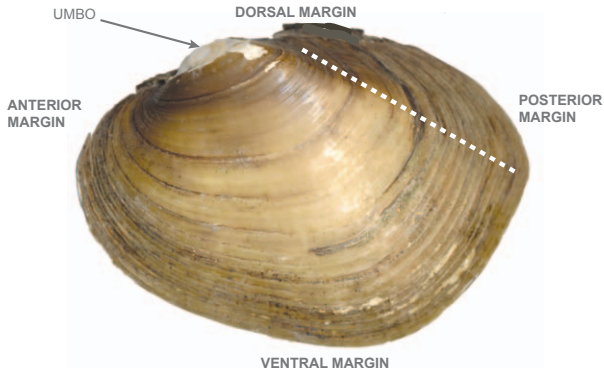


Freshwater Mussels of Maritime Canada: A Flashcard Guide

In Wolastoqey, Mi'kmaw, French and English



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NATURE

Donald F. McAlpine, Mary C. Sollows, Jacqueline B. Madill and André L. Martel

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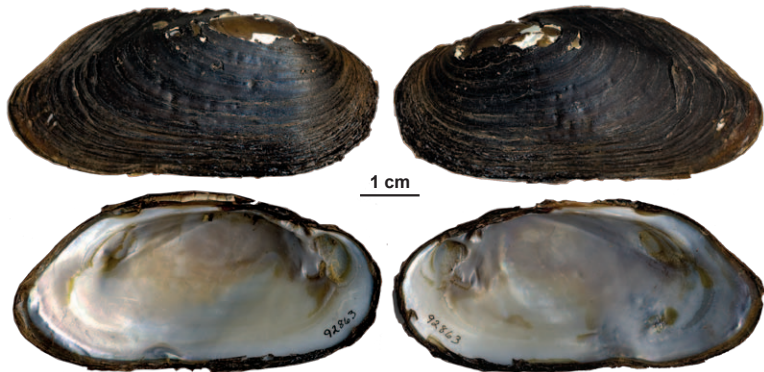
Use in conjunction with

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

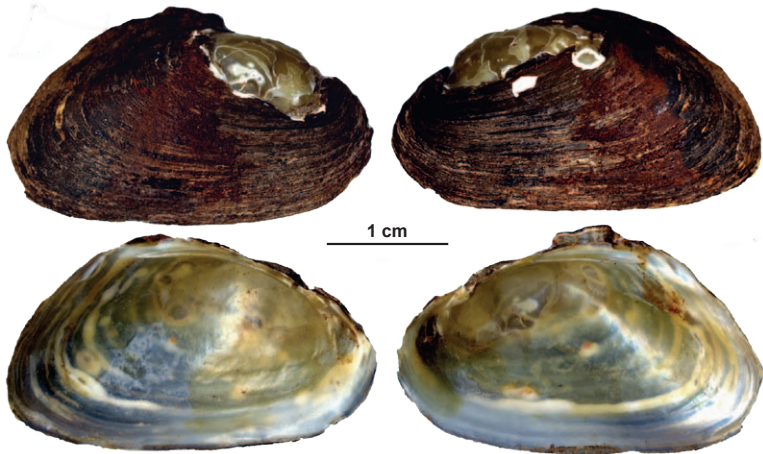
Canadian Conservation Status: Secure

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

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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

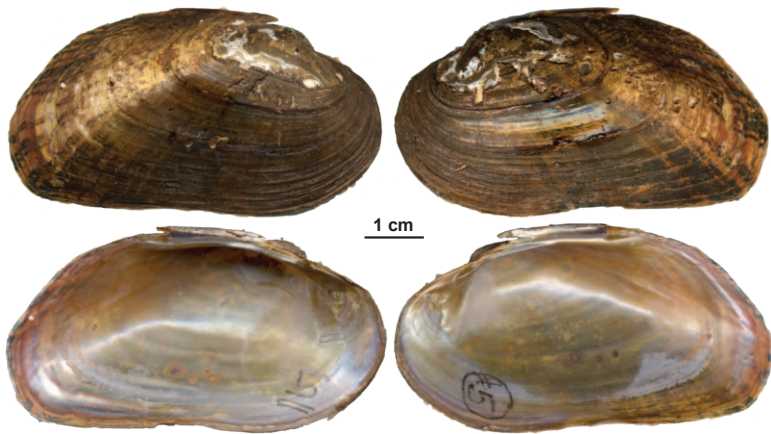
Canadian Conservation Status: Extirpated (SARA)

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

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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

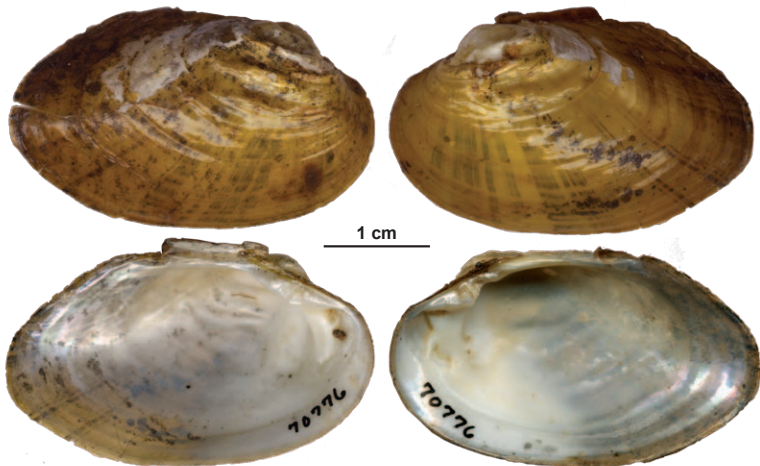
Canadian Conservation Status: Special Concern (SARA)

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

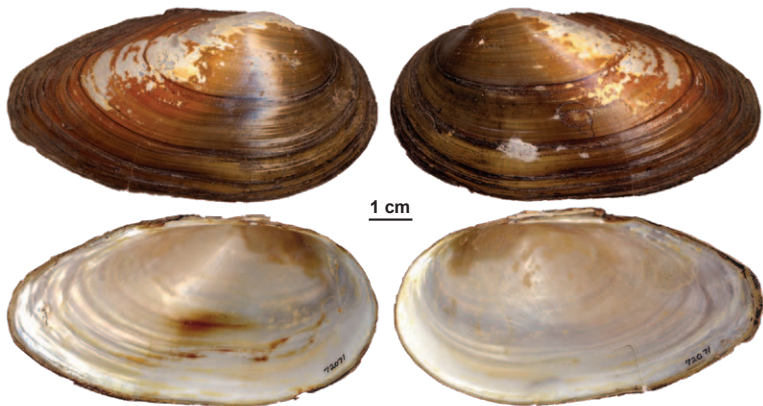
Canadian Conservation Status: Secure

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 (*Anodonta implicata*)



9-5A

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Alewite Floater (*Anodonta 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

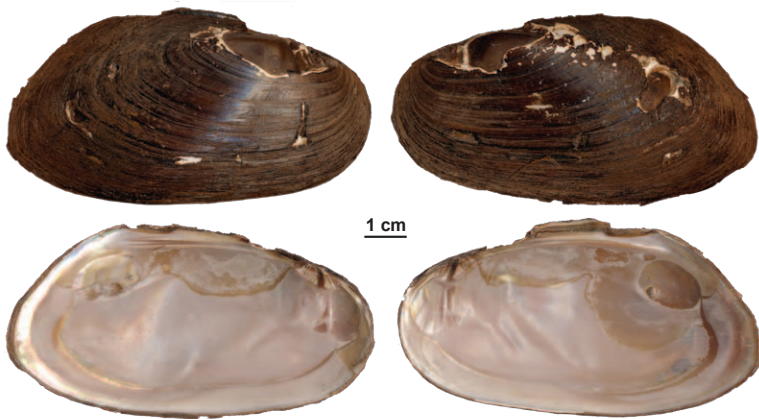
Canadian Conservation Status: Secure

Hinge Teeth <i>Anodonta 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

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

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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

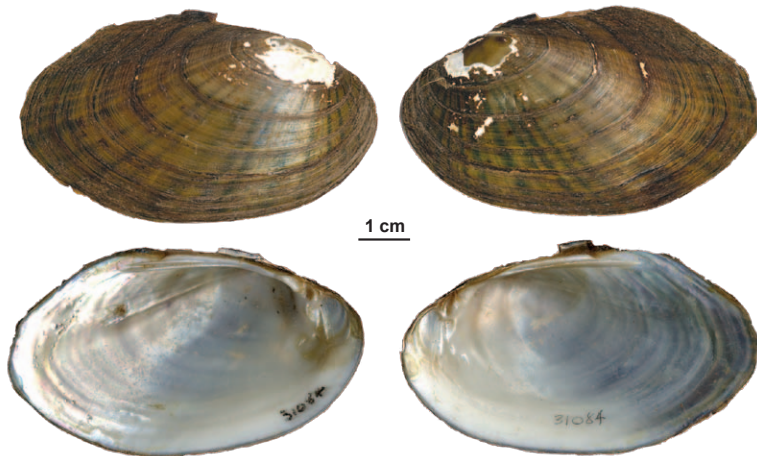
Canadian Conservation Status: Special Concern (SARA)

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

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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

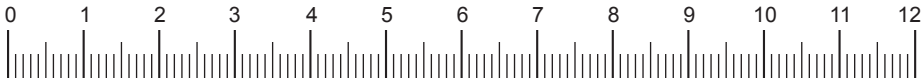
Nacre: White, pink or bluish white

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

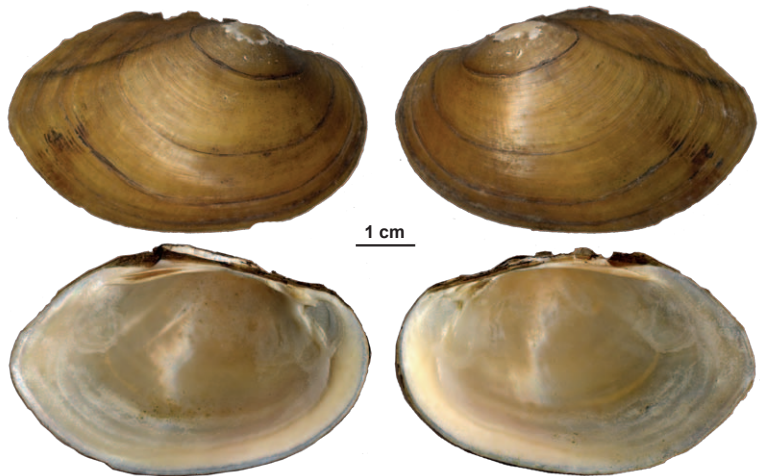
Canadian Conservation Status: Secure

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

16 - 8B



Tidewater Mucket (*Leptodea ochracea*)



17 - 9A

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Tidewater Mucket (*Leptodea 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

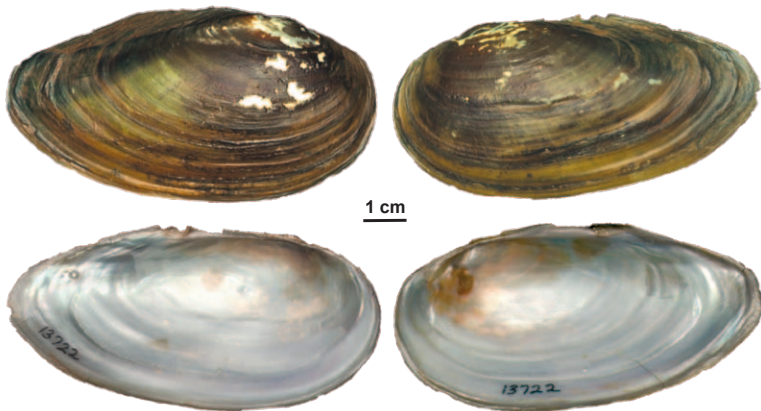
Canadian Conservation Status: Secure

Hinge Teeth <i>Leptodea 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

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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

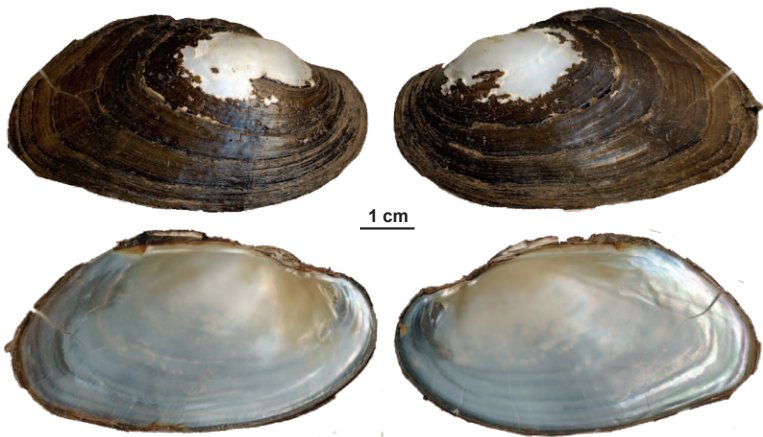
Canadian Conservation Status: Secure

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

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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

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

22 - 11B



Zebra Mussel (*Dreissena polymorpha*)



23 - 12A

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Zebra Mussel *(Dreissena polymorpha)*

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: Non-native, highly invasive

Hinge Teeth <i>Dreissena polymorpha</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

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

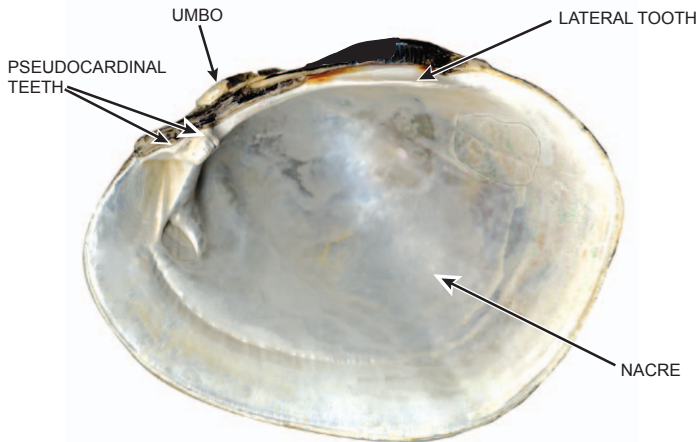
Mantle: Soft tissue lining the interior mussel shell and in the live animal visible at the margin of the shell

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

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



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