

# Quick Reference Guide to Western Freshwater Mussels

## How to identify live and shell specimens

### Genus: *Anodonta* "Floaters"

- Shells are thin and smooth, with no teeth
- Very difficult to identify to species level
- Prefer varying habitats, including low to mid-gradient streams and stable backwater areas
- Occurs mainly at low to mid elevations
- Larvae may be on fish (fins) between early June and late July
- Host fish include dace, redbreasted shiner, sculpin, stickleback, and some salmonids



*Anodonta* sp. papillae. Singular papillae, "finger-like"; short excurrent opening

### *Margaritifera falcata* "Western Pearlshell"

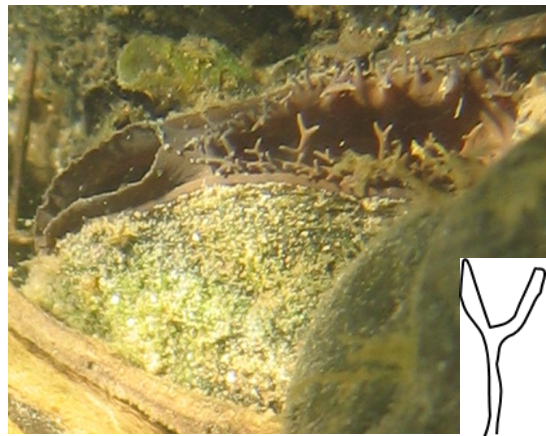
- Shells can be thick, with lateral and pseudocardinal teeth
- Prefers faster, cooler water in varying gradient streams
- Occurs at high, mid, and low elevations
- Larvae may be on fish (gills) between April and late May
- Host fish utilized locally include rainbow trout



*Margaritifera falcata* papillae. Fleshy stalks near shell, with "tree-like" papillae ends

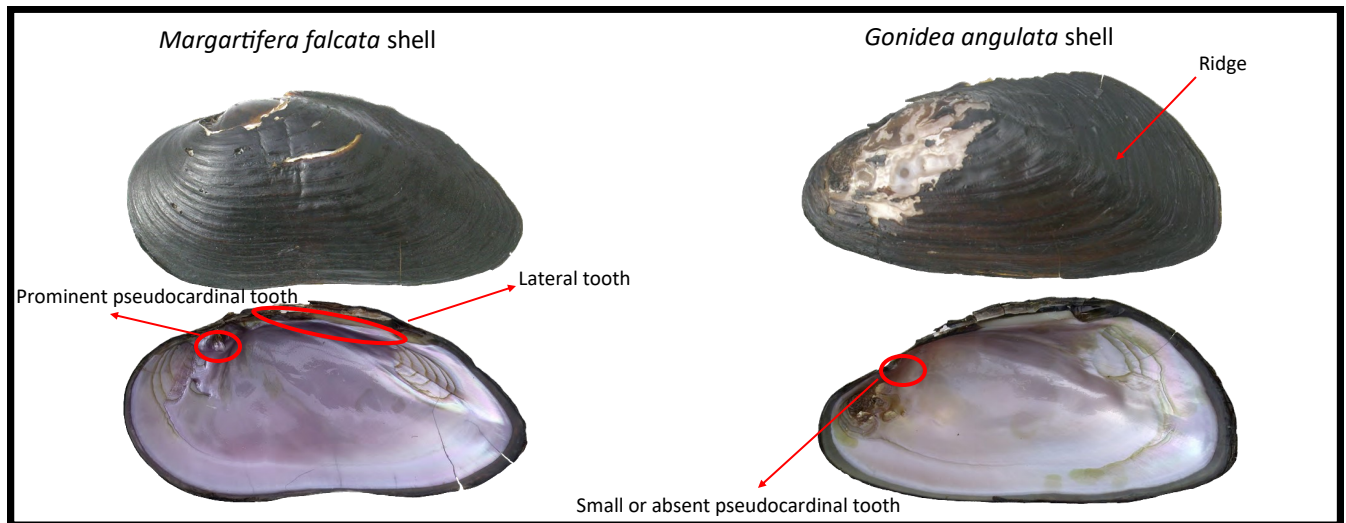
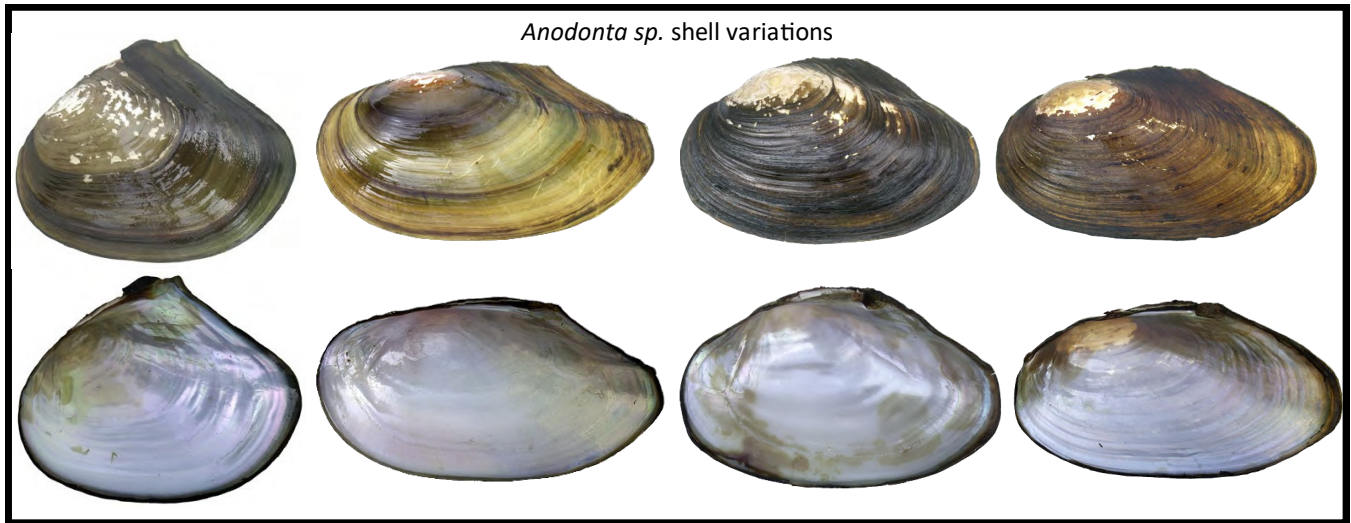
### *Gonidea angulata* "Western Ridged"

- Shells usually have distinctive ridge from umbo to posterior valve opening, with small or absent pseudocardinal teeth
- Have a strong foot that anchors the mussel firmly, they are hard to dislodge usually
- Prefer runs and riffles in low to mid gradient streams
- Occurs at low to mid elevations
- Larvae may be on fish (gills) between June and mid July
- Host fish utilized are mainly sculpin



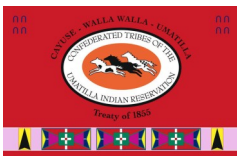
*Gonidea angulata* papillae. Bifid papillae, non-uniform

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## Quick Tips

- Freshwater mussels are one of the most endangered groups of animals in North America; in most western states mussels are protected and permits are required for handling, disturbing, or relocating mussels (check with state agencies).
- Freshwater mussels (Bivalvia: Unionoida) are distinct from their marine counterparts because they require a host fish to complete their lifecycle and fertilization occurs internally.
- Mussels are sensitive to disturbance and handling. When possible photograph the mussel(s) without handling, and document longitude and latitude of find.
- If you handle a mussel, be sure to put it back in the same location as you found it. Do not stick the mussel into the substrate; instead, lay it flat on the sediment surface.
- Mussels are very difficult to identify to species level using shells alone; when possible try to use papillae for identification.



For questions, comments, concerns, or to report mussel findings please contact: Alexa Maine, CTUIR Mussel Biologist, (541) 429-7553, [alexamaine@ctuir.org](mailto:alexamaine@ctuir.org)

