

**COLUMELLA EDENTULA (DRAPARNAUD, 1805)  
(PUPILLIDAE), A NEW ADDITION TO NOVA SCOTIA'S  
TERRESTRIAL MOLLUSC FAUNA**

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Four specimens of *Columella edentula* (Draparnaud, 1805) (Mollusca: Pupillidae), a snail species previously unreported in Nova Scotia, were collected in July 1995 near Garbarus Bay. This extends the species range into Nova Scotia from the Magdalen Islands in the northwest, from Labrador in the north, and from the United States in the south.

Four specimens of *Columella edentula* (Draparnaud, 1805) (Fig. 1) were collected in a moist meadow near Garbarus Bay, Nova Scotia (45°53'8", W60°8'28"), on 27 July 1995. The site of collection is an old field in an early successional phase and contains grasses, sedges, rushes, goldenrods, and alders. Along with the specimens of *C. edentula*, four specimens of *Catinella avara* (Say, 1824) and three unidentified specimens belonging to the genus *Succinea* were collected. The four specimens of *C. edentula* represent the first collection of the species in Nova Scotia (Davis, 1985, 1990, 1992) and extend its range into the province from the Magdalen Islands in the northwest, from Labrador in the north, and Pennsylvania in the south (Pilsbry, 1948). Thus, *C. edentula* is now known to occur in Canada from Vancouver Island east to Labrador, the Magdalen Islands (Pilsbry, 1948), and Nova Scotia. In the United States it occurs south to Alabama (Pilsbry, 1948). A description of the specimens collected follows.

Description: Shell cylindrical, tapering towards rounded apex, perforate, juveniles with 4 1/4-4 3/4 whorls, adult with 5 1/2 whorls; thin; light cinnamon, whitish streaks visible on the adult shell and on the apex of the largest juvenile shell; glossy; smooth both with irregular growth lines; sutures deeply impressed. Aperture rounded, truncate by the preceding whorl, with no lamellae. Peristome thin and sharp, with reflected columellar margin. Shell heights (in mm) of the four specimens collected: adult: 2.5; juveniles: 1.2, 1.6, and 1.7.

Pilsbry (1948) in his treatment of *C. edentula* in North America notes that specimens examined were all smaller and with smoother surface sculpture than the typical European form and that they resembled the form *simplex* (Gould, 1841) from New York State and Vancouver Island. Paul (1975) and Kerney and Cameron (1979) reported on the genus *Columella* in Britain and Northwest Europe and include *Columella aspera* Walden, 1966, as distinct from the typical *C. edentula*. In the past these two species have been commonly confused; *C. aspera* is smaller than *C. edentula* but less polished in appearance due to numerous, close-set growth ridges.

A morphologically closely related species that exists in Nova Scotia, *Pupilla muscorum* (Linné, 1758), can be differentiated from *C. edentula* by its larger size (shell height = 3.2-4 mm), its greater number of whorls (up to 7 1/2) and its less impressed sutures (Burch, 1962). *Pupilla muscorum* has been found in mainland Nova Scotia (Davis, 1985, 1990, 1992) but not in Cape Breton (MacMillan, 1954).

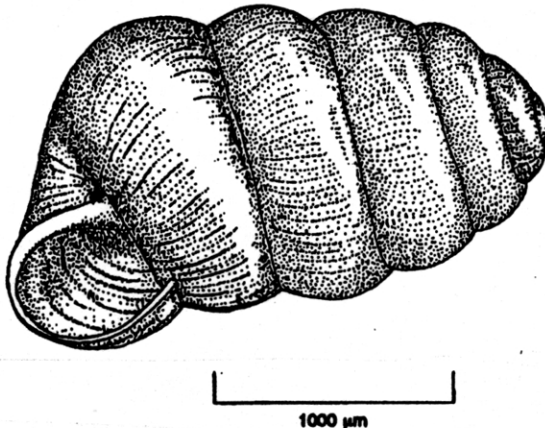
A high proportion (40%) of Nova Scotia's terrestrial molluscs have European affinities including 16% Holarctic and 24% introduced Palearctic forms (Davis,

1992) and it may be difficult to determine the affinity of a particular species. The new record of *C. edentula* provides opportunities for further comparative studies of North American and European material that could contribute to a better understanding of the origins of the Nova Scotia malacofauna.

The specimens of *C. edentula* described herein have been deposited in the Nova Scotia Museum of Natural History Mollusca Collection in Halifax, Nova Scotia (Nos. Z13946-Z13949). Acknowledgements: We would like to thank Dr. Derek Davis (retired from the Nova Scotia Museum of Natural History) for confirming the identification of the specimens, Mary (Pixie) Williams (Port Morien, N.S.) for introducing us to the collection site, Basma Kavanagh for the illustration, and the Natural Sciences and Engineering Research Council of Canada and the University College of Cape Breton for financial support.

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**Fig 1** Adult *Columella edentula* (Draparnaud, 1805) (shell length = 2.5 mm) collected near Gabarus Bay, Nova Scotia, on 27 July 1995.