

Branneria bonoculus (Diplopoda: Chordeumatida: Brannerioidea): New to The Milliped Fauna of Texas

Author(s) :Chris T. McAllister, William A. Shear, and Rowland M. Shelley Source: The Southwestern Naturalist, 54(3):350-351. 2009. Published By: Southwestern Association of Naturalists DOI: <u>http://dx.doi.org/10.1894/JC-26.1</u> URL: <u>http://www.bioone.org/doi/full/10.1894/JC-26.1</u>

BioOne (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 <u>www.bioone.org/</u>page/terms_of_use.

Usage of BioOne content is strictly limited to personal, educational, and noncommercial 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.

BRANNERIA BONOCULUS (DIPLOPODA: CHORDEUMATIDA: BRANNERIOIDEA): NEW TO THE MILLIPED FAUNA OF TEXAS

CHRIS T. MCALLISTER,* WILLIAM A. SHEAR, AND ROWLAND M. SHELLEY

RapidWrite, 102 Brown Street, Hot Springs National Park, AR 71913 (CTM) Biology Department, Hampden-Sydney College, Hampden-Sydney, VA 23943 (WAS) Research Lab, North Carolina State Museum of Natural Sciences, MSC 1626, Raleigh, NC 27699 (RMS) *Correspondent: drctmcallister@aol.com

ABSTRACT—Male and female specimens of a chordeumatid milliped, *Branneria bonoculus*, were collected in March 2003 from leaf litter in deciduous and pine forest from Lake O' the Pines, Marion Co., Texas. The species was described originally from an unknown site in Nevada County, Arkansas, which is ca. 145 km northeast of the new locale. As such, this represents only the second time *B. bonoculus* has been reported in the literature, and more importantly, we document the discovery of a family of millipeds that is new for Texas.

RESUMEN—Especímenes de machos y hembras de un milpiés chordeumátida, *Branneria bonoculus*, se recolectaron en marzo de 2003 de la hojarasca en bosques caducifolios y de pinos del Lake O' the Pines, condado de Marion, Texas. La especie fue descrita originalmente de un sitio desconocido en el condado de Nevada, Arkansas, que está aproximadamente a 145 km noreste de la nueva localidad. Como tal, esto representa sólo la segunda vez que *B. bonoculus* ha sido reportado en la literatura, y más importante aún, documentamos el descubrimiento de una nueva familia de milpiés para Texas.

Until recently, the North American milliped family Branneriidae included a single species, *Branneria carinata*, described from material collected from Beaver Creek, Jefferson Co., Tennessee (Bollman, 1888, 1893; Hoffman, 1999). Additional records for *B. carinata* were provided by Shear (1972) in several southeastern states including Tennessee to the Florida Panhandle, and from southern Mississippi to central Georgia. A second species, *Branneria bonoculus* was described recently by Shear (2003) from a single male taken in February 1977 from an indeterminate site in Nevada County, Arkansas. It differs from its only congener (*B. carinata*) in having males with 28 segments of the trunk rather than 26, and in differences of the gonopods and ninth and tenth legs. Herein, we provide a new distributional record for the family Branneriidae and *B. bonoculus* in Texas.

On 8 March 2003, two minute specimens of an unknown species of chordeumatid milliped were collected from leaf litter in deciduous and pine forest off FM 729 at Lake O' the Pines (Cypress River Basin), Marion Co., Texas (32° 49'01.14"N, 94° 36'40.46"W, elevation 95 m). They were placed in vials containing 70% ethanol and shipped to the second author (WAS) for identification. Voucher specimens were subsequently deposited in the North Carolina State Museum of Natural Sciences, Raleigh. These specimens represented a male and female *B. bonoculus*. This is the second time this species has been reported in the literature, and more importantly, discovery of a new family of milliped for a state is rare. The new site reported herein is ca. 145 km southwest of the type locality of *B. bonoculus*. Other myriapod associates collected at this site included a polydesmid milliped, *Pseudopolydesmus pinetorum* and a scolopendromorph centipede, *Hemiscolopendra marginata*. They are common species in woodlands west of the Mississippi River and both have been reported from nearby Bowie County, Texas (Stewart, 1969; McAllister et al., 2006).

Little is known about the milliped fauna of eastern Texas. New state records for millipeds in Texas were reported by Shelley et al. (2003), McAllister et al. (2004), and McAllister and Shelley (2005). In addition, several miscellaneous taxonomic papers by Shelley (1990, 2000), Shelley and McAllister (2006) and Shelley et al. (2006) reported millipeds from various counties in eastern Texas. However, the only paper published on millipeds of eastern Texas was by Stewart (1969), who reported records of millipeds from 25 counties in northeastern Texas, some of which were based on misidentifications. His voucher specimens were deposited in the invertebrate collection at Stephen F. Austin State University (Stewart, 1969), but apparently were lost. There is an obvious need to collect millipeds in this part of the state as many species, like B. bonoculus reported herein, are yet to be discovered.

CTM thanks the Texas Parks and Wildlife Department for a scientific collecting permit, D. I. Moore for assistance in collecting, and W. Gibson for curatorial assistance.

LITERATURE CITED

- BOLLMAN, C. H. 1888. Notes upon a collection of Myriapoda from East Tennessee, with description of a new genus and six new species. Annals of the New York Academy of Sciences 10:106–112.
- BOLLMAN, C. H. 1893. The Myriapoda of the United States. United States National Museum Bulletin 43: 1–120.
- HOFFMAN, R. L. 1999. Checklist of the millipeds of North and Middle America. Virginia Museum of Natural History Special Publication 8:1–584.

- MCALLISTER, C. T., AND R. M. SHELLEY. 2005. Discovery of the milliped, *Auturus louisianus louisianus* (Chamberlin, 1918), in Texas (Diplopoda: Polydesmida: Euryuridae). Entomological News 116:187–188.
- MCALLISTER, C. T., R. M. SHELLEY, AND D. I. MOORE. 2004. Noteworthy records of the millipeds, *Eurymerodesmus angularis* and *E. mundus* (Polydesmida: Eurymerodesmidae), from northeastern and westcentral Texas. Texas Journal of Science 56:73–77.
- MCALLISTER, C. T., R. M. SHELLEY, AND H. W. ROBISON. 2006. Additional distributional records for scolopendromorph centipedes (Chilopoda) from Arkansas, Kansas, Louisiana, New Mexico, Oklahoma, and Texas, with the first report of *Theatops spinicaudus* (Wood) from Texas. Texas Journal of Science 58: 299–308.
- SHEAR, W. A. 1972. Studies in the milliped order Chordeumida (Diplopoda): a revision of the family Cleidogonidae and a reclassification of the order Chordeumida in the New World. Bulletin of the Museum of Comparative Zoology 144:151–352.
- SHEAR, W. A. 2003. Branneria bonoculus n. sp., a second species in the North American milliped family Branneriidae (Diplopoda: Chordeumatida: Brannerioidea). Zootaxa 233:1–7.
- SHELLEY, R. M. 1990. Revision of the milliped family Eurymerodesmidae (Polydesmida: Chelodesmidea). Memoirs of the American Entomological Society 37:1–112.
- SHELLEY, R. M. 2000. Parajulid studies II. The subgenus *Hakiulus* Chamberlin (Julida: Parajulidae: Parajulinae: Aniulini). Myriapodologica 6:121–145.
- SHELLEY, R. M., AND C. T. MCALLISTER. 2006. Composition and distribution of the milliped tribe Pachydesmini west of the Mississippi River (Polydesmida: Xystodesmidae). Western North American Naturalist 66:45–54.
- SHELLEY, R. M., C. T. MCALLISTER, AND M. F. MEDRANO. 2006. Distribution of the milliped genus *Narceus* Rafinesque, 1820 (Spirobolida: Spirobolidae): occurrences in New England and west of the Mississippi River: a summary of peripheral localities; and first records from Connecticut, Delaware, Maine, and Minnesota. Western North American Naturalist 66:374–389.
- SHELLEY, R. M., C. T. MCALLISTER, AND S. B. SMITH. 2003. Discovery of the milliped *Pleuroloma flavipes* (Polydesmida: Xystodesmidae) in Texas, and other records from west of the Mississippi River. Entomological News 114:2–6.
- STEWART, T. C. 1969. Records of millipeds in twenty five Northeast Texas counties. Texas Journal of Science 20:383–385.

Submitted 29 February 2008. Accepted 16 September 2008. Associate Editor was Jerry L. Cook.