

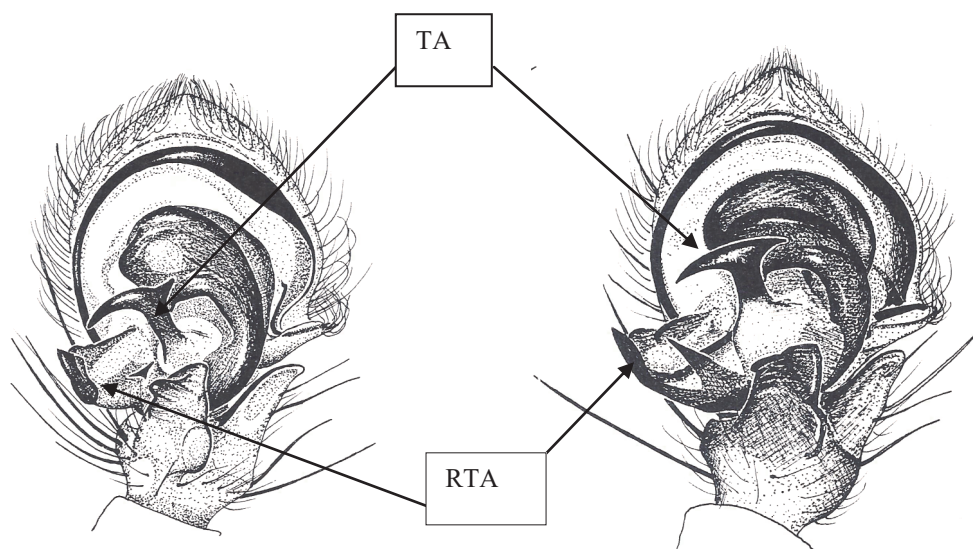
## Identification of *Xysticus cristatus* and *Xysticus audax*

These two closely-related crab spiders (possibly sister species) require careful examination to distinguish them.

A useful character in both sexes of these two species is the central wedge-shaped mark on the carapace. In *Xysticus cristatus*, this extends further back on the carapace and ends in a well defined darker point. In *X. audax* it is relatively short and does not end in a clearly defined darker point. The difference is illustrated well in photographs on the Eurospiders.com website: [http://www.eurospiders.com/Xysticus\\_audax.htm](http://www.eurospiders.com/Xysticus_audax.htm) and [http://www.eurospiders.com/Xysticus\\_cristatus.htm](http://www.eurospiders.com/Xysticus_cristatus.htm).

### Males

When viewed ventrally, the tegular apophysis of the male palp of both species is approximately T-shaped, with one arm of the crossbar on the T shorter than the other. In *Xysticus cristatus* there is a slight indentation in the curved upper side of the crossbar while in *X. audax* this is absent. Likewise, in *X. cristatus* the retrolateral tibial apophysis appears as a rectangular structure which is truncated on its exterior margin. By contrast, the RTA in *X. audax* appears to have two sharply pointed structures directed somewhat anteriorly.

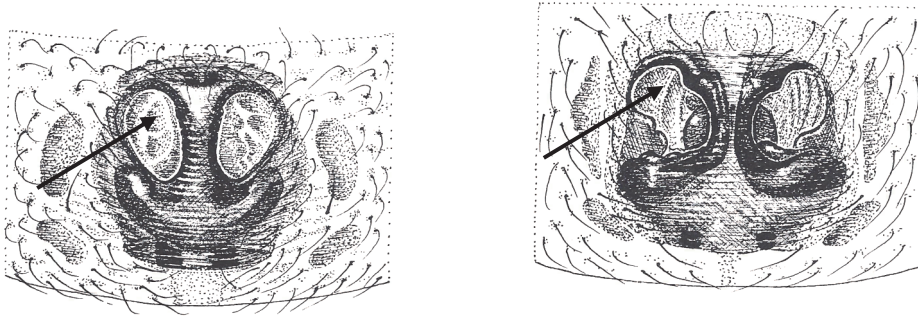


Male palp of *Xysticus cristatus* (left) and *X. audax* in ventral view.  
TA = tegular apophysis, RTA = retrolateral tibial apophysis.

### Females

In both species, the epigynes are occasionally obscured by a waxy plug secreted by the male to ensure no subsequent mating by a second male is possible. In such cases, it may be necessary to rely on the carapace pattern to separate the species. In females of both species the epigynes viewed ventrally share the same basic structure with two more or less oval depressions or atria separated by a broad vertical dark band. Beneath these atria there are further dark structures visible through the cuticle. In *Xysticus cristatus*, the margins of the atria are approximately egg-shaped, with the pointed end of the egg directed posteriorly. The margins of the atria in *X. audax* are irregular in shape, with a slight constriction at the mid-point giving them a more kidney-shaped appearance.

A very much more detailed account of the differences between these two species is provided by Jantscher (2001).



Female epigyne of *Xysticus cristatus* (left) and *X. audax* in ventral view.

### Habitats

*Xysticus cristatus* is one of our commonest and most widespread species which occurs in a wide range of open habitats, including grasslands, heathland, wetlands, most maritime habitats as well as human influenced biotopes such as gardens and post-industrial sites. It is, however, intolerant of shade and largely absent from woodlands and other heavily shaded habitats. *Xysticus audax* is by contrast a much less frequently encountered species almost confined to the southern half of the British Isles. It is almost always found on gorse and heather on heathland, normally at a higher level in the vegetation than *X. cristatus*.

### Acknowledgements

Thanks are due to Michael Roberts for permission to reproduce the figures taken from "The spiders of Britain & Ireland" (1987). The information on habitats is from the Spider Recording Scheme database (<http://srs.britishspiders.org.uk>).

### Reference

Jantscher, E. 2001. Diagnostic characters of *Xysticus cristatus*, *X. audax* and *X. macedonicus* (Araneae: Thomisidae). *Bull. Br. arachnol. Soc.* **12** (1), 17–25

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