

New Geographic Distribution Records for Herpetofauna in Southwest Virginia, USA

The geographic distribution of amphibians and reptiles in the Appalachian Highlands region of southwest Virginia is relatively well understood. However, portions of this region, particularly the Valley and Ridge and Appalachian Plateau, lack vouchered records for taxa that are typically common and abundant elsewhere in the Appalachian region. Several taxa are also listed as presumably absent from the region in widely-used distributional maps (Conant and Collins 1991; Lannoo 2000), despite being determined as common in adjacent physiographic provinces that lack any logical barriers to dispersal (e.g., Redmond and Scott 1996). Both of these forms of data deficiency preclude more in-depth biogeographic studies of regional taxa and hinder assessments of historical versus current population trends, as is currently of interest given rates of habitat change and pathogen spread across the Appalachian region (Milanovich et al. 2010; Caruso and Lips 2013; Wood and Williams 2013).

We used a combination of opportunistic surveys and a review of previously accessioned but unpublished museum specimens to address these knowledge gaps for the Valley and Ridge and Appalachian Plateau regions of southwest Virginia, USA. All records featuring locality information along the Guest River in Wise Co., Virginia were additionally recorded during a standardized survey of riparian zone herpetofauna during 2012. Survey methods for these records included searching cover objects during area-constrained surveys of twelve one-hectare habitat blocks divided between locations along the Guest River near Norton, Virginia (36.93700°N, 82.60676°W) and within the Jefferson National Forest (36.91888°N, 82.44956°W) on weekly visits from 29 April 2012 to 15 October 2012.

All records reported hereafter build upon the only previous intensive survey of the southwest Virginia region (Mitchell and Pague 1984) and original records published by Burger (1974, 1975). All records represent new county records and have been verified as novel against existing vouchered collections in the Global Biodiversity Information Facility (GBIF) and HerpNet, as well as against reported state-level records with the Virginia Department of Game and Inland Fisheries' Fish and Wildlife Information Service. Vouchers were verified by Philip C. Shelton and are housed at the University of Virginia's College at Wise's Herpetological Collection (UVWHC). Geocoordinates are based on datum WGS84.

CAUDATA — SALAMANDERS

AMBYSTOMA OPACUM (Marbled Salamander). WISE Co.: Under cover above Guest River at the base of Stone Mountain, 5.8 km WSW of Coeburn (36.93068°N, 82.52680°W). 30 October 2011. Maddison Couch. UVWHC 2013-09. Previously considered absent from Appalachian Highlands (Conant and Collins 1991; Redmond and Scott 1996; Lannoo 2000). First vouchered record from western portion of Virginia.

AMBYSTOMA MACULATUM (Spotted Salamander). LEE Co.: In pool along unnamed inflow stream of Keokee Lake, 9.5 km SW of Appalachia (36.85308°N, 82.86552°W). 11 January 2013.

Walter H. Smith, Katie Dunn. UVWHC 2013-13. Aforementioned records comprise the first vouchered specimens in Virginia west of the New River Valley. RUSSELL Co.: Oxbow Lake inflow, 0.8 km WNW of St. Paul (36.90698°N, 82.31970°W). 31 March 2013. Walter H. Smith, Katie Dunn. UVWHC 2013-12. WASHINGTON Co.: In temporary pool (with egg masses present) along Whitetop Laurel Creek, 1.6 km ESE of Damascus (36.62624°N, 81.76793°W). 31 March 2013. Walter H. Smith, Katie Dunn. UVWHC 2013-11. WISE Co.: Under boulder in margin of mine reclamation wetlands along first-order tributary of Yellow Creek, 1.5 km E of Wise (36.97408°N, 82.55862°W). 4 April 2013. Walter H. Smith. UVWHC 2013-10.

PSEUDOTRITON MONTANUS (Mud Salamander). WISE Co.: Temporary pool within abandoned rail tunnel, 670 m above sea level elevation, Guest River Gorge, Jefferson National Forest, 3.0 km ESE of Coeburn (36.91993°N, 82.44979°W). 14 June 2012. Jennifer N. Fulton, Walter H. Smith. UVWHC 2013-14. Species previously considered absent or questionable from higher-elevation (>550 m) regions of the Appalachian Highlands (Martof 1975; Redmond and Scott 1996; Lannoo 2000).

TESTUDINES — TURTLES

CHELYDRA SERPENTINA (Snapping Turtle). WISE Co.: Crossing multi-use recreational trail in Guest River Gorge, Jefferson National Forest, 3.4 km SSE of Coeburn (36.91775°N, 82.44445°W). 29 May 2012. Jennifer N. Fulton, Walter H. Smith. UVWHC 2013-04.

SQUAMATA — LIZARDS

SCELOPORUS UNDULATUS (Eastern Fence Lizard). RUSSELL Co.: Basking on riprap boulders atop Oxbow Lake Dam, 0.8 km WSW of St. Paul (36.90124°N, 82.31869°W). 22 September 2012. Jennifer N. Fulton. UVWHC 2013-06.

SQUAMATA — SNAKES

CARPHOPOPHIS AMOENUS (Eastern Wormsnake). WISE Co.: Under rock cover on south-facing bluff within Guest River Gorge, Jefferson National Forest, 3.1 km SSE of Coeburn (36.91833°N, 82.45046°W). 23 April 2012. Jennifer N. Fulton, Walter H. Smith. UVWHC 2013-07.

HETERODON PLATIRHINOS (Eastern Hog-Nosed Snake). WISE Co.: Clinch Valley College campus, 1.5 km ESE of Wise

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(36.97105°N, 82.55960°W). 3 September 1970. L. B. Hutzler. UVWHC 1970-07. Originally deposited in herpetological collection but new record never published or reported.

NERODIA SIPEDON (Common Watersnake). WISE CO.: Temporary pool along Guest River, 1.9 km ENE of Norton (36.93688°N, 82.60855°W). 30 July 2012. Jennifer N. Fulton. UVWHC 2013-08.

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HEMIDACTYLUS TURCICUS (Mediterranean Gecko). USA: VIRGINIA: MONTGOMERY Co.: Blacksburg, Derring Hall, Virginia Tech campus (37.229320°N, 80.425633°W, WGS 84). 7 May 2013. Meredith Swartwout. Verified by Robin Andrews. Virginia Museum of Natural History (VMNIT 150014). First documented voucher specimen for the county. Hemidactylus turcicus has been recorded in Virginia from Richmond, Lynchburg, and Bedford counties (Sattler et al. 2007. *Catesbeiana* 27[1]: <http://www.virginiaherpetologicalsociety.com/reptiles/lizards/mediterranean-gecko/Mediterranean%20Gecko.pdf>). Knight (1993. *Dactylus* 2:49-50) reported *H. turcicus* from the Virginia Tech campus, but did not collect voucher specimens.

A small population of *H. turcicus* was accidentally released in the Virginia Tech Department of Biological Sciences building, Derring Hall, in 1982 (R. Andrews, pers. comm.). Since then, about six or seven sightings (adults and hatchlings) have been reported from the building each year. The voucher specimen captured on 7 May 2013 was an adult *H. turcicus* that was living in one of the animal care rooms. Temperature-controlled animal care rooms and maintenance areas in the building may serve as refuges for these geckos. Knight (1993, op. cit.) suggested that the steam tunnels could also support a population of *H. turcicus*, but to this date there have been no reported gecko sightings from the steam tunnels by workers (D. Linzey, pers. obs.)

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