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An Unusual Occurrence of Arthrophycus Alleghaniensis(?) on the Shawangunk Ridge, Lower Mid-Hudson Valley, New York

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AN UNUSUAL OCCURRENCE OF *ARTHROPHYCUS ALLEGHANIENSIS*(?) ON THE SHAWANGUNK RIDGE, LOWER MID-HUDSON VALLEY, NEW YORK

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The Shawangunk Formation is a medial Silurian conglomerate that crops out from near Rosendale, south through Wurtsboro, New York, High Point State Park and the Delaware Water Gap in New Jersey, and at Lehigh Gap, Pennsylvania after which it continues into Maryland and Virginia. The formation overall is interpreted to primarily represent a braided stream environment with flowage from mountains to the east that arose during the Taconic Orogeny into a basin toward the west. The trace fossil *Arthrophycus* was found in the upper-middle part of the formation on the Shawangunk Ridge at Mohonk, near New Paltz, New York. *Arthrophycus* is normally found on the bottom of beds, however these specimens occur in place on the top of a bed. The trace consists of simple burrows lacking in ornamentation and medial ridge due to weathering; the cross sectional outline is not preserved. *Arthrophycus* is extremely rare in the Shawangunk Formation, with the only previous know occurrence of the trace reported in a single reference from 1928. While it is possible that the trace maker was terrigenous, the depositional environment of these traces was likely estuarine. Sea level rise or tidal ebbs and flows would have enabled marine burrowers to form traces in the conglomerate which, in these beds, is sandier with no large pebbles. This is supported by the occurrence of eurypterids in the formation that were euryhaline and lived in a wide range of salinities.

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