

# Rocky Mountain Ridged Mussel (*Gonidea angulata*)

## RANGE

Known in B.C. from the Okanagan Basin. Found in Okanagan River as well as the big lakes from Osoyoos Lake to the northern tip of Okanagan Lake.



**Figure 1.** Cobble habitat, Summerland, B.C.



**Figure 2.** Photo of juvenile *Gonidea angulata*.

## HABITAT

- Habitat ranges from soft muddy or sandy substrates to large cobble/boulder areas along lakeshores and within the Okanagan River.
- Most commonly observed in waters less than 1.5 metres deep. However, it has been seen in water over 8m deep in Vaseux lake and 4 metres deep in Skaha lake.



**Figure 3.** Silt habitat in Okanagan Lake, B.C.



**Figure 4.** Cobble habitat in Okanagan Lake, B.C.

## LIFE HISTORY

- Little is known about the life history of this species.
- Gravid females have been found during the months of June and July in Okanagan Lake.
- Larvae are housed within mucilaginous packages called conglutinates.
- The larvae have a rice-shaped appearance on the lake bottom (Figure 5).
- The fish host for this species is currently unknown but under investigation.
- It is a relatively slow-growing, long-lived species.



# Gonidea angulata (continued)

## DESCRIPTION

- Size:** Up to 12.5 cm long
- Shape:** Trapezoidal in shape (foot-shaped), distinguishing feature is the prominent ridge that runs along the top of the shell.
- Colour:** Shell is dark brown to black, nacre is white or salmon-coloured in the middle and pale blue near the margin.
- Shell:** Thicker than the floater species.
- Teeth:** Hinge teeth are small and compressed; they are sometimes hard to distinguish (right valve has 1 small tooth and the left has either 1 or 0).



Figure 5. *Gonidea angulata* conglutinates.

## IDENTIFICATION TIPS (See Getting “The Eye” fact sheet)

- Foot-shaped shell (Figure 6)
- Prominent ridge (Figure 6)

## ANATOMY

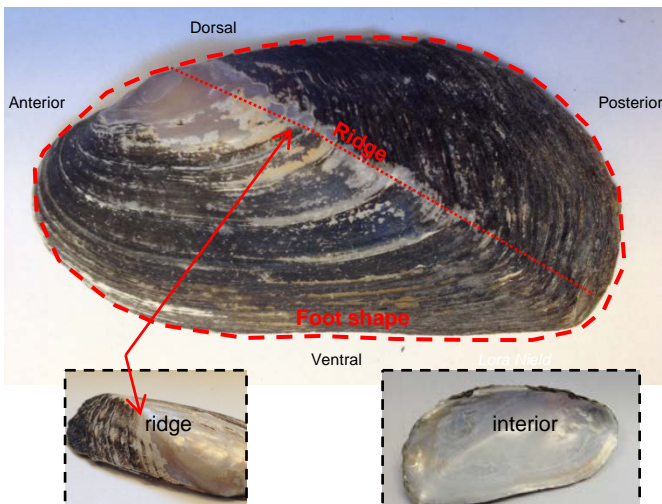


Figure 6. *Gonidea angulata* anatomy.

## GENERAL GUIDANCE

- Avoid developments in areas with known occurrences of *Gonidea angulata* through project relocation or redesign.
- Use a qualified professional when undertaking works in potential mussel habitat areas.
- Protect known habitat areas from disturbance through education and development design features.
- To determine the presence of mussels and appropriate mitigation for proposed works, use the *Guidance for Freshwater Mussel Detection and Relocation in the Okanagan*.  
<http://www.env.gov.bc.ca/okanagan/esd/bmp.html>



Figure 7. *Gonidea angulata* found in Vaseux Lake, B.C.

## REFERENCES

- B.C. Conservation Data Centre. 2014. Conservation Status Report: *Gonidea angulata*. BC Ministry of Environment. Available: <http://a100.gov.bc.ca/pub/eswp/> (accessed Jan 27, 2014).
- Fisheries and Oceans Canada. 2010. Management Plan for the Rocky Mountain Ridged Mussel (*Gonidea angulata*) in Canada [Final]. Species at Risk Act Management Plan Series. Fisheries and Oceans Canada, Vancouver. iv + 52 pp.
- Freshwater Mussels of the Pacific Northwest. 2009. The Xerces Society for Invertebrate Conservation. [http://www.xerces.org/wp-content/uploads/2009/06/pnw\\_mussel\\_guide\\_2nd\\_edition.pdf](http://www.xerces.org/wp-content/uploads/2009/06/pnw_mussel_guide_2nd_edition.pdf)
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## ACKNOWLEDGEMENTS

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