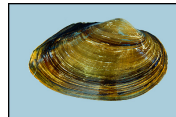




Quadrula quadrula



Leptodea fragilis



Pyganodon grandis



Lamprolaima siliquoidea

Instructions for sampling mussel tissues (mantle clips) for genetic analysis

NOTE: Mapleleaf (*Quadrula quadrula*, QUQU), Fragile Papershell (*Leptodea fragilis*, LEFR), Giant Floater (*Pyganodon grandis*, PYGR), and Fatmucket (*Lamprolaima siliquoidea*, LASI), are the target species to be sampled.

For each species, 30 samples per refuge (not site) is ideal, or as many samples of the target species as possible

NOTE: Eastern Pondmussel (*Ligumia nasuta*) is also a species to sample, but please follow the foot swab protocol instead of mantle clip sampling. Up to 5 samples/refuge.

Taking a mantle clip for genetic samples

- Gently open valves along ventral margin of shell using reversing pliers or blunt end of scalpel handle (no blade!).
- use pencil (or wood dowel) to hold valve open.
- Using fine point dissecting scissors, remove a small single piece of mantle tissue (less than 0.5 cm², <size of pinky finger nail). Anterior-ventral is best – avoid posterior and siphonal apertures.
- Follow Berg *et al.* (1995) for Mantle Biopsy (attached to original email)
- Take only one tissue sample per mussel
- Place the mantle clip in a vial (figures) with preservative (Ethanol 95%)
- Wipe and rinse the cutting tool(s) and forceps in water between samples
- Using a pencil, label each vial with the following information (figure): (Please avoid using permanent marker to label the vials, because ethanol dissolves it)

Lid:

Site: 3 letter abbreviation for refuge/location

Spp/ no.: Spp Individual ## (QUQU##) *

Paper inside vial:

Site: 3 letter abbreviation for refuge/location

Spp/ no.: Spp Individual ## (QUQU##) *

Date (Month DD, YYYY)



Figure 1.
SLR (Salt River)
SPP ## (see species code list)

*Spp##: For a specific species, it is helpful if you continue numbering from 01-XX and do not restart at 01 each day or each new site within the same river. Continue numbering, and just change the site name on the side.

- Upon return from field store the sample vials in -20 freezer until ready to be shipped (see below).

Shipping (if needed)

- Contact us to let us know samples and associated data sheets are coming (end of season ok)
- If requested, we will provide a FedEx shipping number to cover the costs
- If sending samples, please provide shipping details (bus/courier/airline, waybill no., etc.)

Send to:

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