

Disella rebeeveri (Prostigmata: Eriophyidae): New distribution and host records

Authors: Han, Xiao, and Zhang, Zhi-Qiang

Source: Systematic and Applied Acarology, 20(2): 220

Published By: Systematic and Applied Acarology Society

URL: https://doi.org/10.11158/saa.20.2.8

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

Correspondence

http://zoobank.org/urn:lsid:zoobank.org:pub:8D60528A-D42F-4864-B901-02E4A967EEBB

Disella rebeeveri (Prostigmata: Eriophyidae): New distribution and host records

XIAO HAN1 & ZHI-QIANG ZHANG2,3

- ¹ Department of Entomology, Nanjing Agricultural University, Nanjing, Jiangsu 210095, China;
- ² Landcare Research, 231 Morrin Road, St. Johns, Auckland 1072, New Zealand and

School of Biological Sciences, The University of Auckland, Tamaki Campus, Auckland, New Zealand

Xue and Zhang (2008) described *Disella rebeeveri* from leaves of *Kunzea ericoides* collected in the Waitakere Range, Auckland, New Zealand. There have been no further reports on this species. Our recent study of newly collected specimens from *Coprosma* as well as old material preserved in the New Zealand Arthropod Collection (NZAC), Auckland reveal new distribution and host records for this species, which are reported here.

Disella rebeeveri Xue & Zhang, 2008

Material examined (all in NZAC): 10 females, from leaves of Coprosma robusta (Rubiaceae) with erineum, native forest, Auckland Botanic Gardens, Manurewa, Auckland, New Zealand, 6 November 2014, coll. N.A. Martin (with Phyllocoptes coprosmae); 5 females, from leaves of Coprosma robusta with erineum, Alice Eaves Reserve, Auckland, New Zealand, 7 February 2015, coll. N.A. Martin (with Phyllocoptes coprosmae); 6 females, from leaves of Coprosma grandifolia with erineum, Alice Eaves Reserve, Auckland, New Zealand, 7 February 2015, coll. N.A. Martin (with Phyllocoptes coprosmae); 40 females and 5 males, from underside of young leaves of Schefflera digitata (Araliaceae), Southern enclosure, Maungatautari Mountain Scenic Reserve, Hamilton & Waikato region, New Zealand, 27 February 2005, coll. N.A. Martin; 7 females, from rough underside of leaves of Hebe stricta (Plantaginaceae), Incline Track, Waitakere Ranges, Auckland, New Zealand, 11 May 2002, col. N.A. Martin; 82 females, from rough underside of leaves of Hebe salicifolia (Plantaginaceae), Hinewai Reserve, Banks Peninsula, New Zealand, 1 November 2001, coll. N.A. Martin.

Distribution: This species was known only from the Waitakere Range, Auckland (Xue & Zhang 2008). Its distribution now extends southward to Manurewa (Auckland), Hamilton and Waikato on the North Island, and the Banks Peninsula on the South Island.

Hosts: Xue and Zhang (2008) recorded only females of *D. rebeeveri* from curly leaves of *K. ericoides* (Myrtaceae). Here we add five new host plant species belonging to three different families for this species. On *C. robusta* and *C. grandifolia* (Rubiaceae), it was found with *P. coprosmae*, which is known to produce erineum (Martin 2010); we noted that *D. rebeeveri* was more numerous than *P. coprosmae* among hairs on leaves. On *H. stricta* and *H. salicifolia* (Plantaginaceae), *D. rebeeveri* was found on the rough underside of leaves. On *S. digitata* (Araliaceae), *D. rebeeveri* was found on the underside of young leaves and males were also collected for the first time along with females. Only 1% of eriophyoid species are found on more than one family of plants (Skoracka *et al.* 2010). However, the four host families of *D. rebeeveri* belong to four unrelated plant orders! So this species is among the most polyphagous species in the superfamily Eriophyoidea.

Acknowledgements: We thank Dr N.A. Martin (NZAC) for collecting the mite samples.

References

- Martin, N.A. (2010) Coprosma white erineum mite *Phyllocoptes coprosma*. Factsheet: Interesting Insects and other Invertebrates. Available from: http://nzacfactsheets.landcareresearch.co.nz/Index.html (last accessed 26 Feb. 2015).
- Skoracka, A., Smith, L., Oldfield, G., Cristofaro, M. & Amrine, J.W.Jr. (2010) Host-plant specificity and specialization in eriophyoid mites and their importance for the use of eriophyoid mites as biocontrol agents of weeds. *Experimental and Applied Acarology*, 51, 93–113. http://dx.doi.org/10.1007/s10493-009-9323-6
- Xue, X.-F. & Zhang, Z.-Q. (2008) New Zealand Eriophyoidea (Acari: Prostigmata): an update with descriptions of one new genus and six new species. *Zootaxa*, 1962, 1–32.

220 © Systematic & Applied Acarology Society

³ Correspondent author: zhangz@landcareresearch.co.nz