

***Mecinus linnavuori* (Korotyaev) (Coleoptera: Curculionidae: Curculioninae: Mecinini), an Iraqi Weevil Species New to Southwestern North America**

Author(s): Robert S. Anderson, Roberto Caldara and Salvatore S. Anzaldo

Source: The Coleopterists Bulletin, 72(1):126-128.

Published By: The Coleopterists Society

<https://doi.org/10.1649/0010-065X-72.1.126>

URL: <http://www.bioone.org/doi/full/10.1649/0010-065X-72.1.126>

---

BioOne ([www.bioone.org](http://www.bioone.org)) is a nonprofit, online aggregation of core research in the biological, ecological, and environmental sciences. BioOne provides a sustainable online platform for over 170 journals and books published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Web site, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at [www.bioone.org/page/terms\\_of\\_use](http://www.bioone.org/page/terms_of_use).

Usage of BioOne 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.

SCIENTIFIC NOTE

*MECINUS LINNAVUORI* (KOROTYAEV) (COLEOPTERA: CURCULIONIDAE:  
CURCULIONINAE: MECININI), AN IRAQI WEEVIL SPECIES NEW TO SOUTHWESTERN  
NORTH AMERICA

ROBERT S. ANDERSON  
Director, Beaty Centre for Species Discovery  
Research and Collection Division  
Canadian Museum of Nature  
PO Box 3443, Station D  
Ottawa, ON K1P 6P4, CANADA  
randerson@mus-nature.ca

ROBERTO CALDARA  
via Lorenteggio 37  
20146 Milano, ITALY  
roberto.caldara@gmail.com

AND

SALVATORE S. ANZALDO  
School of Life Sciences  
PO Box 874501  
Arizona State University  
Tempe, AZ 85287-4501, USA  
sanzaldo@asu.edu

---

DOI.org/10.1649/0010-065X-72.1.126

In 2017, leaf litter samples from various localities on Mount Lemmon, Pima County, Arizona, RSA collected a large number of adult specimens of a small (1.4–1.8 mm), unidentified species of *Mecinus* Germar (Figs. 1–2). The specimens were of similar size and form to the well-known and widespread *Mecinus pascuorum* (Gyllenhal) (Figs. 4–5) but had much coarser and whiter scale-like body vestiture (Figs. 1–2) and an oddly formed antennal club with the inner half regularly convex but completely glabrous and the outer half flattened and setose towards the apex but with the club segments visible underneath (Fig. 3). Concurrently, SSA and colleagues at Arizona State University collected this same species at various localities in central Arizona during summer fieldwork. Consultation of the recent revision of *Mecinus* by Caldara and Fogato (2013) showed this species to be a member of the *Mecinus paratychioides* group, three species characterized by this odd structure of the antennal club. Specimens were subsequently sent to and examined by RC who identified the species as *Mecinus linnavuori* (Korotyaev), an Iraqi species (type locality Nasiriyah, Dhi Qar) recently

described from four specimens collected at various Iraqi localities, by comparison with a male paratype.

Collection codens for depositories of specimens are as follows: ASUHC, Arizona State University Hasbrouck Insect Collection, Tempe, AZ; CMNC, Canadian Museum of Nature, Ottawa, Canada; CWOB, Charles W. O'Brien Collection, Green Valley, AZ; FSCA, Florida State Collection of Arthropods, Gainesville, FL; SSAC, Salvatore S. Anzaldo Collection, Tempe, AZ; TAMU, Texas A&M University, College Station, TX; UAIC, University of Arizona Insect Collection, Tucson, AZ; USNM, United States National Museum, Washington, DC.

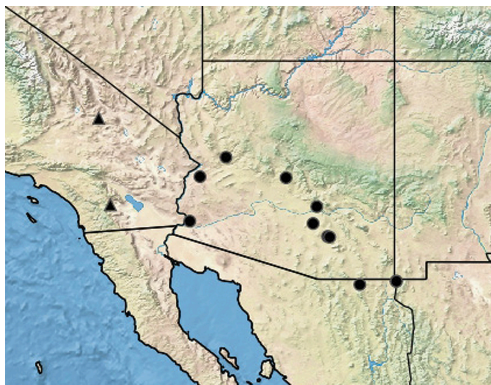
**Specimens Examined.** MEXICO: SONORA: Cajón Bonito, Rancho Los Ojos, 31.279146 - 109.002958, 22.iv.2017, N.M. Franz, beating herbs/shrubs along trail (ASUHC); Cajón Bonito, Rancho Los Ojos, 31.273666 - 108.994318, 24.iv.2017, N.M. Franz, beating plants along river/valley (ASUHC); Cajón Bonito, Rancho El Pinito, 31.189794 - 109.946672, 23.iv.2017, N.M. Franz, beating plants along river bed (ASUHC). USA: ARIZONA: La Paz County, Bouse Dunes, UV/Hg light, 33.993381 - 114.103503, 12.iv.2017, S.S. Anzaldo (SSAC);



**Figs. 1–5.** *Mecinus* species. *M. linnavuori*, male: 1) Dorsal habitus; 2) Lateral habitus; 3) Antenna (outer side?). *M. pascuorum*, male: 4) Dorsal habitus; 5) Lateral habitus.

Maricopa County, Seven Springs, on *Nicotiana obtusifolia*, 33.9661 -111.8661, 14.iv.2017, Brian Reily (SSAC); Chandler, 1345 West Gila Lane, 33.3296 -111.8663, 18-22.iv.2017, W.B. Warner,

flight intercept trap (CMNC, CWOB); Mohave County, 17 Mile Rd near US93, barrier pitfall, 34.4979 -113.4271, 725 m 15.iv.-24.vi.2017, M.A. Johnston (SSAC); Pima County, Santa Catalina



**Fig. 6.** Map of collection (black dot) and BugGuide (black triangle) localities for *Mecinus linnavuori* in North America.

Mountains, Mount Lemmon, 2,760 m, 32.44101 -110.78493, 27.iv.2017, R.S. Anderson, sifting dry litter under aspen/shrubs (ASUHC, CMNC, CWOB, FSCA, TAMU, UAIC, USNM); Santa Catalina Mountains, Bear Wallow, 2,400 m, 32.4230 -110.7334, 16.v.2017, R.S. Anderson *et al.*, sifting litter under maple trees (CMNC, UAIC); Pinal County, 6 mi. S Superior, barrier pitfall, 33.2162 -111.0655, 990m 20.iii-28.iv.2017, M.A. Johnston (SSAC); 21 mi. S.W. Florence, barrier pitfall, 32.7765 -111.1629, 780 m 13.iii-27.iv.2017, M.A. Johnston (SSAC); Yuma County, N of Yuma on Highway 95, 103 m, 32.83696 -114.36986, 12.iv.2017, R.S. Anderson, C.W. O'Brien, on creosote (CMNC). Online images of the species are at [bugguide.net/node/view/1357518](http://bugguide.net/node/view/1357518) (San Diego County, California) and [bugguide.net/node/view/1366347](http://bugguide.net/node/view/1366347) (San Bernardino County, California); no voucher specimens for these records were collected. A single specimen was also collected on celery at Yuma, Arizona in a shipment from Mexico as well as a specimen intercepted at San Luis, Arizona, also from Mexico. A map prepared using SimpleMapp (Shorthouse 2010) showing the distribution of the collection localities is included (Fig. 6).

It is interesting and somewhat unexpected that specimens of this presumably low elevation desert species would occur in such numbers at high elevations in mixed conifer forest on Mount Lemmon as well as occur in the low desert in Arizona and into southeastern California. The mode of introduction of the species is unknown, but these records bring to mind the recent introduction of the Iraqi/Caucasus hyperine weevil *Coniatus splendidulus* (Fabricius) on tamarisk (*Tamarix* spp., Tamaricaceae) (Bright *et al.* 2013) first reported in the southwestern USA in 2011 (Eckberg and Foster 2011).

Whereas the host plant for *M. pascuorum* in North America is *Plantago lanceolata* L. (Plantaginaceae),

we were unable to determine a host plant for *M. linnavuori* within the areas where specimens were collected. Like many species of *Mecinus*, the three taxa belonging to the *M. paratychioides* group seem to live on species of the cosmopolitan genus *Plantago* L. Whereas *Mecinus paratychioides* (Hoffmann) and *Mecinus desertorum* (Korotyaev) were reported to live on *Plantago ciliata* Desf. and *Plantago minuta* Pall., respectively (Caldara and Fogato 2013), no data on host plants are known for *M. linnavuori* (the 14.iv.2017 record cited above on *Nicotiana obtusifolia* M. Martens and Galeotti (Solanaceae) is an unlikely host association). It is noteworthy that 11 species of *Plantago* (two naturalized from Europe) are reported in Arizona (Kearney and Peebles 1960), so there are plenty of candidate host species available.

Two additional species of *Mecinus*, *Mecinus pyraster* (Herbst) and *Mecinus janthinus* Germar, also occur in North America as deliberate introductions for the biological control of *Plantago* and toadflax (*Linaria* Mill., Plantaginaceae), respectively (Caldara and Fogato 2013). These species are much larger and more elongate than *M. pascuorum* and *M. linnavuori* and are generally not confused with them.

#### ACKNOWLEDGMENTS

The study was carried out while RSA was 2017 Visiting Systematist at the University of Arizona, Tucson. François Génier captured the images and prepared the plate.

#### REFERENCES CITED

- Bright, D. E., B. C. Kondratieff, and A. P. Norton. 2013.** First record of the "splendid tamarisk weevil", *Coniatus splendidulus* (F.) (Coleoptera: Curculionidae: Hyperinae), in Colorado, USA. *The Coleopterists Bulletin* 67: 302–303.
- Caldara, R., and V. Fogato. 2013.** Systematics of the weevil genus *Mecinus* Germar, 1821 (Coleoptera: Curculionidae). I. Taxonomic treatment of the species. *Zootaxa* 3654: 1–105.
- Eckberg, J. R., and M. E. Foster. 2011.** First account of the splendid tamarisk weevil, *Coniatus splendidulus* Fabricius, 1781 (Coleoptera: Curculionidae) in Nevada. *The Pan-Pacific Entomologist* 87: 51–53.
- Kearney, T. H., and R. H. Peebles. 1960.** *Arizona Flora*. University of California Press, Berkeley, CA.
- Shorthouse, D. P. 2010.** SimpleMapp, an online tool to produce publication-quality point maps. [www.simplemapp.net](http://www.simplemapp.net).

(Received 1 September 2017; accepted 18 December 2017. Publication date 23 March 2018.)