

Azana sinusa Coher, 1995 (Diptera: Mycetophilidae: Sciophilinae): remarks on range extension and collection records

Zachary L. Burington

Clemson University, Department of Entomology Soils and Plant Sciences. 114 Long Hall. 29634-0315. Clemson, SC, USA.
Email: keroplatus@gmail.com

ABSTRACT: I present a summary of the range of the North American sciophiline fungus gnat *Azana sinusa* Coher based on previous publications, and new records of the species from South Carolina, USA. These new records result in a ~1200 km range extension.

Azana Walker (1856) is a worldwide genus containing 14 extant species and occurs in all regions except Australasia (Kerr 2010). It is closely related to 10 other sciophiline genera known together as the “*Azana* group”, distinguished by reduced medial, cubital and anal wing veins (Amorim *et al.* 2008). The genus was first recorded in the Nearctic by several authors in the early and mid-20th century, with unconfirmed records from Maine (Johannsen 1912), Cape Breton Island in Nova Scotia, and Minnesota (Laffoon 1965). Though these earlier records are unreliable, they were probably of *A. sinusa*, described by Coher (1995) from Massachusetts, New Hampshire, and Maine. Two *Azana* species have recently been described from California (Kerr 2010), though *A. sinusa* remains the only recorded eastern species. Little is known of its adult or immature biology, although mouthpart morphology suggests that the adults are nectar feeders (Coher 1995).

Previously undocumented specimens of *A. sinusa* from South Carolina were discovered in the Clemson University Arthropod Collection, Clemson, South Carolina, USA, (CUAC) and examined with a Wild M5 stereo microscope. A habitus photograph was assembled from 30 macrophotographs using Helicon Focus image stacking software and retouched with GIMP (Figure 1). They are deposited in the CUAC.

Material examined: USA: SOUTH CAROLINA: Barnwell Co., Savannah River Site, Pen Branch @ SRP Rd. B (PB1), 33°12'30" N, 81°38'05" W, Malaise trap, 22.ii.1996, Womble, 1♀; Colleton Co., Walterboro, 4.iii.1989, Moulton, 2♀♀, 1♂.

Summary of collections not examined (Coher 1995): CAN: NS: Cape Breton Is. (unconfirmed); USA: MA: Franklin Co., Leverett, 13, 16, 17, 20, 22, 26.ix.1952; ME: York Co, West Lebanon, 16-29.x.1990; NH: Coos Co., Mt. Washington, Tuckerman's Ravine (640 m), 4.ix.1940; Grafton Co, White Mts, Galehead Trail (609 m), 31.viii.1951; Rockingham Co., Odiorne Point, 14-15.ix, 5-13, 14-20.x.1983; Strafford Co.,

Durham, 11.x.1954; MN (unconfirmed).

Current distribution: Maine south to South Carolina west to the Appalachian Mountains. These specimens represent a range extension of ~1200km for the species,



FIGURE 1. Left habitus of male *Azana sinusa*, Walterboro, SC, 4.iii.1989.

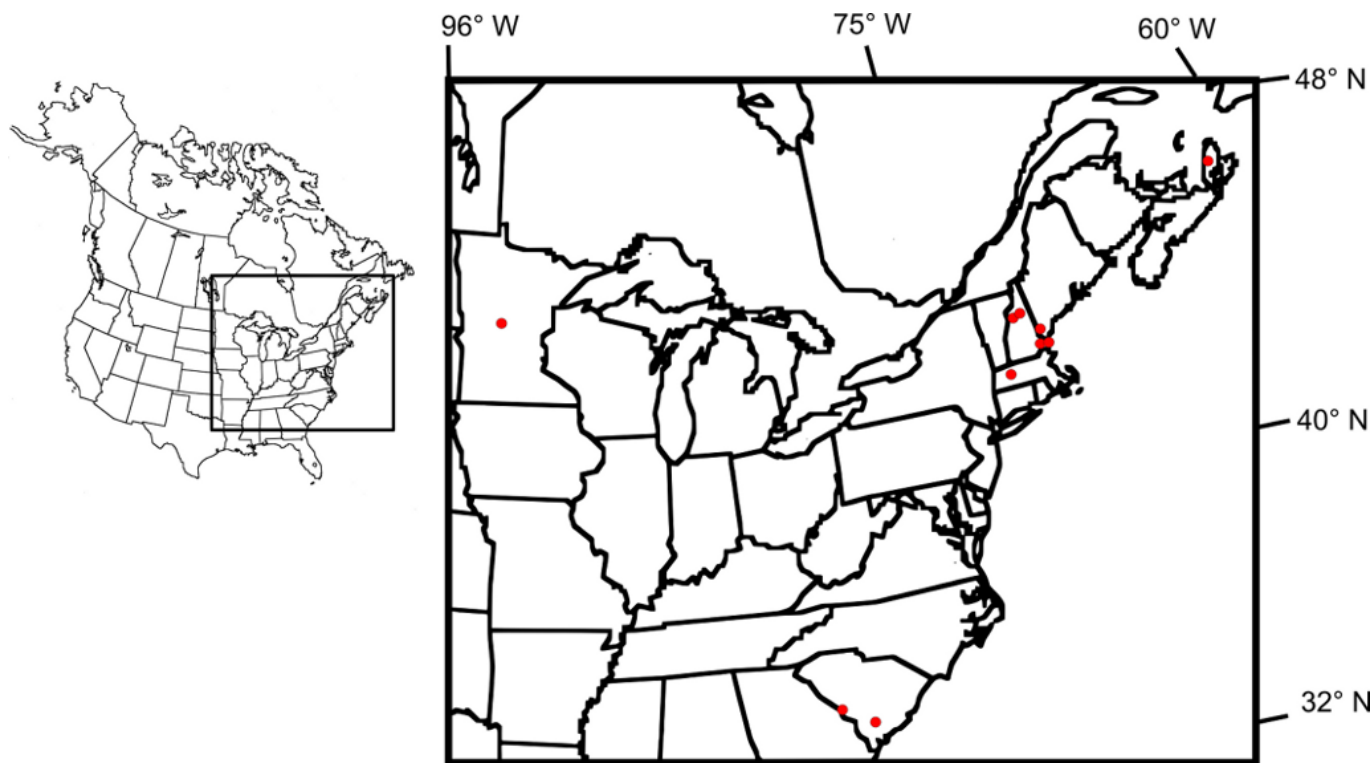


FIGURE 2. Range map of *A. sinusa* in Eastern United States and Canada, including unconfirmed records.

reaching southward to at least 33° N latitude. Pooled records from Coher (1995) and this manuscript are included in the distribution map (Figure 2), along with earlier unconfirmed records. These new data suggest *A. sinusa* has a wider distribution in Eastern North America than previously believed, though it is rarely collected, and never in large numbers. The distribution and taxonomy of Nearctic fungus gnats have been largely neglected for the past 50 years; this scientific note is a small step towards some resolution.

ACKNOWLEDGMENTS: Thanks go to Drs. John Morse and Peter Adler for critically reviewing this manuscript, and to Drs. Stephanie Kautz, Margaret Thayer, and the Chicago Field Museum for use of photographic equipment and image software. This is Technical Contribution No. 5917 of the Clemson University Experiment Station.

LITERATURE CITED

Amorim, D.S., S.S. Oliveira and M.I.P. Balbi. 2008 *Azana atlantica*, n.sp., with reduced mouthparts and two ocelli: first record of *Azana* for the Neotropical region (Diptera: Mycetophilidae: Sciophilinae). *Zootaxa*, 1789: 57–65.

Coher, E.I. 1995. A contribution to a revision of the genus *Azana* Walker, 1856 (Insecta: Diptera: Mycetophilidae: Sciophilinae). *Reichenbachia* 31(17): 83–91.

Johannsen, O.A. 1912. The Fungus Gnats of North America, Part III. *Maine Agricultural Experimental Station Bulletin* 196: 249–328.

Kerr, P.H. 2010. New *Azana* species from Western North America (Diptera: Mycetophilidae). *Zootaxa* 2397: 1–14.

Laffoon, J. L. 1965. Family Mycetophilidae (Fungivoridae); p. 196–229 In A. Stone, C.W. Sabrosky, W.W. Wirth, R.H. Foote, and J.R. Coulson (ed.). *A Catalog of the Diptera of America North of Mexico*. Washington D.C.: Agricultural Research Service, Agricultural Handbook 276, US Department of Agriculture.

Walker, F. 1856. Diptera. Part V; p. 415–474 In Walker, F. *Insecta Saundersiana: or characters of undescribed species in the collection of William Wilson Saunders, Esq., F.R.S., F.L.S., andc.* Vol. I. London: John Van Voorst.

RECEIVED: April 2011

LAST REVISED: October 2011

ACCEPTED: August 2011

PUBLISHED ONLINE: December 2011

EDITORIAL RESPONSIBILITY: Marcelo Ribeiro Pereira