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On two spiders recently recorded from Britain

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Summary

Both sexes of *Enoplognatha latimana* Hippa & Oksala, a species new to Britain, are described and compared with the closely related *E. ovata* (Clerck). Its occurrence and taxonomic affinities are discussed. *Pirata tenuitarsis* Simon, a species first recognised as British by Kronestedt (1980), is here re-figured and described from British material. Comparison is made with its close congener *P. piraticus* (Clerck).

Introduction

In July 1979 a single male of a species of *Enoplognatha,* close to *E. ovata* (Clerck) but showing distinct differences in palpal structure, was taken in a pitfall trap in dry heathland at Gallows Hill, near Bere Regis, Dorset (Grid ref. SY 844906). In August 1981 several more specimens were taken in water traps situated in a similar habitat at Hartland Moor National Nature Reserve, near Wareham, Dorset (Grid ref. SY 948852).

These specimens are all clearly assignable to the new species *E. latimana* Hippa & Oksala, 1982, described in their revision of the *Enoplognatha ovata* group.

Pirata tenuitarsis Simon was first identified as a British species by Kronestedt (1980) during an examination of material named as *P. piraticus* in the British Museum (Nat. Hist.). It has previously been recorded from central, northern and southern Europe but has largely been overlooked, due to its close similarity to *P. piraticus.* The specimens described here were taken at Slepe Heath, near Wareham, Dorset (Grid ref. SY 952865) in pitfall traps between 14 May and 13 October 1980.

Enoplognatha latimana Hippa & Oksala (Figs. 1, 2, 5, 6)

Enoplognatha latimana H. Hippa & I. Oksala, 1982, p. 217.

Description

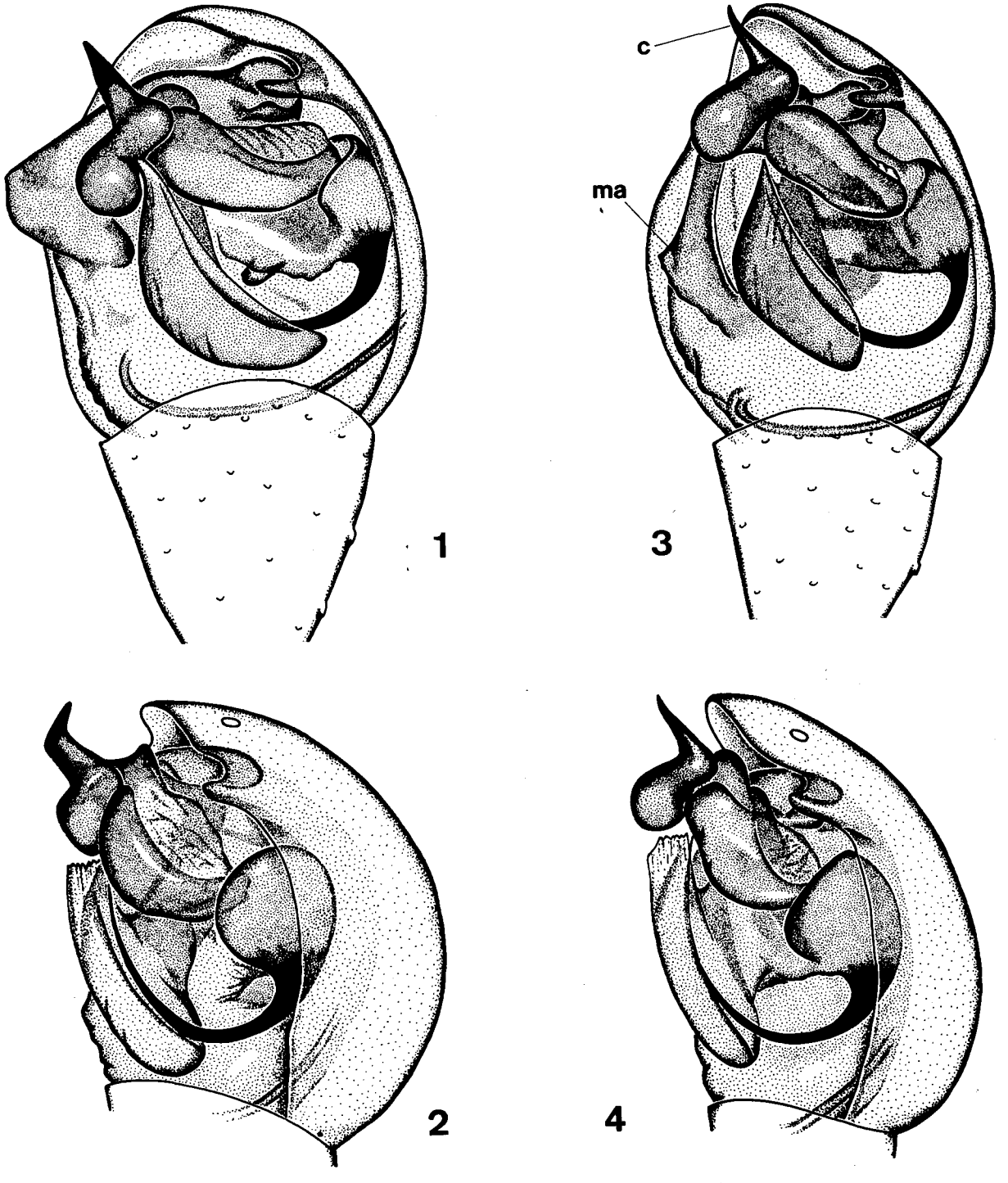
Total length: ♀ 4.1 mm, ♂ 3.0-4.2 mm. *Carapace:* Length: ♀ 1.7 mm, ♂ 1.3-2.1 mm. Very pale yellow with a dark thoracic margin. Also a central dark longitudinal stripe. *Eyes:* As in *E. ovata. Chelicerae:* As in *E. ovata. Abdomen:* White with a central dark stripe ventrally and two dark spots on either side of the spinnerets. Of the 13 specimens examined, 11 lacked both red stripes and the six dorso-lateral black spots found in *E. ovata,* one male had only the black spots and a female, reported from South Wales (G. S. Oxford pers. comm.), showed both the dorso-lateral spots and the red stripes of the *"redimita"* form. *Sternum:* Pale yellow with a short dark median stripe and dark lateral margins. *Legs:* Very pale yellow or white with some darkening distally on Tibia I. Tm I 0.95. *Male palp* (Figs. 1, 2): Distinguishable from *E. ovata* by the much enlarged lateral part of the median apophysis and the stouter, recurved tip of the conductor. The cymbium is also broader in relation to its length than in *E. ovata. Epigyne* (Fig. 5): Only two females have been examined. These showed some differences but were characterised by the presence of heavily sclerotised ridges laterally on the posterior margin of the epigyne. Hippa & Oksala (1983) state that there is considerable variation in the form of the epigyne. *Vulva* (Fig. 6): Distinguished from *E. ovata* by the less oblique copulatory pockets and the shorter seminal ducts.

Diagnosis

Similar to *E. ovata* but distinguished by the structure of the median apophysis and conductor in the male palp and the form of the epigyne and vulva in the female.

Polymorphism

E. ovata, originally described by Clerck (1757) as three distinct species, *Araneus ovatus* (with a red abdomen), *A. redimitus* (red stripes) and *A. lineatus* (white abdomen), has long been accepted as a single polymorphic species. Many aspects of its



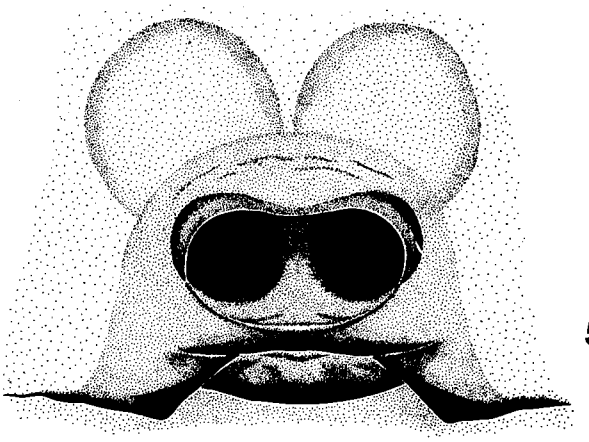
Figs. 1-4: Left male palps, hairs omitted. **1** *Enoplognatha latimana,* ventral view; **2** Ditto, lateral view; **3** *E. ovata,* ventral view; **4** Ditto, lateral view. (c = conductor, ma = lateral part of median apophysis). All to same scale.

polymorphism have been studied recently (Geyer, 1967; Tweedie, 1970; Oxford, 1976; Hippa & Oksala, 1979, 1981).

The degree of polymorphism exhibited by *E. latimana* is unknown as all the material originally studied by Hippa & Oksala was found in preserved collections and thus would not show the presence of red stripes on the abdomen, the *"redimita"* form. However, there seems to be considerable variation in the proportions of individuals having spotted or unspotted abdomens. The type population from Italy all have six spots but this number varies in the French and German populations and unspotted individuals are common. Of the small number taken thus far in Britain the unspotted form is the most common.

Taxonomic affinities

Prior to Hippa & Oksala's (1982) study of the *E. ovata* group it had been thought that *E. ovata (s. l.)* was a single highly variable species. In fact *E. latimana* has been figured as *E. ovata* by Miller (1971)



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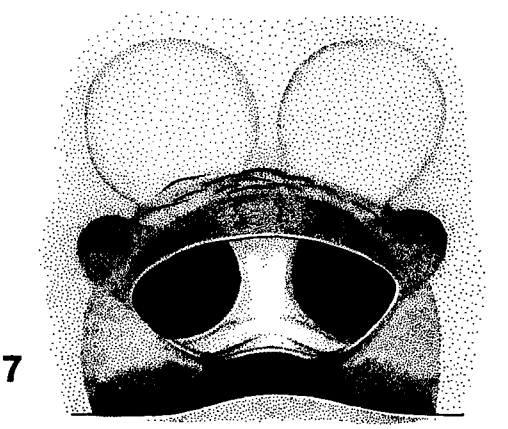

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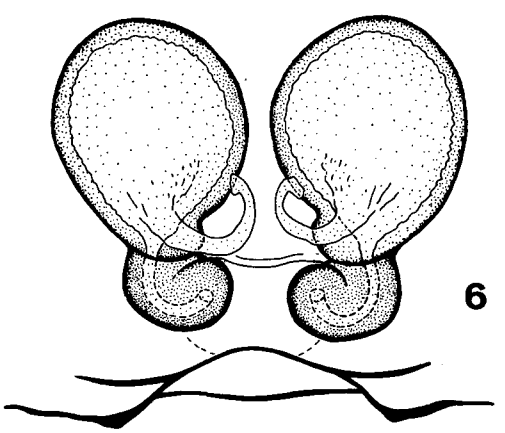

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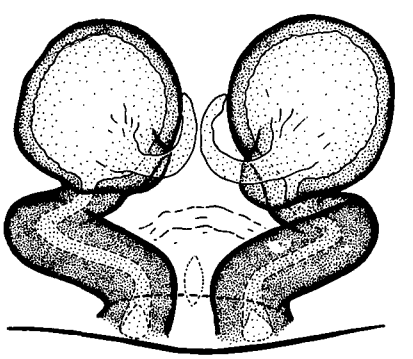

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Figs. 5-6: *Enoplognatha latimana.* **5** Epigyne, hairs omitted; **6** Vulva, ventral view.

Figs. 7-8: *E. ovata.* **7** Epigyne, hairs omitted; **8** Vulva, ventral view.
All to same scale.

and probably by Wiehle (1937). Levi (1957) recognised and illustrated individuals of *E. latimana* but concluded that they were forms of *E. ovata*. The *E. ovata* group comprises four species, *E. ovata* (Clerck), and *E. latimana*, *E. penelope* and *E. afrodite* (all described by Hippa & Oksala). *E. ovata* and *E. latimana* are the most closely related.

It is remarkable that these species which are markedly and consistently different have remained unrecognised for so long. It would seem that accepted intraspecific variability has masked obvious interspecific differences.

Occurrence

The first specimen was taken in a pitfall trap on a steep, north-facing slope of old dry heathland at Gallows Hill, near Bere Regis, Dorset. The area was dominated by *Calluna vulgaris* (L.) Hull with some Dwarf Gorse (*Ulex minor* Roth.) and a little *Erica tetralix* L. on the lower slopes. A few small, scattered pine trees (*Pinus sylvestris* L.) were also present. Another eleven males and one female were taken in water traps during July 1981. These were situated in dry heathland on Hartland Moor NNR, near Wareham, Dorset, the habitat being similar to the original site but also containing some *Erica cinerea* L. and abundant Gorse (*Ulex europaeus* L.).

The specimen reported from Wales by Dr G. S. Oxford was a single female of the *"redimita"* form and was taken with 14 female *E. ovata*. It was collected at Bracelet Bay, Mumbles, West Glamorgan (Grid ref. SS 630874) on 13 August 1981, from brambles (*Rubus fruticosa* L.) and rank grass on cliffs.

The comparative phenology of *E. latimana* and *E. ovata* is not fully understood at present. It is possible, from the few specimens taken in Britain, that *E. latimana* has a slightly later breeding season than *E. ovata* although there is probably considerable overlap. Adult *E. ovata* were taken for some time before the first *E. latimana* were found. This agrees with the observations of Hippa & Oksala (1982).

Although its status is as yet unclear, it would seem that *E. latimana* is not common in Britain. No specimens have been found in the collections of the British Museum (Nat. Hist.) or in several private collections.

***Pirata tenuitarsis* Simon** (Figs. 9-11)

Pirata tenuitarsis Simon, 1876: 302. Michelucci & Tongiorgi, 1975: 155, figs. 1, 2, 4, 6, 8, 10, 12. Kronestedt, 1980: 65, figs. 2b, 3a, 3c, 4b, 4c, 6d-f, 7a-c, 9c-d, 10a.
Lycosa piratica tenuitarsis Simon, 1937: 1118, 1140.
Pirata piraticus tenuitarsis: Roewer, 1954: 285. Bonnet, 1958: 3666.
Pirata piraticus moravicus Kratochvil, 1930: 2, 4, fig. 3.
Pirata moravicus: Buchar, 1966: 213, figs. 3a-c, e, f.

Description

Total length: ♀ 4.6-6.5 mm, ♂ 4.2-5.5 mm. *Carapace:* Length: ♀ 2.2-2.8 mm, ♂ 2.4-2.8 mm. Coloration and pattern as in *P. piraticus*. *Eyes and chelicerae:* As in *P. piraticus*. *Abdomen:* The yellow lanceolate stripe which occurs antero-dorsally in *P. piraticus* is usually continued by a more obscure, yellowish band in *P. tenuitarsis*. This band is often interrupted by darker transverse bars but usually reaches the spinnerets. Unfortunately this character is not entirely reliable as occasional specimens of *P. piraticus* show a similar obscure stripe, although in a reduced form, and it is sometimes missing in *P. tenuitarsis*. *Sternum:* As in *P. piraticus*. *Legs:* Similar to *P. piraticus* but rather thinner, especially the first pair. Tibia, metatarsus and tarsus of first pair with fewer fine dark hairs. *Male palp* (Fig. 9): Similar to *P. piraticus* but may be distinguished by the shape of the tegular apophysis. *Epigyne and vulva* (Figs. 10, 11): May be distinguished from *P. piraticus* with some difficulty. In *P. tenuitarsis* the lateral spermathecae are almost parallel to the epigastric furrow and roughly at right angles to the median spermathecae. In *P. piraticus* they lie at approximately 45 degrees to the epigastric furrow and form an acute angle with the median spermathecae. The pair of central lobes of the epigyne in *P. tenuitarsis* protrude at approximately right angles to the abdomen while in *P. piraticus* they point posteriorly at a very acute angle. Also in *P. tenuitarsis* the lateral spermathecae lie in a deeper plane than the medians while in *P. piraticus* the reverse is true.

Diagnosis

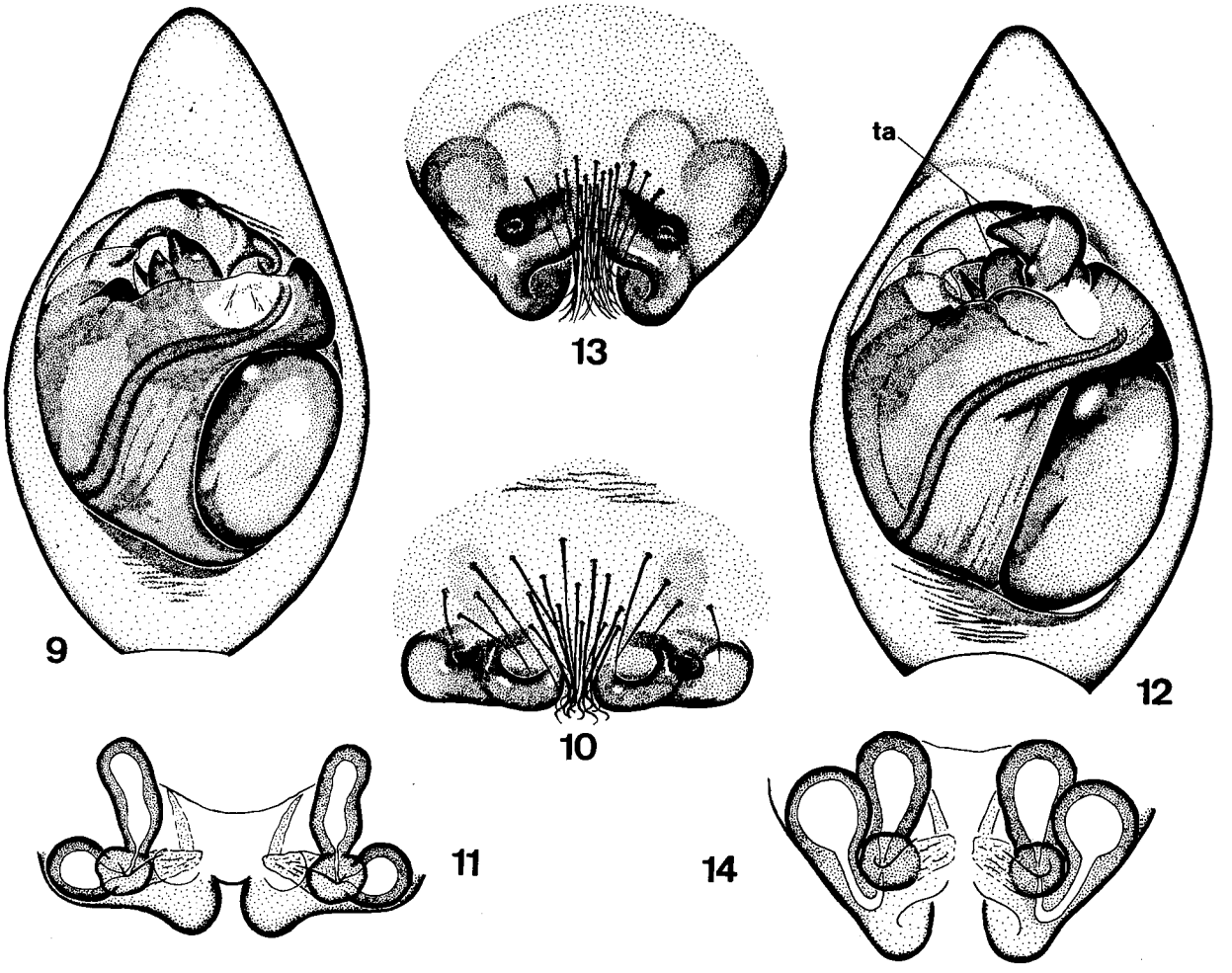
Similar to *P. piraticus* but may be distinguished, in the male, by the shape of the tegular apophysis of the palp, and in the female by the conformation of the epigyne and vulva.

Taxonomic affinities

P. tenuitarsis is a member of a small holarctic group which includes *P. piraticus*, three east Asian species mentioned by Buchar (1966), *P. praedo* Kulczynski, *P. subpiraticus* Bösenberg & Strand and *P. piratellus* Strand, and one North American species *P. zelotes* Wallace & Exline. In this work comparison is drawn with *P. piraticus* as it is unlikely that confusion will arise with other members of the group.

Occurrence

P. tenuitarsis was first recorded as British by Kronestedt (1980) who discovered specimens wrongly identified as *P. piraticus* in collections lodged with the British Museum (Nat. Hist.). These specimens were from five localities; Sussex (Ashdown Forest), Surrey (Oxshott, Black Pond), Dorset (Warmwell), Cheshire (Delamere) and Cumbria ("Lake District").



Figs. 9-11: *Pirata tenuitarsis.* **9** Right male palp, hairs omitted; **10** Epigyne; **11** Vulva, ventral view.

Figs. 12-14: *P. piraticus.* **12** Right male palp, hairs omitted; **13** Epigyne; **14** Vulva, ventral view. (ta = tegular apophysis).

Between 14 May and 13 October 1980, twenty males and ten females of *P. tenuitarsis* were taken in pitfall traps on Slepe Heath, near Wareham, Dorset. Also during the same year this species was found to be common in boggy habitats on the adjacent Hartland Moor NNR (P. Merrett pers. comm.). In all these situations it was taken in company with *P. hygrophilus* Thorell and *P. latitans* (Blackwall). At the Slepe Heath site all the specimens were taken in areas of almost pure *Sphagnum* spp. mat surrounding small bog pools. Those from Hartland Moor were from similar boggy areas and also from the adjacent wet heathland, dominated by *Erica tetralix*. Little or no information about habitat is present with the specimens from the British Museum collections but knowledge of the sites in question suggests that they may have come from similar *Sphagnum*-rich habitats.

Latterly, several small collections of *P. piraticus* have been examined and have yielded records of *P. tenuitarsis* from Hampshire (New Forest), Cornwall (St. Just) and Surrey (Thursley Common). It is hoped that, with the descriptions of these two long-overlooked species now readily available, their true status will become apparent.

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