INSECTA MUNDI A Journal of World Insect Systematics

0234

A third locality for the milliped *Mitocybe auriportae* Cook and Loomis, 1928 (Platydesmida: Andrognathidae)

Rowland M. Shelley
Research Laboratory
North Carolina State Museum of Natural Sciences
MSC #1626
Raleigh, NC 27699-1626 USA

Date of Issue: June 15, 2012

CENTER FOR SYSTEMATIC ENTOMOLOGY, INC., Gainesville, FL

Rowland M. Shelley
A third locality for the milliped *Mitocybe auriportae* Cook and Loomis, 1928 (Platydesmida: Andrognathidae)
Insecta Mundi 0234: 1-2

Published in 2012 by
Center for Systematic Entomology, Inc.
P. O. Box 141874
Gainesville, FL 32614-1874 USA
http://www.centerforsystematicentomology.org/

Insecta Mundi is a journal primarily devoted to insect systematics, but articles can be published on any non-marine arthropod. Topics considered for publication include systematics, taxonomy, nomenclature, checklists, faunal works, and natural history. **Insecta Mundi** will not consider works in the applied sciences (i.e. medical entomology, pest control research, etc.), and no longer publishes book reviews or editorials. **Insecta Mundi** publishes original research or discoveries in an inexpensive and timely manner, distributing them free via open access on the internet on the date of publication.

Insecta Mundi is referenced or abstracted by several sources including the Zoological Record, CAB Abstracts, etc. **Insecta Mundi** is published irregularly throughout the year, with completed manuscripts assigned an individual number. Manuscripts must be peer reviewed prior to submission, after which they are reviewed by the editorial board to ensure quality. One author of each submitted manuscript must be a current member of the Center for Systematic Entomology. Manuscript preparation guidelines are availablr at the CSE website.

Printed copies (ISSN 0749-6737) deposited in libraries of:
CSIRO, Canberra, ACT, Australia
Museu de Zoologia, São Paulo, Brazil
Agriculture and Agrifood Canada, Ottawa, ON, Canada
The Natural History Museum, London, Great Britain
Muzeum i Instytut Zoologiczny PAN, Warsaw, Poland
National Taiwan University, Taipei, Taiwan
California Academy of Sciences, San Francisco, CA, USA
Florida Department of Agriculture and Consumer Services, Gainesville, FL, USA
Field Museum of Natural History, Chicago, IL, USA
National Museum of Natural History, Smithsonian Institution, Washington, DC, USA
Zoological Institute of Russian Academy of Sciences, Saint-Petersburg, Russia

Electronic copies (On-Line ISSN 1942-1354, CDROM ISSN 1942-1362) in PDF format:
Printed CD mailed to all members at end of year.
Florida Center for Library Automation: http://purl.fcla.edu/fcla/insectamundi
University of Nebraska-Lincoln, Digital Commons: http://digitalcommons.unl.edu/insectamundi/
Goethe-Universität, Frankfurt am Main: http://edocs.ub.uni-frankfurt.de/volltexte/2010/14363/

Author instructions available on the Insecta Mundi page at:
http://www.centerforsystematicentomology.org/insectamundi/

INSECTA MUNDI 0234: 1-2 2012

A third locality for the milliped *Mitocybe auriportae* Cook and Loomis, 1928 (Platydesmida: Androgna thidae)

Rowland M. Shelley
Research Laboratory
North Carolina State Museum of Natural Sciences
MSC #1626
Raleigh, NC 27699-1626 USA
rowland.shelley@ncdenr.gov

Abstract. With the discovery of *Mitocybe auriportae* Cook and Loomis, 1928 (Platydesmida: Androgna thidae) in Alameda County (Co.), east of San Francisco Bay, a potential overall distribution in coastal California is projected based on those of partly congruent diplopods. The area extends from northern Mendocino to central Monterey cos. and inland to central Lake, Yolo, and Santa Clara cos.

Keywords. California, distribution, San Francisco Bay.

Introduction

Despite repeated efforts to find it, the milliped *Mitocybe auriportae* Cook and Loomis, 1928 (Platydesmida: Androgna thidae), was not rediscovered for 82 years after the types were described from Marin County (Co.), California (Cook and Loomis 1928; Chamberlin and Hoffman 1958; Buckett 1964; Gardner 1975; Hoffman 1999; Shelley 2002, 2010). In the last work (Shelley 2010), I reported a female of *Mitocybe* Cook and Loomis, 1928 from a cave in Santa Cruz Co. that I assigned to *M. auriportae*, but its specific identity is uncertain in the absence of an adult male. As Cook and Loomis (1928) published only uninformative, low-power sketches of a leg and the gonopods and Gardner (1975) characterized *M. auriportae* by only somatic features, I borrowed all existing types, redescribed both the genus and species, and provided external photos along with drawings of both gonopods under high magnifications, thereby allowing accurate determinations for the first time. It is a slender, pallid, thread-like milliped, no larger than leaf veins and mycelial filaments, and hence is difficult to spot in litter and among leaves. Devoid of lobes, pustules, and dorsal ornamentations, *M. auriportae* possesses a velveteen pilosity that is so short and dense as to appear non-existent in dorsal view. While recently perusing material in the Florida State Collection of Arthropods (FSCA), Gainesville, I discovered a third sample, again with a single female, that I likewise assign to *M. auriportae*. The curled, fragmented individual consists of the head and some 92 segments including the epiproct, and is approximately 26.6 mm long with a maximum width of 1.3 mm. Locality data are as follows: CALIFORNIA: *Alameda Co*., Berkeley, 9 May 1947, F, H. P. Chandler (FSCA).

Coupled with prior records, the new site, around 32 km (20 mi) east-southeast of the type locality and 96 km (60 mi) north-northeast of that in Santa Cruz Co., establishes *M. auriportae* on all sides of San Francisco Bay (Fig. 1). Though only three sites are known, they suggest an overall distribution similar to those of *Glomeroides primus* (Silvestri, 1929) (Glomerida: Glomeridae), *Paeromopus angusticeps angusticeps* (Wood, 1864) (Julida: Paeromopodidae), *Tynomma mutans* (Chamberlin, 1910) (Callipodida: Schizopetalidae), and/or *Xystocheir dissecta* (Wood, 1867) (Polydesmida: Xystodesmidae) (Shelley 1994, 1996a, b, 2002; Shelley and Bauer 1997; Shelley and Golovatch 2011). These species, also centering around San Francisco Bay, spread varying distances north and south through the wet coastal California forests. The most widespread, *X. dissecta*, extends north to northern Mendocino Co. and south to west-central Monterey Co. Occurrences to the east are much narrower, generally only to eastern Alameda and Contra Costa and perhaps also southwestern Yolo cos., because environmental conditions quickly become dry as one enters the rain shadow of the Coast Range and the central California valleys. Although difficult to find and collect, *M. auriportae* may plausibly be expected in the general coastal area outlined in Fig. 1.

Acknowledgments

I thank G. B. Edwards (FSCA) for access to and loan of the Berkeley sample, and him and W. A. Shear for presubmission reviews.

Literature Cited

Buckett, J. S. 1964. Annotated list of the Diplopoda of California. Simmons Publishing Co.; Davis, California. 34 p.

Chamberlin, R. V., and R. L. Hoffman. 1958. Checklist of the millipeds of North America. United States National Museum Bulletin 212: 1-236.

Cook, O. F., and H. F. Loomis. 1928. Millipeds of the order Colobognatha, with descriptions of six new genera and type species, from Arizona and California. Proceedings of the United States National Museum 72: 1-26.

Gardner, M. R. 1975 (1974). Revision of the millipede family Andrognathidae in the Nearctic region. Memoirs of the Pacific Coast Entomological Society 5: 1-61.

Hoffman, R. L. 1980 (1979). Classification of the Diplopoda. Muséum d'Histoire Naturelle; Geneva, Switzerland. 237 p.

Hoffman, R. L. 1999. Checklist of the millipeds of North and Middle America. Virginia Museum of Natural History Special Publication Number 8: 1-584.

Shelley, R. M. 1994. Revision of the milliped family Paeromopodidae and elevation of the Aprosphylosomatinae to family status (Julida: Paeromopodoidea).Entomologica Scandinavica 25: 169-214.

Shelley, R. M. 1996a. The milliped order Callipodida in western North America (Schizopetalidae: Tynommatinae) and a summary of the New World fauna. Entomologica Scandinavica 27: 25-64.

Shelley, R. M. 1996b. Revision of the milliped genus *Xystocheir* Cook (Polydesmida: Xystodesmidae). Canadian Journal of Zoology 74: 1336-1363.

Figure 1. Known and potential distributions of *Mitocybe auriportae*. Dots, published records; Star, new locality; Bold line, maximum distribution of partly congruent and sympatric diplopod species. A, M, and S – Alameda, Marin, and Santa Cruz cos., respectively.

Shelley, R. M. 2002. Annotated checklist of the millipeds of California (Arthropoda: Diplopoda). Monographs of the Western North American Naturalist 1: 90-115.

Shelley, R. M. 2010. Rediscovery, redescription, and illustrations of the milliped, *Mitocybe auriportae* Cook and Loomis, 1928 (Colobognatha: Platydesmida: Andrognathidae). Zootaxa 3475: 39-47.

Shelley, R. M., and S. B. Bauer. 1997. New records and species, and taxonomic alterations, in the milliped family Paeromopodidae (Julida). Entomological News 108(1): 1-14.

Shelley, R. M., and S. I. Golovatch. 2011. Atlas of myriapod biogeography. I. Indigenous ordinal and supra-ordinal distributions in the Diplopoda: Perspectives on taxon origins and ages, and a hypothesis on the origin and early evolution of the class. Insecta Mundi 0158: 1-134.

Received March 9, 2012; Accepted March 26, 2012.