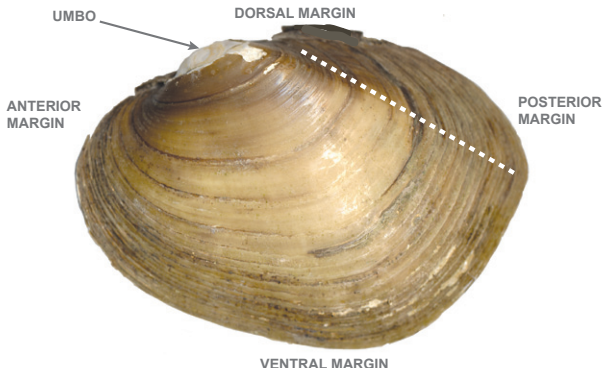


Freshwater Mussels of Maritime Canada: A Flashcard Guide

In Wolastoqey-Peskotomuhkati, Mi'kmaw, French and **English**



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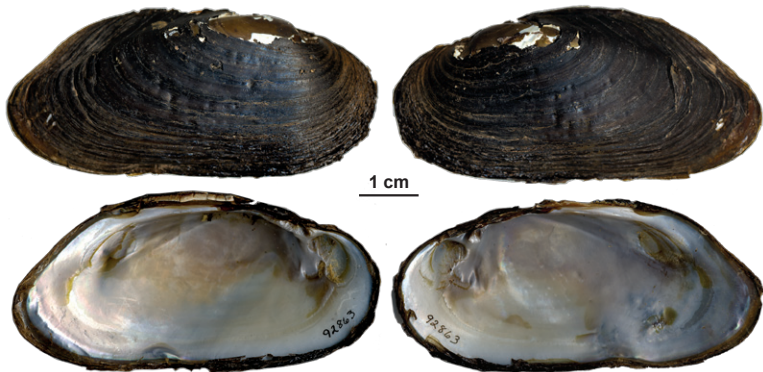
Use in conjunction with

Martel, A. L., D.F. McAlpine, J. Madill, D. Sabine, A. Paquet, M. Pulsifer and M. Elderkin. 2010. Pp. 551-598. Freshwater Mussels (Bivalvia: Margaritiferidae, Unionidae) of the Atlantic Maritime Ecozone. In D.F. McAlpine and I.M. Smith (eds.). Assessment of Species Diversity in the Atlantic Maritime Ecozone. NRC Research Press, National Research Council of Canada, Ottawa, ON. 785 pp.

Nedeau, E.J., M.A. McCollough, and B.I. Swartz. 2000. Freshwater Mussels of Maine. Maine Department of Inland Fisheries and Wildlife, Augusta, ME, 118 pp.



Eastern Pearlshell (*Margaritifera margaritifera*)



1 - 1A

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Eastern Pearlshell *(Margaritifera margaritifera)*

Size: Medium – large; to 150 mm.

Shell: Thick, laterally compressed, curved ventral margin.

Periostracum: Brown, black, rays absent.

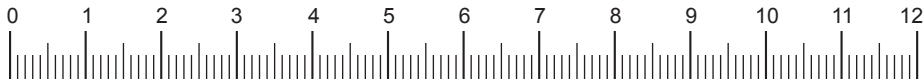
Nacre: White, distinctive pits with tails.

Soft Parts: Mantle margin dark grey, purple or black; mantle edges entire, siphonal openings not separated.

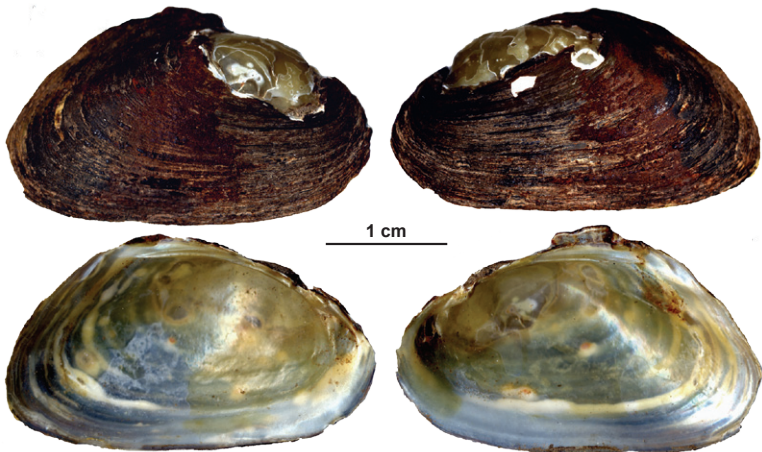
Canadian Conservation Status: Apparently Secure/Secure; NB Apparently Secure; NS Imperiled; PEI Critically Imperiled (Wild Species 2015).

Hinge Teeth <i>Margaritifera margaritifera</i>			
Left Valve		Right Valve	
Pseudocardinal	Lateral	Pseudocardinal	Lateral
2	0	1	0

2 - 1B



Dwarf Wedgemussel (*Alasmidonta heterodon*)



3 - 2A

Dwarf Wedgemussel (*Alasmidonta heterodon*)

Size: Small; to 45 mm.

Shell: Wedge-shaped, pointed posterior, laterally compressed, flat ventral margin.

Periostracum: Yellow-brown, olive-brown, black-brown.

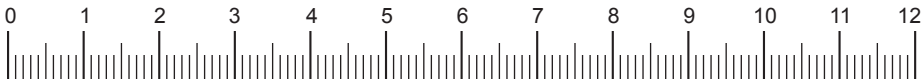
Nacre: Blue-white.

Soft Parts: Foot beige.

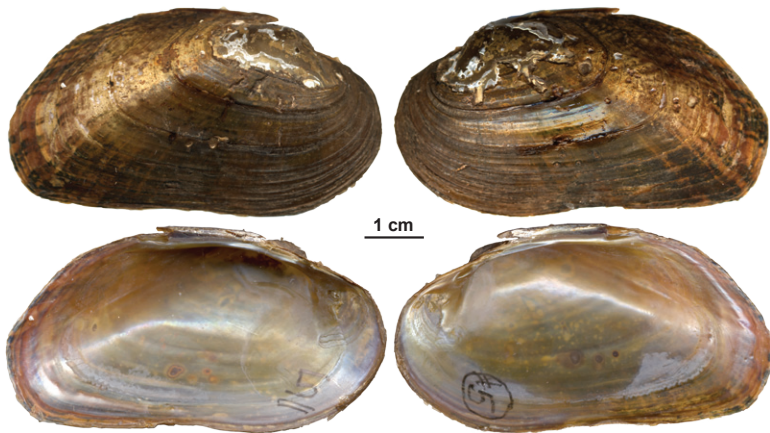
Canadian Conservation Status: Extirpated (SARA, 2003); NB presumed extirpated; NS Not present; PEI Not present (Wild species 2015).

Hinge Teeth <i>Alasmidonta heterodon</i>			
Left Valve		Right Valve	
Pseudocardinal	Lateral	Pseudocardinal	Lateral
2	1	1	2

4 - 2B



Brook Floater (*Alasmidonta varicosa*)



5 - 3A

Brook Floater (*Alasmidonta varicosa*)

Size: Small – medium; to 70 mm.

Shell: Ridges or wrinkles on dorsal posterior slope perpendicular to growth lines, indented or flat ventral margin, moderately inflated laterally.

Periostracum: Brown, black, green rays frequent.

Nacre: Blue-white, pale pink, orange.

Soft Parts: Foot orange.

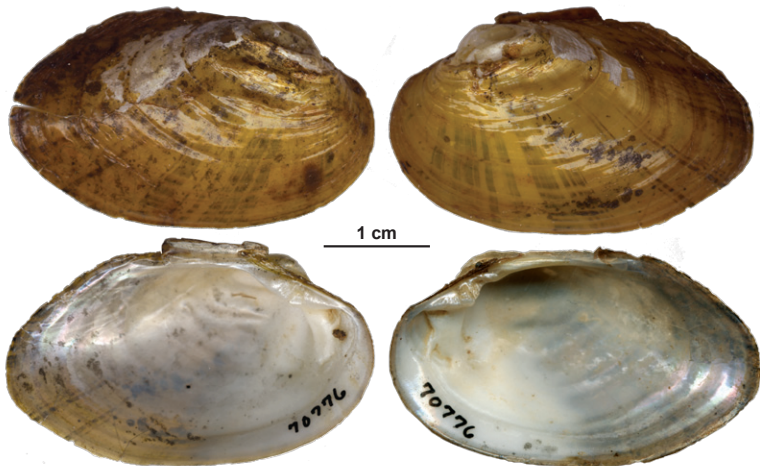
Canadian Conservation Status: Special Concern (SARA, 2013); NB Imperiled; NS Critically imperiled/Imperiled; PEI Not present (Wild species 2015).

Hinge Teeth <i>Alasmidonta varicosa</i>			
Left Valve		Right Valve	
Pseudocardinal	Lateral	Pseudocardinal	Lateral
1 small bump	0	1 small bump	0

6 - 3B



Triangle Floater (*Alasmidonta undulata*)



7 - 4A

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Triangle Floater (*Alasmidonta undulata*)

Size: Small – medium; to 80 mm.

Shell: Smooth, triangular to ovate, rounded ventral margin, laterally inflated, umbo raised above hinge line.

Periostracum: Yellow-green, black, green rays frequent.

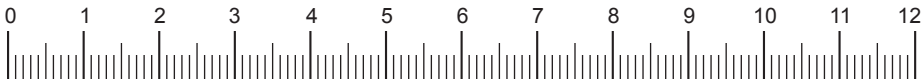
Nacre: Posterior bluish, anterior white-pink.

Soft Parts: Foot usually white, sometimes orange.

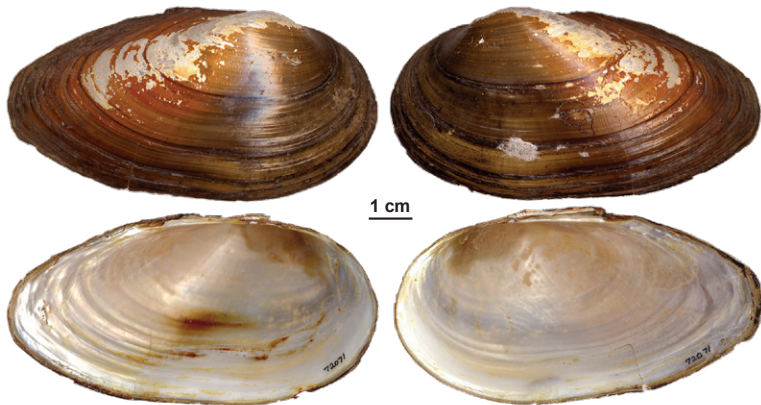
Canadian Conservation Status: Apparently Secure; NB Vulnerable; NS Critically Imperiled/ Imperiled; PEI Not present (Wild Species 2015).

Hinge Teeth <i>Alasmidonta undulata</i>			
Left Valve		Right Valve	
Pseudocardinal	Lateral	Pseudocardinal	Lateral
2 well developed with heavy ridges	0	1 well developed with heavy ridges	0

8 - 4B



Alewife Floater (*Utterbackiana implicata*)



9-5A

Alewife Floater (*Utterbackiana implicata*)

Size: Medium – large; to 180 mm.

Shell: Thin, smooth, elongate, laterally inflated, ventral margin thicker at anterior.

Periostracum: Green, yellow, black.

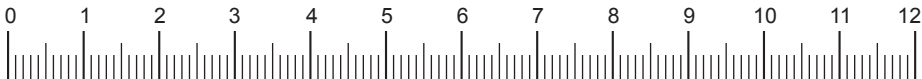
Nacre: Pale copper, pink or white.

Soft Parts: Foot white.

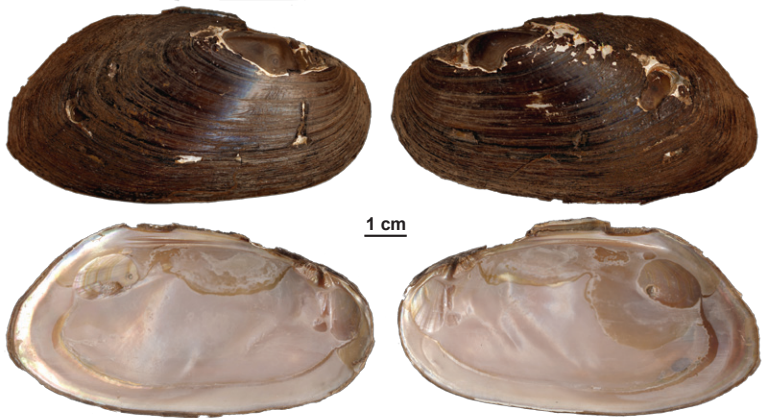
Canadian Conservation Status: Secure; NB Secure; NS Apparently Secure/Secure (Wild Species 2015); PEI present.

Hinge Teeth <i>Utterbackiana implicata</i>			
Left Valve		Right Valve	
Pseudocardinal	Lateral	Pseudocardinal	Lateral
0	0	0	0

10 - 5B



Eastern Elliptio (*Elliptio complanata*)



11 - 6A

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Eastern Elliptio (*Elliptio complanata*)

Size: Medium – large; to 120 mm.

Shell: Thick, rectangular but variable, laterally compressed with posterior ridge, umbo not prominent.

Periostracum: Brown to black.

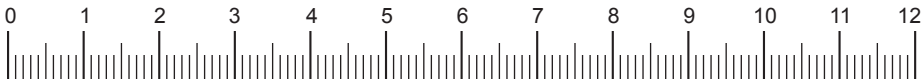
Nacre: White, pink, purple.

Soft Parts: Mantle margin greyish or black without pattern.

Canadian Conservation Status: Secure; NB Secure; NS Secure; PEI Not present (Wild Species 2015).

Hinge Teeth <i>Elliptio complanata</i>			
Left Valve		Right Valve	
Pseudocardinal	Lateral	Pseudocardinal	Lateral
2	2	1	1

12 - 6B



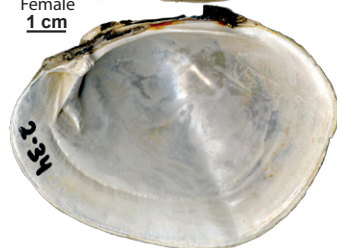
Yellow Lampmussel (*Lampsilis cariosa*)



Male
1 cm



Female
1 cm



13 - 7A

Yellow Lampmussel (*Lampsilis cariosa*)

Size: Medium – large; to 115 mm.

Shell: Thick, oval, laterally inflated, ventral margin rounded, pseudocardinal teeth almost directly under umbo, umbo prominent.

Periostracum: Glossy yellow or yellowish brown.

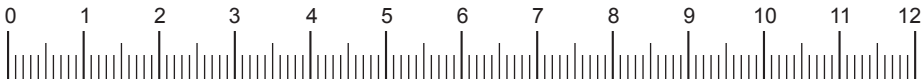
Nacre: White or bluish white.

Soft Parts: Mantle margin smooth, patterned with grey, ochre and cream; ventro-posterior edge of mantle with flap-like extension with dark eyespot in mature females.

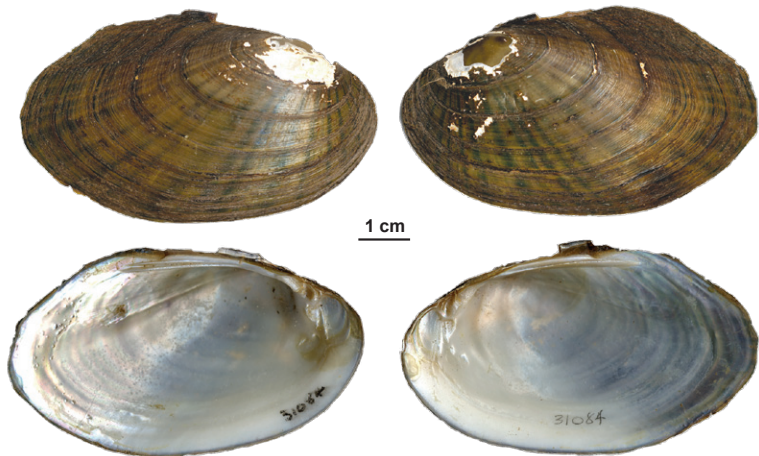
Canadian Conservation Status: Special Concern (SARA, 2005); NB Imperiled; NS Critically imperiled/Imperiled; PEI Not present (Wild species 2015).

Hinge Teeth <i>Lampsilis cariosa</i>			
Left Valve		Right Valve	
Pseudocardinal	Lateral	Pseudocardinal	Lateral
2 stout with distinct striations	2	2 or 3 stout with distinct striations	1

14 - 7B



Eastern Lampmussel (*Lampsilis radiata*)



15 - 8A

Eastern Lampmussel *(Lampsilis radiata)*

Size: Medium – large; to 130 mm.

Shell: Thick, oval, moderately inflated laterally, umbo not prominent, ventral margin rounded, uniformly thick.

Periostracum: Yellowish-green to brownish-green, green rays frequent.

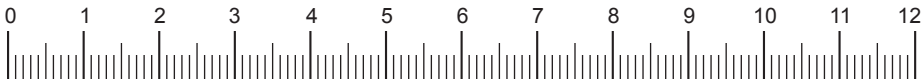
Nacre: White, pink or bluish white.

Soft Parts: Mantle margin rough with greyish streaks; mantle margin with a small darkly pigmented flap-like extension with fleshy tubercles most evident in mature females.

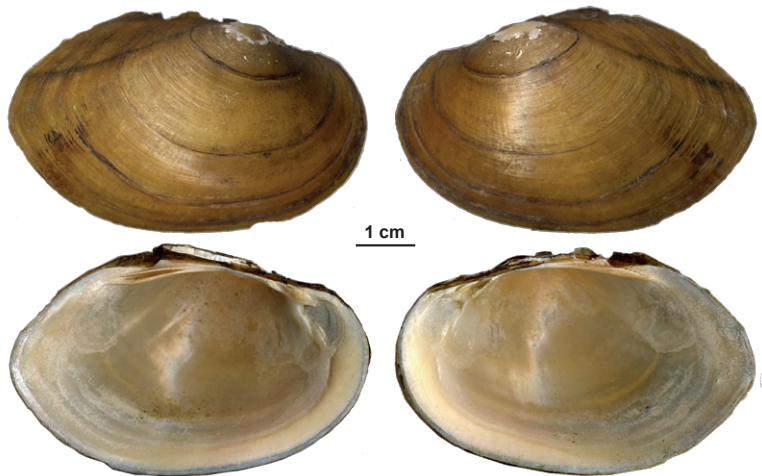
Canadian Conservation Status: Secure; NB Secure; NS Vulnerable/Apparently Secure; PEI Not present (Wild Species 2015).

Hinge Teeth <i>Lampsilis radiata</i>			
Left Valve		Right Valve	
Pseudocardinal	Lateral	Pseudocardinal	Lateral
2	2	2 or 3	1

16 - 8B



Tidewater Mucket (*Atlanticoncha ochracea*)



17 - 9A

Tidewater Mucket (*Atlanticoncha ochracea*)

Size: Medium; to 80 mm.

Shell: Thin, oval, laterally inflated, ventral margin rounded, pseudocardinal teeth anterior to umbo, umbo prominent.

Periostracum: Dull yellow to greenish brown; often with dark interannular growth lines.

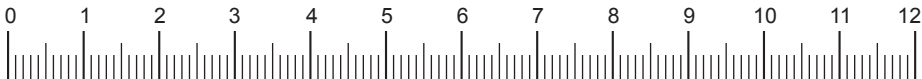
Nacre: Silvery-white, pink or salmon.

Soft Parts: Mantle margin smooth, unpatterned, lightly pigmented grey or yellowish-grey.

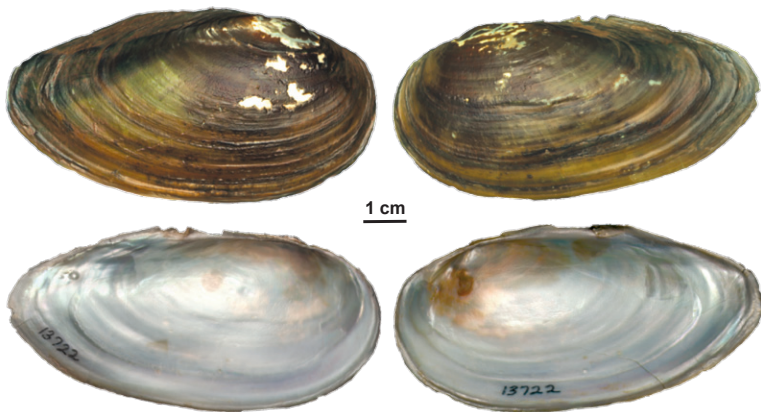
Canadian Conservation Status: Vulnerable; NB Vulnerable; NS Critically Imperiled; PEI Not present (Wild Species 2015).

Hinge Teeth <i>Atlanticoncha ochracea</i>			
Left Valve		Right Valve	
Pseudocardinal	Lateral	Pseudocardinal	Lateral
2 thin elongate no striations	2	2 thin elongate no striations	1

18-9B



Eastern Floater (*Pyganodon cataracta*)



19 - 10A

Eastern Floater (*Pyganodon cataracta*)

Size: Medium – large; to 180 mm.

Shell: Thin, elongate, laterally inflated, prominent growth lines ventral margin uniformly thin, umbo inflated.

Periostracum: Smooth yellow, green, brown or black.

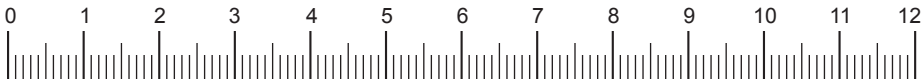
Nacre: Silvery white, often iridescent or metallic, sometimes with a yellow tinge.

Soft Parts: Pale orange foot, tan gills.

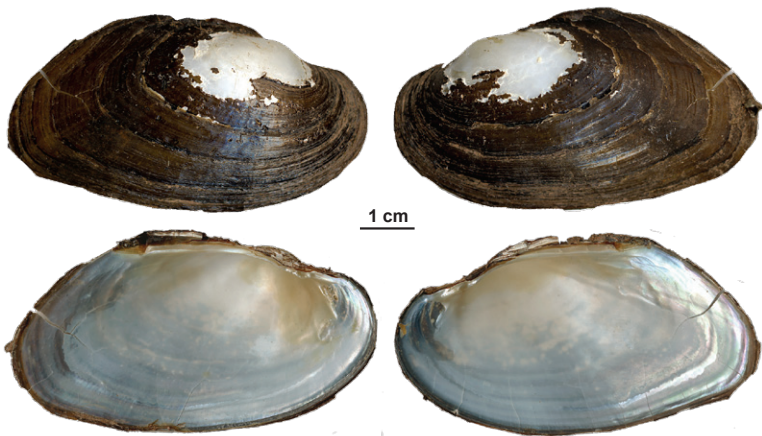
Canadian Conservation Status: Secure; NB Secure; NS Secure; PEI Apparently Secure (Wild Species 2015).

Hinge Teeth <i>Pyganodon cataracta</i>			
Left Valve		Right Valve	
Pseudocardinal	Lateral	Pseudocardinal	Lateral
0	0	0	0

20 - 10B



Creeper (*Strophitus undulatus*)



21 - 11A

Creeper (*Strophitus undulatus*)

Size: Small – medium; to 75 mm.

Shell: Thin, elongate, laterally compressed, ventral margin uniformly thin, growth lines prominent.

Periostracum: Yellow, brown, black.

Nacre: White or blue-white; dull yellow toward umbo cavity.

Soft Parts: Mantle margin and foot orange.

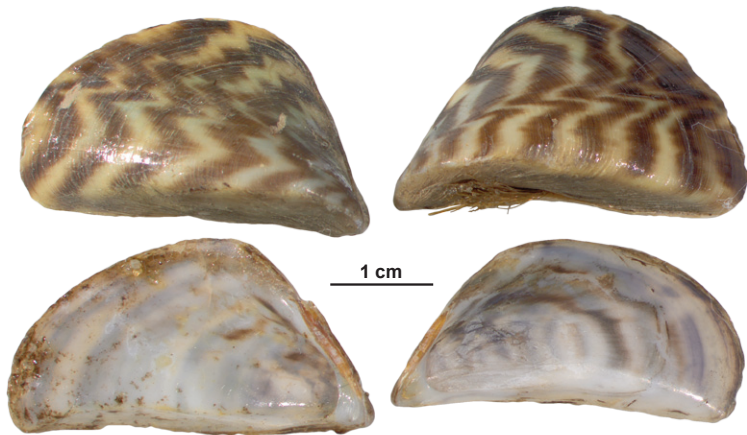
Canadian Conservation Status: Secure; NB Unrankable; NS Critically Imperiled; PEI not present (Wild species 2015).

Hinge Teeth <i>Strophitus undulatus</i>			
Left Valve		Right Valve	
Pseudocardinal	Lateral	Pseudocardinal	Lateral
Slight swelling	0	Slight swelling	0

22 - 11B



Zebra/Quagga Mussel (*Dreissena polymorpha/rostriformis bugensis*)



23 - 12A

Zebra/Quagga Mussel (*Dreissena polymorpha/rostriformis bugensis*)

Size: Small; usually <35 mm.

Shell: Triangular, inflated, flattened on ventral side.

Periostracum: Variable, off white to medium brown or black, typically with dark, irregular, zig-zag stripes.

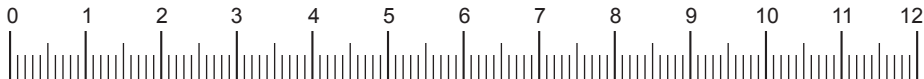
Interior Shell: White, chalky, never iridescent, in smaller specimens dark patterning visible through shell.

Soft Parts: Byssal threads attach individuals together and to other objects.

Canadian Conservation Status: Invasive; no Maritime reports.

Hinge Teeth <i>Dreissena polymorpha/rostriformis bugensis</i>			
Left Valve		Right Valve	
Pseudocardinal	Lateral	Pseudocardinal	Lateral
0	0	0	0

24 - 12B



Glossary

Foot: *Large, extensible, muscular organ used to anchor the mussel in place or support movement.*

Invasive: *Not native; detrimental to native species or habitats.*

Lateral Teeth: *Interlocking, elongate, raised elements along the hinge line of mussel shell.*

Mantle: *Soft tissue lining the interior mussel shell and in the live animal visible at the margin of the shell.*

Nacre: *Inner iridescent lining of mussel shell.*

Periostracum: *Thin exterior covering of mussel shell.*

Pseudocardinal Teeth: *Thick triangular-shaped hinge teeth near the anterior-dorsal end of the mussel shell.*

SARA: *Federal Species at Risk Act.*

Umbo: *Raised area along the dorsal margin of the shell valve; represents the embryonic shell.*

Wild Species 2015: *Federally coordinated report on general status of species in Canada.*

