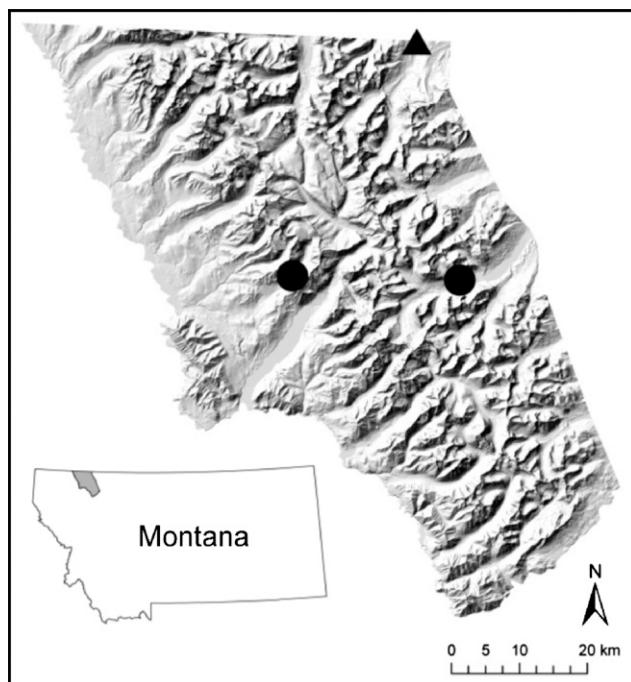


## Research Note

### New distribution record for the rare limpet *Acroloxus coloradensis* (Henderson, 1930) (Gastropoda: Acroloxiidae) from Montana

The Rocky Mountain Capshell, *Acroloxus coloradensis* (Henderson, 1930), the only North American member of the basommatophoran family Acroloxiidae, is broadly distributed across southern Canada and south into the Rocky Mountains in the USA (Turgeon et al., 1998; Lee and Ackerman, 2000). Despite its wide geographic range, *A. coloradensis* has been documented from < 30 locations, mostly in British Columbia, Alberta, Ontario, and Quebec (Lee and Ackerman, 2000; Anderson, 2005). Relict populations of *A. coloradensis* in the USA have been documented from only 6 sites in Colorado and 2 sites in Glacier National Park (Glacier NP), Montana (Anderson, 2005; Ellis et al., 2004). In Glacier NP, *A. coloradensis* was first reported from Lost Lake (Figure 1; Russell and Brunson, 1967). A second population in the park was discovered in Trout Lake in 2001 (Ellis et al., 2004). In both lakes, *A. coloradensis* was found primarily under rocks and other cover objects.



**Figure 1.** Documented locations of the Rocky Mountain Capshell (*Acroloxus coloradensis*) in Glacier National Park, Montana. The location of the newly discovered population is marked with a triangle. The Lost Lake and Trout Lake populations are marked with circles.

We report the incidental collection of a single *Acroloxus coloradensis* specimen (5mm total length) from a small, unnamed beaver-dammed lake (1.04 ha, 1391 m elevation; N 48.996°, W -13.678°) in the Belly River Valley in Glacier NP (Figures 1–2). The limpet was collected during a site survey for amphibians on 30 July 2012. The shallow margins of the lake are dominated by organic substrates that support extensive emergent vegetation. Electrical conductivity of the lake was 370  $\mu$ S, which is high compared to other small lakes in Glacier NP (BRH, unpublished data). A secondary goal of these surveys was to collect  $\leq 30$  large gastropods that get captured while using dip-nets (4.75 mm mesh) to sample for amphibian larvae. The *A. coloradensis* specimen, characterized by its flat shell and apex that points to the rear and left, was found among several preserved *Planorbella trivolvis* and *Physella* sp. Because our survey protocol for amphibian larvae does not include turning cover objects and it is unlikely the limpet would have been picked from the bottom of a net, we suspect the *A. coloradensis* specimen was along with *Planorbella trivolvis* and *Physella* sp.

*Acroloxus coloradensis* is classified as vulnerable by the IUCN because of the small number of documented populations and their isolation from one another (Bogan, 1996). The rarity of this species makes the discovery of new populations important for accurate risk assessments.



**Figure 2.** Rocky Mountain Capshell (*Acroloxus coloradensis*) collected from the Belly River Valley, Glacier National Park, Montana. Total length of the specimen was approximately 5 mm.

Our record of *A. coloradensis* in the northeast corner of Glacier NP in a habitat that differs from the other 2 locations in the park suggests it may be more widely distributed in the area than records indicate. Additional work will be required to determine the relative abundance of *A. coloradensis* at this newly documented population and to determine if it is present in neighboring water bodies.

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