

## The Status of *Gasteracantha mammosa* (Araneae: Araneidae) in the Hawaiian Islands

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Specimens of this spiny-backed spider were first collected December 1985 in Hilo, Hawaii Island and later identified as *Gasteracantha* sp. (Kumashiro 1988). Similar to *G. cancriformis* (Linnaeus, 1758), this species can be readily identified by the 2 distinct yellow spots on the dorsum. Pinter (1992) identified it as *Gasteracantha mammosa* C.L. Koch, 1845 from Kalaheo, Kauai.

Also in 1992, the name *Thelacantha brevispina* (Doleschall, 1857) was given to specimens from the University of Hawaii submitted to the Smithsonian Institution for identification. At that time, *T. brevispina* was the valid, acceptable name for the species (N. K. Scharff, pers. comm.), which subsequently appeared in later publications (Yates *et al.* 1990, Platnick 1993, Nishida 1994) and was also reported at entomological meetings (Kumashiro 1992; Yates, Pac. Entomol. Conf., 1994). When the picture of the spider (Fig. 1) appeared in Yates *et al.* (1990) as *T. brevispina*, but in Nishida & Tenorio (1993) as *G. mammosa*, and this same spider picture was shown during meetings under 2 different names, clarification of the nomenclatural situation was necessary. The purpose of this note is to present the current nomenclatural status of *G. mammosa*, and update what is known of the species and its distribution in the Hawaiian Islands.

### *Gasteracantha mammosa* C.L. Koch

*Gasteracantha mammosa* (C.L. Koch, 1845) is the correct name for the spider reported as *Gasteracantha* sp. and *Thelacantha brevispina* from the Hawaiian Islands (N. K. Scharff, pers. comm.). Scharff is presently revising the genus *Gasteracantha*, and has seen both types as well as Hawaiian specimens.

As demonstrated by the extensive list of synonyms in Emerit (1974), the extreme polymorphism of the species, especially the varied coloration and abdominal configurations caused much taxonomic confusion among spider workers. For example, Butler (1873) placed what was to become synonymized under *G. mammosa* into 2 genera: *Stanneoclavis* and *Gasteracantha*, eventually describing 8 species in *Stanneoclavis*, and 2 species in *Gasteracantha* (Emerit 1974). Van Hasselt (1882) designated *Thelacantha mammosa* the type species of his new genus *Thelacantha*. Dahl (1914), probably certain of the valid generic status of *Gasteracantha*, reduced *Thelacantha* to subgeneric status when he redescribed *Gasteracantha (Thelacantha) mammosa*. Yaginuma (1960), Chikuni (1989), Feng (1990), and Chen & Gao (1990) recognized *G. mammosa*, but their concepts of *G. mammosa* were treated as *Thelacantha brevispina* by Platnick (1993). Aside from *Stanneoclavis*, *G. mammosa* has been variously placed in the genera *Plectana*, *Isacantha*, and *Actinacantha*.

Aside from Hawaii and Kauai Islands, *G. mammosa* is known from Molokai (Pinter 1992), Maui (Conant 1992), Oahu (Kumashiro 1992) and Lanai (Kumashiro, pers. comm.). The species is undoubtedly widely distributed in the islands. Emerit (1974) showed that the species is oriental-tropicopolitan in distribution.

Populations of *G. mammosa* in urban Honolulu seem to be declining, perhaps

because of bird predation (pers. observ.) or through parasitization by the ichneumonid wasp, *Tromatobia ovivora* (Boheman, 1821), a spider egg parasite (B. Kumashiro, pers. comm.).

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