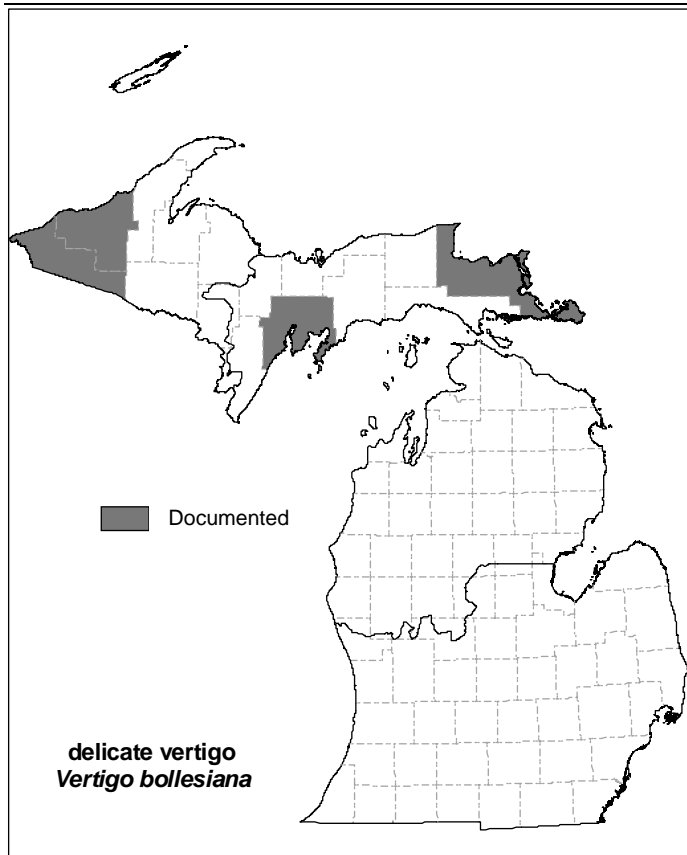


# SNAILS



## delicate vertigo

(*Vertigo bollesiana*)

**DISTRIBUTION & ABUNDANCE:** State listed as special concern. Also known from a few locations in southeastern Michigan and 13 locations in the Upper Peninsula. Surveys resulted in fewer than 10 individuals at most locations. This species is considered imperiled in Michigan and very rare globally.

**ASSOCIATED LANDSCAPE FEATURES:** lowland hardwood; mesic hardwood; lowland conifer; mesic conifer; inland emergent wetland; alvar/rock; inland rock/cliff/ledge

**ASSOCIATED THREATS:** grazing & mowing patterns; non-consumptive recreation; pesticides & herbicides; removal of non-timber flora; wetland modifications

**COMMENTS:** Need additional surveys to assess abundance and distribution; need basic life history information; need to identify threats. Rock climbing has caused at least one extirpation; rock climbing should be directed away from imperiled snail populations. The filling of upland sinks with trash or soil can alter microhabitat conditions. Grazing may pose a serious threat at some locations.