

## SOUTHERN RANGE EXTENSION OF A PALEARCTIC STINK BUG, *PICROMERUS BIDENS* (HEMIPTERA: PENTATOMIDAE), IN NORTH AMERICA<sup>1</sup>

A.G. Wheeler, Jr.<sup>2</sup>

**ABSTRACT:** The Palearctic *Picromerus bidens* is a predacious stink bug (Pentatomidae: Asopinae) that was first collected in North America in 1932 (Maine) but not reported until 1967 (Maine and Vermont). Other published North American records are Ontario, Quebec, and the Maritime Provinces in Canada; all other New England states (except Connecticut); and northern New York. Pennsylvania is given as a new state record, and additional New York records extend the range in that state to the south-central region.

*Picromerus bidens* (L.) is a common Palearctic pentatomid whose bionomics are well known. This asopine is univoltine, overwinters in the egg stage, and preys mainly on coleopteran, hymenopteran, and lepidopteran larvae that feed on herbaceous and woody plants; adults are most often collected from mid-July to early October (e.g., Javahery 1986, Stehlík 1987, Larivière and Larochelle 1989). Although *P. bidens* was collected in Maine in 1932, it was not recorded from North America until Cooper (1967) reported collecting adults at Union Village, Vermont, during 1962-1966, and mentioned a specimen from Lincoln, Maine, found among undetermined material in the National Museum of Natural History, Smithsonian Institution, Washington, D.C. (USNM). Perhaps because this potentially important predator might help suppress densities of certain crop pests, its spread has been followed more closely than that of many other insects that are adventive in North America. It has since been reported from New Hampshire (Lattin and Donahue 1969), Quebec (Kelton 1972), Massachusetts and New York (Larochelle and Larivière 1980), and New Brunswick, Nova Scotia, Ontario, Prince Edward Island, and Rhode Island (Larivière and Larochelle 1989). North American populations of *P. bidens* probably have resulted from the importation of nursery stock or other horticultural products rather than an intentional introduction for biological control (Javahery 1986, Larivière and Larochelle 1989).

Previously, the southernmost record of *P. bidens* in North America was Chepachet, Rhode Island (Larivière and Larochelle 1989). The following records of adults extend the known Nearctic distribution of *P. bidens*, with the record from Pennsylvania about 330 km from the Rhode Island locality and about 120 km south. Voucher specimens have been deposited in the Cornell University Insect Collection, Ithaca, NY (CUIC), and the USNM.

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<sup>1</sup> Received August 29, 1998. Accepted September 19, 1998.

<sup>2</sup> Department of Entomology, Clemson University, Clemson, S.C. 29634-0365.



NEW YORK: Cortland Co., Cortland, 16 September 1995, S. Berry (1 ♀); Tompkins Co., Ithaca, 8 September 1997, C. McDonald (1 ♀) and 29 September 1997, T. Clark (1 ♂). PENNSYLVANIA: Monroe Co., S. of Long Pond, 41°01'N, 75°28'W, 600 m, 19 July 1998, A.G. Wheeler, Jr., ex *Aronia* sp. (1 ♂).

The Pennsylvania specimen, from pitch pine-scrub oak barrens, was beaten from *Aronia* sp. (Rosaceae) in a hedgerow of predominantly scrub oak, *Quercus ilicifolia* Wangenh., along a gas pipeline right-of-way. New York specimens, from collections of Cornell University students, lack habitat information.

The occurrence of *P. bidens* in south-central New York and northeastern Pennsylvania likely is quite recent. Specimens have been found only since 1995 in collections made by Cornell students. In Pennsylvania, *P. bidens* was collected within a kilometer of pine-barrens sites where I inventoried Miridae associated with scrub oak (Wheeler 1991) and Fulgoroidea of scrub oak and pitch pine, *Pinus rigida* Mill. (Wheeler and Wilson 1996). *Picromerus bidens* was not encountered in those surveys.

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