

Velvety Shore Bugs in Virginia (Heteroptera: Ochteridae)

Richard L. Hoffman*

Virginia Museum of Natural History
21 Starling Avenue
Martinsville, Virginia 24112

ABSTRACT

Distributional records are provided for *Ochterus americanus* (Uhler) (new state record) and *O. banksi* Barber in Virginia, and several points of difference in structure are discussed as regards utility in distinguishing the two species.

Key words: *Ochterus*, Ochteridae, Heteroptera, Virginia, distribution.

The family Ochteridae is represented in the Virginia fauna by two species of the genus *Ochterus*. These small, active, predatory bugs are typically associated with shoreline habitats of ponds and small streams. When these insects were treated by Marvin Bobb (1974) in his fascicle on aquatic and semiaquatic Heteroptera of Virginia, *O. americanus* had not been documented for our fauna although it was known from many eastern states, and he had seen material of *O. banksi* from only a few localities. In recent years the VMNH has acquired a number of specimens, mostly taken incidentally by static trapping procedures, which justify a brief review of current knowledge of the in-state occurrence of the genus. Our resident species were thoroughly described by Blatchley (1926), and their original descriptions were quoted in the revision of the genus by Schell (1943).

Compared to other “shore bugs” such as gelastocorids and saldids, ochterids are not readily collected by traditional (manual) techniques; the majority of the VMNH specimens were captured in pitfall traps set in wet places. I have found *O. banksi* only twice in many decades of visual search, and Bobb (1974) found that species only at five places near Charlottesville (and *O. americanus* not at all) despite his statewide surveys that were productive for other littoral heteropterans. On the other hand, Blatchley (1926) noted that *O. americanus* was “Frequent along the mucky margins of ponds near Dunedin [Florida] and often taken by sweeping low herbage in such places.”

Ochterids are generally very similar in external appearance. A difference in shape of the hemelytral membrane mentioned by Blatchley (1926: 1020), “long and narrow” in *O. banksi*, is not evident in Virginia material. Drawings made on tracing paper and superimposed show the same proportions in both species. Blatchley also noted a relatively broader pronotum in *O. americanus*: 2.5 times as broad as long against only about twice as long in *O. banksi*. In Virginia specimens such a difference is not as pronounced: my measurements yield ratio values of 2.4 for *O. americanus* and 2.2 for *O. banksi*. A difference in pronotal outline can be confirmed, in that the anterior “corner” is slightly angulate in *O. americanus* as opposed to evenly rounded in *O. banksi* (Fig. 1).

The difference in coloration is the most diagnostic feature and allows confident species recognition. The pronotum of *O. americanus* is uniformly piceous or black, marked only by the small, nearly round yellow spot at anterior angle; in *O. banksi* the yellow spot is larger, more elongate, and merges into a pale testaceous or amber marginal band that continues to the posterior angle.

Ochterus americanus (Uhler) **NEW STATE RECORD**

Cumberland Co.: “north clearcut” DF site, 2 km SW of Columbia, 2 September (1) and 30 September (1) 1990, both J. C. Mitchell. *City of Richmond:* University of Richmond campus, 8 April (no year), Naomi Lewis (1). *City of Virginia Beach:* First Landing (Seashore) State Park, “mesic” DF site, 18 August 1989, K. A.

*Deceased. Map prepared by Steve Roble, *Banisteria* editor.

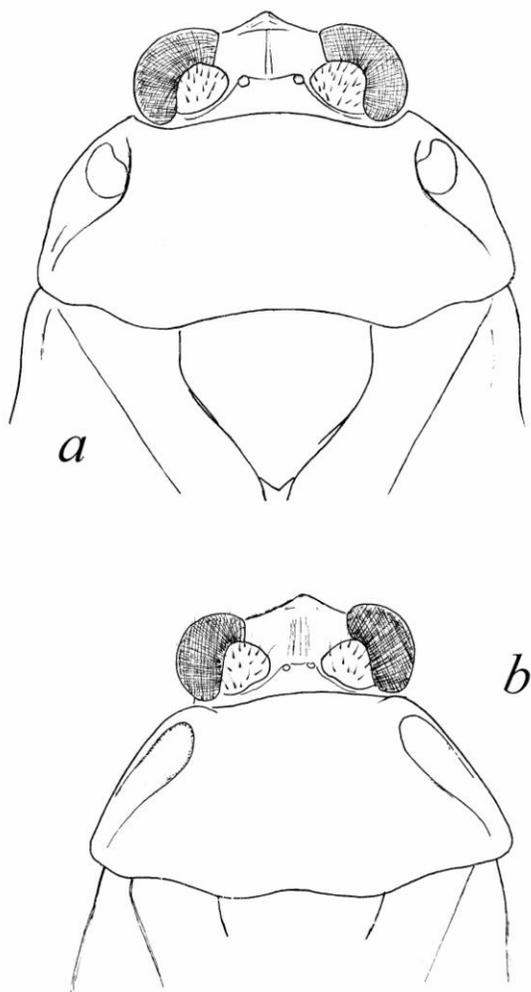


Fig. 1. A. *Ochterus americanus* (Uhler), head and pronotum, dorsal aspect. Yellow color is restricted to the rounded spot in the pronotal explanation. B. *Ochterus banksi* Barber, head and pronotum, dorsal aspect. Yellow color at the anterior third of the outlined area grades into a light testaceous brown extending to posterior angle.

Buhlmann (2); Dam Neck Navy Base, interdunal swale DF site, 12 October (1) and 30 November (1) 1990, both K. A. Buhlmann.

The states of record cited by Polhemus & Polhemus (1988) for *O. americanus* fairly encompass eastern United States except for the extreme southeast. Their citation for "Va." is not supported by reference to either voucher material or a publication. The VMNH specimens listed above represent localities on the Coastal Plain, Fall Line, and central Piedmont. The two species are syntopic at two of these sites and were collected on the same dates in the same pitfalls: Dam

Neck Navy Base, 12 October 1989 (1 *O. americanus*, 3 *O. banksi*), and the "north clearcut site" in Cumberland County, 2 September 1990 (1 *O. americanus*, 1 *O. banksi*). Both species also were taken separately at these sites on different dates.

Ochterus banksi Barber

Augusta Co.: Warehouse Marsh Preserve, near Stuarts Draft, 20 June 2002, S. M. Roble (1). *Cumberland Co.*: "north hardwoods" DF site, 2 km SW of Columbia, 16 July 1990 (2); "north clearcut" DF site, 2 km SW of Columbia, 2 September 1990 (1); "south clearcut" site, 5.5 km SW of Columbia, 15 August 1990 (1), all J. C. Mitchell. *Giles Co.*: Dismal Creek, 4 mi NE of Mechanicsburg, 11 June 1977 (1), R. L. Hoffman. *Scott Co.*: Glady Fork wetlands DF site, end of FS 267S, ca. 5 mi NW of Dungannon, High Knob area, 22 July-18 August 1993 (1), C. S. Hobson and S. M. Roble. *City of Virginia Beach*: Dam Neck Navy Base, dune DF site, 7 September 1990 (4); same but interdunal swale DF site, 4 July (1), 1 August (4), 12 October (3), and 30 December (1) 1990, all K. A. Buhlmann.

The distributions of these two bugs (Fig. 2) invite clarification, owing to ambiguity of old records for "*americanus*" and general scarcity of material in collections. In general, *O. banksi* occupies a more southern range: Massachusetts to Florida and Texas, north in the Interior to Indiana, which is consonant with the VMNH records for Virginia Beach and Cumberland County. Our two samples from Giles and Scott counties are, however, embedded in the Ridge and Valley province of western Virginia and are geographically disjunct in that respect. *Ochterus banksi* was described from Arlington County (Glencarlyn), Virginia (Barber, 1913); Fairfax County (Vienna) was added by Schell (1943) and Bobb (1974) had seen specimens from Albemarle (Charlottesville area) and Alleghany (Clifton Forge) counties. These localities, added to the foregoing, suggest a statewide distribution, and a variety of semiaquatic biotopes utilized.

Working with a population at Charlottesville, Bobb (1971) was able to rear specimens of *O. banksi* from egg to adult and provided detailed descriptions and drawings of all the immature stadia.

ACKNOWLEDGEMENTS

For donations of specimens I am grateful to Kurt A. Buhlmann, Christopher A. Pague, Steven M. Roble (all Virginia Natural Heritage Program) and Joseph C. Mitchell.

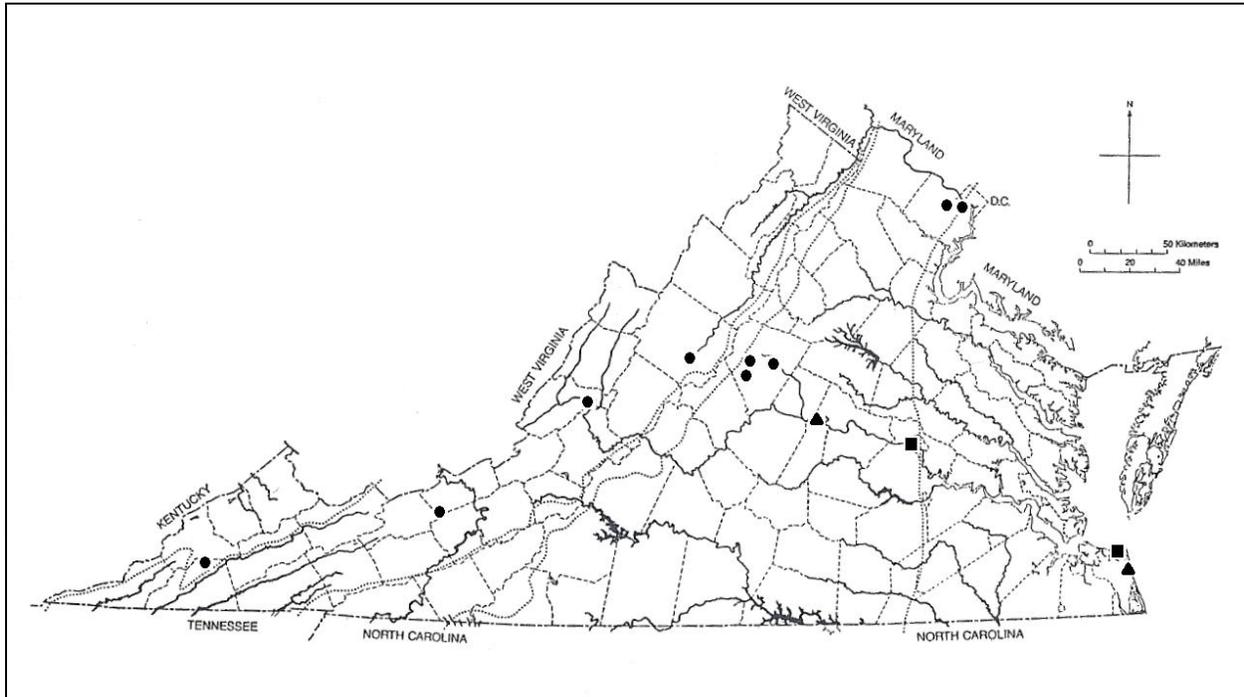


Fig. 2. Known distribution of *Ochterus americanus* (squares) and *O. banksi* (circles) in Virginia. Syntopic sites are indicated by triangles.

LITERATURE CITED

Barber, H. G. 1913. Description of two new species of *Ochterus* Latr. (Hemiptera) with an arrangement of the North American species. *Canadian Entomologist* 45: 213-215.

Blatchley, W. S. 1926. *Heteroptera or True Bugs of Eastern North America with Especial Reference to the Faunas of Indiana and Florida*. Nature Publishing Company, Indianapolis, IN. 1,116 pp.

Bobb, M. L. 1951. The life history of *Ochterus banksi* Barber (Hemiptera: Ochteridae). *Bulletin of the*

Brooklyn Entomological Society 46: 140-145.

Bobb, M. L. 1974. The Aquatic and Semi-Aquatic Hemiptera of Virginia. *Insects of Virginia* 7: 1-195.

Polhemus, D. A., & J. T. Polhemus. 1988. Family Ochteridae Kirkaldy, 1906. Pp. 541-543 *In* T. J. Henry & R. C. Froeschner (eds.), *Catalog of the Heteroptera or True Bugs, of Canada and the Continental United States*. E. J. Brill, Leiden & New York.

Schell, D. M. 1943. The Ochteridae (Hemiptera) of the Western Hemisphere. *Journal of the Kansas Entomological Society* 16: 29-47.