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ON THE TWO FORMS OF GEOPHILUS CARPOPHAGUS IN SOMERSET

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Eason (1979) compared British specimens of Geophilus carpophagus. Leach from natural habitats and what he termed urban/domestic habitats. Specimens from the former rarely exceed 40mm and have 45-49 leg-bearing segments in males and 47-53 pairs in females. Eason's urban/domestic specimens, five from beneath elm bark at Mortlake, London and three from farm buildings at Bourton Far Hill, Gloucestershire were 40-60mm long, the single male had 53 leg-bearing segments and the females 55 or 57. The author suggested that the higher segment number and larger size of the urban/domestic populations was due to the effect of temperature and perhaps other factors on their phenotypes. He also suggested that they bred in buildings.

Lewis (1985) presented data on the number of leg-bearing segments of G. carpophagus from houses, outbuildings and on trees at St Margaret's-at-Cliffe and Dover, Kent. His figures, 51 and 53 in males, 53 and 55 in females agree with Eason's (1979) figures for urban/domestic populations. Lewis suggested that there were two genetically distinct populations, possibly sibling species, the one smaller, common on moors, heath and woodland and showing calcifuge tendencies, the other larger, subcortical and arboreal and entering houses.

In 1987 Blower reported that during a field course at the Seabeach Hotel, Gower, Wales, two unusually large specimens of G. carpophagus were taken on the trunks of pine trees and subsequently two females with 55 and 57 leg-bearing segments measuring 50mm and 42mm respectively were taken from the garden wall of the hotel. A small specimen in a spider's web outside a laboratory window had 55 pairs of legs. Some twenty or so individuals from a natural site, 6km to the east had 47-49 pairs of legs in males and 49-51 in females.

In discussions during the meeting of the Isopod and Myriapod Study Groups Field Meeting at Hallsannery Field Centre, Devon, in April 1989, Andy Keay and Tony Barber expressed scepticism about Lewis's suggestion that there were two species of carpophagus-like Geophilus. Andy Keay believes that there are intermediate specimens but Eason's and Blower's data does not appear to support this and there is no evidence as yet that it is the case in Somerset.

Since 1984 groups of pupils from Taunton School have participated in an investigation of the distribution of centipedes in West Somerset. Most of the specimens of G. carpophagus collected were sexed and the number of leg-bearing segments counted. Details of the 45 locality records cannot be given here but the leg numbers of the specimens from woodland and heathland habitats and from buildings are given in Table 1 and the data for the specimens from buildings in Table 2. Table 1 shows that there is no overlap in leg numbers between specimens from houses and heathland and those from buildings and Table 2 that specimens from buildings are generally of large size. There appears to be a partial colour difference between the two forms, the trunk in specimens from woods or heathland

being brown, brownish-orange or brownish-yellow, while specimens from buildings are brown or brownish-grey but more information needs to be collected on colour.

It is clear that the problem is not yet resolved. Further collecting is required as is a detailed morphological study of the two supposed forms.

# References

- Blower, J.G. 1987. Giant Geophilus from the Gower. Bull. Brit. Myriap Gp 4: 53
- Eason, E.H. 1979. The effect of the environment on the number of trunk-segments in the Geophilomorpha with special reference to Geophilus carpophagus Leach. In Camatini, M (Ed.) Myriapod Biology. 233-240 London: Academic Press Inc.
- Lewis, J.G.E. 1985. Centipedes entering houses with particular reference to Geophilus carpophagus Leach. Entomologist's Mon. Mag. 121(1985): 257-259.

TABLE 1 The Number of Leg-Bearing Segments of Geophilus carpophagus populations in Somerset.

	MALES					FEMALES				
Number of leg-bearing segments	45	47	49	51	53	47	49	51	53	55
Wood and Heathland In Buildings	3	14	0	0	0	3	22	3	0	1
	0	0	0	0	1	0	0	0	1	4

TABLE 2 Data for Geophilus carpophagus from buildings in Somerset

DATE	LOCALITY	GRID REFERENCE	SEX	BODY LENGTH (mm)	No of leg-bearing segments
25/04/85	Taunton School	ST 218259	♀	46	53
25/02/86	Bridge Farm, Williton	ST 077408	♀	45	55
02/03/86	Bridge Farm, Williton	ST 077408	♀	45	55
13/09/87	Halse	ST 143283	♂	39	53
21/03/88	Taunton School	ST 218259	♀	54	<del>55</del>