

The Occurrence of *Hemiscolopendra punctiventris* (Newport), an Ecophilous Centiped, in Virginia (Chilopoda: Scolopendromorpha)

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All centipeds possess poison fangs modified from the first pair of legs, and so far as known all are voracious predators. To observe one in the act of capturing and subduing a prey object is to witness the epitome of mindless frenzy. In many parts of the world the larger species of Scolopendromorpha interface negatively with the human beings they encounter, often inflicting multiple bites for no apparent provocation. In the Southwest Pacific theatre of operations during World War II, many servicemen were hospitalized following envenomation by scolopendrids falling into occupied foxholes. In many tropical cities, large individuals find their way even to uppermost floors of high-rise apartments, there to terrorize the occupants.

In eastern United States, north of Florida, only a few species are large enough to inflict palpable injury upon human beings, and of these, only one regularly enters houses and attacks human residents. This is the colorful blue centiped, *Hemiscolopendra punctiventris* (Newport), which ranges as far north as Virginia and Indiana, chiefly at low elevations. The preferred habitat of this animal is the space beneath loose bark of downed pines, although other fallen trees or their limbs may be utilized on occasion. In Virginia, most specimens show a dorsal pattern of light blue terga with darker lateral margins, with the antennae and legs of the same color. Their body length (in life) of about 90 mm (3.5 inches) provides sufficient bulk to impart a formidable mien. The bite has been described as like that of a bee or wasp, accompanied by local swelling and soreness which may persist for several days. There are no known cases of serious complications from the bite of *punctiventris*.

Virtually nothing has been written about the occurrence of this arthropod raptor in Virginia. The only published record known to me is that of Meinert (1883) for Pennington Gap, Lee County. During the past few decades enough data have accumulated to provide a fairly accurate impression of the territory it occupies, as well as some vignettes of its disposition. The following records reflect a distinctly austral range east of the Blue Ridge and south of the James River with only two exceptions. The

species also occurs in extreme southwestern Virginia. All material cited is in the VMNH collection except as otherwise specified (USNM: National Museum of Natural History; MCZ: Museum of Comparative Zoology).

Brunswick Co.: 2.5 mi. (4 km) south of Triplett, 22 June 1960, W. L. Burger. **Campbell Co.:** Lynchburg, Candler Mountain, under board, 10 July 1993, M. S. Hayslett. **Dickenson Co.:** Cranes Nest River, ca 5 mi. (8 km) west of Haysi, 27 April 1962, R. L. Hoffman. **Gloucester Co.:** Gloucester Court House, in home, sent in by county agent. **Henry Co.:** Oak Level, in house, 1 November 1989, B. Wilson; 1 mi. (2 km) south of Martinsville, US Hy. 220, 8 June 1990, R. Mitchell; Martinsville, inside VMNH building, 7 June 1991, N. C. Fraser. **Lee Co.:** Pennington Gap, no date recorded, Hubbard & Schwartz (MCZ). **Mecklenburg Co.:** along Va. Hy. 49 at Nelson P. O., under pine bark, 7 November 1971, R. L. Hoffman & L. S. Knight. **Northampton Co.:** Smith Island, December 1898, W. Palmer (USNM); also 22 September 1988, C. A. Pague. **Pittsylvania Co.:** Camp Shawnee, near Ringgold, 27 June 1993, Lynn Pritchett. **Powhatan Co.:** Provost, jct. Va. Hys. 621 and 684, 24 November 1988, Peggy Palmer. **Prince Edward Co.:** Hampden-Sydney College, 2nd floor Gilmer Hall, June 1990, also 1st floor Gilmer Hall, 5 December 1991, W. A. Shear. **Surry Co.:** Chippokes Plantation State Park, 27 April 1991, K. A. Buhlmann. **City of Norfolk:** residence on Conway Avenue, in bed, A. Thompson (USNM). **City of Virginia Beach:** Seashore State Park, pitfall trap, 1 May 1989, 22 May 1989, 26 July 1989, all VDNH survey, also under pine bark, 8-13 June 1970, R. L. Hoffman, also "Virginia Beach" 7 October 1901, W. Beutenmüller (USNM).

The USNM collection has two specimens ostensibly found at Luray, Page Co., by L. M. Underwood. This locality is biogeographically implausible and may be the result of mislabeling. Unless confirmed, Luray must be considered outside the natural range of the species.

The most interesting incontestable record is that for Smith Island, on the northern side of the Chesapeake estuary. Overwater dispersal by floating pine trunks or

branches affords a plausible explanation for this occurrence. Possibly *punctiventris* enjoyed a more extensive northern distribution during the Hypsithermal Interval (ca. 3,000–9,000 YBP), which would implicate the Smith Island population as relictual.

The distribution of the species in North Carolina has been thoroughly documented by Shelley (1987, Fig. 11), who found it essentially statewide east of the Blue Ridge. *H. punctiventris* is not uncommon in south-central Virginia and can usually be found as desired. Curiously, in Virginia Beach, where the Virginia Division of Natural Heritage conducted numerous pitfall sampling stations over a period of two years, only one or two specimens were obtained. By contrast, dozens of individuals of the equally large *Scolopocryptops sexspinosus* (Say) (family Cryptopidae) were captured at each locality. One initial explanation of this disparity suggests that *sexspinosus*, is prone to forage on the surface at night (and so tumble into pitfalls), in contrast to *punctiventris* which is at least somewhat arboreal and perhaps more inclined to search for its provender under bark.

That the species is surface active is implicit in the frequency with which it enters houses, a trait not peculiar to Virginia. Dr. J. C. Morse recently showed me the material of this species in the Clemson University collection, most sent in for identification, from which the following documentation was copied (all specimens from South Carolina): Cherokee Co., "household"; Edgefield, "in residence"; Elloree, "inside house"; Sixmile, "in house"; Chester, "in shoe under bed, bit child."

Dr. Shear advises me that he was once bitten on the calf by a specimen which entered his ground-level apartment, crossed the room, ascended his leg inside his trousers, and bit him without evident provocation. In the summer of 1993, a resident of Collinsville, Virginia, brought in a *punctiventris* which had fallen into his wife's

hair while she was lying in bed (apparently it was on the ceiling) and bit her scalp during its removal. The pain was described as similar to that of a honeybee sting. Dr. Shelley informed of a bite inflicted on the eyelid of a woman at Raleigh, N. C., who was awakened by a *punctiventris* crawling across her forehead. Pain and topical swelling persisted for several hours after the injury.

Despite the apparent difference in surface activity as reflected by pitfall captures, I have no knowledge of any *S. sexspinosus* ever entering a house, or biting anyone, although the species is just as large as *punctiventris* and as capable of inflicting injury. Is the answer as simple as the latter being more adept at avoiding pitfalls? Perhaps it is a characteristic of all species of Scolopendridae to be more tolerant of dry situations, and thus able to wander into buildings, in contrast to even the largest species of Cryptopidae which avoid such situations?

Acknowledgements

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Literature Cited

- Meinert, F. 1885. Myriapoda Musei Cantabrigensis. Part I. Chilopoda. Proceedings of the American Philosophical Society 21: 161-233.
- Shelley R. M. 1987. The scolopendromorph centipedes of North Carolina, with a taxonomic assessment of *Scolopocryptops gracilis peregrinator* (Crabill). The Florida Entomologist 70: 498-512.

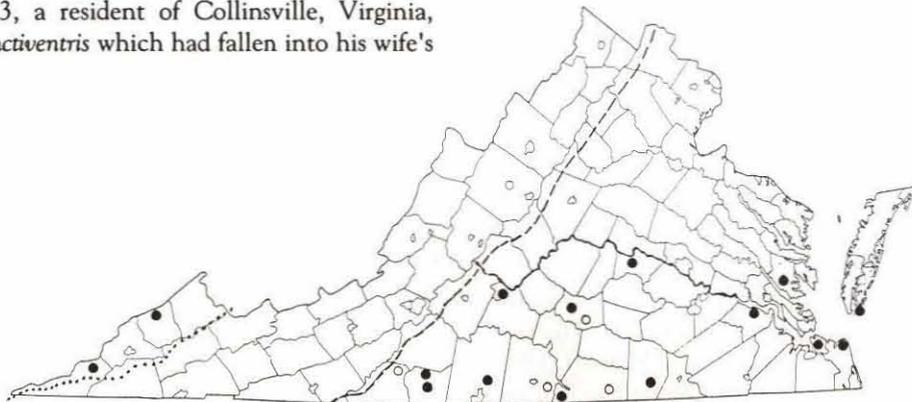


Figure 1. Distribution of *Hemiscolopendra punctiventris* in Virginia. The dashed line shows the eastern edge of the Blue Ridge, and the dotted line the eastern edge of the Appalachian Plateau province. The course of the James River across the Piedmont is highlighted. Several sight or anecdotal records are shown by open circles.