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On the southeastern United States distributions of *Stictoleptura canadensis* (Olivier, 1795), *Leptura subhamata* Randall, 1838 (Coleoptera: Cerambycidae: Lepturinae) and *Heterosternuta cocheconis* (Fall, 1917) (Coleoptera: Dytiscidae: Hydroporinae)

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Abstract. We present new southeastern United States distributional records for *Stictoleptura canadensis* (Olivier, 1795), *Leptura subhamata* Randall, 1838 (Coleoptera: Cerambycidae: Lepturinae), and *Heterosternuta cocheconis* (Fall, 1917) (Coleoptera: Dytiscidae: Hydroporinae) which extend the southernmost limits of the known distributions for these species. We present new state records for these species.

Introduction

The recent collection of a series of specimens of *Stictoleptura canadensis* (Olivier, 1795), *Leptura subhamata* Randall, 1838 (Coleoptera: Cerambycidae: Lepturinae) and *Heterosternuta cocheconis* (Fall, 1917) (Coleoptera: Dytiscidae: Hydroporinae) from various southeastern localities in West Virginia, Kentucky and Georgia (by the authors) queued an interest in the known distribution of these three species. Current literature records describe the distribution of *S. canadensis* as southeastern Canada and the northeastern United States for subspecies *S. c. canadensis* (Olivier), western Canada to California for the subspecies *S. canadensis cribripennis* (LeConte, 1859), and Arizona and New Mexico for the subspecies *S. canadensis arizonensis* Linsley and Chemsak, 1976 (Monné et al. 2007). The distribution of *L. subhamata* ranges from southeastern Canada through the northeastern United States and south to Tennessee (Linsley and Chemsak 1976; Monné et al. 2007; Lingafelter 2007). These distributions are in agreement with Linsley and Chemsak (1972, 1976) regarding eastern North America. The distribution of *H. cocheconis* ranges from southern Quebec and central New Brunswick to central New York and Connecticut (Matta and Wolfe 1981; Larson et al. 2000).

List of Depository Abbreviations

Distribution records were collected from the following private and institutional depositories:

CUIC	—	Cornell University Insect Collection (Ithaca, NY)
EDNC	—	North Carolina Department of Agriculture (Raleigh, NC)
EGCC	—	Eric G. Chapman, private collection (Lexington, KY)
ENPC	—	Eugenio H. Nearn, private collection (Gaithersburg, MD)
FSCA	—	Florida State Collection of Arthropods (Gainesville, FL)
GCIM	—	Georgia College Insect Museum (Milledgeville, GA)
JMLC	—	John M. Leavengood, Jr., private collection (Lexington, KY)
JPHC	—	Jeffrey P. Huether, private collection (Geneva, NY)

MCZ	—	Museum of Comparative Zoology, Harvard University (Cambridge, MA)
OSUC	—	The Ohio State University (Columbus, OH)
UMIC	—	University of Mississippi (Oxford, MI)
NMNH	—	National Museum of Natural History, Smithsonian Institution (Washington, DC)
WVDA	—	West Virginia Department of Agriculture (Charlestown, WV)

Stictoleptura c. canadensis (Olivier)

Distribution Records for *Stictoleptura c. canadensis* (Olivier). **North Carolina:** Yancey Co.: Mount Mitchell, 11-VIII (NMNH). **Tennessee:** Sevier County, 7-IX (CUIC). **Virginia:** (Chesterfield/Henrico Co.): Richmond, 5-VIII (Jeff Huether, personal communication); Chelsea, 6-VIII (NMNH). **West Virginia:** Hancock Co.: Tomlinson Run State Park, 15-VIII-2007, M. Harriman (WVDA); Pocahontas Co.: Droop, State Hwy 39/55, @ junction Hill Creek Falls Road, 8 August 2009, 3390' elev., 38°10.86'N, 80°20.39'W, EG Chapman & JM Leavengood (EGCC); Pocahontas Co.: Droop, State Hwy 39/55, @ junction Hill Creek Falls Road, 8-VIII-2009 elevation 3390', 38°10.51'18 N/80°20.21'55 W, Coll: J. M. Leavengood, Jr. & E. Chapman (JMLC); Preston Co.: Aurora, 20-VIII (NMNH); Cranessville, 14-VII (NMNH); Tucker Co.: Dolly Sods, 6-VIII-1986, M. C. Thomas (WVDA).

Discussion on *Stictoleptura c. canadensis*. While not indicated on the label data, the majority of JMLC and EGCC specimens from West Virginia were collected on Queen Anne's Lace (Apiaceae: *Daucus carota* Linnaeus) in the presence of milkweeds (Apocynaceae: *Asclepias* sp.). Records from North Carolina, **new state record**, and Tennessee, **new state record**, represent the southernmost known distribution of the species.

Leptura subhamata Randall

Distribution Records for *Leptura subhamata* Randall. **Georgia:** Lumpkin Co.: Chattahoochee National Forest, near Boggs Creek, 9-VI-2001, E.H. Nearn (ENPC); Murray County (FSCA); Towns Co.: on flowers along Left Mill Creek Rd, ~2 mi east of SR 17, 34°51.84'N, 83°41.38'W, 20-VI-2010, EG Chapman & JM Leavengood (EGCC); **Kentucky:** Laurel Co.: along Craigs Creek Road, on milkweed, 5-VI-2010, 36°59.17'N, 84°15.09'W, Eric G Chapman (EGCC); Laurel Co.: Daniel Boone National Forest, Craig's Creek road, 5-VI-2009, ca. 36°59.173'/ 84°15.086', J. M. Leavengood, Jr., EG Chapman & MV Spelman (JMLC); Pulaski Co.: Bee Rock Campground, east end at trail head, 37.0297°N, 84.3195°W, Eric G Chapman (EGCC). **North Carolina:** Haywood County (FSCA, UMIC); Macon County (FSCA); Macon Co.: Clear Creek, Highlands, 1-VII (CUIC); Highlands, 18-VI (MCZ); Swain County: Andrew's Bald, Great Smoky Mountains National Park, 28-VI (MCZ); Watauga Co.: Zionville, V (EDNC); **South Carolina:** Oconee Co.: Mount Rest (Jeff Huether, personal communication); Pickens Co.: Rocky Bottom (Jeff Huether, personal communication). **Tennessee:** Blount County (FSCA); Sevier Co.: Great Smoky Mountains National Park, on dead fraser fir (JPHC); Gatlinburg, 23-VII (OSUC); **West Virginia:** Jackson Co.: Ripley, 25-VI (CUIC); Morgan Co.: Paw Paw, 23-VI (MCZ); Nicholas Co.: Richwood, 4/VII, on *Hydrangea arborescens* (FSCA); Pendleton Co.: 5 mi. NW of Ruddle; 16 June 1993, J. D. Hacker, Malaise trap (WVDA); Pocahontas Co.: Droop, State Hwy 39/55, @ junction Hill Creek Falls Road, 8-VIII-2009 elevation 3390', 38°10.51'18 N/80°20.21'55 W, Coll: J. M. Leavengood, Jr. & E. Chapman (JMLC); Pocahontas Co.: Monongahela National Forest, Tea Creek Campground, on flowers, 25-26-VI-2010 elevation 3350', 38°10.51'18 N/80°20.21'55 W, Coll: J. M. Leavengood, Jr. w/ EG Chapman & MV Spelman (JMLC); Pocahontas Co.: Monongahela Natl. For., Cranberry Glades, 8 July 1986, M. C. Thomas (WVDA); Spruce, 8 August 1971, P. D. Hardwood (WVDA); along Williams River Road, from Tea Creek Campground to SR 150, 26-VI-2010, 38°20.99'N, 80°12.76'W, EG Chapman, JM Leavengood and MV Spelman (EGCC); Webster Co.: Monongahela Natl. For., 10 mi. NW Richwood, 9 July 1986, H. V. Weems Jr. (WVDA).

Discussion of *Leptura subhamata*. Records from Georgia, **new state record**, represent the southernmost known limits of this species. This is not to suggest the "discovery" or expansion of the species

in these areas, but rather that the lack of a recent revision of this group has resulted in incomplete published distributions.

***Heterosternuta cocheconis* (Fall)**

Distribution Records for *Heterosternuta cocheconis* (Fall). **West Virginia:** Pocahontas Co.: tributary to Tea Creek at Tea Creek campground, east of Williams River Road, 38°20.99'N, 80°12.76'W, 2988 m elev., 8 August 2009 (EGCC); tributary to Tea Creek at Tea Creek campground, east of Williams River Road, 38°20.99'N, 80°12.76'W, 2988 m elev., 27 June 2010 (GCIM).

Discussion of *Heterosternuta cocheconis*. These collections from West Virginia, **new state record**, extend this species' southern distribution at least 350 miles south-southwest. This is not to suggest the "discovery" or expansion of the species in these areas, but rather that the lack of a recent revision of this group has resulted in incomplete published distributions.

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Literature Cited

- Larson, D. J., Y. Alarie, and R. E. Roughley. 2000.** Predaceous diving beetles (Coleoptera: Dytiscidae) of the Nearctic Region, with emphasis on the fauna of Canada and Alaska. NRC Research Press; Ottawa., XIV + 982 p.
- Lingafelter, S. W. 2007.** Illustrated key to the long-horned woodboring beetles of the eastern United States. Coleopterists Society, Special Publication No. 3: 1–206.
- Linsley, E. G., and J. A. Chemsak. 1972.** Cerambycidae of North America Part VI, No. 1. Taxonomy and classification of the Subfamily Lepturinae. University of California Publications in Entomology 69: 1–138 p.
- Linsley, E. G., and J. A. Chemsak. 1976.** Cerambycidae of North America. Part VI, No.2. Taxonomy and classification of the Subfamily Lepturinae. University of California Publications in Entomology 80e: 1–186 p.
- Matta, J. F., and G. W. Wolfe. 1981.** A revision of the subgenus *Heterosternuta* Strand of *Hydroporus* Clairville (Coleoptera: Dytiscidae). Pan-Pacific Entomologist 57: 176–219.
- Monné, M. A., L. G. Bezark, and F. T. Hovore [Compilers]. 2007.** Checklist of the Cerambycidae, or long-horned beetles (Coleoptera) of the Western Hemisphere. BioQuip Products; Rancho Dominguez, California. 417 p.

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