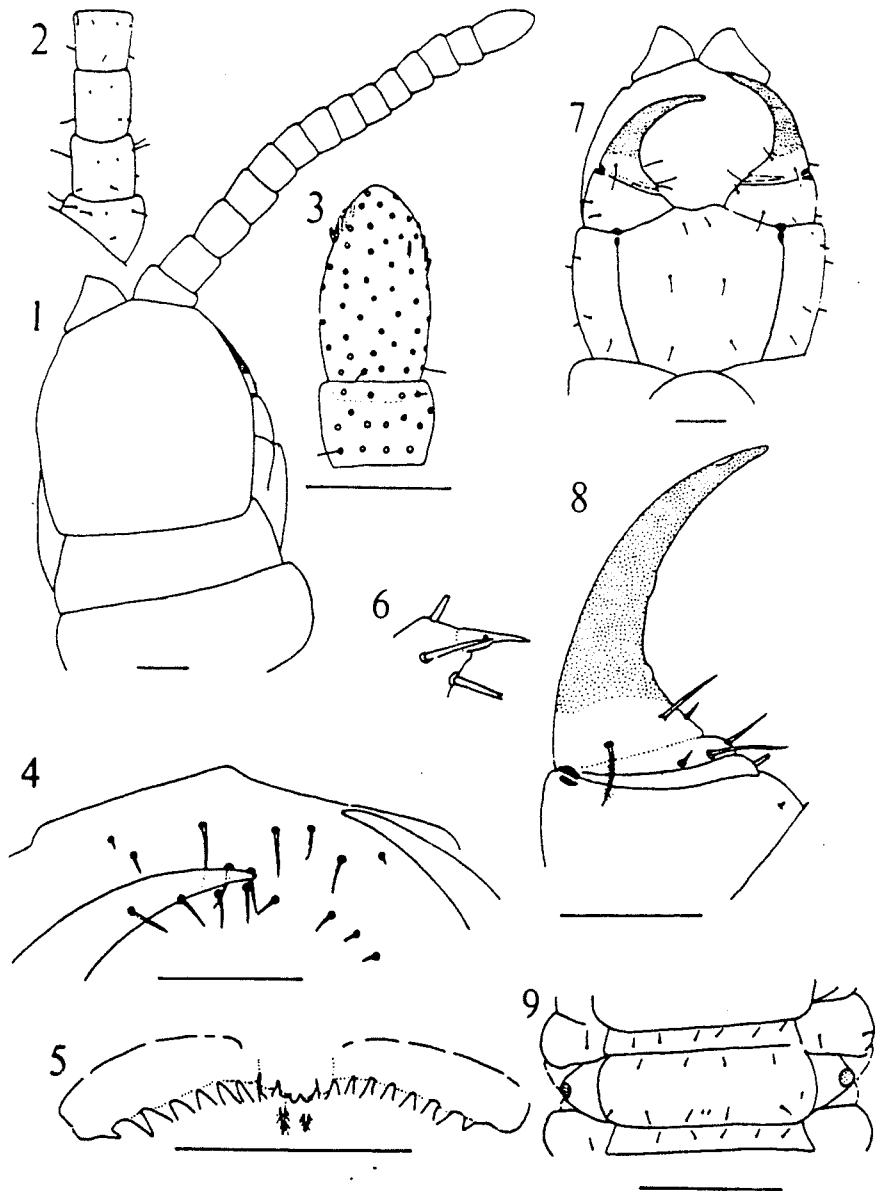
Description of British specimen.

Female, length 18mm. 73 pairs of pediferous segments. Body not markedly attenuated anteriorly. Live colouration bright red, colouration mounted in Euparal: head capsule brownish orange, trunk apricot.

Antennae twice as long as the head capsule (Fig. 1). The antennomeres relatively short and broad and sparsely setose (Fig. 2). The terminal antennomere with anterior and posterior distal groups of basiconic sensilla (Fig. 3) with about 10 in each group. Antennomeres 5, 9 and 13 without thick-walled sensilla. Head capsule (Fig. 1) sparsely setose, slightly longer than wide (ratio 1.06:1). The posterior border slightly excurved, lateral edges excurved, frontal suture absent. Clypeus, which is partially obscured by the poison claws, with four irregular rows of clypeal setae totalling about 18 in all. (Fig. 4). Labrum tripartite (Fig. 5) but side-pieces not clearly demarcated from mid-piece. Mid-piece with 5 processes, the central one tooth-like, the one on each side just discernible as fringed fimbriae. Apices of lateral processes obscured by the mandibles.

There are 19 processes.

First maxillae partially obscured. Coxosternum, with small lappets. Telopodite undivided, covered distally with fine setae and well-developed lappets. Medial lobes conical and distally



Figures 1-9 *Geophilus linearis*, Scratch Wood.

1) Dorsal view of head capsule. 2) Basal 4 antennomeres of the right antenna. 3) Antennomeres 13 & 14 of right antenna. 4) Clypeus. 5) Labrum. 6) Apical claw of second maxillary telopodite. 7) Ventral view of head showing forcipules. 8) Left forcipules telopodite. 9) Dorsal view segment 20. (Scale line = 0.1mm).

setose. Second maxillae: coxosternum undivided, with scattered spine-like setae. Metameric pores slit-like with well sclerotised rim. Telopodite of three articles, the terminal claw tapered to a needle-point (Fig. 7).

Forcipular segment: coxosternum wider than long, the anterior border weakly concave (Fig. 7). Chitin lines complete. Telopodite of four articles, without teeth. Poison claws not reaching anterior head margin, concavity smooth but with a slight bump midway along on left poison claw (Fig. 8). Poison claw calyx situated at distal end of femuroid.

Tergites wide and sparsely setose. Tergite 20 (Fig. 9) almost three times as long as wide. Tergite 45 three times as long as wide.

Sternites weakly areolate along margins and sparsely setose (Fig. 11). Sternites 1-31 with median posterior pore fields. (Fig. 10 & 11). Pore fields divided from sternites 71 and 72 (the antepenultimate and penultimate sternites) (Fig. 16 & 17). These posterior pore groups are irregular and there could be specimens in which it was not clear whether to score them as single or double.

Last pediferous segment: pretergite wide, fused without sutures to pleurites (Fig. 19). Tergite trapeziform, wider than long. Sternite more or less rectangular, wider than long, lateral margins slightly excurved, posterior corners rounded, posterior border straight (Fig. 18). Coxopleura with 17-19 glands, 7-8 opening along or under the lateral margin of the sternite. 11-11 pores open into groove between coxopleuron and penultimate pediferous segment.

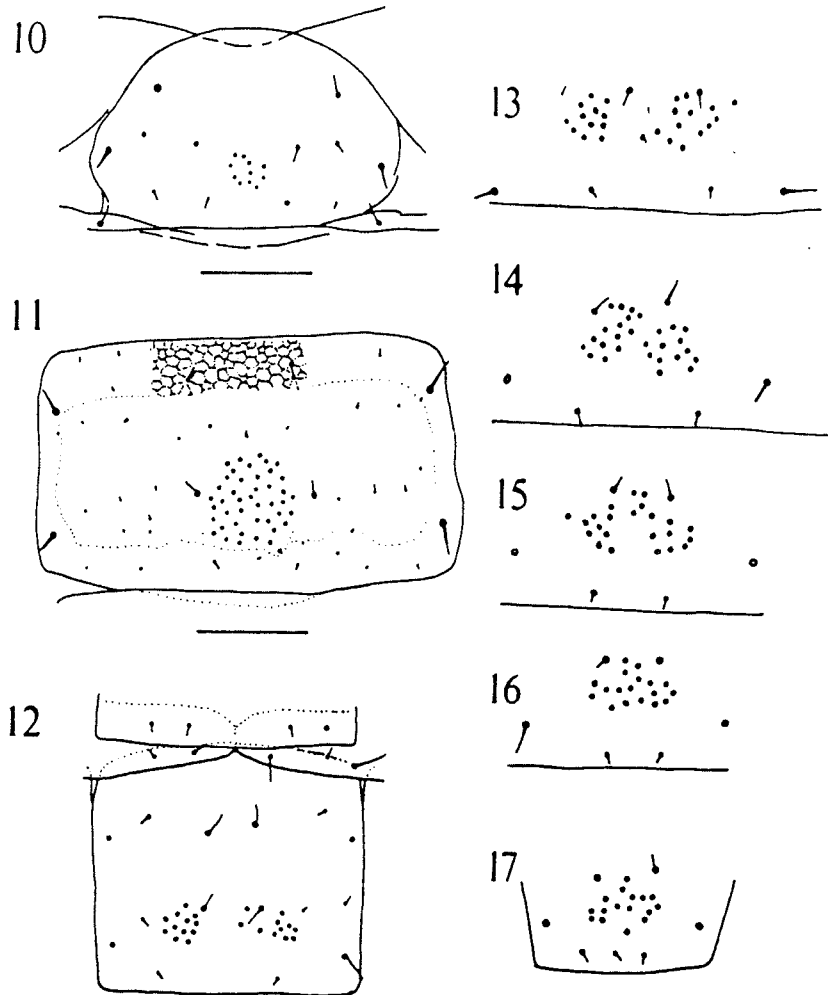
Last pair of legs relatively slender in female, more setose ventrally, with well-developed apical claw (Fig. 20). Anal pores present.

Remarks

Eason (1964) described British *Clinopodes linearis* as usually 20-30mm long with 69 trunk segments in males, 73 in females. The Surrey specimen is 18mm long and has 73 segments. He described the colour as yellow with the forcipular segment darker. The Surrey specimen, being bright red, is very unusual.

The labrum of Eason's British specimens have about 30 fimbriae and no teeth as compared to about 19 and one tooth in the Surrey specimen and the sternal pore groups are single from the fourth from last segment (third from last in Surrey specimen). The small size, low number of coxopleural pores suggest that the specimen is a late adolescens stadium. The early adolescens stadia are yet to be described.

This specimen was difficult to identify as it had been mounted on a slide. Most importantly the labrum is partly obscured and the pit opening under the sternite of the last leg-bearing



Figures 10-17 *Geophilus linearis*, Scratch Wood.
 10) Sternite 1. 11) Sternite 20. 12). Sternite 54. 13-17) Ventral
 pore groups of sternites 68-72 respectively. (Scale line =
 0.1mm).

segment, if present, is not visible. Although it may often be advantageous to make permanent slide preparations of specimens the procedure may make the subsequent examination of some characters impossible. It is advisable to leave specimens of doubtful identity in 70 per cent ethanol or isopropanol, which leaves them more flexible, until the identification is confirmed.

ACKNOWLEDGEMENTS

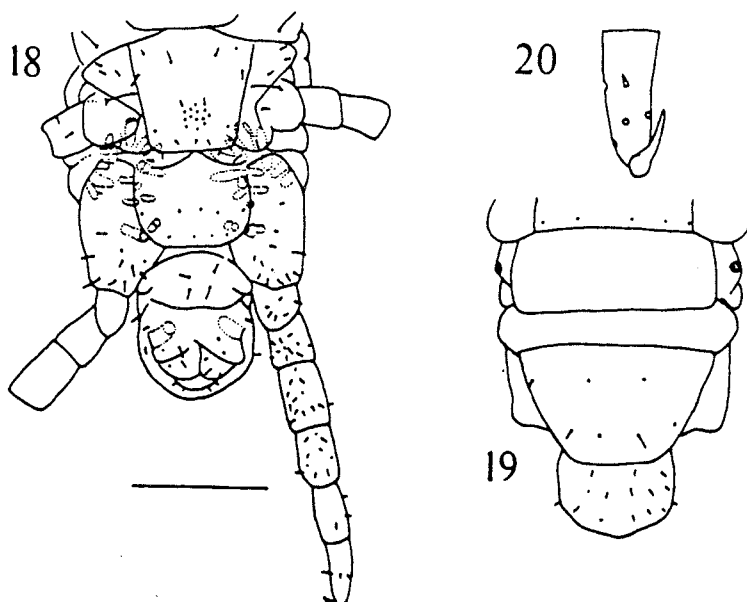
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Figures 18-20 *Geophilus linearis*, Scratch Wood.

18) Ventral view of terminal segments. 19) Dorsal view of terminal segments. 20) Apical claw of terminal leg. (Scale line = 0.1mm).