

NORTHERN RANGE EXTENSION OF *ACANALONIA CONICA* (HOMOPTERA: ACANALONIIDAE)¹

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ABSTRACT: The acanaloniid planthopper *Acanalonia conica* (Say) is newly recorded from Connecticut, New York, and Pennsylvania. This northern extension of the known distribution is attributed to natural dispersal of more southern populations.

Acanalonia conica (Say), a common fulgoroid in much of the eastern United States, ranges south into Central America. The northernmost records, as cited in the catalogue of Homoptera (Metcalf 1954), are from Delaware, Maryland, and Ohio. In this paper we are giving new records from Connecticut, New York, and Pennsylvania and suggesting that populations of *A. conica* have moved northward in recent years.

The following distribution records are based on personal collecting and specimens in the insect collections of the American Museum of Natural History, New York (AMNH); Cornell University, Ithaca, NY (CU); Pennsylvania State University, University Park (PSU); Pennsylvania Department of Agriculture, Harrisburg (PDA); State Univ. New York, College Environ. Sci. & For., Syracuse (SUNY-ESF); and U.S. National Museum, Washington, DC (USNM). Complete data are cited for all specimens except the large numbers collected by students at Ithaca and Syracuse, NY, and State College, PA; for those localities only the earliest date of collection is listed, plus the range of collection dates for additional specimens. We also checked the collections of the Carnegie Museum of Natural History, Pittsburgh, PA, Connecticut Agricultural Experiment Station, New Haven, and the New York State Museum, Albany, for possible northern records of *A. conica*, but no specimens pertinent to this study were found.

CONNECTICUT. Fairfield Co., Westport, 6 Sept. 1967, M.A. Deyrup.

NEW YORK. Madison Co., Cazenovia, 27 Aug. 1975. Monroe Co., Rochester, 3 Sept. 1972, B. Hughes. Nassau Co., Hicksville, 14 Aug. 1974, M. O'Brien. Onondaga Co., Collamer, 8 Oct. 1972; Jamesville, 8 Oct. 1972, J. Blake; Syracuse, 17 Sept. 1968, D. Hoover; same date, G. Kelly, and 49 collections, from 28 July-20 Oct. 1968-79; Tully, 13 Oct. 1971, S. Bosch. Ontario Co., Geneva, 4 Sept. 1973, H. Tashiro. St. Lawrence Co., Cranberry Lake, 1 Sept. 1955. Suffolk Co., 1 Aug. 1972, G. Licata; Caumsett State Park, 21

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Aug. 1977, G.C. Eickwort. Tompkins Co., Ithaca, 6 Sept. 1956, H.E. Evans, and numerous student collections, from 5 Aug.-24 Sept. 1966-79; Ludlowville, 5-6 Sept., 1971, L.L. Pechuman, and several collections 1974-80. Ulster Co., Walker Valley, Aug. 1955. Wayne Co., Sodus, 18 Aug. 1974.

PENNSYLVANIA. Bucks Co., Feasterville, 10 Sept. 1956 and 24 July 1967, E.E. Simons. Butler Co., Butler, 18 Aug. 1971, A.G. Wheeler, Jr. Centre Co., Benner Springs, 4 Sept. 1978, J.O. Pepper; State College, 28 July 1949, S.W. Frost, and 6 collections, from 21 July-6 Oct. 1977-79. Chester Co., Seven Stars, 20 Aug. 1974, T.J. Henry and A.G. Wheeler, Jr. Dauphin Co., Harrisburg, 25 July 1958, E.U. Balsbaugh, Jr. Delaware Co., Oakmont, 14 Oct. 1932, G.B. Slesman; Swarthmore, 31 July, 6 Aug. 1960 and 12 Aug. 1961, R.G. Beard. Franklin Co., Blue Ridge Summit, Aug. 1915. J.A. Hyslop. Lancaster Co., Ephrata, 3 Sept. 1971, A.G. Wheeler, Jr.; Manheim, 17 July 1979. A.G. Wheeler, Jr. Lebanon Co., Lebanon, 18 July 1979, S. Royer. Lehigh Co., Allentown, 22 Aug. 1973, L. Signorovitz; Orefield, 19 July 1972, J. Spirk, Montgomery Co., Conshohocken, 20 July 1939, L. Stannard. Northampton Co., Easton, 13, 15 Aug. 1973, J. Spirk, Philadelphia Co., Morris Arboretum, 11 July 1979, A.G. Wheeler, Jr. Washington Co., McMurray, 6 Aug. 1973, D. Trelka. York Co., Manchester 16 Aug. 1973, W.E. Blosser.

The first known Pennsylvania record — 1915 from Blue Ridge Summit on the Maryland state line — hardly represents a range extension; a northward shift in populations of *A. conica*, as reflected by museum specimens, is not apparent until the 1930's. Records from various collections show a progressive movement: southeastern Pennsylvania (1930's), central portions of the state (1940's and 50's), and New York at Ithaca (1956) and Syracuse (1968). An earlier, more northern record (Cranberry Lake, NY, 1955) may represent merely a fortuitous collection. Only in the last 10-12 years have students in introductory entomology courses at Cornell and SUNY-Syracuse collected large numbers of specimens. In 1974 this fulgoroid was represented in about 50 to 100 collections made by Cornell students.

Available evidence suggests that *A. conica* has moved northward in recent years. This species was not recorded in the lists of western Pennsylvania Hemiptera (Wirtner 1904), Homoptera of New York's Cranberry Lake region (Osborn 1922), New York insects (Leonard 1928), or Connecticut Homoptera (Van Duzee 1923); nor was it among the fulgoroids found associated with ornamental plants in Connecticut (Walden 1922, 1927). We also feel that Roy Latham, a well-known naturalist who by the 1960's had assembled an extensive collection of Long Island insects (Pechuman 1969), would not have overlooked this distinctive, gregarious species that often congregates on stems of woody plants.

The known distribution of *A. conica* now has been brought nearly to Lake Ontario in western New York (Sodus) and to the Adirondacks in northeastern New York (Cranberry Lake). Changing faunal ranges often involve artificial spread with man's commerce or long-distance movement with convective air currents. Although we cannot dismiss these factors, we

feel that the influx of this fulgoroid into Pennsylvania, New York, and Connecticut represents a relatively recent natural and progressive dispersal of more southern populations.

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