

The family Neritidae Rafinesque, 1815 (Gastropoda: Neritoidea)
in the Western Atlantic

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DESCRIPTION

Shell small, globose, turbiniform to pateliform with few whorls, spire flat and round toothed aperture; usually thick in the marine forms and thin in those from brackish and fresh waters. Operculum calcareous, usually with rib-like reinforcement which inserts to the muscle of the animal. Without umbilicus.

Animals vegetarians, feeding on minute algae, nocturnal habits. The ability to store water in the shell enables these animals to withstand periods of desiccation, such as occur at low tide or if they are living in the spray zone. They lay very small eggs in capsules dome-shaped on rocks.

This family contains several hundred species in tropical waters.

TAXONOMY

Gastropoda Cuvier, 1797

Prosobranchia Edwards, 1848

Archaeogastropoda Thiele, 1925

Neritimorpha Golikov & Staborogatov, 1975

Neritoidea Rafinesque, 1815

Neritidae Rafinesque, 1815

Neritinae Rafinesque, 1815

Nerita Linnaeus, 1758

Neritina Lamarck, 1816

Neritodryas von Martens, 1869

Theodoxus Montfort, 1810

Neritiliinae (*)

Neritilia von Martens, 1879(*)

Septariellina Bequaert & Clench, 1936(*)

Smaragdiinae Backer, 1923

Smaragdia Issef, 1869

Magadis Melvill & Standen, 1899

Pisulina G. & H. Nevill, 1869

peloronta (Linnaeus, 1758)

pulligera (Linnaeus, 1758)

cornea (Linnaeus, 1758)

fluvialilis (Linnaeus, 1758)

rubida (Pease, 1865)

viridis (Linnaeus, 1758)

eumerintha Melvill & Standen, 1899

adamsiana G. & H. Nevill, 1869

(*) Fresh water

LIST OF SPECIES**Genus *Nerita* Linnaeus, 1758*****ascensionis ascensionis* (Gmelin, 1791)**

(Figs. 1-2) - Well developed spire somewhat eroded; smooth aperture; columella concave and parietal area white with denticles; outer lip crenulated; operculum granulated dark brown. Colour dark with spots on the spiral cords forming an axial pattern

Syn. *Nerita malaccensis* Gmelin, 1791

Shallow water, on rocks, exposed at low-tide.

Ascension Is

***ascensionis chlorostoma* (Lamarck, 1816)**

(Figs. 3-4) - Similar to *N. ascensionis ascensionis* but with more spiral cords less developed; the crenulated outer lip has teeth moderately developed and the colour of the parietal shield is light-yellow to orange

Shallow water, on rocks, exposed at low-tide

Syn. *Nerita ascensionis deturpensis* and *ascensionis trindadensis* both Vermeij, 1970

Brasil (Pernambuco to Bahia State and Fernando Noronha & Trindade Is.)

***fulgurans* Gmelin, 1791**

(Figs. 5-6) - With 4-5 whorls, little spired. Numerous spiral threads crossed by crowded growth lines; aperture relatively wider, bright white, two prominent teeth; operculum yellowish grey; 22-30 spiral ribs, columellar shield pustulose. Colour black with fine, minute, whitish axial markings and sometimes yellowish gray mottled with brown.

Shallow, brackish water, on intertidal rocks.

Syn. *Nerita fulgurata* Gmelin, 1791

East USA to Brasil (Pará to Rio Grande do Norte State)

***peloronta* (Linnaeus, 1758)**

(Figs. 7-8) - Thick and heavy, spire low. Surface bears several broadly rounded revolving ribs; inner lip with 1-2 teeth; operculum shelly. Colour grayish yellow with zigzags of black and red; blood-red parietal area.

Syn. *Nerita erythrodon* Récluz, 1850; *N. tricolor* Gmelin, 1791; *N. papilio* Röding, 1798 and *N. sanguidens* Récluz, 1850

Shallow water, most active at night about the rocks between tides, feeding upon algae.

East USA to West Indies - Antilles

***pupa* (Linnaeus, 1758)**

(Figs. 9-10) - Small, thin but sturdy; 2-3 whorls; outer lip thin and sharp, with a broad, flat, polished area at base columellar; operculum shelly light-yellow. Colour creamy white, spirally striped with very narrow, zebra-like irregular lines

In splash pools above the high-tide mark.

East USA to West Indies

***tenebricosa* (C. B. Adams, 1851)**

(Figs. 11-12) - Shell globose and thin. Parietal area slightly convex; smooth and bearing not teeth. Ground color dark-brown with very angular, dark-brown zigzag lines transversing the whorl with the angles directed from aperture towards the spire

In mountain streams.

Jamaica & Grenada Is.

***tessellata* Gmelin, 1791**

(Figs. 13-14) - With 4-5 whorls separated by indistinct sutures, sculptured with 12-16 spiral ribs; numerous small teeth on columellar margin; aperture white; parietal area concave; 2 weak teeth in the middle; operculum slightly convex and black. Colour checkered black and white and somewhat eroded spire.

Shallow water, under rocks at low-tide.

Syn. *Nerita tadin* Récluz, 1850

East USA to Brasil (Pará to Bahia State) - Senegal

***tristis* (Orbigny, 1842)**

(Figs. 15-16) - Shell small; aperture bluish-yellow; operculum black to pink. Colour black with small white spots.

Fresh and brackish water.

Syn. *Nerita pupa tristis* Orbigny, 1842

West Indies - Antilles

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(Figs. 1-2) - Well developed spire somewhat eroded; smooth aperture; columella concave and parietal area white with denticles; outer lip crenulated; operculum granulated dark brown. Colour dark with spots on the spiral cords forming an axial pattern.

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West Indies - Antilles

Genus *Smaragdia* Issel, 1866

viridimaris (Maury, 1917)

(Figs 32-33) - Shell small; fragile; with 2-3 whorls practically no spire; aperture large; lip thin and sharp; surface highly polished; operculum whitish. Colour pale to light-green with opaque white spots largest just below the suture and a band opaque white bordering the columellar shield.

Syn. *Neritina waysssei* Russel, 1940 and *Smaragdia viridis viridimaris* Maury, 1917

Shallow water, grass bottom.

Note: Typical *Smaragdia viridis* is a Mediterranean species

East USA to Brasil (North)

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Plate I

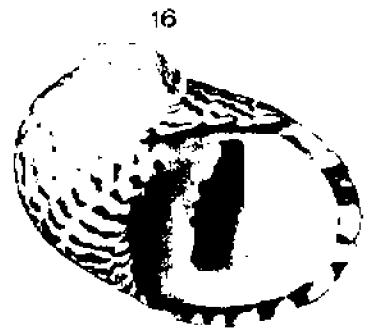
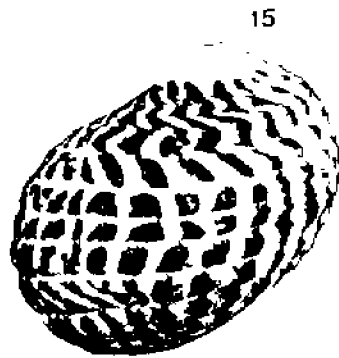
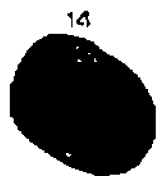
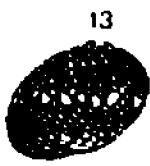
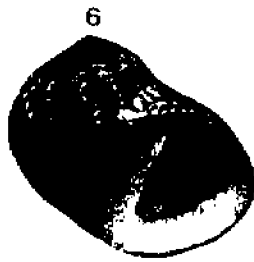
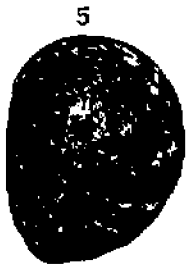
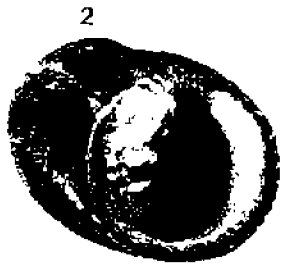


Plate II

