Zootaxa 3827 (1): 095–100
www.mapress.com/zootaxa/

Correspondence

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

http://dx.doi.org/10.11646/zootaxa.3827.1.9
http://zoobank.org/urn:lsid:zoobank.org:pub:E3E8DF9F-69DF-43A1-8B5C-69F7041CB90C

A new American species of the spider genus *Pimoa* (Araneae, Pimoidae)

GUSTAVO HORMIGA & STEPHEN LEW
Department of Biological Sciences, The George Washington University Washington, D.C. 20052, USA. E-mail: hormiga@gwu.edu
E. O. Essig Museum of Entomology, University of California, Berkeley, CA 94720-4780. E-mail: anotherstevelew@gmail.com

The family Pimoidae is a small lineage of araneoid spiders distributed in Western North America, Southern Europe and Asia. Currently four genera and 37 extant species have been described (Platnick 2014). Pimoidae are represented in North America by 14 species classified in the genera, *Pimoa* Chamberlin & Ivie, 1943, and *Nanoa* Hormiga, Buckle & Scharff, 2005. The latter genus is monotypic and was recently described based on very few specimens collected in California and Oregon. With the exception of *Nanoa enana* Hormiga, Buckle & Scharff, 2005, no other pimoid has been described from North America since publication of the family monograph of Hormiga (1994). Since the revision of *Pimoa* in the family monograph, five new species of *Pimoa* have been described from China (Griswold *et al.* 1999, Xu & Li 2007) and one from India (Trotta 2009). In addition, other Asian pimoid species have been recently described in the genera *Weintrauboa* Hormiga, 2003 and *Putaoa* Hormiga & Tu, 2008 (Hormiga 2003, Hormiga 2008, Hormiga & Tu 2008, Xu & Li 2009, Yang *et al.* 2006). In this paper we describe a new species of the genus *Pimoa* from California.

Morphological methods are described in detail in Hormiga (2000, 2002). Taxonomic descriptions follow the format of Hormiga (1994, 2002). Specimens were examined and illustrated using a Leica MZ16A stereoscopic microscope, with a camera lucida. Further details were studied using a Leica DMRM compound microscope with a drawing tube. Digital images were taken with a Leica DFC500 camera. The digital images depicting the habitus and general morphology are composites of multiple images taken at different focal lengths and assembled using the software package Leica Application Suite (LAS). Most hairs and macrosetae are usually not depicted in the final palp and epigynum drawings. All morphological measurements are in millimeters. Somatic morphology measurements were taken using a scale reticle in the dissecting microscope and with the measuring application of LAS in a Leica M205A stereoscope. The position of the metatarsal trichobothrium is expressed as in Denis (1949) (i.e., the distance between the proximal end of the leg article and the trichobothrial base divided by the total length of the leg article). Female genitalia were excised using carbon steel breakable blades mounted on a cotton applicator wood stick (with the cotton end removed). Epigyna and palps were transferred to methyl salicylate (Holm 1979) for examination under the microscope. Label data are reported verbatim.

Family Pimoidae Wunderlich, 1986

Pimoa Chamberlin & Ivie, 1943

Type species *Labulla hespera* Gertsch & Ivie, 1936 (designation by Chamberlin & Ivie, 1943: 9)

Pimoa tehama new species
(Figs. 1–3)

Types. Male holotype and three female paratypes from USA, California, Tehama County: Blackjack Spr. N39.8311° W122.8665° 1350 m, headlamp search, 19.ix.2006, S. E. Lew (leg #4) (GH0739; digital images & illustrated GH 2007), male (California Academy of Sciences); same data as holotype (leg #3, GH0738, digital images 21.i.2008GH), female (California Academy of Sciences); same data as holotype (leg #2) (GH0739), female (California Academy of Sciences); N39.833° W122.858° 1335–1560 m. FS Rd., M4 29.1 mi W of Paskenta, 25.vi. 2004, S.E. Lew, UC Berkeley EMEC 50,996 (illustrated GH), female (Essig Museum of Entomology, University of California, Berkeley).

Accepted by M. Ramirez: 15 May 2014; published: 2 Jul. 2014

Etymology. The species epithet is a noun taken in apposition from the Californian county of the type locality.

Diagnosis: *Pimoa tehama* **n. sp.** is most similar to *P. laurae* Hormiga, 1994 (Hormiga 1994, figs. 390–402) and to *P. edenticulata* Hormiga, 1994 (Hormiga 1994, figs. 409–419). Males of *Pimoa tehama* n. sp. can be most easily distinguished from those of *P. laurae* by the shape of the pimoid cymbial sclerite (Fig. 2A, D, PCS) in ectal view (more pointed in *P. laurae*) and by the overall shape of the PCS. *Pimoa tehama* n. sp. differs from *P. edenticulata* by the presence of ventral tibial cuspules (Fig. 2B) and also by the overall shape of the PCS. Females of *P. tehama* n. sp. are diagnosed by their long, protruding epigynum (Fig. 3), which is much shorter in *P. laurae* and more caudally cleaved in *P. edenticulata.*

Male (holotype; Figs. 1 D–F, 2 A–D). Total length 7.31. Cephalothorax 3.75 long, 2.91 wide, 1.92 high. Sternum 2.39 long, 1.77 wide. Abdomen 4.23 long, 2.66 wide. AME diameter 0.184. Clypeus height 3.10 times one AME diameter. Carapace with deep longitudinal fovea (Fig. 1D). Chelicerae with three prolateral and three retrolateral teeth; stridulatory striae subtle, scaly. Legs annulated. Femur I 8.38 long, 2.23 times the length of cephalothorax. Metatarsus I trichobothrium 0.91. Metatarsus IV trichobothrium present (apical). Pedipalp as in Fig. 2 A–D. Pedipalpal tibia with two prolateral and three retrolateral trichobothria (Fig. 2 C, D).

Female (paratype, GH0738; Figs 1 A–C, 3 A–D). Total length 7.42. Cephalothorax 3.78 long, 2.84 wide, 2.01 high. Sternum 2.29 long, 1.59 wide. Abdomen 3.87 long, 3.29 wide. AME diameter 0.21. Clypeus height 2.50 times one AME diameter. Carapace with deep longitudinal fovea (Fig. 1C). Chelicerae with three prolateral and two retrolateral teeth; stridulatory striae subtle, scaly. Legs annulated. Femur I 6.13 long, 1.62 times the length of cephalothorax. Metatarsus I trichobothrium 0.93. Metatarsus IV trichobothrium present (apical). Epigynum as in Fig. 3 A–D.

Variation. Female cephalothorax length ranges from 3.08–3.78 and total length form 6.26–7.42 (n = 3).

Natural history. *Pimoa tehama* **n. sp.** is only known from the type series, and beyond the collection of these four individuals it has not been observed in nature. All three individuals were found in mixed conifer forest at around 1,350 meters elevation. The female from Blackjack Spring was found in a small horizontal sheet web typical of pimoids in a deep cut creek, and the male was found wandering in the same creek two years later. The other female was found hiding under bark, and may have been associated with a web that was destroyed when the bark was moved.

Distribution. Known from the Pacific Coast Ranges of northern California. The entire type series was collected in the Mendocino Range in Tehama County, between Corning and Covello. One of us (SL) has also collected *P. edenticulata* in the same area; these are the only pimoid species known from Tehama County, which also includes parts of other Pacific Coast Range mountains, parts of the Great Valley, and foothills of the Cascade Mountains.

Additional specimens studied: Only the type series.

Acknowledgments

This research was supported by US NSF grants DEB 1144492 and DEB 114417 (to GH and Gonzalo Giribet), by a Selective Excellence Grant from The George Washington University, and by the Beatrice Walker Fund for Insect Systematics at the University of California, Berkeley. We thank Martin Ramirez and an anonymous reviewer for their useful comments of an earlier draft of this paper.

References

Denis, J. (1949) Notes sur les érigonides. XVI. Essai sur la détermination des femelles d'érigonides. *Bulletin de la Société d'Histoire Naturelle de Toulouse*, 83, 129–158.

Griswold, C.E., Long, C. & Hormiga, G. (1999) A new spider of the Genus *Pimoa* from the Gaoligongshan Mts., Yunnan, China (Araneae, Pimoidae). *Acta Botanica Yunnanica*, Supplement 11, 91–97.

Holm, A. (1979) A taxonomic study of European and East African species of the genera *Pelecopsis* and *Trichopterna* (Araneae, Linyphiidae), with descriptions of a new genus and two new species of *Pelecopsis* from Kenya. *Zoologica Scripta*, 8, 255–278.
http://dx.doi.org/10.1111/j.1463-6409.1979.tb00638.x

Hormiga, G. (1994) A revision and cladistic analysis of the spider family Pimoidae (Araneae: Araneoidea). *Smithsonian Contributions to Zoology*, 549, 1–105.
http://dx.doi.org/10.5479/si.00810282.549

Hormiga, G. (2002) *Orsonwelles*, a new genus of giant linyphiid spiders (Araneae) from the Hawaiian Islands. *Invertebrate Systematics*, 16, 369–448.

Hormiga, G., Buckle, D.J. & Scharff, N. (2005) *Nanoa*, an enigmatic new genus of pimoid spiders from western North America

(Pimoidae, Araneae). *Zoological Journal of the Linnean Society*, 145, 249–262.
http://dx.doi.org/10.1111/j.1096-3642.2005.00192.x
Hormiga, G. (2003) *Weintrauboa*, a new genus of pimoid spiders from Japan and adjacent islands, with comments on the monophyly and diagnosis of the family Pimoidae and the genus *Pimoa* (Araneoidea, Araneae). *Zoological Journal of the Linnean Society*, 139, 261–281.
http://dx.doi.org/10.1046/j.1096-3642.2003.00072.x
Hormiga, G. (2008) On the spider genus *Weintrauboa* (Araneae, Pimoidae), with a description of a new species from China and comments on its phylogenetic relationships. *Zootaxa*, 1814, 1–20.
Hormiga, G. & Tu, L. (2008) On *Putaoa*, a new genus of the spider Family Pimoidae (Araneae) from China, with a cladistic test of its monophyly and phylogenetic placement. *Zootaxa*, 1792, 1–21.
Platnick, N.I. (2014) *The world spider catalog*, version 14.5. American Museum of Natural History. Available from: http://research.amnh.org/entomology/spiders/catalog/index.html (accessed 13 May 2014)
Trotta, A. (2009) *Pimoa thaleri*, a new species of the genus *Pimoa* Chamberlin & Ivie, 1943 from India (Araneae: Pimoidae). *Contributions to natural History*, 12, 1403–1407.
Xu, X. & Li, S.Q. (2007) Taxonomic study of the spider family Pimoidae (Arachnida: Araneae) from China. *Zoological Studies*, 46, 483–502.
Xu, X. & Li, S.Q (2009) Three new pimoid spiders from Sichuan Province, China (Araneae: Pimoidae). *Zootaxa,* 2298, 55–63.
Yang, Z., Zhu, M. & Song, S. (2006) A newly recorded genus and a new species of the spider family Pimoidae from Yunnan, China (Arachnida: Araneae). *The Raffles Bulletin of Zoology*, 54, 235–239.