

# *Astia* L. Koch, 1879

## Taxonomy

*Astia* has one described Australian species: *Astia hariola*. Species previously listed in *Astia* have been transferred to other genera including *Adoxotoma*, *Arasia*, *Cyrba*, *Helpis*, *Maevia* and *Sondra*. A description of *Heliophanus maculatus* by Karsch in 1878 and figured in Wesolowska (1986) appears to be *Astia hariola*, removing *Heliophanus* from the Australian fauna. The genus is part of an Australasian clade (Maddison et al 2008, Gardzińska and Żabka 2010, Maddison 2015 including *Adoxotoma*, *Arasia*, *Astilodes*, *Helpis*, *Jacksonoides*, *Megaloastia*, *Parahelpis*, *Sondra* and *Tauala*. Genera from Indonesia (*Katya*) and the Philippines (*Orthrus*) may also be part of this group (Maddison 2015). Further information on the genus and described species can be found in Richardson and Żabka (2017) and Whyte and Anderson (2017).

## Description

*Astia hariola* is a medium-sized spider, ranging in body length from 8 to 9 mm, with a moderately high cephalothorax. The head viewed from above is rectangular to pear-shaped, widest behind the posterior lateral eyes. From the side the carapace is horizontal until the posterior lateral eyes. The slender adult male has a cephalothorax wider than its abdomen while the female's abdomen is wider than its cephalothorax. The chelicerae have several retromarginal teeth (plurident) and three or more teeth on the promargin. Distinctive yellow-orange markings at the rear of the abdomen in live animals fade to pale yellow or white when preserved. Males tend to be black with white and yellow-orange markings, while the females have a brownish abdomen. The legs are long and slender.

The male's embolus has a distinctive hooked end. The tibia of the palp is as long as or longer than the cymbium. The retro-lateral tibial apophysis is short, stout, and blunt.

The female's epigyne has two slit-like atria. Long insemination ducts arise from the slits and extend rearwards to the spermathecae near but not directly adjacent to the epigastric fold.

## Biology

Found under dark or burnt bark and on the ground in eucalypt forests and woodlands or collected in pitfall traps, sometimes locally abundant.

## Distribution

*Astia* is known from eastern Australia in environments ranging from woodlands to wet sclerophyll forest in Queensland, New South Wales, Australian Capital Territory, Victoria, Tasmania and South Australia.

## References

Davies, V.T. & Żabka, M. 1989. Illustrated keys to the genera of jumping spiders (Araneae: Salticidae) in Australia. *Memoirs of the Queensland Museum* 27, 189-266.

Gardzińska, J. & Żabka, M. 2010. A new genus and five new species of Astieae (Araneae: Salticidae) from Australia, with remarks on distribution. *Zootaxa* 2526, 37-53.

Hawkeswood, T.J. 2003. *Spiders of Australia: An introduction to their classification, biology and distribution*. Pensoft: Sofia.

Maddison, W.P. 2015. A phylogenetic classification of jumping spiders (Araneae: Salticidae). *Journal of Arachnology* 43, 231-292.

Maddison, W.P., Bodner, M.R. & Needham, K.M. 2008. Salticid spider phylogeny revisited, with the discovery of a large Australian clade (Araneae: Salticidae). *Zootaxa* 1893, 49-64.

Richardson, B.J. & Żabka, M. 2017. Salticidae. Arachnida: Araneomorphae. Canberra, Australian Faunal Directory. Australian Biological Resources Study, at <https://biodiversity.org.au/afd/taxa/SALTICIDAE>.

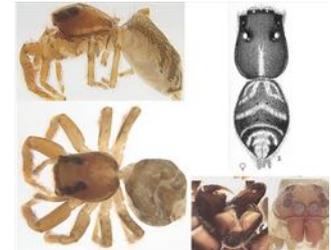
Wanless, F.R. 1988. A revision of the spider group Astieae in the Australian Region. *New Zealand Journal of Zoology* 15, 81-172.

Wesolowska, W. 1986. A revision of the genus *Heliophanus* C.L. Koch, 1833 (Aranei: Salticidae). *Annales Zoologici, Warszawa* 40, 1-254.



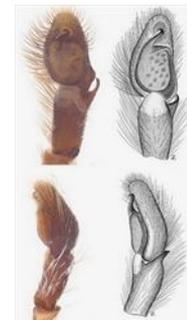
Examples of live *Astia*

Illustrators (and ©) G.J. Anderson (BR), R. Whyte



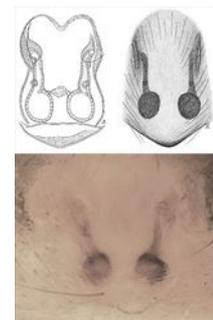
Aspects of the general morphology of *Astia hariola*

Illustrators (and ©) B.J. Richardson (CSIRO), M. Żabka (diag.)



Palp morphology of *Astia hariola*

Illustrators (and ©) B.J. Richardson (CSIRO), M. Żabka (diag.) (QMB)



Epigyne morphology of *Astia hariola*

Illustrators (and ©) B.J. Richardson (CSIRO), M. Żabka (diag.)

Whyte, R. & Anderson, G. 2017. *A Field Guide to Spiders of Australia*. CSIRO Publishing: Clayton.

Žabka, M. & Patoleta, B.M. 2014. New species of *Helpis* Simon, 1901 from Australia (Araneae: Salticidae), with a new definition of the genus. *Zootaxa* 3873, 571–589.

\* The information sheet should be interpreted in the context of the associated diagrams and photographs. Diagrams explaining anatomical terms can be found in the 'Salticidae' pictures at the beginning of the list of genera.