Tenuipalpidae (Acari: Trombidiiformes) from Casuarinaceae (Fagales)

JENNIFER J. BEARD¹,²,⁴, OWEN D. SEEMAN² & GARY R. BAUCHAN³

¹University of Maryland, College Park, 20742, Maryland, USA
²Queensland Museum, P.O. Box 3300, South Brisbane, 4101, Queensland, Australia
³Electron and Confocal Microscopy Unit, United States Department of Agriculture, Agricultural Research Service, BARC, Beltsville, MD, 20705, USA
⁴Corresponding author. E-mail: thrippyl@hotmail.com
Tenuipalpidae (Acari: Trombidiformes) from Casuarinaceae (Fagales) (Zootaxa 3778)

157 pp.; 30 cm.
12 Mar. 2014
ISBN 978-1-77557-358-6 (paperback)
ISBN 978-1-77557-359-3 (Online edition)
Abstract

The Tenuipalpidae associated with the Casuarinaceae are reviewed, including one new genus, *Palpipalpus* gen. nov., twelve new species, and seven redescriptions. Two new generic records for Australia are established, *Pentamerismus* and *Philippipalpus*. The new species are: *Chaudhirpalpus costacola* Beard and Seeman sp. nov., *Crossipalpus gerson* Beard and Seeman sp. nov., *Crossipalpus Muellerianae* Smiley and Gerson, 1996, *Crossipalpus verticillatae* Smiley and Gerson, 1996, *Crossipalpus gersoni* Beard and Seeman sp. nov., *Crossipalpus raveni* Beard and Seeman sp. nov., *Magdalenapalpus strandtmanni* Smiley, Frost and Gerson, 1996. *Magdalenapalpus caperatus* Beard and Seeman sp. nov., *Magdalenapalpus forsteri* Seeman and Beard sp. nov., *Pentamerismus hicklingorum* Seeman and Beard sp. nov., *Philippipalpus Costacola* Beard and Seeman sp. nov., *Philippipalpus caperatus* Beard and Seeman sp. nov., *Philippipalpus nigraquercus* Seeman and Beard sp. nov., and *Philippipalpus nigracquercus* Seeman and Beard sp. nov. *Meyerapalpus delfinadae* Smiley et al., is reinstated based on new material and an analysis of its phylogenetic relationships. *Crossipalpus Muellerianae* Smiley et al., *Crossipalpus verticillatae* Smiley et al., and *Tegopalpus conicus* Womersley are redescribed and re-diagnosed from the original type specimens and newly collected material; and *Chaudhirpalpus creelae* (Smiley et al.), *Magdalenapalpus strandtmanni* (Smiley et al.) and *Philippipalpus agohoi* Corpuz-Raros are redescribed and re-diagnosed from type material only. All flat mite species were host-specific. Up to three species of flat mite were collected from a single she-oak species. Leg setation and ontogeny are reviewed for the taxa studied. A key to Tenuipalpidae from Casuarinaceae is provided. A phylogeny of the subfamily Tegopalpinae found the following relationships:

**Key words:** taxonomy, systematics, revision, new species, key, she-oak
References


http://dx.doi.org/10.1080/00779962.1973.9723026


http://dx.doi.org/10.1080/00222932408633151


McGovern, with descriptions of eight new species. Fieldiana Zoology, 44, 123–125.


http://dx.doi.org/10.11158/saa.16.1.10


http://dx.doi.org/10.1080/01647959508684041


http://dx.doi.org/10.1080/01647959608684092


http://dx.doi.org/10.1016/s1055-7903(03)00028-9


http://dx.doi.org/10.1023/b:appa.0000006545.40017.a0

