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DISPLACED OCELLI IN BLANIULID MILLIPEDES

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During the joint meeting of the British Isopod Study Group and the British Myriapod Group in Manchester, April 1986, one of us (S.P.H.) collected a number of small blaniulid millipedes from waste ground adjacent to the Williamson Building of the University of Manchester. Among the millipedes collected was a single specimen of an intercalary male provisionally identified by H. Enghoff as Nopoiulus kochii, possibly the first British record for this species. Eight specimens of another blaniulid, Choneiulus palmatus, were also collected along with about 30 individuals of Blaniulus guttulatus, the common spotted snake millipede which is, of course, blind.

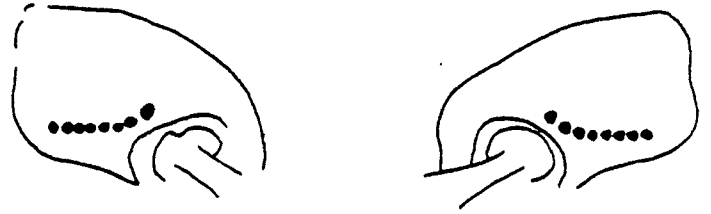
In this recently published Synopsis on British Millipedes (Blower 1985), the arrangement of ocelli is a principal character used in the key to Blaniulidae (page 106). At level 2, Proteroiulus fuscus is separated from Choneiulus palmatus and Nopoiulus kochii by having "Ocelli in very acute triangular field consisting of an antero-posterior line augmented by two or three ocelli forming an additional line close to the base of the antenna" whereas the latter two species have "Ocelli in a single antero-posterior line". Close examination of the Choneiulus palmatus collected from the Manchester site, revealed that the eyes of five of the eight specimens did not conform to this description. Instead of being in a straight line, some of the ocelli were 'displaced' in a manner subtly different from those of Proteroiulus fuscus (Fig. 1). In Proteroiulus fuscus, the 'extra' ocelli are distal (close to the antennae) whereas in Choneiulus palmatus they occurred in the middle of the antero-posterior line (Fig. 1). The ocelli of Nopoiulus kochii also did not conform to a straight line (Fig. 2).

The unusual and inconsistent arrangement of ocelli observed in these blaniulids may result from the effects of vehicle exhausts on eye development in this heavily built up area. It is clear that care should be exercised when keying out Proteroiulus fuscus, Choneiulus palmatus and Nopoiulus kochii and that characters other than the eyes should be carefully examined before making a firm identification.

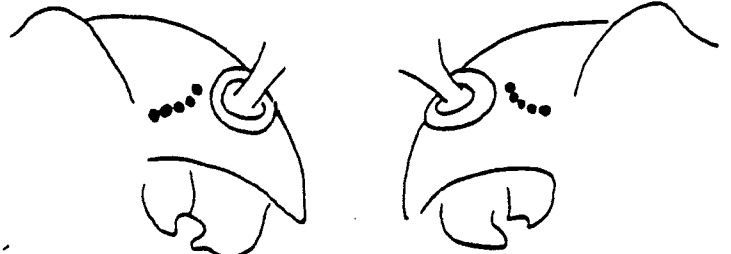
Reference

Blower, J.G. (1985). Millipedes. Synop. Br. Fauna (New Series), No. 35.
E.J. Brill/Dr. W. Backhuys Publishers.

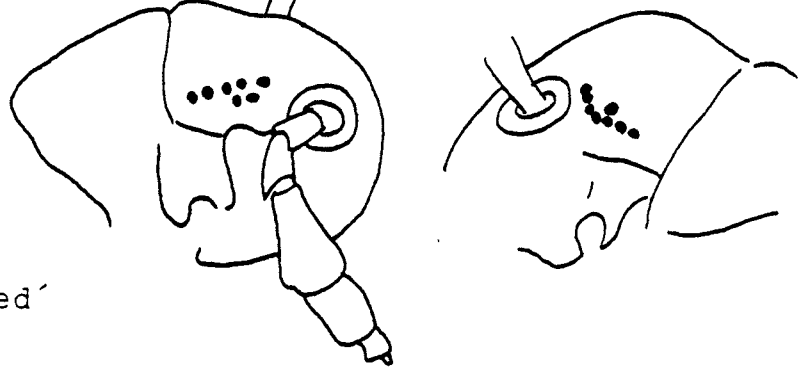
Specimen 1 : Ocelli 'normal'
Length : 9.9 mm
Diameter : 0.53 mm
No. rings : 36



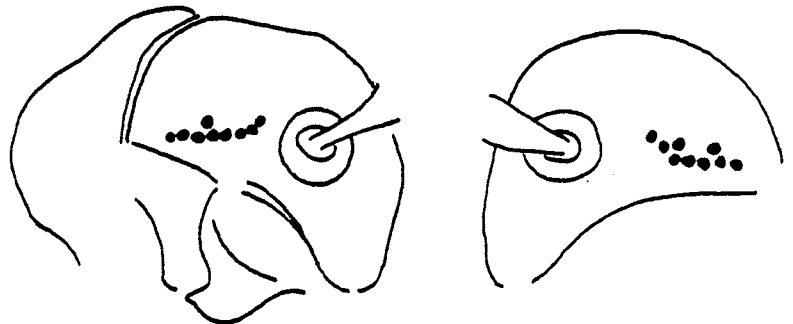
Specimen 2 : Ocelli 'normal'
Length : 8.3 mm
Diameter : 0.50 mm
No. rings : 31



Specimen 3 : Ocelli 'displaced'
Length : 8.9 mm
Diameter : 0.48 mm
No. rings : 32



Specimen 4 : Ocelli 'displaced'
Length : 10.2 mm
Diameter : 0.53 mm
No. rings : 39



0.5 mm

Figure 1 : Arrangement of ocelli on right and left sides of the heads of four male specimens of Choneiulus palmatus collected from central Manchester, April 1986.

Length : 13.5 mm
Diameter : 0.64 mm
No. rings : 46



0.5 mm

Figure 2 : Arrangement of ocelli on right and left sides of the head of the specimen of Nopoiulus kochii collected from central Manchester, April 1986.