

# Theridiidae: *Achaearanea* sensu lato

© I. Agnarsson, March. 2011

*Achaearanea* s.l. is found worldwide and is species rich in N. C. and S. America but extremely poorly known from the Caribbean. Taxonomy is unresolved and the monophyly of, and relationships among, recently described or resurrected genera such as *Parasteotoda*, *Cryptachaea*, and *Hentziectypus* are untested. In the Americas, *Achaearanea* s.l. currently counts about 90 extant species plus 2 in Dominican amber. The group was revised by Levi, with species richness likely underestimated. Only 5 species are known from the Caribbean, plus a couple of cosmopolitans. Given high species richness on the mainland, and presence in Dominican amber, the group is quite likely diverse in the Caribbean. No Caribbean island has been well sampled, preventing estimates of undocumented species.



Fig. 1. Distribution of the *Achaearanea* s.l., extracted from Platnick (2011). Cosmopolitan species are associated with human habitats.

**Monophyly.** The three+ genera where Levi's *Achaearanea* have been placed in are probably not monophyletic, either alone or as a group. However, I expect the majority of Levi's *Achaearanea* to be a clade. No molecular tests of these genera has been done.

**Amber species.** Two *Achaearanea* are known from Dominican amber. I have not examined these fossils and do not know if they are close to extant species/genera.

**Dispersal.** *Achaearanea* s.l. probably are somewhat intermediate dispersers. They are known from some isolated islands and are documented ballooning. Their distribution in the Caribbean is unknown.

**Search strategy.** Most species are fairly small (2-6 mm body length) and build **COBWEBS**, often 'star webs' (see Fig. 2), but also make **SHEET WEBS** and are best collected by visual search at night. Beating during day is also useful. **AERIAL SEARCH AT NIGHT, BEATING**

**Similar genera.** Readily confused with other theridiinae spiders. Best to collect all theridiids. Some species also make linyphiid-like sheet webs (Fig. 2).

**Needed collecting.** All areas are in need of new collecting, especially for DNA-ready material. The Caribbean islands, in particular, are virtually unknown. Sampling from continents is necessary for biogeographical questions.

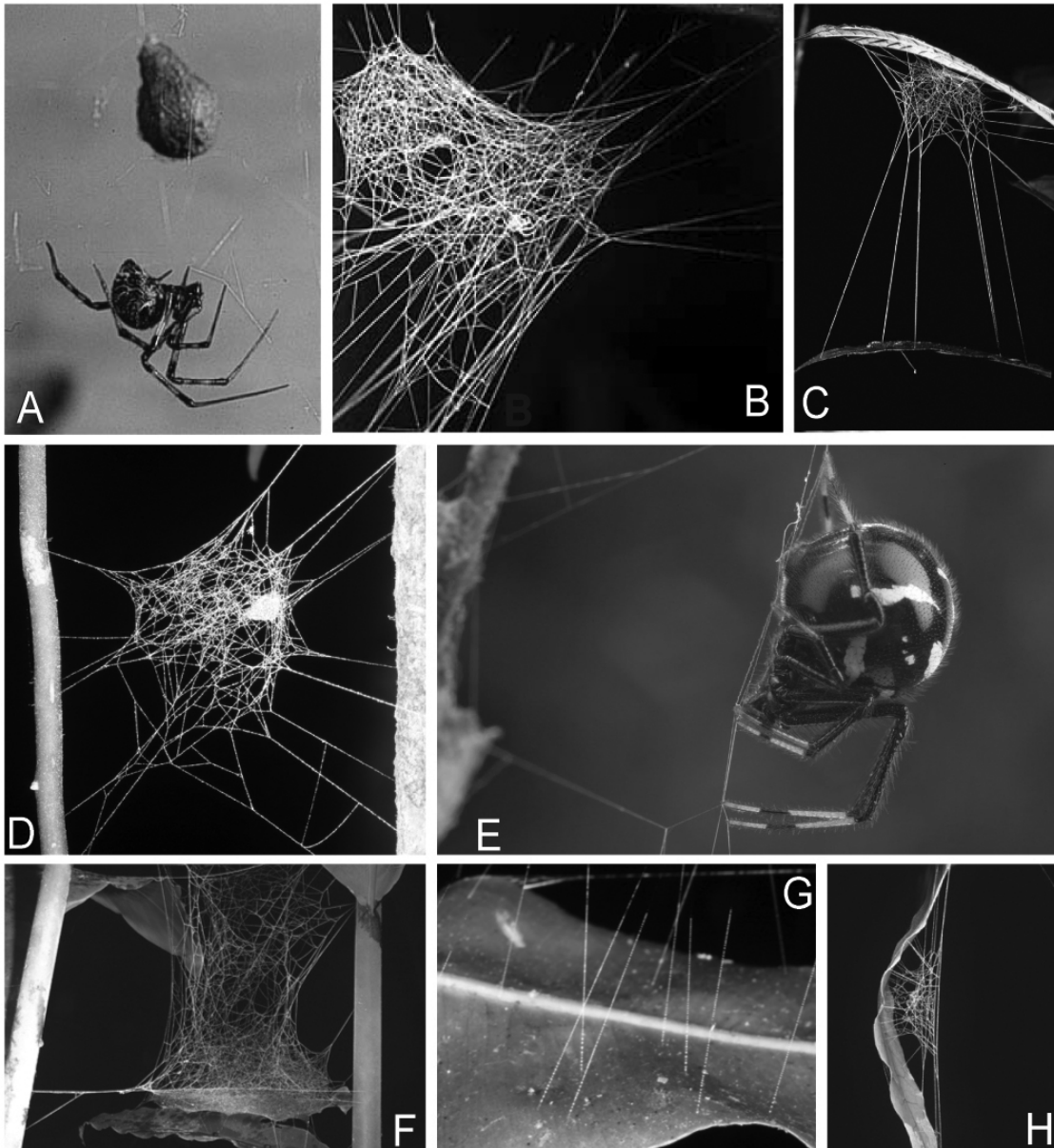


Fig. 2. A-D the common house spider *Parasteatoda tepidariorum*, A female with egg sac; B, center of web. C-D, typical 'star webs' of *Achaearanea* spp., the spider rests in the center of the 'globe'. E, *Parasteatoda valoka*, female. F, *Achaearanea* sheet web. G, gumfoot threads of *Parasteatoda valoka*. H, small web under a leaf.

#### References

- Levi HW. 1955. The spider genera *Coessa* and *Achaearanea* in America north of Mexico (Araneae, Theridiidae). *American Museum Novitates* 1718: 1-33.
- Levi HW. 1959a. The spider genera *Achaearanea*, *Theridion* and *Sphyrotinus* from Mexico, Central America and the West Indies (Araneae: Theridiidae). *Bulletin of the Museum of Comparative Zoology* 121: 57-163.
- Levi HW. 1963c. American spiders of the genus *Achaearanea* and the new genus *Echinotheridion* (Araneae, Theridiidae). *Bulletin of the Museum of Comparative Zoology* 129: 187-240.
- Agnarsson I. 2004. Morphological phylogeny of cobweb spiders and their relatives (Araneae, Araneoidea, Theridiidae). *Zoological Journal of the Linnean Society* 141: 447-626.