

NOTE

Crophius disconotus (Say) (Hemiptera: Lygaeoidea: Oxycarenidae):
Southeastern Extension of the U.S. Range, with Rectification
of an Old Alabama Record

The nine North American species of *Crophius* Stål are mostly boreal and western (Ashlock and A. Slater 1988, Hoffman 1996). In addition, seven Neotropical species are known from Mexico to Peru and Argentina (Slater 1964, Slater and O'Donnell 1995). Hoberlandt (1987) tentatively synonymized *Crophius* with the Old World *Anomaloptera* Amyot and Serville. The synonymy was followed in the recent catalog of Palearctic Heteroptera; included in *Anomaloptera* were *A. bermani* Vinokurov, described in *Crophius* and known only from East Siberia, and the type species *A. helianthemi* Amyot and Serville, a mainly Mediterranean oxycarenid (Péricart 2001). Because the generic name *Crophius* continues to be used in North American literature (e.g., Scudder 1997, Maw et al. 2000, Sweet 2000), it is used herein, pending taxonomic reevaluation of Old and New World species of the two genera.

Crophius disconotus (Say) is an infrequently collected lygaeoid of the Oxycarenidae (*sensu* Henry 1997) that has been termed rare (Van Duzee 1894), rather rare (Torre-Bueno 1915), scarce (J. A. Slater and Baranowski 1978), and uncommon (Sweet 2000). Although this species was described from "Missouri" by Say (1832), no specimens from Missouri were available when Froeschner (1944) treated that state's lygaeid fauna.

Known in Canada from New Brunswick to the Yukon (Maw et al. 2000), *C. disconotus* is recorded in the western United States from Alaska, California, Colorado, Utah, and Wyoming (Ashlock and A. Slater 1988, Scudder 1997). Eastern U.S. records are mainly from New England, New York, and the mid-Atlantic states (Ashlock and A.

Slater 1988). The southern limit of its eastern range has been Alabama (Van Duzee 1917, Blatchley 1926, J. A. Slater 1964, Ashlock and A. Slater 1988), based on Van Duzee's (1910) record from "Banff Springs." In listing Heteroptera from the Yukon, Scudder (1997) followed Henry and Froeschner's (1988) catalog in recording general distributions for species. Scudder (1997), however, did not include the Alabama record for *C. disconotus* that was listed in the lygaeid chapter of the catalog (Ashlock and A. Slater 1988) and probably realized that Banff Springs referred to Alberta, Canada. This seed bug is listed from Alberta in the recent checklist of Canadian Heteroptera (Maw et al. 2000). The published southern limit of the range of *C. disconotus* in the East, therefore, is Blacksburg, Virginia, where an adult was taken on 3 July 1961 (Hoffman 1996).

The following records extend the known southeastern range of *C. disconotus*. I collected all specimens and have deposited voucher material in the National Museum of Natural History, Smithsonian Institution, Washington, D.C. (USNM).

USA: GEORGIA: Madison Co., Rt. 106, N of Ila, 11 Sept. 1996, 1 ♂, ex crown of *Eragrostis curvula*. NORTH CAROLINA: Buncombe Co., nr Craggy pinnacle, ca. 6 km SSE of Dillingham, ca. 1,735 m, 14 Sept. 2003, 1 instar IV, ex inflorescences of *Solidago arguta*; Haywood Co., Black Balsam Knob, ca. 1,860 m, 29 Sept. 2002, 1 ♂, 1 ♀, ex inflorescences/seed heads of *S. puberula*; 6 Oct. 2002, 14 ♂, 9 ♀, ex seed heads of *S. puberula*; Jackson Co., Rt. 64E, Cashiers, 25 Oct. 1998, 1 adult (not collected), ex crown of *E. curvula*; Mitchell Co., Roan Mountain, Carver's Gap, ca.

1,685 m, 31 Aug. 2003, 3 ♂, 1 ♀, ex basal leaves of *S. puberula*. TENNESSEE: Carter Co., Roan Mountain, Carver's Gap, ca. 1,685 m, 27 Oct. 2002, 5 ♂, 4 ♀, ex basal leaves of *S. puberula*; 31 Aug. 2003, 1 ♂, 1 ♀, ex basal leaves and 1 ♀ ex inflorescences of *S. puberula*.

Georgia, North Carolina, and Tennessee are new state records for *C. disconotus*. In the Southeast, I encountered most adults at higher elevations (1,685–1,860 m) in the southern Appalachians. Only one adult was found in the piedmont of Georgia (ca. 250 m), and *C. disconotus* was not observed in the mountains or piedmont of South Carolina despite extensive collecting. No specimens of this seed bug from Georgia, North Carolina, or South Carolina were found in collections at Clemson University (CUAC), North Carolina State University (NCSU), University of Georgia (UGCA), or the USNM.

My collections of adults and a fourth instar of *C. disconotus* from *Solidago* spp. (Asteraceae) support an association with goldenrod that has been mentioned by others (Van Duzee 1894; Torre-Bueno 1924, 1925; Sweet 2000). Nymphs have not been described, but a fourth instar of *C. disconotus* was beaten from the inflorescence of *S. arguta* Ait. in Buncombe County, North Carolina; the nymph molted once but died as a fifth instar. Native North American oxycarenids are thought to feed on members of the Asteraceae (Sweet 2000). Collections from oak (*Quercus*; Fagaceae) (Torre-Bueno 1912) and pine (*Pinus*; Pinaceae) (J. A. Slater and Baranowski 1978) likely represent resting records, as might the collection from *Polygonum sachalinense* F. Schmidt ex Maxim. (Polygonaceae; as "*Polygonum sachaliense*") (Procter 1946). This oxycarenid also has been found in root mats of *Polemonium pulcherrimum* Hook. (Polemoniaceae) (Scudder 1997).

Still in question is whether nymphs of *C. disconotus* develop on goldenrods. If so, do they feed on seed heads of their hosts and on fallen seeds, as do nymphs of a Palearc-

tic oxycarenid, *Metapoplax origani* (Kolenati), on asteraceous plants (Stehlík and Vavřínová 1996)? Do nymphs of *C. disconotus* feed on seeds of other Asteraceae or even those of other families? Further study also is needed to address other aspects of the bionomics of *C. disconotus*, such as voltinism, as well as resolve the taxonomic status of *Anomaloptera* and *Crophius* and evaluate the biogeography of a small group that seems in need of cladistic analysis.

Acknowledgments.—I thank Thomas Henry (Systematic Entomology Laboratory, Agricultural Research Service, U.S. Department of Agriculture, c/o National Museum of Natural History, Smithsonian Institution, Washington, D.C.) for providing copies of several references and examining the nymph of *C. disconotus*, Patrick McMillan (Department of Biological Sciences, Clemson University) for identifying plants, Peter Adler (Department of Entomology, Soils, and Plant Sciences, Clemson University) for providing comments that improved the manuscript, and Robert Blinn (Department of Entomology, North Carolina State University, Raleigh) and Cecil Smith (Department of Entomology, University of Georgia, Athens) for checking for specimens of *C. disconotus* at NCSU and UGCA, respectively.

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Wheeler, A. G. 2004. "Crophius disconotus (Say) (Hemiptera: Lygaeoidea: Oxycarenidae): Southeastern extension of the U.S. range, with rectification of an old Alabama record." *Proceedings of the Entomological Society of Washington* 106, 725–727.

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