

Shorter Contributions

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DISTRIBUTION OF THE FLIGHTLESS CARRION BEETLE *NECROPHILUS PETTITII* HORN IN VIRGINIA (COLEOPTERA: AGYRTIDAE). — The beetle family Agyrtidae (commonly referred to as “primitive carrion beetles”) consists of about 60 species worldwide, 11 of which inhabit North America north of Mexico (Peck, 2001). *Necrophilus pettitii* Horn, the only member of this family found in the eastern portion of the continent, is a secretive, rarely collected carrion feeder that is primarily active in the cooler months of the year or inhabits cool habitats at higher elevations (Peck, 1981, 2005).

The range of *N. pettitii* extends from Vermont, southern Ontario, and Michigan south to Florida and Louisiana (Peck, 1981, 2005). Most of the available collection records are concentrated in the southern Appalachians (especially near the Tennessee-North Carolina border), with only one previously documented locality in Virginia (Peck, 1981, 2005). The latter site is Mountain Lake in Giles County (Peck, 1981).

During the past two decades, pitfall/drift fence (DF) trapping surveys conducted by staff of the Virginia

Museum of Natural History (VMNH) and the Virginia Department of Conservation and Recreation, Division of Natural Heritage (VDCR-DNH), as well as others, have resulted in the accumulation of enormous series of carrion beetles (mostly various species of *Nicrophorus* and *Necrophila americana*, family Silphidae) from throughout Virginia. Included among these collections are more than 30 specimens of *N. pettitii* that greatly expand our knowledge of the distribution of this flightless species in the state. The following specimens are deposited in the VMNH and Arthur V. Evans (AVEC) collections:

Alleghany Co.: Warm Springs Mountain, Big Knob, 4 mi NE Covington, DF site 4, ca. 3800', dry open woods, 15 May-7 October 2002, VMNH/USFS study (VMNH, 1).

Amherst Co.: Tarjacket Ridge, FS 1167, 3500', 5 June 1998, J. Schilling (VMNH, 1).

Floyd Co.: 6 mi SE Willis, Rt. 726, Felker's property, 26 May 1995, J. M. Anderson, VMNH survey (VMNH, 2).

Grayson Co.: Grayson Highlands State Park, Haw Orchard Mountain Visitor Center, DF site 2, 17 September 1990, VMNH survey (VMNH, 1); Whitetop Mountain, DF site off FS 89, 5000', 16 March-23 April

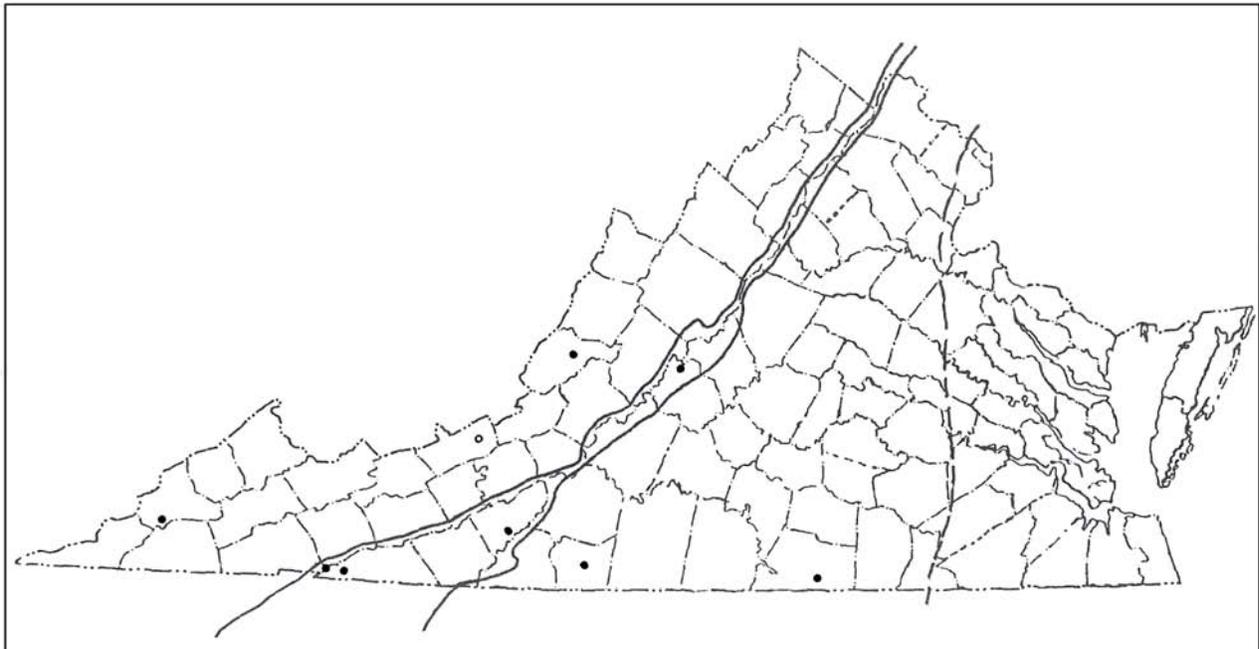


Fig. 1. Known distribution of *Necrophilus pettitii* in Virginia. Solid circles are new records and the open circle is a literature record (Peck, 1981). Solid lines indicate the limits of the Blue Ridge physiographic province and the dashed line marks the location of the Fall Line separating the Coastal Plain and Piedmont regions.

1994, VMNH survey (VMNH, 1).

Henry Co.: DuPont property near Martinsville, 1-7 November 1993, J. M. Anderson, VMNH survey (VMNH, 1).

Mecklenburg Co.: Elm Hill [now Dick Cross] Wildlife Management Area, 7.5 mi SE Boydton, 30 October-27 November 1995 (VMNH, 3), same but [27 November 1995? -] 24 February 1996 (VMNH, 5), all VMNH surveys.

Wise Co.: Powell Mountain Karst Preserve, ca. 1.3 km E Cracker Neck Church, Solomon's Seal Cave pitfall traps, 6-28 April 2009, C. S. Hobson and A. V. Evans, VDCR-DNH survey (AVEC, 1), same but 28 April-13 May 2009, C. S. Hobson and A. C. Chazal, VDCR-DNH survey (VMNH, 8), same but 13-27 May 2009, C. S. Hobson and J. F. Townsend, VDCR-DNH survey (VMNH, 10; AVEC, 1); same locality but rock outcrops at Parsons Cave, 12 May 2009, C. S. Hobson and A.C. Chazal, VDCR-DNH survey (AVEC, 1).

These new collections demonstrate that *N. pettitii* is much more widely distributed in the western portion of Virginia than was previously known (Fig. 1) and the species may be locally common (e.g., Wise Co. site). Four of the localities are in the Blue Ridge, two each are in the Ridge and Valley and the Piedmont, and the westernmost site is at the interface of the Ridge and Valley and Cumberland Plateau regions.

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LITERATURE CITED

Peck, S. B. 1981. Distribution and biology of flightless carrion beetle *Necrophilus pettitii* in eastern North America (Coleoptera: Silphidae). *Entomological News* 92: 181-185.

Peck, S. B. 2001. 18. Agyrtidae C. G. Thomson, 1859. Pp. 247-249 in R. H. Arnett, Jr., & M. C. Thomas (eds.), *American Beetles. Volume 1. Archostemata, Myxophaga, Adephaga, Polyphaga: Staphylini-formia*. CRC Press, Boca Raton, FL.

Peck, S. B. 2005. New distributional records of the flightless primitive carrion beetle *Necrophilus pettitii* Horn in eastern North America (Coleoptera: Agyrtidae). *Insecta Mundi* 19: 123-124.

Steven M. Roble
Virginia Department of Conservation and Recreation
Division of Natural Heritage
217 Governor Street
Richmond, Virginia 23219

Richard L. Hoffman*
Virginia Museum of Natural History
21 Starling Avenue
Martinsville, Virginia 24112

*Deceased