

## Identification of *Pelecopsis nemoralis* and *Pelecopsis nemoraloides*

These are two money spiders which present considerable difficulties in identification. There is still some discussion as to whether they represent two separate species or rather ecomorphs of a single rather polymorphic taxon. *Pelecopsis nemoralis* is not uncommon in the West and particularly the North of Britain but is rather rarely collected in the East and South. *P. nemoraloides* is by contrast, most common in the southern half of Britain but is confined almost entirely to coastal dune or short calcareous grassland habitats.

### Morphology

Two features can be used to distinguish males of *Pelecopsis nemoralis* and *P. nemoraloides*. The first is the form and setation of the cephalic lobe when viewed from above. In *Pelecopsis nemoralis*, the lobe is wider than long and oval in form and the posterior margin is beset with a series of relatively long fine setae (Fig 1A). In the *P. mediocris* form of *P. nemoraloides*, the lobe is more nearly spherical in form, shiny and devoid of setae (Fig. 1B). This difference does not apply to the *Pelecopsis locketi* form of *P. nemoraloides*, both of which usually occur together in sandy habitats, particularly coastal sand dunes (Locket, Millidge & Merrett, 1974; Merrett & Millidge, 1992).

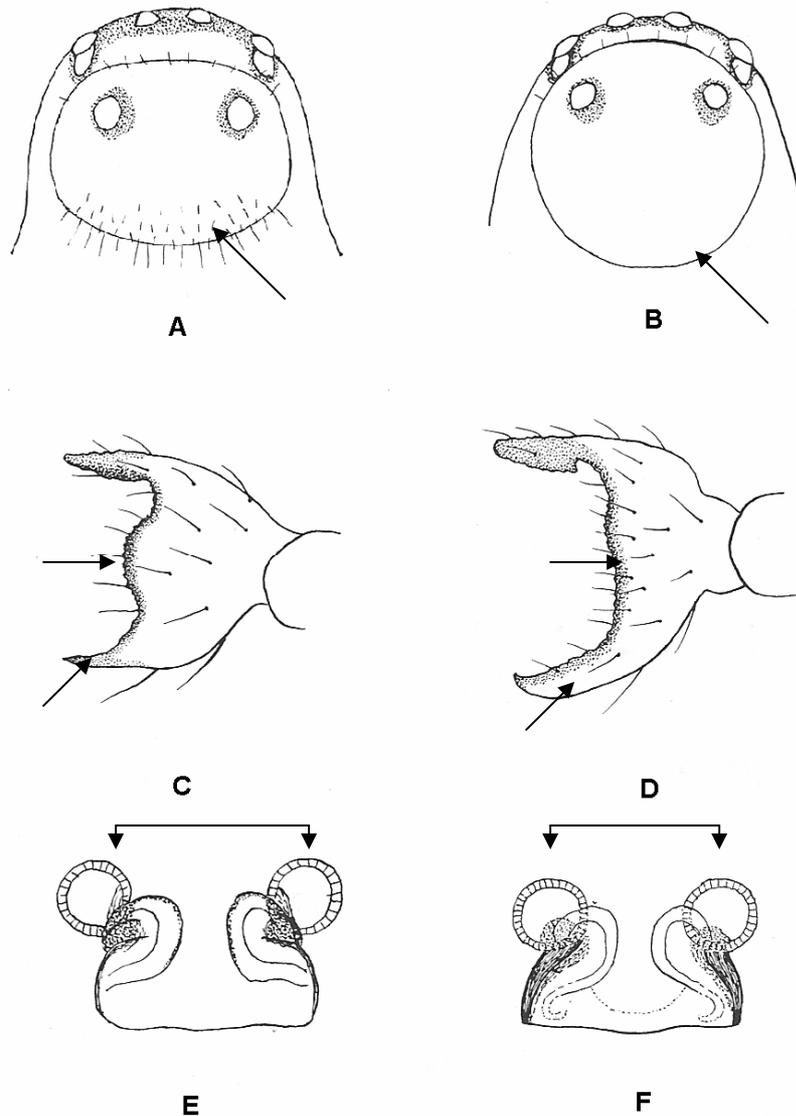


Figure 1. *Pelecopsis nemoralis* and *P. nemoralioides*. 1A. Cephalic lobe of *P. nemoralis* viewed dorsally, 1B. ditto for *P. nemoralioides*. 1C. Tibial apophysis of *P. nemoralis*, retrolateral view, 1D. ditto for *P. nemoralioides*. 1E. Internal structure of epigyne of *P. nemoralis*, viewed ventrally, 1D. ditto for *P. nemoralioides*.

The figures of *Pelecopsis nemoralis* and *P. nemoralioides* are taken from Locket, Millidge & Merrett, 1974).

The second feature is the form of the tibial apophyses of the male palps viewed from a retrolateral position. In *P. nemoralis*, the lower apophysis is slightly shorter than the upper apophysis and there is a distinct bulge or projection on the anterior margin between the two apophyses (Fig. 1C). By contrast, in *P. nemoralioides*, the lower apophysis is relatively long and broad, and the anterior margin between the two apophyses is almost straight (Fig. 1D). It should be noted that the appearance of the palpal tibia varies considerably according to the angle of viewing and care should be taken in positioning the specimen. Identification is greatly aided by comparison of specimens with reliably identified voucher specimens.

As is often the case, distinguishing females of these two species is considerably more difficult than for males and the two species may not always be distinguishable.

. The external appearance of female epigynes is identical and it is necessary to clear the epigynes to distinguish them. The most reliable difference is in the distance between the spermathecae which is noticeably greater in *P. nemoralis* (Fig. 1E) than in *P. nemoralioides* (Fig. 1F). However, this difference is relative and, once again, comparison of specimens with reliably identified vouchers is essential.

### Habitats

*Pelecopsis nemoralis* is most frequently collected in woodland litter, both deciduous and coniferous and has also been found in moss and lichen on tree trunks. It is much less frequently found in moorland, heathland and grassland. *P. nemoralioides* is almost entirely a coastal species where it occurs on sand dunes and on fine shingle in marram and other grasses. However in Kent, Harvey (2012) recorded a strong population on steep south-facing chalk grassland with a high proportion of bare substrate at Upper Halling and it has also been reliably recorded at several inland sites in Dorset where the habitat probably provided similarities to coastal dune. It cannot therefore be assumed that any inland population is always *Pelecopsis nemoralis* and both the habitat requirements and genetic identity of the two taxa require further study.

### References

- Harvey, P. 2012. Summary accounts for *Pelecopsis nemoralis* and *Pelecopsis nemoralioides* In: The spider recording scheme. <http://srs.britishspiders.org.uk/>
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- Merrett, P. & Millidge, A.F. 1992. Amendments to the check list of British spiders. *Bull. Br. arachnol. Soc.* **9** (1): 4-9.

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