

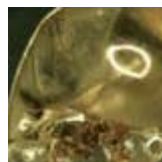
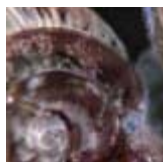
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## LAND SNAILS AND SLUGS OF CAPE BRETON

### BACKGROUND

This key was produced from 1995 – present. It was written by Ryan Luedy and Jean MacMillan, two undergraduate biology students. All illustrations, unless otherwise noted, were created by Basma Kavanagh. Financial support was provided by Cape Breton University and the Natural Sciences and Engineering Research Council.

Cape Breton Island makes up roughly one-fourth of the Province of Nova Scotia. The Island is separated from the mainland by the Strait of Canso. Although a causeway has been constructed across the strait in the 1950's, the two land masses have been separated from each other long enough to allow differences in fauna, including terrestrial molluscs, to develop. Cape Breton contains species not found on the mainland and vice versa. There are a number of explanations for this. One reason is that species radiating from Western Canada were halted by the strait.

Another reason is that extinctions may have occurred on Cape Breton Island but not on the mainland or vice versa. As well, species could have been introduced to Cape Breton Island via old settlements, like Louisburg, and not introduced to the mainland. Again, the opposite may have happened, species may have been introduced to the mainland and not Cape Breton.

Although the number of mollusc species found on Cape Breton Island and in the rest of Nova Scotia is small when compared to other places in the world, there are significant numbers of species present to warrant study of them. That is why this key to the Land Snails and Slugs of Cape Breton has been constructed, to encourage people to study these unique creatures and become aware of their presence.

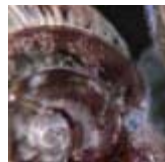
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## INTRODUCTION

Land snails are soft unsegmented animals that belong to the phylum Mollusca. As indicated in figure 1, land snails have a ventral foot, four tentacles: an upper pair that have eyes and a lower pair that lack eyes, and a mantle that contains the animal's internal organs, and is usually enclosed in a calcareous shell.

These animals are hermaphroditic, meaning there are no males or females; every individual has both male and female reproductive organs. However, two snails or two slugs of the same species must meet in order to lay eggs, they cannot self-fertilize. For these animals, this insures that when two animals meet, they can reproduce; they do not have to look for a mate of the proper sex.

Land snails and slugs can be found almost anywhere, but especially in those areas that offer shelter, moisture, food,

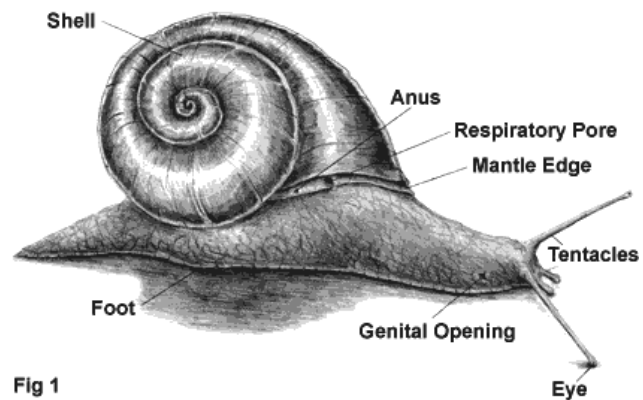


Fig 1

and for snails a source of calcium, usually in the form of limestone.

Land snails can be found most easily on foggy / rainy days in the spring and summer. They tend to be on low green plants, tree trunk bottoms, and in the first few centimeters of soil. Therefore, snails can be collected in a couple of ways.

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# LAND SNAILS AND SLUGS OF CAPE BRETON

## INTRODUCTION

One way is to pick them up as you closely examine the ground vegetation on a damp/rainy day. Another way is to shake soil/leaf litter samples on a mesh screen (about .5 cm holes), collect the material that passes through, and then look through it under a microscope. This technique works very well for small species. Some snail shells can be smaller than 1mm, and nearly impossible to collect any other way.

After snails have been collected, they can be kept live or can be preserved. To keep them alive, place them in a cool, moist place with some food. Be sure to contain them in a sealed container that allows air to enter. Fresh lettuce and carrot slices seem to keep them happy. Some wet woodchips, sand, or soil should be placed in the bottom of their home, to keep them moist.

To preserve snails, one of two things can be done. They can be left to dry out. Small ones can be dried as is. After a period of

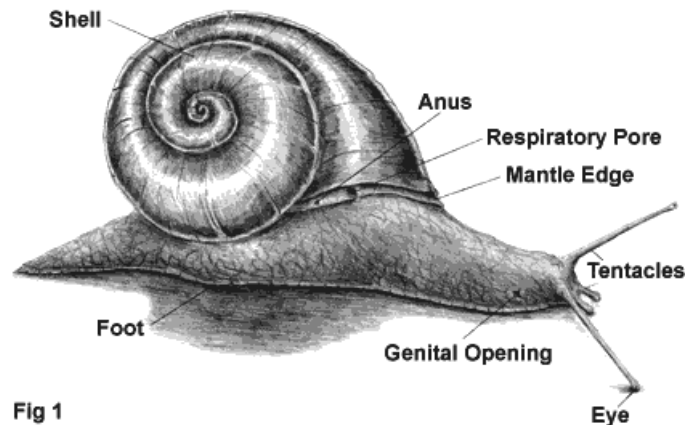


Fig 1

time, the dried body can be removed from the shell or it can be left alone. For larger species, it is best to remove as much of the body as possible with forceps or a bent pin before drying. The second way to preserve snails, and the only way to preserve slugs, is to store them in vials of preservative.

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# LAND SNAILS AND SLUGS OF CAPE BRETON

## IDENTIFICATION

In order to identify snails and slugs you must first become familiar with some important features of the animals. The following figures will illustrate the important features used in identification of land snails and slugs.

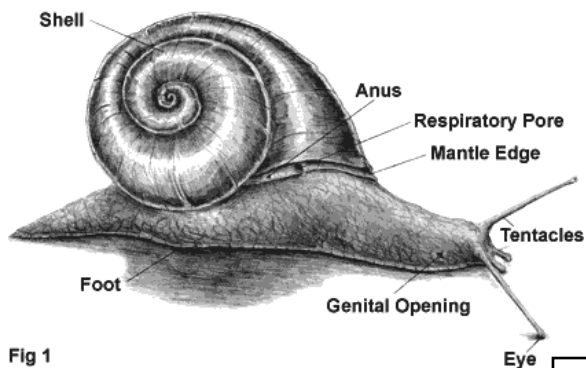


Fig 1  
General external features of typical snail

Method of counting whorls when snail is viewed from above



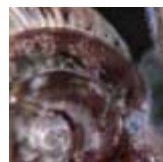
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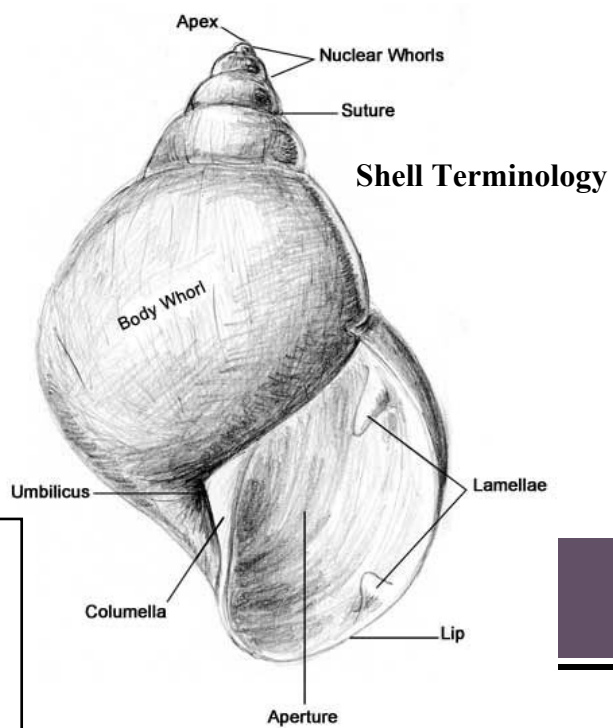
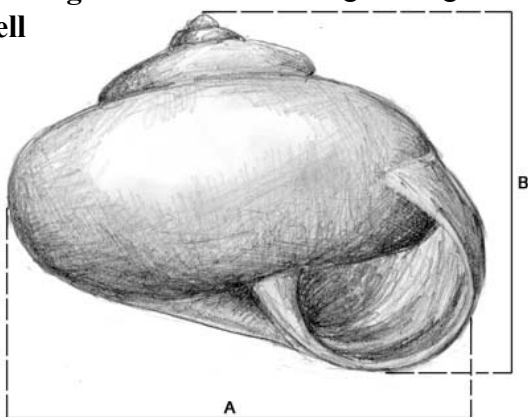
# LAND SNAILS AND SLUGS OF CAPE BRETON

## IDENTIFICATION

In order to identify snails and slugs you must first become familiar with some important features of the animals. The following figures will illustrate the important features used in identification of land snails and slugs.

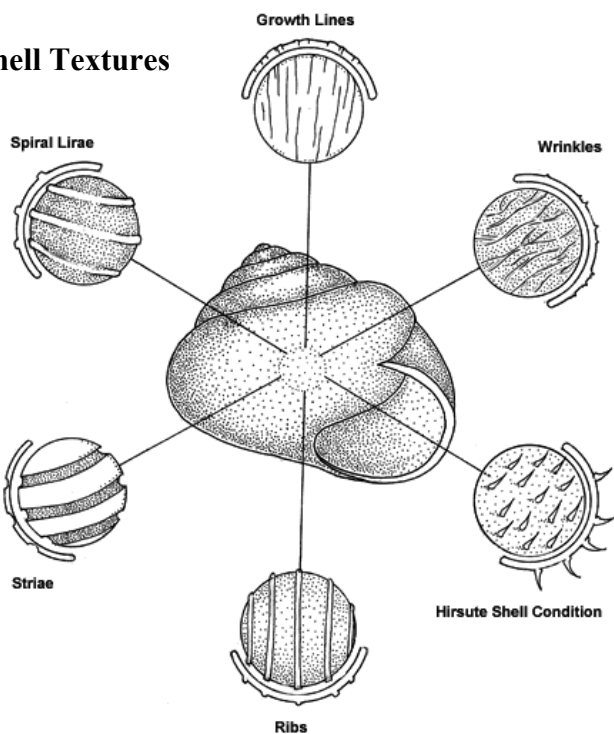
### Method of Measuring a Shell

A = Diameter/Width  
B = Height/Length

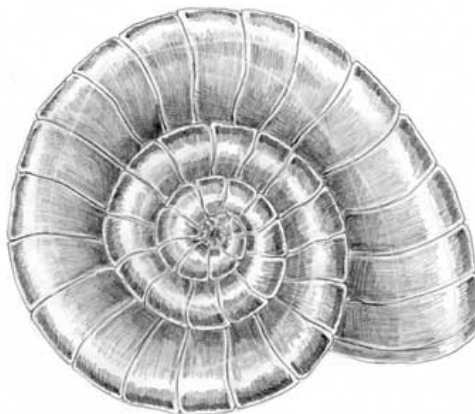


### Shell Terminology

### Shell Textures



### Shell Showing Indented Radiating Lines

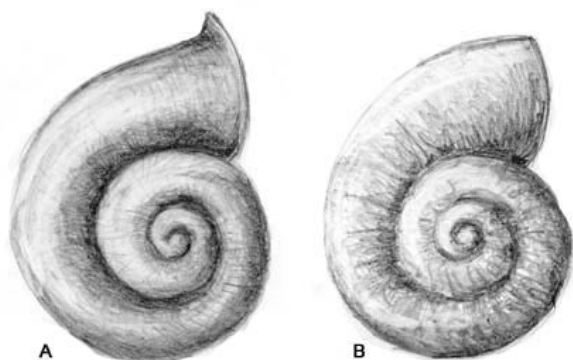




# LAND SNAILS AND SLUGS OF CAPE BRETON

## IDENTIFICATION

On order to identify snails and slugs you must first become familiar with some important features of the animals. The following figures will illustrate the important features used in identification of land snails and slugs.

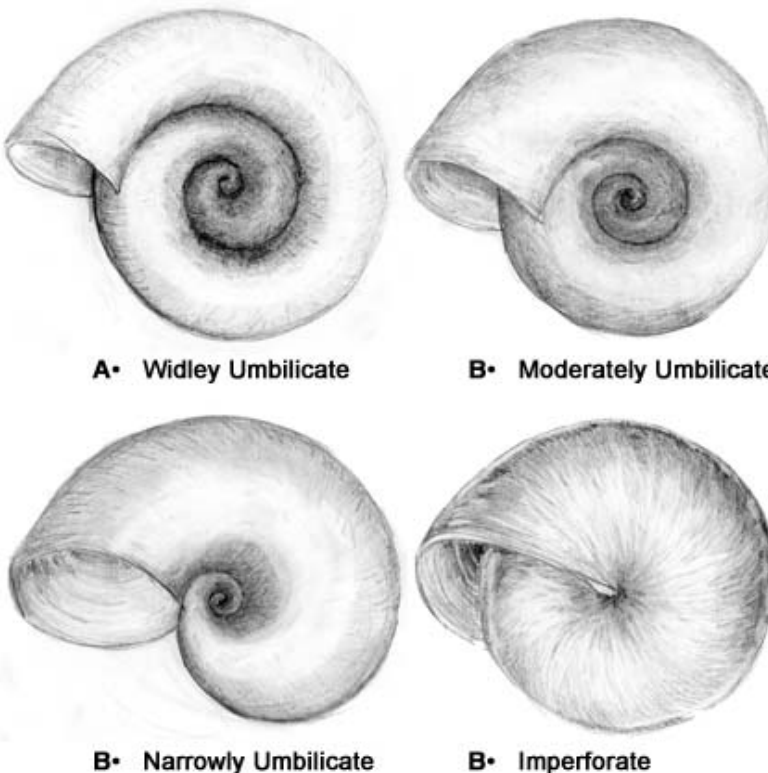


### Shell Lip Types

A = reflected lip

B = straight lip

Types of Shells (viewed from below)



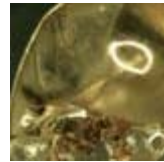
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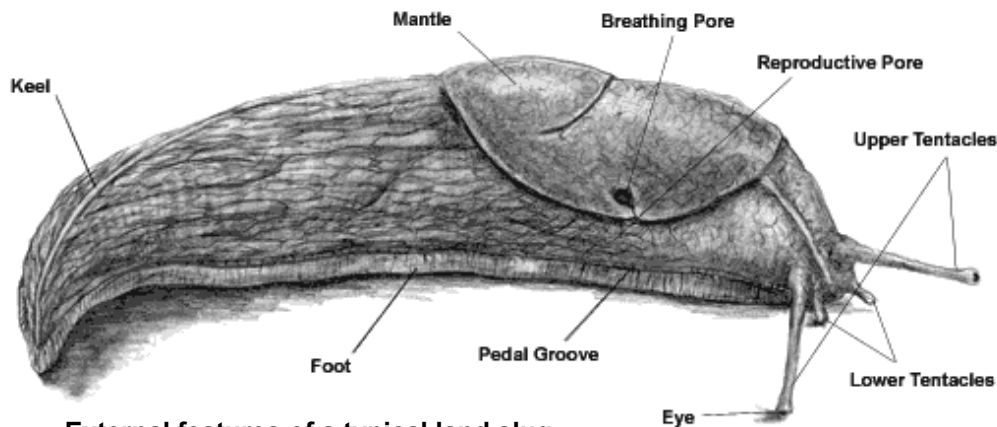
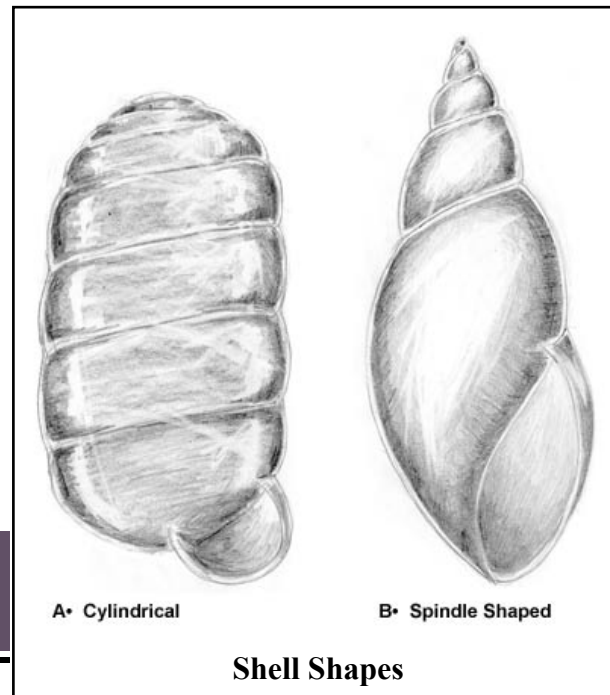
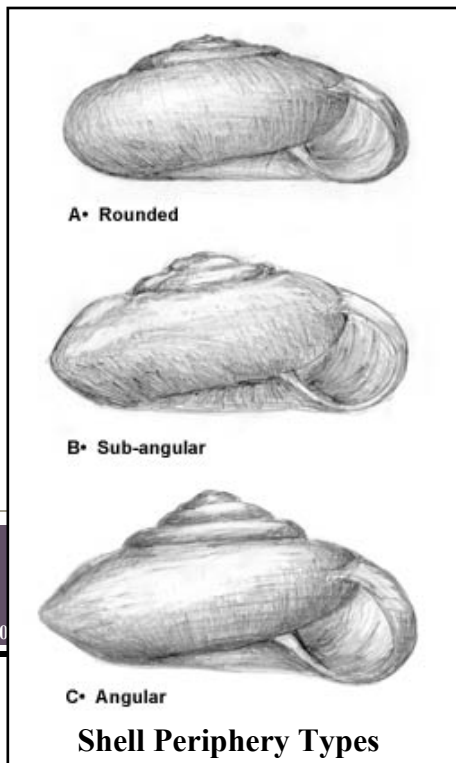
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## IDENTIFICATION

On order to identify snails and slugs you must first become familiar with some important features of the animals. The following figures will illustrate the important features used in identification of land snails and slugs.



**External features of a typical land slug**

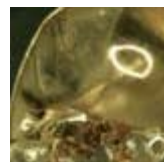
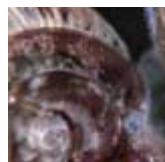
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## LAND SNAILS AND SLUGS OF CAPE BRETON

### GLOSSARY

**Angular Periphery:** See periphery types.

**Apex:** The top or first whorl on the shell that is farthest away from the aperture.

**Body Whorl:** the last outermost whorl of a snail shell.

**Breathing pore:** An opening in the mantle edge that serves for air passage into the lung cavity.

**Columella:** the edge on the inner side of the aperture.

**Foot:** Located towards the back of the snail on the ventral surface. The foot is used mostly for locomotion as well as digging and grasping food.

**Growth Lines:** A thin line on the surface of the shell indicating a period of rest in the growth cycle.

**Hirsute:** covered with small hairlike projections.

**Imperforate:** Lacking an umbilicus on the underside of shell.

**Keel:** A sharp ridge down the dorsal surface of a slug, usually restricted to the posterior end.

**Lamella:** A fold or raised tooth inside the aperture.

**Lip:** the edge of the shell on the outside of the aperture.



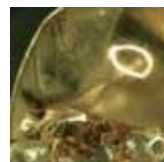
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## LAND SNAILS AND SLUGS OF CAPE BRETON

### GLOSSARY

**Mantle:** a soft outer covering of the visceral mass of the mollusc; in snails it is under the shell.

**Moderately Umbilicate:** see umbilicus

**Narrowly Umbilicate:** see umbilicus

**Nuclear Whorl:** The first two whorls of the snail shell.

**Ovate:** Oval shaped.

**Pedal Groove:** a longitudinal groove in the side of the foot of a snail or slug that marks the boundary of foot sole and side.

**Periphery:** the outer edge of the body whorl.

**Pigment Band:** a longitudinal band or strip of colour found on the sides or dorsal surface of slugs.

**Radiating Indented Lines:** Evenly spaced, impressed lines of the shell of a snail that are perpendicular to the whorls.

**Reproductive Pore:** in snails the reproductive pore is located in the head region. In slugs the reproductive pore is located beside or below the breathing pore.

**Reflected Lip:** The shell is turned away from the snail at its end, the lip.

**Ribs:** Transverse projections on the outside of the snail shell, evenly spaced, and provided the shell is larger than a few millimetres, can be seen with the naked eye.

**Round Periphery:** See periphery types.

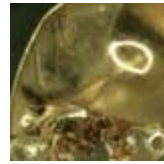
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## LAND SNAILS AND SLUGS OF CAPE BRETON

### GLOSSARY

**Spiral Lirae:** raised lines or ridges on the surface of the shell that run in the same direction as the whorls (spirally).

**Striae:** faint lines within the structure on a snail's shell.

**Subangular Periphery:** See periphery types.

**Suture:** the junction between two successive whorls.

**Umbilicus:** a hole or opening in the center of the underside of the shell. The terms widely umbilicate, narrowly umbilicate and moderately umbilicate refer to the relative width of the umbilicus compared to the diameter of the shell. Those that are widely umbilicate have an umbilicus that is greater than 1/2 shell diameter. Narrowly umbilicate shells have an umbilicus that is less than 1/3 and moderately umbilicate shells fall in between.

**Widely Umbilicate:** See umbilicus

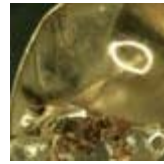
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

### 1A • External Shell Present



**GO TO: 2A - 2B**

### 1B • External Shell Absent



**GO TO: 7A - 7B**

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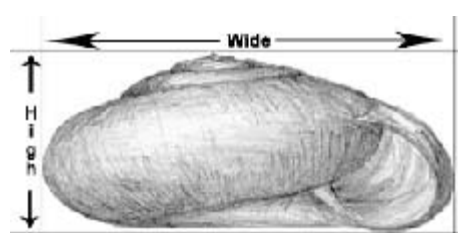
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# LAND SNAILS AND SLUGS OF CAPE BRETON

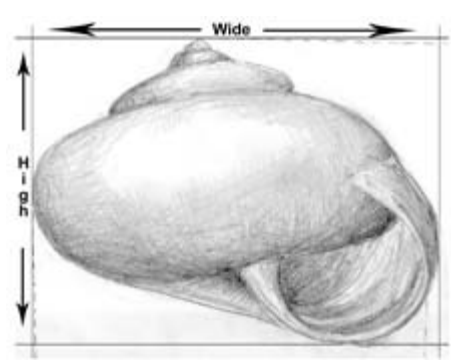
## KEY

**2A • Shell distinctly wider than high**



**GO TO: 12A - 12B**

**2B • Shell higher than wide, or as wide as it is high**



**GO TO: 3A - 3B**

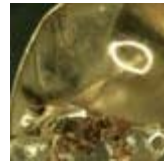
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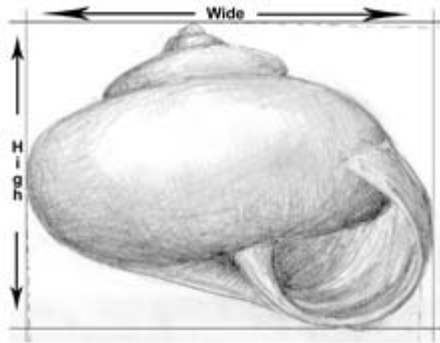
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# LAND SNAILS AND SLUGS OF CAPE BRETON

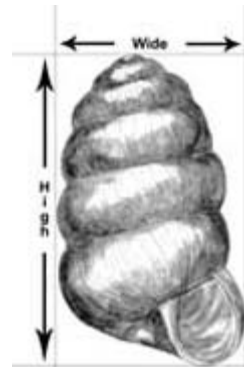
## KEY

**3A • Shell as high as wide**



**GO TO: 21A - 21B**

**3B • Shell distinctly higher than wide**



**GO TO: 4A - 4B**

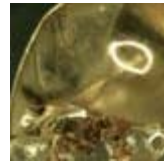
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**4A • Aperature length more than half the shell length**



**GO TO: SPECIES FIG. #16**

**4B • Aperature length less than one half the shell length**



**GO TO: 5A - 5B**

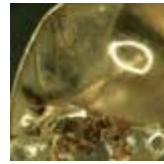
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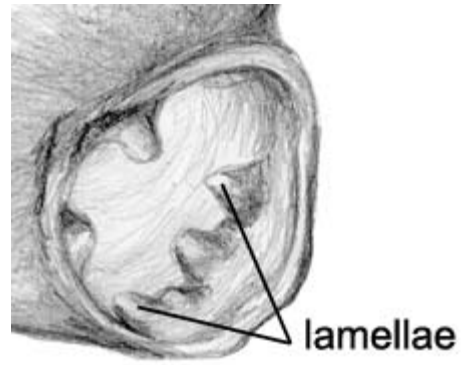
## KEY

**5A • Aperature without lamellae**



**GO TO: 6A - 6B**

**5B • Aperature with lamellae**



**GO TO: SPECIES FIG. #17**

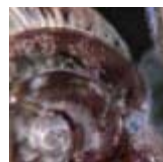
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## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

**6A • Shell is spindle shaped, very glossy, tan and 5–7.5 mm in height**



**GO TO: SPECIES FIG. #18**

**6B • Shell cylindrical shaped, tan with white streaks, and is 5–7.5 mm in height**



**GO TO: SPECIES FIG. #19**



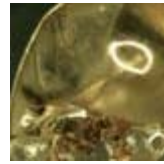
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**7A • Mantle covers nearly entire animal**



**GO TO: 8A - 8B**

**7B • Mantle covers only an anterior portion of the animal**



**GO TO: 9A - 9B**

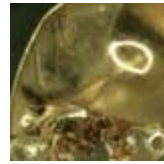
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**8A • Slug is small, 15mm or less**

**8B • Slug is large, 50mm or greater**



**GO TO: SPECIES FIG. #21**



**GO TO: SPECIES FIG. #20**

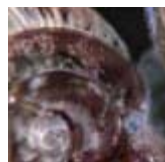
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## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

**9A • Breathing pore located in anterior portion of mantle, back not keeled and posterior end of body rounded when viewed from above**



**GO TO: 23A - 23B**

**9B • Breathing pore located in posterior portion of mantle, back keeled at posterior end of body when is pointed when viewed from above**



**GO TO: 10A - 10B**

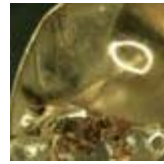
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**10A • Slug 70mm or greater in length when extended**

**10B • Slug 50 mm or less in length when extended**



**GO TO: SPECIES FIG. #22**

**GO TO: 11A - 11B**

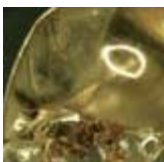
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**11A • Slug 35-50mm in length, mantle situated near head, animal exudes milky slime when irritated**



**GO TO: SPECIES FIG. #23**

**11B • Slug 15-30mm in length, mantle situated slightly back from head, animal exudes watery slime when irritated**



**GO TO: SPECIES FIG. #24**

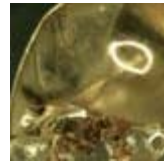
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**12A • Shell is 15mm or greater in width**



**GO TO: SPECIES FIG. #25**

**12B • Shell is less than 15mm in width**



**GO TO: 13A - 13B**

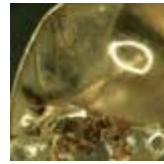
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**13A • Shell with raised spiral lirae**

**13B • Shell without raised spiral lirae**



**GO TO: *SPECIES FIG. #26***

**GO TO: 14A - 14B**

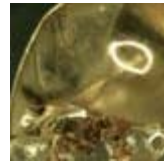
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**14A • Shell with ribs and without a reflected lip**



**GO TO: SPECIES FIG. #27**

**14B • Shell without ribs**



**GO TO: 15A - 15B**



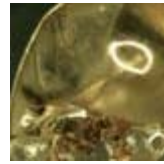
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**15A • Shell without a reflected lip**

**15B • Shell with a reflected lip**



**GO TO: 16A - 16B**



**GO TO: SPECIES FIG. #28**

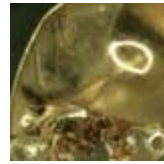
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**16A • Shell white in colour**

**16B • Shell not white in colour**



**GO TO: SPECIES FIG. #29**

**GO TO: 17A - 17B**

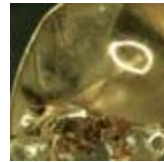
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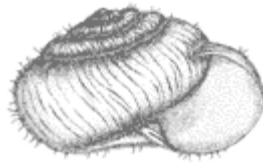
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**17A • Snail without pedal grooves  
and 7–9mm in width**



**GO TO: SPECIES FIG. #30**

**17B • Snail with pedal groove and  
less than 6mm in width**



**GO TO: 18A - 18B**

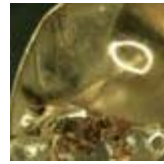
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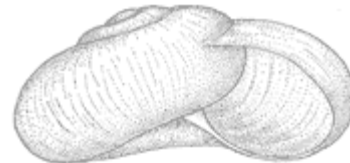


# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**18A • Snail with radiating indented lines**

**18B • Snail without radiating indented lines**



**GO TO: SPECIES FIG. #31**

**GO TO: 19A - 19B**

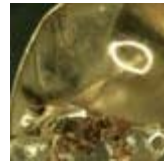
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# LAND SNAILS AND SLUGS OF CAPE BRETON

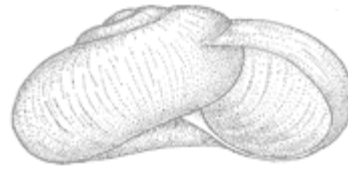
## KEY

**19A • Shell from 4.5–5.6mm in diameter, faint yellow or brownish**



**GO TO: 20A - 20B**

**19B • Shell 2.2mm in diameter, nearly colourless**



**GO TO: SPECIES FIG. #32**

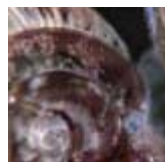
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**20A • Shell with whorls slowly increasing in width, aperture small**



**GO TO: SPECIES FIG. #33**

**20B • Shell with whorls rapidly increasing in width, aperture relatively large**



**GO TO: SPECIES FIG. #34**

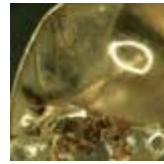
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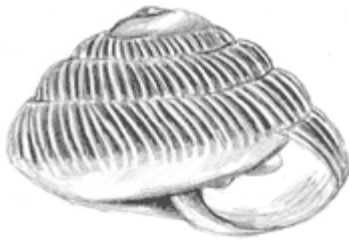
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**21A • Shell with ribs**



**GO TO: 22A - 22B**

**21B • Shell without ribs**



**GO TO: SPECIES FIG. #35**

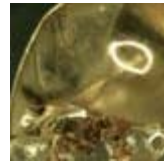
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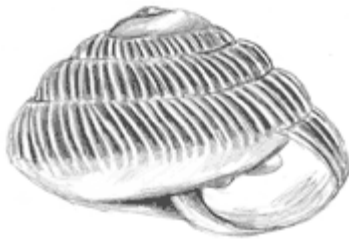
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**22A • Shell with reflected lip  
and lamellae in aperture**



**GO TO: SPECIES FIG. #36**

**22B • Shell without reflected lip  
and without lamellae in aperture**



**GO TO: SPECIES FIG. #37**



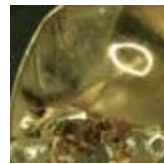
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## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

**23A • Breathing pore located below right mantle pigment band**



**GO TO: SPECIES FIG. #38**

**23B • Breathing pore located in right mantle pigment band**



**GO TO: 24A - 24B**

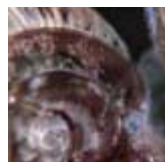
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# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

**24A • Slug 20-40mm in length, sole of foot yellow and animal almost black in colour**



**GO TO: SPECIES FIG. #39**

**24B • Slug 60-80mm in length, sole of foot pale yellow and animal yellowish brown**



**GO TO: SPECIES FIG. #40**

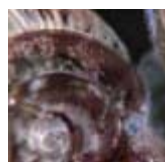
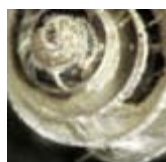
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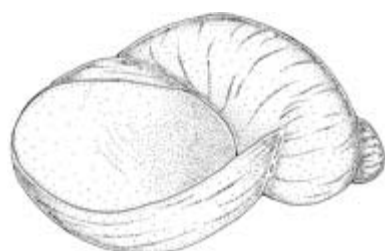
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 16 • *Succinea* spp.

Length: 7.2mm; (N=4) (x=6.4mm)

Shell with 2.5 whorls, very thin, pale yellow, aperture ovate, lip sharp. **Note:** species identification is not well known and therefore only genus is given.



2000  $\mu$ m



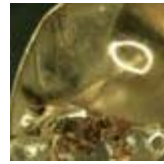
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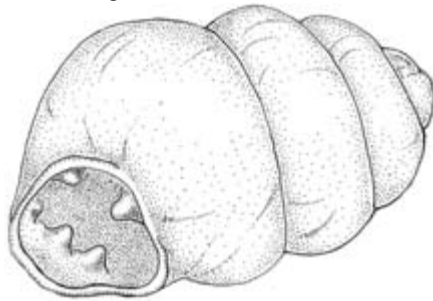
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 17 • *Vertigo pygmaea* (Draparaund)

Length: 2.0mm; (N=2) (x=2.0mm)

Shell with 5 whorls, chestnut-brown, lip reflected, containing lamellae.



1000  $\mu$ m



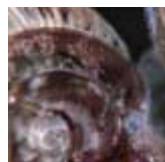
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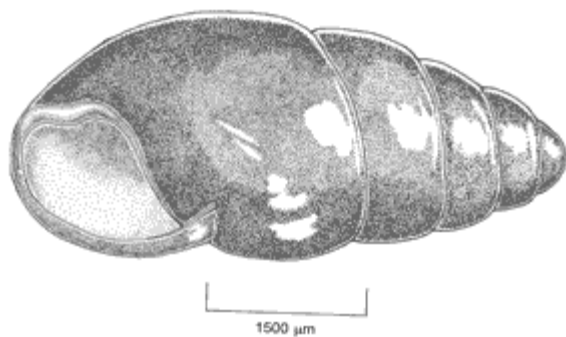
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 18 • *Cochlicopa lubrica* (Müller)

Length: 5.0-5.6mm; (N=6) (x=5.1mm)

Shell with about 5–5.5 whorls, light tan, very glossy, lip not reflected by thickened within, columell slightly sinuate.



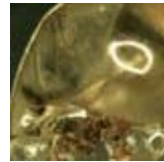
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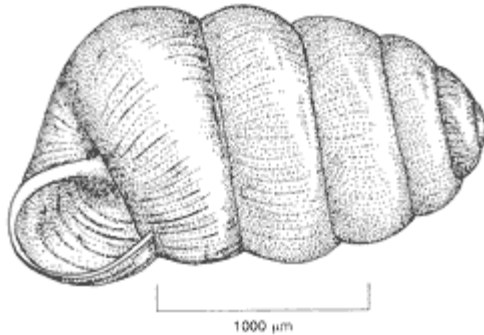
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 19 • *Columella edentula* (Draparnaud)

Length: 1.75–2.5mm; (N=4) (x=1.8mm)

Shell with about 5.5–6.5 whorls, cylindrical, perforate, cinnamon, thin, smooth but with irregular growth lines. Shell length given is for adults, but smaller juveniles are more commonly found.



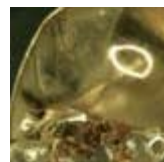
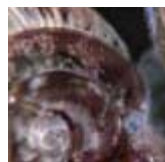
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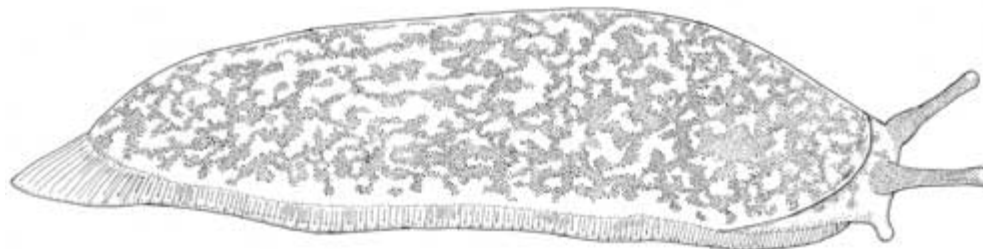
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 20 • *Philomycus fluxuolaris* (Rafinesque)

Length: 50mm; (N=4) (x=45mm)

Slug is dark brown with lighter flecks, faint darker bands down sides, foot fringe has reddish tinge, mantle covers nearly entire body.



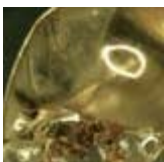
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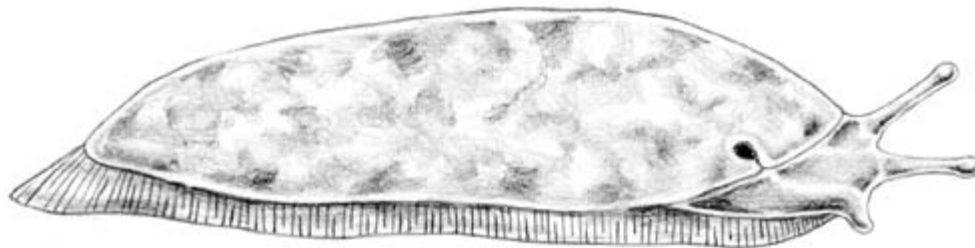
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 21• *Pallifera dorsalis* (Binney)

Length: 6.5-15mm; (N=2) (x=unknown)

Slug is usually gray or bluish-gray with darker coloured sections, foot sole white, may have a dark line along dorsal surface of mantle.





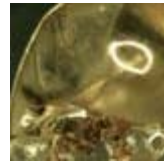
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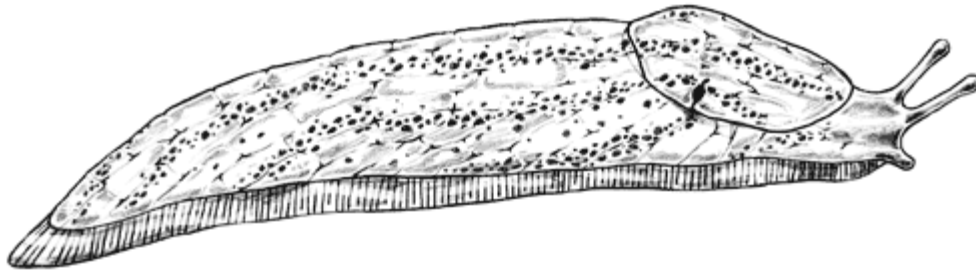
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 22• *Limax maximus* (Linné)

Length: 82-120mm; (N=7) (x=118mm)

Slug is light to dark brown, black spots on both mantle and body, body not banded, mucus colourless.



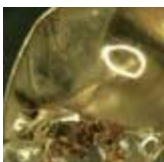
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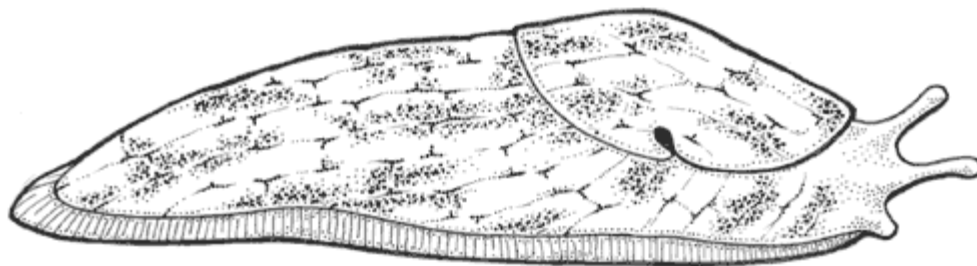
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 23• *Deroceras reticulatum* (Müller)

Length: 16-28mm; (N=14) (x=24.3)

Slug is light coloured, darker inconspicuous markings on entire body, commonly called the Grey Garden Slug.



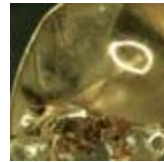
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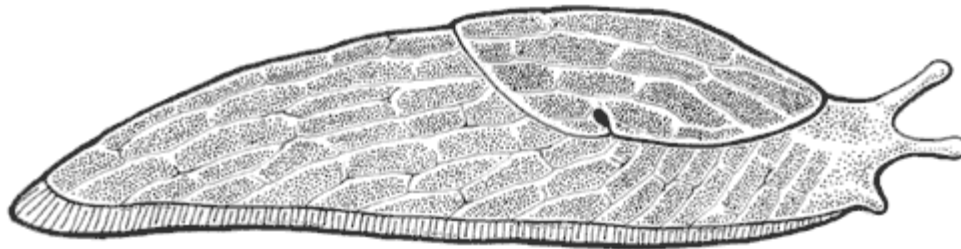
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 24• *Deroceras laeve* (Müller)

Length extended: 9-24mm; (N=4) ( $\bar{x}$ =15.2)

Slug usually solid coloured, dark brown to black, similar to *Deroceras reticulatum* but smaller and more uniform in colour.



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## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 25 • *Cepaea hortensis* (Müller)

Diameter: 13.7–19.5 mm; (N=25) (x=16.9mm)

Shell with 4–4.5 whorls, banana yellow, may have 1–5 brown bands on each whorl, may be translucent or opaque, aperture lip reflected and white when viewed from inside, commonly called the white-lipped garden snail.



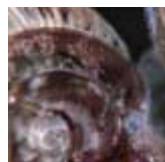
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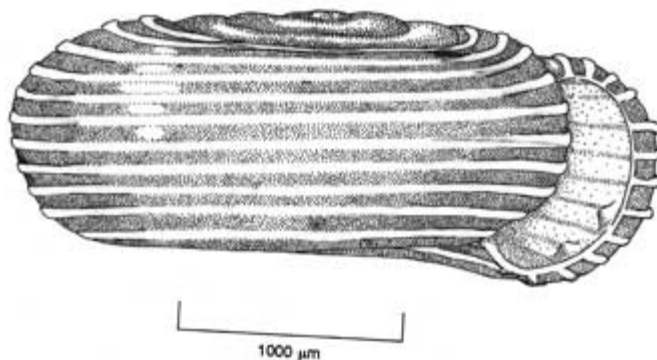
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 26 • *Helicodiscus parallelus* (Say)

Diameter: 3.2–3.5mm; (N=1) (x=3.2mm)

Shell with 4–4.5 whorls, pale green, spiral lirae poorly developed on first one or two whorls.



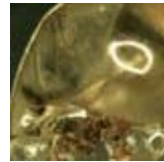
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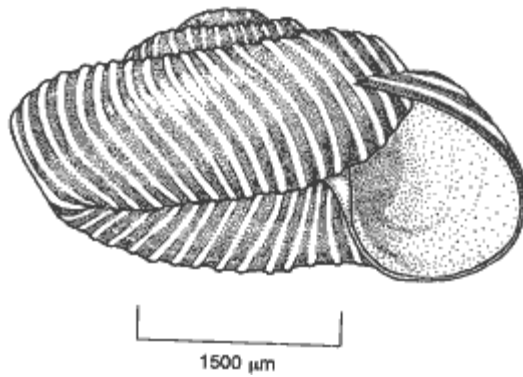
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 27 • *Discus catskillensis* (Pilsbry)

Diameter: 3.7–4.2mm; (N=16) (x=4.1mm)

Shell with 4 whorls, pale brown, angular periphery, wide umbilicus.



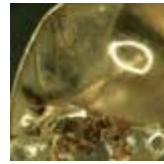
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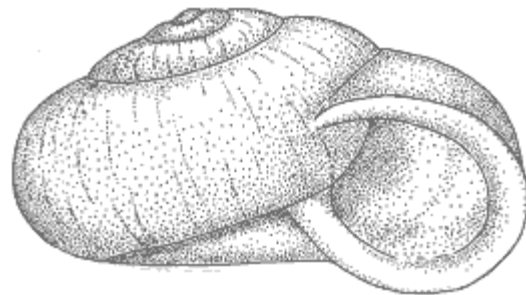
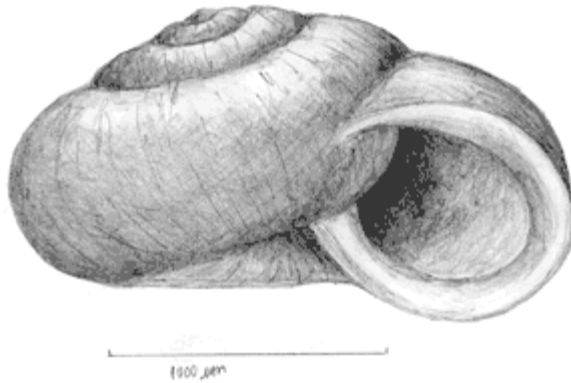
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 28 • *Vallonia pulchella* (Müller)

Length: 2.2mm; (N=4) (x=2.1mm)

Shell with about 3 whorls, whitish, faint growth lines, moderately umbilicate.



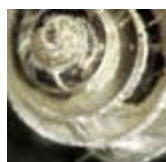
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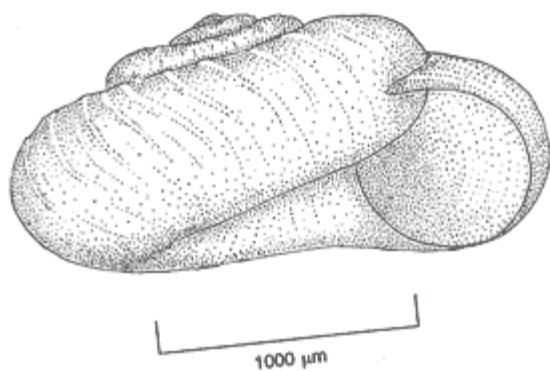
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 29 • *Hawaia minuscula* (A. Binney)

Length: 2–2.8mm; (N=1) (x=2.1mm)

Shell with about 3.5–4.5 whorls, pale whitish, distinct growth wrinkles, umbilicus about 1/3 shell diameter.





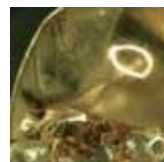
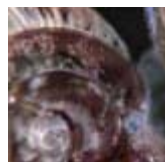
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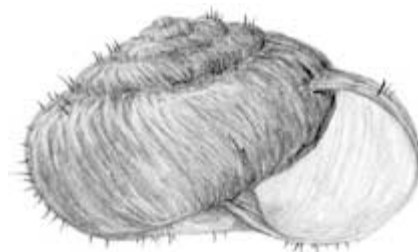
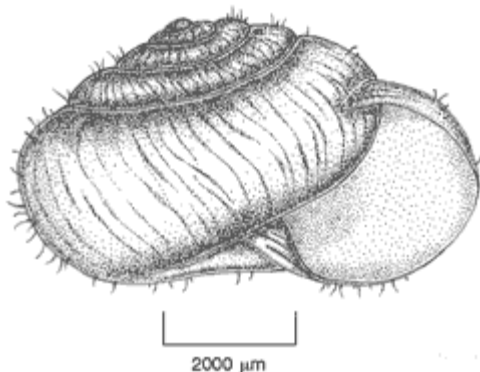
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 30 • *Trichia (Trichia) hispida* (Linne)

Length: 6.1–8.5mm; (N=21) (x=7.3mm)

Shell with 5–6 whorls, pale cinnamon-brown, rounded whorls, hirsute shell condition remaining in adults.



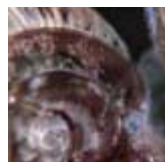
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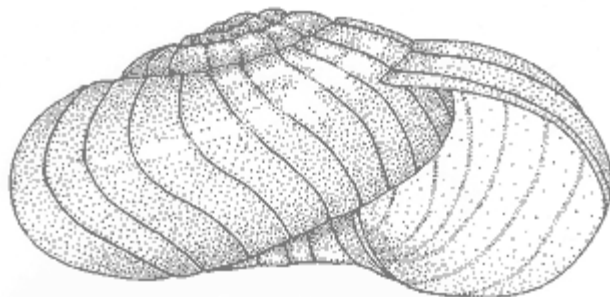
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 31 • *Glyphyalinia indentata* (Say)

**Diameter:** 4.7–7.1mm; (N=7) ( $\bar{x}$ =3.9mm)

Shell with 4.5–5 whorls, tan, translucent, radiating indented lines evenly spaced, faint growth lines and striae also visible.



1500  $\mu$ m



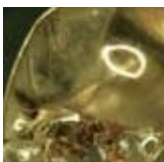
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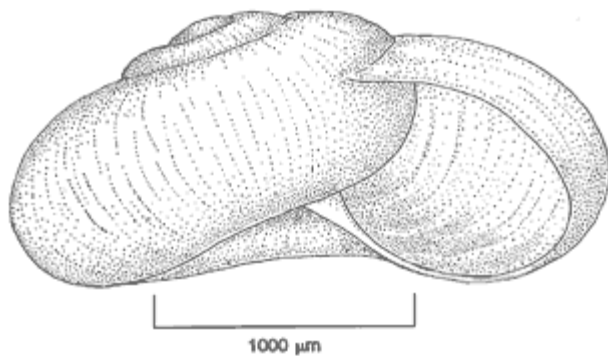
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 32 • *Nesovitrea binneyana* (Say)

Length: 3.5-5.3mm; (N=3) (x=3.1mm)

Shell with 3.5–4 whorls, almost colourless, faint green, very similar to *Nesovitrea electina*.



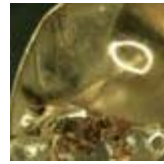
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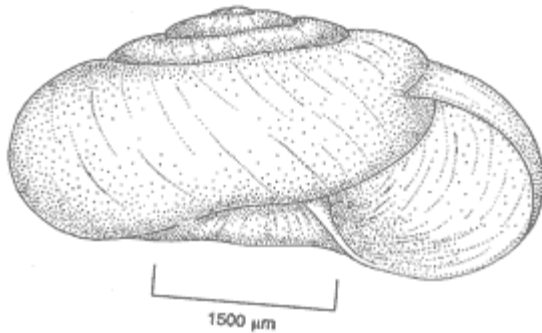
# LAND SNAILS AND SLUGS OF CAPE BRETON

## KEY

### 33 • *Zonitoides arboreus* (Say)

Diameter: 5-6mm; (N=34) (x=3.8mm)

Shell with 4.5-5 whorls, brownish in colour, faint spiral striae.



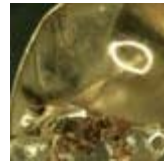
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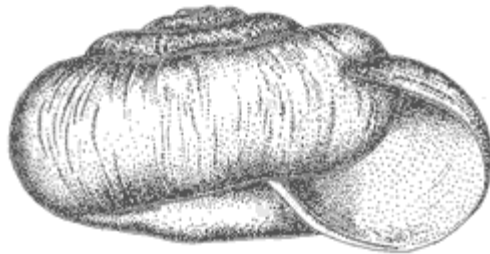
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 34 • *Nesovitrea electina* (Gould)

Diameter: 4.6-5.2mm; (N=4) (x=4.8mm)

Shell with 3.5 whorls, pale green to brown, moderately umbilicate.



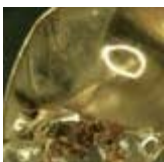
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## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 35 • *Euconulus fulvus* (Müller)

Diameter: 2.6mm; (N=1) (x=2.6mm)

Shell with 4.5–6 whorls, tan, conical spire, lip thin, periphery rounded or sub angular.



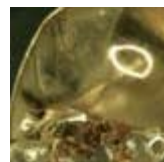
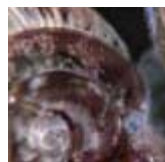
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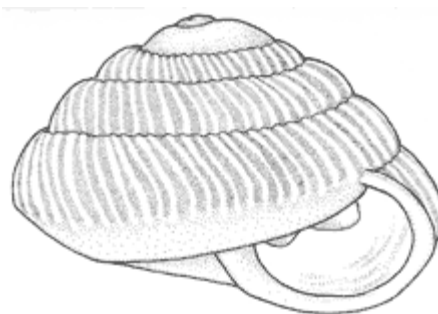
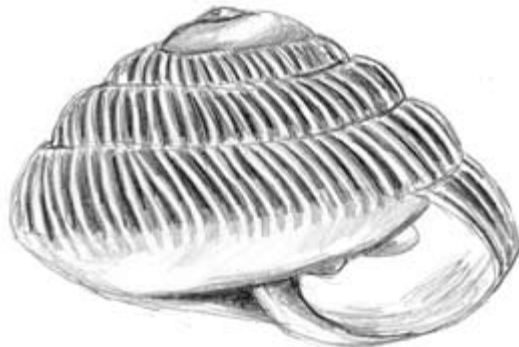
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 36 • *Strobilops labyrinthica* (Say)

Diameter: 2.3-2.5mm; (N=4) (x=2.2mm)

Shell with 5.5 whorls, light brown, ribs absent on the underside of shell, spire conically shaped, narrowly perforate.



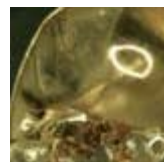
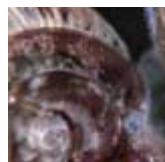
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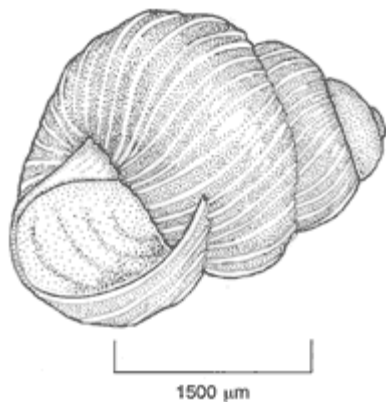
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 37 • *Zoögenetes harpa* (Say)

Diameter: 1.5-2.5mm; (N=9) (x=2.1mm)

Shell with 4 whorls, olive-brown, last two whorls sculptured with ribs, first few smooth, lip thin, not reflected.





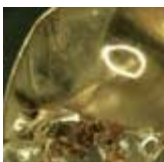
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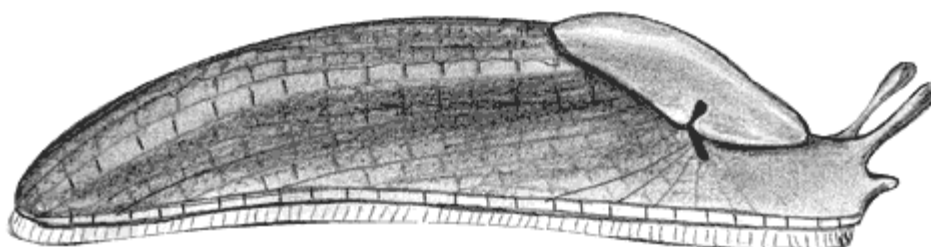
## LAND SNAILS AND SLUGS OF CAPE BRETON

### KEY

#### 38• *Arion fasciatus* (Nilsson)

Length extended: 20-46mm; (N=16) (x=34.3)

Slug pale gray to black with a porcelain white foot, muscus clear.  
Reproductive pore located in front of breathing pore, breathing pore below right pigment band. Sides of body have dark longitudinal bands.



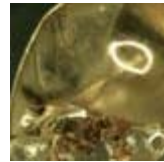
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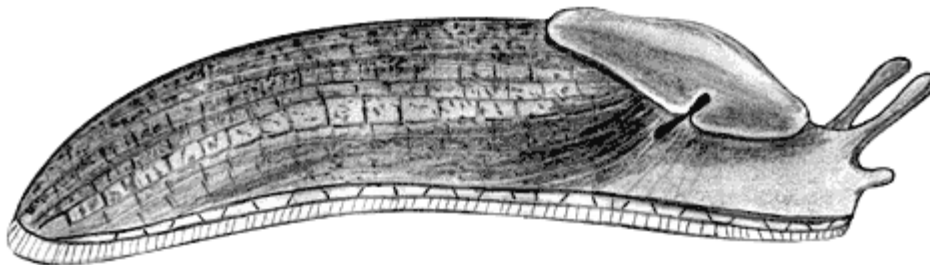
## LAND SNAILS AND SLUGS OF CAPE BRETON

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#### 39• *Arion hortensis* (Ferussac)

Length extended: 20-40mm; (N=3) (x=30)

Slug dark gray to black, posterior end rounded when viewed from above, right mantle pigment band thick, dark and covering breathing pore.



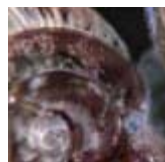
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#### 40• *Arion subfuscus* (Draparnaud)

Length: 60-80mm; (N=11) (x=64)

Slug yellowish, mantle pigment band faint, foot pale yellow, breathing pore within pigment band. When killed in salt water or deoxygenated water, it balloons out a reproductive pore, located just below the breathing pore on the right side.

