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A critical checklist of the non-marine molluscs of St. Martin, with notes on the terrestrial malacofauna of Anguilla and Saint-Barthélemy, and the description of a new subspecies.

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Plate A - Central hills. Inset photo's, from left to right *Sarasinula plebeia*, *Helicina fasciata*, *Drymaeus elongatus*, all specimens collected near Paradise peak.

Summary - The non-marine malacofauna of St. Martin is critically revised. Forty-seven terrestrial taxa and 7 freshwater taxa are accepted as being part of the non-marine malacofauna. The fauna is compared with the fauna of the much less known islands of Saint-Barthélemy and Anguilla. *Pleurodonte guadeloupensis martinensis* is described as a new subspecies, endemic for St. Martin.

Key words - Gastropoda: Annulariidae, *Pleurodonte guadeloupensis martinensis* subsp. nov., checklist, Anguilla, Saint-Barthélemy, St. Martin, Caribbean.

Résumé - La malacofaune non marine de Saint-Martin fait l'objet d'une révision critique. Quarante-sept taxons terrestres et sept taxons d'eau douce sont acceptés comme faisant partie de la malacofaune non marine. La faune est comparée à la faune des îles beaucoup moins connues de Saint-Barthélemy et d'Anguilla. *Pleurodonte guadeloupensis martinensis* est décrit comme une nouvelle sous-espèce, endémique à Saint-Martin.

Mots-Clés - Gastropoda : Annulariidae, *Pleurodonte guadeloupensis martinensis* sub-spe nov. nouvelle, liste, Anguilla, Saint-Barthélemy, St. Martin, Petites Antilles.

Introduction

St. Martin lies at the northwestern end of the string of islands which form the Leeward Antilles. It is about 87 km². The southern part, approximately 34 km², belongs to the Kingdom of the Netherlands and is called Sint Maarten. The northern part, St. Martin, is part of the Republic of France and is called Saint Martin. In the context of this paper, we will use the term St. Martin, to refer to the whole island, regardless of its Dutch or French part.

St. Martin is hilly. The highest point is Pic Paradis (Paradise Peak), 424 m a.s.l.. Other hills are Mont O'Reilly (368 m), Mont Caréta (397 m), Flagstaff (387 m), Naked Boy Hill (296 m), and Sentry Hill (341 m). Geologically the island consists in part of volcanic material, porphyrites and diorite, and in part of the so called Pointe Blanche formation, a mixture of tufa and calcareous marine deposits. The relatively flat western part of the island (les Basses Terres) consists of limestone, Lowland formation (Fielding, 2017) (Fig. 1).

Until the 19th century more than 90 plantations were active, with about one-third of them cultivating sugar. Primary forest disappeared, and even at the most unlikely places, such as at La Loterie, not far from the Pic Paradis, one can find remnants of the former sugar industry.

The higher hills are covered with secondary forest, but almost everywhere else the land has been cleared for houses. This process began in the 1960s and shows no signs of stopping. In the Dutch part of St. Martin there are 1261 inhabitants per km², in the French part there are 761 inhabitants per km² (www.Worldometer.info, 2020). It is unknown what the effect of this development has been on terrestrial molluscs of St. Martin.

Bland (1861), who reviewed the malacofauna of the West Indian islands, mentioned only two taxa from St. Martin, *Bulimus elongatus* (Röding, 1798) and *Bulimus exilis* (Gmelin, 1791). Bland exchanged land mollusks with Hendrik van Rijgersma (1835-1877), a resident physician. He collected terrestrial molluscs between 1863 and 1877 (Coomans, 1974, 1989) and communicated his finds with, among others, Hippolyte Mazé, who published the first checklist for St. Martin (Mazé, 1883, 1890). Mazé (1890) also reported on the malacofauna of Saint-Barthélemy.

The Dutch zoologist Wagenaar Hummelinck (1981) collected extensively in the Caribbean and visited St. Martin at least four times between 1949 and 1973, but his primary interest was not in malacology. Most of his collected material, now housed in Naturalis Biodiversity Center, has not been studied, except for some families such as Bulimulidae, Subulinidae, Vertiginidae, and Streptaxidae that were examined by specialists (e.g., Breure, 1974; Venmans, 1963; Haas, 1960, 1962).

Anguilla and Saint-Barthélemy were connected to St. Martin during the Pleistocene, when the sea level was at least 36 m but perhaps up to 100m lower than it is now (Fig. 2) (Christman, 1953). Because of their common geological history, we considered it useful to include the available data on the malacofauna of Anguilla and Saint-Barthélemy. These two islands have never been intensively investigated for non-marine molluscs. Bland (1861) reported one and two taxa from Anguilla and Saint-Barthélemy, respectively.

Anguilla, approximately 7 km to the north of St. Martin, has a surface area of about 90 km², and a population density of 167 inhabitants per km². (www.Worldometer.info). The highest point, at 65 m a.s.l., is Crocus Hill. Almost the whole island consists of limestone.

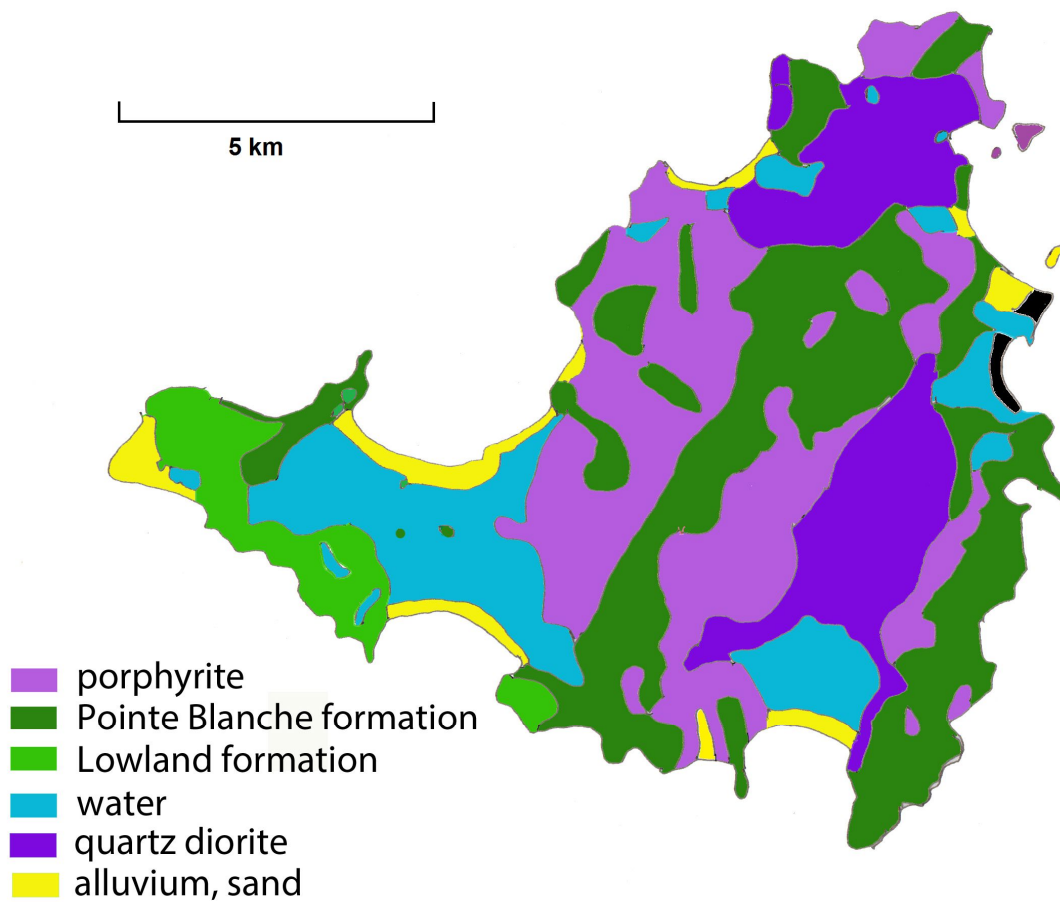


Fig. 1 - Distribution of principal surface layers on St. Martin. Adapted from Christman (1953).

Saint-Barthélemy, has a surface area of 21 km² and a population density of 497 people per km² (www.Worldometer.info). It lies about 35 km southeast of St. Martin. It is considerably higher than Anguilla, with the highest point, Morne du Vitet, at 286 m a.s.l.. Most of the island is volcanic in origin, and limestone deposits are mainly located on the peninsula south of le Gouverneur. Recently Questel published (2017, 2018) his data on St. Barthélemy.

Coomans (1967) reviewed the non-marine malacofauna of St. Martin and listed 47 taxa. Bertrand (2002) added seven taxa. Because the last overview of the malacofauna dates from 50 years ago and because of the intensive changes in land use in recent times, we present a revised checklist of the non-marine molluscs incorporating the material collected by Wagenaar Hummelinck on St. Martin, which includes a subspecies of *Pleurodonte guadeloupensis* that we describe here as new.

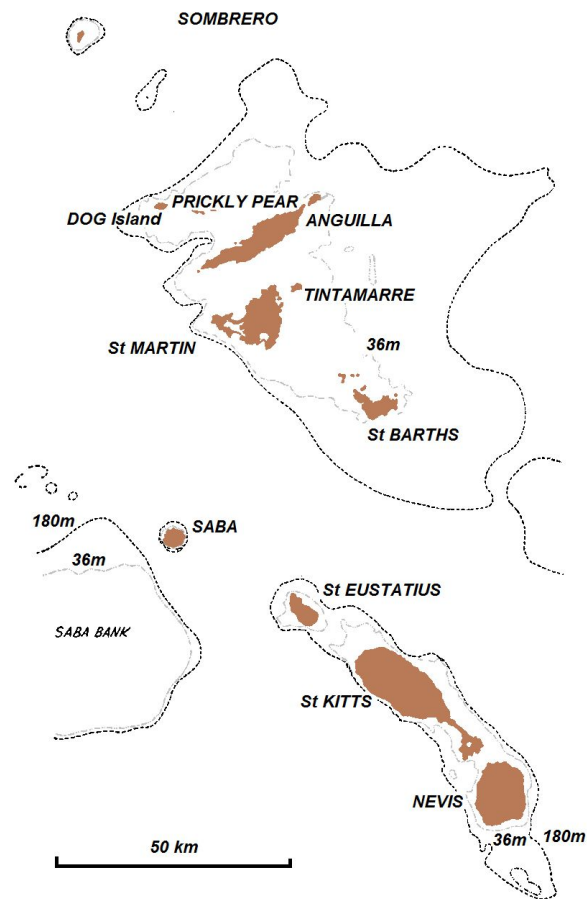


Fig. 2 - Anguilla Bank, with depth lines, to show the size of different islands and their connection with each other, with the lowering of sea levels. Adapted from Christman (1953).



Plate B - Philipsburg, looking east, showing extended built up area.



Plate C - Type-locality of *Pleurodonte guadeloupensis martinensis*, with two cauldrons, remnants of the sugar industry.

Material and methods

Abbreviations: Ad Hovestadt AH; Tello (C.M.) Neckheim TN; Thijs de Boer TB; Anna Rojer AR and Pieter Wagenaar Hummelinck WH

For all taxa we will give the primary reference, their taxonomic position and present distributional data. We have not attempted to create a complete list of all references. An essential synonymy is provided. This synonymy is not intended to be exhaustive for those species that are not endemic for the three islands under consideration.

For each taxon cited, the primary reference will be given. Where relevant, additional references will be given, especially when this reference contains data on distribution of the taxon in question on St. Martin, Anguilla or Saint-Barthélemy or is deemed relevant with regard to the Caribbean area.

Coomans (1967, 1974) has published a series of articles on the malacofauna of Sint Maarten. His activities were mostly centered on the malacological history of Sint Maarten. His field work on Sint Maarten resulted in no more than 4 species. We use the listing of Coomans (1967) as the baseline for our study and refer to his work for additional references. The relevant literature published since 1967 has been added. In 1974 Coomans published a historical survey of all known taxa, marine and non-marine, reported from Sint. Maarten. The non-marine taxa added by Coomans in 1974 to his 1967 list, were not the result of new collecting activity, but rather the result of researching the van Rijgersma archive (Coomans, 1974). The 1974 list is not incorporated in our Species-list.

Questel (2017, 2018) has published two lists of terrestrial shells occurring on Saint-Barthélemy. In the 2017 list, two slugs are missing, *Leidyula floridana* (Leidy, 1851) and *Veronicella cubensis* (L. Pfeiffer, 1841). *Cornu aspersum* (Linnaeus, 1758) *Pupoides albilabris* (C.B. Adams), *Strepartemon* spec. and *Succinea* spec. are mentioned. *Diplopoma crenulatus martinensis* (Coomans, 1967) is mentioned on both lists (and also from Prickly Pear Cays, Anguilla (Questel & Hochart 2018)), but the accompanying photo shows *Diplopoma sulculosum*, which is quite common on Saint-Barthélemy.

Bouchet & von Cosel (1991) published a list of taxa occurring in several French dependencies. With regard to St. Martin they merely reiterated Cooman's findings, and referred to Mazé (1883, 1890) without presenting any new data. The Bouchet & von Cosel list (1991) therefore have also not been repeated in our species list.

We follow the supraspecific classification proposed by Bouchet *et al.* (2017).

Nearly all of the recent material has been collected by us. Wagenaar Hummelinck collected a lot of specimens and visited many sites more than once. Overall his results do not differ significantly over the years. Examined species are in most cases collected by either Wagenaar Hummelinck or by us. Other collectors can be found in appendix 1, where a chronological list of localities sampled is given. We have already reported our personal collecting experiences on St. Martin (Neckheim & Hovestadt, 2016), and most species are illustrated in that report.

Specimens from Anguilla were collected by either Wagenaar Hummelinck or AH; those from Saint-Barthélemy were collected by AH. The collecting efforts on these two islands were biased towards larger specimens because no leaf litter was analyzed. The samples collected by Wagenaar Hummelinck were originally deposited in the Zoological Museum of Amsterdam but are now in Naturalis Biodiversity Center, Leiden.

It is not always easy to identify some of the smaller taxa from St. Martin. This is caused in part by the lack of comparison material from neighbouring islands. Only recently reviews have become available of the malacofauna from Martinique, Dominica and St. Kitts and Nevis, and Saba. The most recent review of Puerto Rico dates from 1948. And with regard to Guadeloupe only a handlist is available. It is sometimes difficult to interpret small differences between shells and regard the differences as the effect of living in isolation on an island or evidence of speciation in progress.

Systematics

Family Helicinidae A. Férussac, 1822

- ***Helicina fasciata fasciata* Lamarck, 1822**

Helicina fasciata Lamarck, 1822: tome 6: 103 ("dans l'île de Porto-Ricco").

Helicina picta – (Sowerby, 1842)

Remarks: *Helicina fasciata* has been described from Puerto Rico, but since then has not been found again. According to Van Der Schalie (1948) there has been a mix-up of *Helicina fasciata* and *Helicina phasianella* Sowerby, in Pfeiffer, 1854. *Helicina phasianella* is endemic to Puerto Rico.

Helicina fasciata has been found on most islands between Saint Lucia and St. Martin. There are no compelling reasons to assume this species has an anthropogenic distribution pattern. Subspecies have been described from Martinique, Grand Cayman and Old Providence, but further investigations are needed to prove this is really the case.

Material examined. — **St. Martin**: AH: 10, 20, 24; AR: 03; TN: 04, 15, 19, 20; WH: 060, 064, 065, 066, 072, 074.

- ***Lucidella striatula christophori* (Pilsbry, 1897)**

Helicina striatula – A. Férussac, 1827: 409 ("Le Jardin du Roi, à Saint-Pierre, île Martinique, sous les pierres").

Helicina plicatula – L. Pfeiffer, 1849: 123 ("the island of Martinique").

Helicina euglypta – Crosse, 1874: 119, pl. 4, fig 4 (Martinique).

Helicina plicatula christophori – Pilsbry, 1897: 118 ("the island of St. Kitts").

Lucidella plicatula – Bertrand, 2002: 35 (St. Martin).

Lucidella (Poenilla) plicatula christophori – Breure *et al.*, 2016: 31-32, figs 5-7, 21 (Saint Kitts, Nevis).

Lucidella striatula – Delannoye *et al.*, 2008, pl. 32 (Martinique).

Lucidella plicatula christofori [sic!] – Neckheim & Hovestadt, 2016: 20, pl. 1 fig. 31 (St. Martin).

Distribution. — *Lucidella striatula* has been reported from St. Martin, Martinique and Guadeloupe to Barbados (Delannoye *et al.*, 2015: 208). According to Baker (1962: 17), who considered *Helicina vinosa* Shuttleworth, 1854 to be a subspecies of *Lucidella plicatula*, *L. p. vinosa* is limited to Puerto Rico and Vieques. *Lucidella striatula christofori* can be found on St. Martin, Saint Kitts, Nevis. On Dominica and Martinique *L. striatula striatula* occurs. Chase & Robinson (2001) mention *L. striatula* from Barbados, but add that it is probably extinct there.

Remarks. — Delannoye *et al.* (2015: 208) considered *L. plicatula* a junior synonym of *L. striatula*, but at the same time suggested that *plicatula* is used for more than one species. Férussac (1827: 409) described *Helicina striatula* from the botanic garden of Saint Pierre, Martinique. The syntype of *striatula* is figured by Delannoye *et al.* (2015: pl. 32 fig 4).

The specimens that we have seen are similar to specimens from Nevis. *Lucidella s. christofori* was reported earlier by Bertrand (2002), from Pic Paradis. It is not mentioned by Coomans (1967).

Lucidella striatula christofori was found by Thijs de Boer, and TN in moist leaf litter near the top of Pic Paradis.

Material examined. — **St. Martin**: TB: 01; TN: 15.

Family Neritidae Rafinesque, 1815

- ***Vitta virginea* (Linnaeus, 1758)**

Nerita virginea Linnaeus, 1758: 778 (“M. Mediterraneo”).

Neritina virginea – Pointier, 2008: 17 + figs (Lesser Antilles: St Kitts, Guadeloupe, Dominica, Martinique, St Lucia); Yokoyama, 2013: 116 + foto 2. (St. Martin); Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 18 (St. Martin).

Vitta virginea – Eichhorst, 2016: 1051-1053, pls 325-326.

Neritina virginea – Mazé, 1890: 34 (“Peu abondante”, St. Martin).

For additional synonyms, see Eichhorst (2016: 1052).

Distribution. — According to Pointier (2008) and Eichhorst (2016: 1051), *V. virginea* is widely distributed from Florida to Brazil, including the Lesser Antilles.

Remarks. — Although never abundant, it can be found in flowing freshwater and brackish wetlands.

Material examined. — **St. Martin**: AH: 36. (brackish wetland).

Family Ampullariidae Gray, 1824

- ***Ampullarius (Effusa) glauca* (Linnaeus, 1758)**

Helix glauca Linnaeus, 1758: 771 (Type-locality unknown; Rio Tuca, near Tucacas, Venezuela chosen by Baker, 1930).

Ampullaria effusa – Mazé, 1890: 31 (“Espèce commune dans toutes les terres basses de l’île, où elle habite les mares et les rares cours d’eau temporaires” St. Martin ; Guadeloupe).

Pomacea (Effusa) glauca – Baker, 1930: 12-13, 18-20 (Venezuela, Guyana, Suriname, Colombia, Martinique, Guadeloupe).

Pomacea glauca – Pointier, 2008: 21 (St. Martin).

Ampullarius (Effusa) glaucus – Coomans, 1967: 125 (St. Martin).

Distribution. — St. Martin to Saint Lucia, Venezuela, Guyana, Brazil, Trinidad and Tobago. (Pointier, 2008: 21).

Remarks. — Pointier (2008) cited Coomans (1967), while Coomans referred to Mazé (1890: 31 – as *Ampullaria effusa*) and Vernhout (1914 – who also referred to Mazé). We have not seen this species, and

with a record from the island that is more than a century old, it may now considered to be extinct on St. Martin, although it was previously common (Mazé, 1890).

Material examined. — None.

Family Thiaridae Gill, 1871

- ***Melanoides tuberculata* (O.F. Müller, 1774)**

Nerita tuberculata O.F. Müller, 1774: 191-192 ("In littore Coromandel", India).

Melanoides tuberculata – Pointier, 2008: 27-30 + fig. (Lesser Antilles: Guadeloupe, Dominica, Martinique, St. Lucia and "whole intertropical area"); Neckheim & Hovestadt, 2016: 24, pl. 1 fig. 15 (St. Martin).

For additional synonyms see <https://www.gbif.org/species/4362965>.

Distribution. — This invasive species is widespread in tropical and subtropical regions worldwide (Pointier, 2008).

Remarks. — *Melanoides tuberculata* lives in freshwater streams and mangrove swamps where it feeds on algae.

Material examined. — **St. Martin**: TN: 11, 15, 17.

Family Annulariidae Gray, 1824

Remarks. — The family Annulariidae occurs from Florida through Central America to Colombia and Venezuela, as well as on most Caribbean islands (Cuba and the Bahamas to Martinique). Most annulariids prefer calcium-rich environments, living on the ground, but also often on tree trunks. Only one variable species, i.e. *Diplopoma crenulatum* (Potiez & Michaud, 1838), is found on the islands between Antigua and Martinique. The situation on St. Martin, Anguilla and Saint-Barthélemy is more complicated. According to Mazé (1890), no less than four species have been found, viz. 1, *Tudora pupiforme* (G.B. Sowerby, 1843) var. β (Simson Bay, quarry, limestone, rather scarce, no living specimens); 2, *Chondroma (sic) crenulatum* ("Férussac") Mazé, 1890 (Morne Paradis, Plantation Laclé, 360 m a.s.l., under stones, at old walls, fairly common); 3, *Chondropoma julienei* L. Pfeiffer, 1866 (site and habitat as *Diplopoma crenulatum*, rare); 4, *Choanopoma occidentale* (L. Pfeiffer, 1861) (Morne Paradis, near summit, alt. 400 m, in ground litter close to tree trunks, volcanic substrate, uncommon).

According to Coomans (1967), Mazé did not collect much himself (at least on St. Martin) and relied on van Rijgersma, who supplied him with specimens. Vernhout (1914) added a fifth species, viz. 5, *Chondropoma igneum* Reeve, 1863, as part of a collection bought from the London specimen shell firm Sowerby and Fulton. This was the first record of *Chondropoma igneum* from St. Martin. Coomans (1967) listed the same species and described *Adamsiella crenulatum martinensis* as a new subspecies. He did not mention other subspecies of *C. crenulatum* occurring on St. Martin.

There are one possibly extinct species, i.e. *Chondropoma pupiforme* from near Simson Bay, and four rare taxa from near Paradise Peak.

Watters (2014) reviewed the annulariids from Vieques to Dominica. He regarded the record of *Chondropoma julienei* from St. Martin as misidentified *Diplopoma crenulatum*. *Chondropoma igneum* is regarded as a synonym of *C. pupiforme*, and *C. occidentale* as a synonym of *D. crenulatum*. *Diplopoma crenulatum martinensis* was characterized by its small size, but it is within the range of variation in size and sculpture of the nominal subspecies.

For the annulariids we follow the systematics proposed by Watters (2014).

- ***Chondropoma (Chondropoma) julienei* L. Pfeiffer, 1866**

(Pl. 1 Figs 5, 9, 10)

Chondropoma julienei L. Pfeiffer, 1866: 89 ("insula Sombrero").

Chondropoma julienei – Coomans, 1967: 126.

Chondropoma (Chondropoma) julienei – Watters, 2014: 66-68, figs 1-10, 135.

Chondropoma julienei – Mazé, 1890: 32 fig. 8 ("Rare", St. Martin).

Distribution. — Probably restricted to Sombrero Island.

Remarks. — Sombrero Island, west of Anguilla, is a very small, dry, windswept island that has been mined for phosphate. The habitat on Sombrero appears to be the opposite of that on Pic Paradis.

Watters (2014) suggested that *C. julienei* has been confused with *Diplopoma crenulatum*, although shell and operculum morphologies of the two species are quite different. The presence or absence of sutural tufts easily differentiates these two taxa.

Vernhout (1914) reviewed the terrestrial malacofauna of the Dutch Leeward Islands, but he did not collect on St. Martin. He mentioned the purchase of a small lot of shells from the firm Sowerby and Fulton (Vernhout, 1914: 187). According to the label this lot contained, two specimens of *C. julienei*, both with the operculum. According to Sowerby and Fulton, these specimens were collected on St. Martin. The opercula, general shape and the absence of sutural tufts suggest that these specimens belong to the genus *Chondropoma* (Pl. 1 figs 1-10). The specimen of *C. julienei* figured by Watters and the shell figured here as *Chondropoma cf. julienei*, are rather similar, except for a difference in the width of the peristome. There is no way of knowing with certainty whether both specimens are indeed from St. Martin. In 1914, when these shells were acquired, phosphate mining was discontinued for quite a long time on Sombrero Island, which was abandoned except for the lighthouse keeper. Charles (2016) figured a specimen, from Guadeloupe, formerly labelled as *Chondropoma julienei*, now relabelled as *Diplopoma crenulatum*. Unfortunately no operculum is present. Watters (2014) argues that *Diplopoma crenulatum* from Martinique to St. Martin can vary considerably, both in one population and from island to island. However, we have not seen specimens from Guadeloupe that approach *C. julienei* in shell morphology (Charles, 2016: pl. 3 fig. 4).

Material examined. — See above.

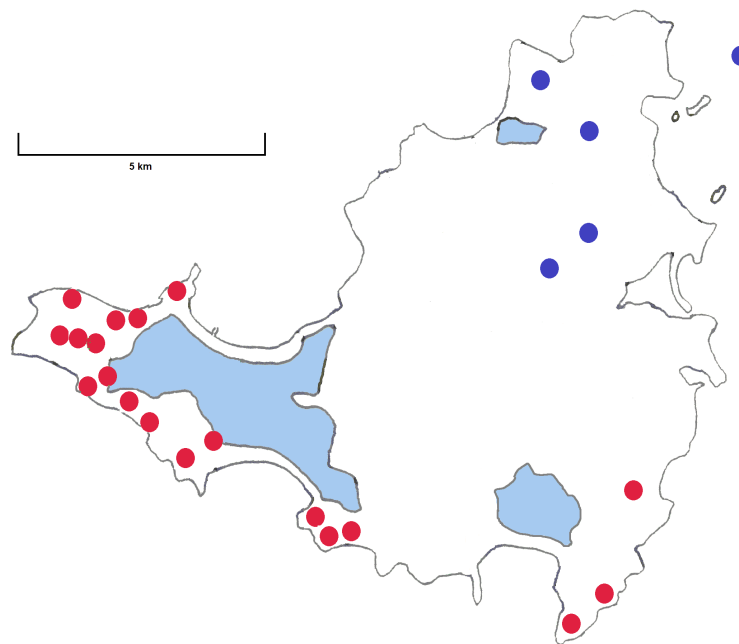


Fig. 3 - Distribution on St. Martin of *Chondropoma pupiforme* (red dots) and *Diplopoma crenulatum* (blue dots).

- ***Chondropoma (Chondropoma) pupiforme* (G.B. Sowerby II, 1843)**

(Pl. 1 Figs 3, 4, 5, Text figs 3, 4)

Cyclostoma pupiforme G.B. Sowerby II, 1843: 102, pl. 24 figs 43-44 (no locality mentioned).

Chondropoma igneum Reeve, 1863, pl., fig 88 (no locality given).

Chondropoma igneum Vernhout, 1914:187 (St. Martin).

Chondropoma pupaeformis (sic) – Coomans, 1967: 126 (St. Martin).

Chondropoma ignea – Coomans, 1967: 126 (St. Martin).

Adamsiella crenulata martinensis – Yokoyama, 2013: 117 foto 5 (= *C. pupiforme*).

Chondropoma (Chondropoma) pupiforme – Watters, 2014: 71-75, figs 11-24, 148-149 (“St Martin, Anguilla”).

Chondropoma pupiforme – Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 25. (St. Martin).

Tudora pupaeformis – Mazé, 1890: 31 (“Peu abondant”, St. Martin).

Distribution. — St. Martin, Anguilla.

Remarks. — Watters (2014) regarded this species as possibly extinct on St. Martin, citing Coomans (1967). However: “fresh specimens collected near Philipsburg in the 1950s” suggest this may not be the case (Watters, 2014: 75). In our experience however, *Chondropoma pupiforme* is rather common. At the northwestern end of the airport are thick limestone formations where live animals and empty shells are abundant. These limestone formations extend east to Billy Folly and west to the western end of the island. Almost everywhere *C. pupiforme* can be found.

The Point Blanche formation, a mixture of limestone and volcanic material, reaches the surface in the central and southeastern part of the island and in some places has small populations of *C. pupiforme*.

This species also occurs on Anguilla, where Watters (2014) mentioned Katouche Bay. The local rainforest is considered to be the preferred habitat. Actually, *C. pupiforme* is as common in dry limestone areas as it is in the damp and moist miniature rain forest of Katouch Bay.

Material examined. — **St. Martin**: AH: 03, 05, 06, 07, 08, 09, 13, 14, 23, 26; AR: 01; TN: 9, 10; WH: 072, 077, 078, 080, 081, 082, 083, 085, 086, 087, 458, 458-Aa, 458A, 458a, 458b, 471, 472, 473, 473-A, 473-B, 474, 474-10, 475, 542, 606.00, 606.01, 610, 829.00; **Anguilla**: AH: 1, 2, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15; WH: 482.

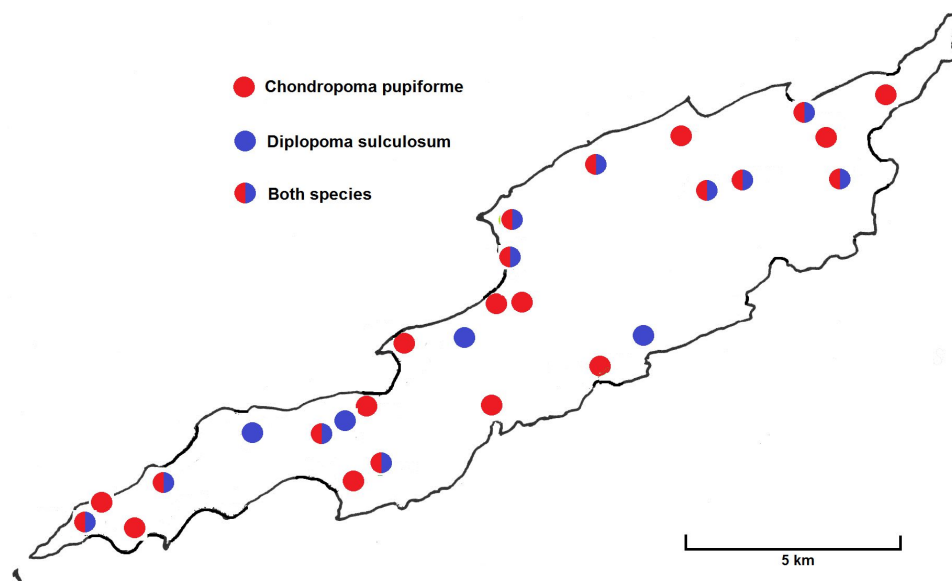


Fig. 4 - Distribution on Anguilla of *Chondropoma pupiforme* (red dots) and *Diplopoma sulculosum* (blue dots).

- ***Diplopoma (Diplopoma) crenulatum* (Potiez & Michaud, 1838)**

(Pl. 1 Figs 4, 7, 12)

Cyclostoma crenulatum Potiez & Michaud, 1838: 235, pl. 24 figs 3, 4 (“La Guadeloupe, sur le palmiste”).

Chondropoma guadeloupense L. Pfeiffer, 1847 (Guadeloupe).

Cistula antiguensis L. Pfeiffer, 1858: 131 (“insula Antigua”).

Choanopoma occidentale L. Pfeiffer, 1861: 216, pl. 3 figs 11-13 (“insula Martinique”).

Chondroma crenulatum Mazé, 1890: 32 (“Assez commun”, St. Martin).

Adamsiella (Adamsiellops) crenulata – Coomans, 1967: 126. (St. Martin).

Adamsiella (Adamsiellops) crenulata martinensis – Coomans, 1967: 126-128, figs 39-41 (“Hill top east of Grande Case Bay, St. Martin”).

Annularia (Annularia) occidentale – Coomans 1967:128.

Diplopoma (Diplopoma) crenulatum – Watters, 2014: 82-85, figs 94-122, 145-146.

Diplopoma (Diplopoma) crenulatum – Neckheim & Hovestadt, 2016: 20, pl. 1 fig. 25. (St. Martin).

Distribution. — St. Martin, Anguilla, Prickly Pear (Questel & Hochart 2018) Antigua, Guadeloupe, Martinique, Dominica.

Remarks. — See Watters (2014: 82) for a more extensive list of synonyms.

In a variety of forms, this species is rather common on Antigua, Barbuda, Guadeloupe, La Desirade, Marie Galante, Iles des Saintes, Dominica, and Martinique. It does not occur on Anguilla or Saint-Barthélemy, but it is found on St. Martin, where it is rare. The type locality of *D. crenulatum martinensis* is the “Hill top east of Grande Case Bay”, which on topographical maps is called First Stick Hill. It is 218 m high and while the hill is of volcanic origin, the summit consists of a thick limestone formation, where *D. crenulatum* can be found. The same type of formation occurs at nearby Pea Tree Hill and at both sites just a few shells were found, without any sign of live snails. These hills are disturbed by free roaming cattle, and probably *D. crenulatum* is extirpated locally or nearly so. It was found by Wagenaar Hummelinck on Tintamarre (Appendix 2).

Recently some shells of *D. crenulatum* were collected near Petit Fond. Most of these shells showed signs of predation, and one shell still carried the operculum.

Coomans (1967) described the subspecies *martinensis* from material collected by P. Bartsch on St. Martin and characterized by its small size. Watters (2014) concluded that this is merely a variety of *D. crenulatum*. Watters: 85 “the holotype is actually larger (12.0 mm) than the average size of the species across its range (11.3 mm)”

Material examined. — **St. Martin**: AH: 11, 17, 31; WH: 058, 060; TN: 14.

- ***Diplopoma (Diplopoma) sulculosum (L. Pfeiffer, 1852)***

(Pl. 1 Figs 2, 6, 13, Textfig. 5)

Cyclostomus sulculosus L. Pfeiffer, 1852: 242 (“insula Guadeloupe”).

Choanopoma sulculosum – Bland 1861: 358 (“Saint-Bartholomew”), 360 (Vieques).

Diplopoma (Diplopoma) sulculosum – Watters, 2014: 86-87, figs 131-134, 151. (Anguilla, St. Barthélemy, Vieques?, Guadeloupe?).

Diplopoma crenulatum martinensis – Questel 2017: 10 (Saint-Barthélemy).

For a more extensive synonymy, see Watters (2014: 86).

Distribution. — Anguilla, Saint-Barthélemy. Guadeloupe?, Vieques?

Remarks. — *Diplopoma sulculosum* is the only annulariid of Saint-Barthélemy, where it has been found on the limestone plateau southeast of Gustavia. Considering the common geological history and the position on the Anguilla Bank, this species may be expected on St. Martin. *Diplopoma sulculosum* also occurs on Anguilla, often in the same habitats as *C. pupiforme*, but less commonly than that species. Guadeloupe is cited as the type-locality and is also recorded from Vieques but material from these islands is lacking.

Material examined. — **Anguilla**: AH: 2, 3, 7, 8, 9, 11, 13; WH: 051; **Saint-Barthélemy**: AH: 6, 7, 9, 10, 13.

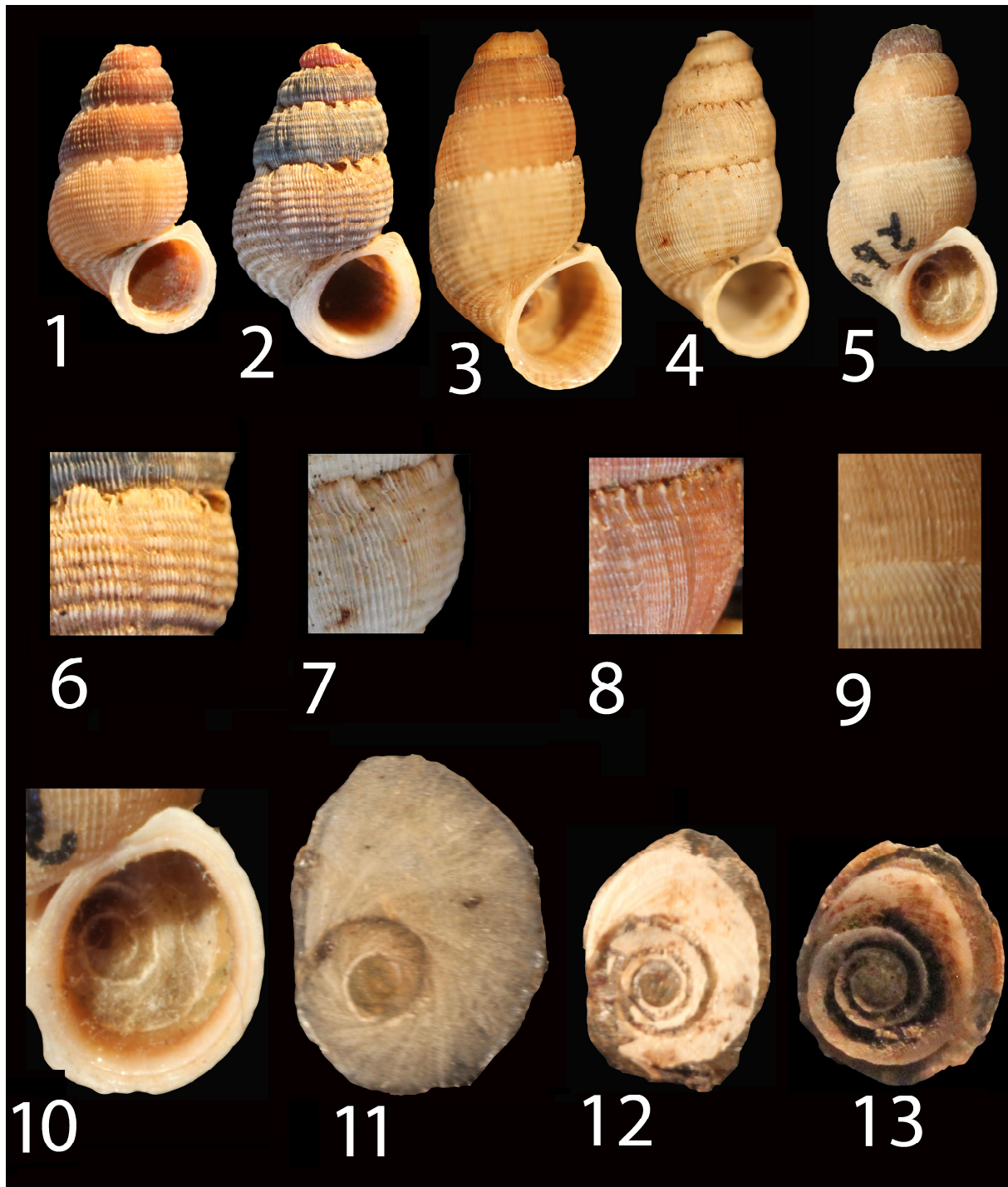


Plate 1 - Figs 1-13. Annulariidae of St. Martin, Anguilla and Saint-Barthélemy. Figs 1-2, 6, 13. *Diplopoma sulculosum* (L. Pfeiffer, 1852). Fig. 1. Saint-Barthélemy. N side of La Grand Vigie, SE of Colombier N 17°51'44.4" - W 62°51'32.3" Alt. 115m (11.4 mm length). Fig. 2. Anguilla, forest E of the airport N 18°12'18.7" - W 63°02'27.4" Alt. 40 m (12.8 mm). Fig. 6. Detail of suture. Fig. 13. Operculum. Figs 3, 8, 11. *Chondropoma pupiforme* (Sowerby II, 1843). Fig. 3. St. Martin, just N of Cupecoy Beach, N of border. Alt. 51 m N 18°03'21.5" - W 63°08'05.7", (14.2 mm). Fig. 8. Detail of suture. Fig. 11. Operculum. Figs 4, 7, 12. *Diplopoma crenulatum* (Potiez & Michaud, 1838). Fig. 4. St. Martin, First Stick Hill, N of Grand Case, alt. 170 m (WH 058), (12.1 mm). Fig. 7. Detail of suture. Fig. 12. Operculum. Figs 5, 9-10. *Chondropoma julienei* (L. Pfeiffer, 1866). Fig. 5. St. Martin, without any further locality data, (12.1 mm). Fig. 9. Detail of suture. Fig. 10. Operculum.

Family Cochliopidae Tryon, 1866

- *Pyrgophorus parvulus* (Guilding, 1828)

Paludina parvula Guilding, 1828: 537-538 ("Sti. Vicentii").

Paludestrina candeaana - Mazé. 1890: 31 ("Peu abundant").

Pyrgophorus parvulus – Pointier, 2008: 30 (Jamaica, Hispaniola, St Thomas, Grenada, Bonaire, Curaçao, Aruba, Guadeloupe, Martinique, Saint-Barthélemy).

Lyrodes coronatus – Coomans, 1967: 128. (St. Martin).

Lyrodes crystallinus – Coomans, 1967: 128 -129 (St. Martin).

Distribution. — Caribbean islands, from Jamaica to Saint Lucia.

Remarks. — Coomans (1967) wrote that in 1959 he found many specimens of *Lyrodes* in the freshwater pond north of Little Bay. In 2015 TN also collected many shells in drift along the shore edge of this pond.

This small gastropod lives in freshwater streams and in mangrove swamps (Pointier, 2008).

Material examined. — **St. Martin**: TN: 11, 15.

Family Planorbidae Rafinesque, 1815

- ***Gundlachia radiata* (Guilding, 1828)**

Ancylus radiatus Guilding, 1828: 536 (“Sti. Vicentii”).

Gundlachia radiata – Pointier 2008: 52. (from Georgia to Venezuela and most Antilles).

Distribution. — Widely distributed in the Caribbean, also from the U.S.A. (Georgia and Texas) to Colombia and Venezuela.

Remarks. — First record for St. Martin. This small gastropod lives in freshwater streams and ponds. Only one shell is found in debris along the stream near Peak Paradise.

Material examined. — **St. Martin**: TN: 15.

Family Physidae Fitzinger, 183

- ***Aplexa marmorata* (Guilding, 1828)**

Physa marmorata - Guilding, 1828: 527 (Saint Vincent).

Aplecta Sowerbyana – Mazé, 1890: 30 (“Peu abondant”, St. Martin. “Existe à Saint-Barthélemy”).

Aplexa marmorata – Pointier, 2008: 63 (St. Martin, Guadeloupe, Martinique, St. Lucia, St. Vincent).

Aplexa (Stenophysa) sowerbyana (d’Orbigny) – Coomans, 1967: 129.

Distribution. — Widely distributed, from Texas to Argentina and the Caribbean.

Remarks. — Pointier (2008) cited Coomans (1967), with regard to St. Martin. We have not seen this species on St. Martin.

Material examined. — None.

- ***Physella (Acutiana) acuta* (Draparnaud, 1805)**

Physa acuta Draparnaud, 1805: 55, pl. 3 figs 10-11 (rivière Garonne, France).

Physa (Plesiophysa) Guadeloupensis – Mazé, 1890: 30 (“Assez abondante”).

Aplecta Orbignyi – Mazé, 1890: 30 (“Rare” St. Martin).

Aplexa (Stenophysa) orbignyi – Coomans, 1967: 129.

Physella acuta – Pointier, 2008: 62.

Haitia acuta – Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 17 (St. Martin).

Physella (Acutiana) acuta – Kadolsky, 2012: 74-75.

Distribution. — This species occurs worldwide. It is considered the most common freshwater snail (Pointier, 2008).

Remarks. — Coomans (1967) mentioned that *Aplexa orbigny* (Mazé, 1883) is a new name for *Physa acuta* “Draparnaud” in d’Orbigny, 1841, non Draparnaud, 1805.

This small gastropod lives in freshwater streams and in mangrove swamps.

Material examined. — **St. Martin**: TN: 11, 15; WH 098-00.

Family Veronicellidae Gray, 1840

Two taxa have been recently reported, *Leidula floridana* (Leidy, 1851) and *Veronicella cubensis* (L. Pfeiffer, 1840), from Saint-Barthélemy (Questel, 2018)

- ***Sarasinula plebeia* (P. Fischer, 1868)**

Vaginulus plebeius P. Fischer, 1868: 145 (“Nova Caledonia”).

Sarasinula plebeia – Yokoyama, 2013: 117 (“St. Martin”).

Distribution. — Occurs in the southern USA and Mexico to Panama, Jamaica, and Dominica; also Australasia.

Remarks. — This slug is a serious agricultural pest (Robinson *et al.*, 2009). We have not seen this species. Yokoyama (2013: 117 foto 4) figured it from St. Martin.

Material examined. — None.

- ***Diplosolenodes occidentalis* (Guilding, 1824)**

Onchidium occidentalis Guilding, 1824: 323-324 (“frequens in locis humidioribus elevatus Insulae Sti Vincentii”); 1825: pl. IX fig. 9-12.

Vaginula cf. occidentalis – Bertrand, 2002: 35 (St. Martin).

Distribution. — Originally described from St. Vincent and probably native to the Lesser Antilles; introduced to Central America and Venezuela.

Remarks. — Reported by Bertrand (2002) from Pic Paradis, but we have not found this species on St. Martin.

Material examined. — None.

Family Succineidae Beck, 1837

- ***Succinea approximans* Shuttleworth, 1854**

Succinea approximans Shuttleworth, 1854: 55-56 (“Vulgaris in Puerto Rico: prope San Juan, Fajardo, Ceiba, Humacao, Luquillo et ad Rio Blanco”).

Succinea approximans – Coomans, 1967: 132 (“St. Martin”); Neubert & Gosteli, 2003: 12-13, pl. 2 fig. 1.

Succinea approximans var. β *Martiniana*? – Mazé 1890: 28 (“Peu commun”, St Martin).

Succinea approximans martiniana – Coomans, 1967: 132. (Oyster Pond, St Martin).

Succinea spec. – Neckheim & Hovestadt, 2016: 20, 22, pl. 1 figs 16, 20 (St. Martin).

Succinea spec. – Questel 2017: 12 (Saint-Barthélemy).

Distribution. — Puerto Rico, St. Martin.

Remarks. — Coomans (1967) listed two *Succinea* species and one subspecies from St. Martin. Syntypes of *Succinea approximans*, described from Puerto Rico, were figured by Neubert & Gosteli (2003: pl. 2 fig. 1); these seem to be identical to Form B (pl. 3 fig. 20). If we only take the shellshape in consideration, we might call form B *Succinea approximans*.

Shells with an elongated form and deep sutures are abundant, overall with a larger height and a smaller width than Form B. We call this Form A (pl. 3, fig. 21). We refrain from giving this form a name, until more is known about the anatomy and taxonomy of Succineidae from the Lesser Antilles.

Mazé (1890) described from Oyster Pond, St. Martin a small-shelled variety that is greenish white, not amber coloured as “forme typique”. We assume that with the typical form, he referred to *Succinea approximans* as figured by Neubert & Gosteli (2003: pl. 2 fig. 1). Our form A shares the white colour with the variety that Mazé called *martiniana* but is not “tres petite, presque globuleuse” (Mazé, 1890: 28). With regard to *Succinea barbadensis*, Chase & Robinson (2001) concluded that the morphological variety of the shell is not matched by any significant variation in the anatomy.

Material examined. — Form A: **St. Martin**: AH: 12; TN 01, 14; WH: 057-00, 057A, 058-00, 059-00, 060-00, 061-00, 063-00, 066-00, 067-00, 068-00, 070-00, 071-00, 071-10, 071-A, 072-00, 074-00, 089-00, 092-00, 467-a, 469-00, 606-a, 680-00, 709-00, 829-00; **Saint-Barthélemy**: AH 05; Form B: **St. Martin**: WH: 072, 467b.

- ***Succinea cuvierii* Guilding, 1826**

Succinea cuvierii Guilding, 1826: pl. 17bis 444, supplement pl. 17 figs 1-4 (St. Vincent).

Succinea Candearia – Mazé, 1890: 27 – 28 (“Peu abondant”, St. Martin. “Existe à Saint-Barthélemy”).

Succinea candearia H.C. Lea, 1844: 5 – Coomans, 1967: 132.

Distribution. — Martinique, Guadeloupe, St Vincent.

Remarks. — *Succinea candearia* was considered a junior synonym of *S. cuvieri* Guilding, 1826, by Delannoye *et al.* (2015: 226). It was originally described from Saint Vincent. This species has a shell quite similar to that of *S. approximans*.

Material examined. — None.

- ***Omalonyx matheroni* (Potiez & Michaud, 1838)**

Testacella Matheroni Potiez & Michaud, 1838: 63, pl. 11 fig. 1-2 (Guadeloupe).

Testacellus guadeloupensis Lesson, 1838: 250 (“l’île de la Guadeloupe”).

Omalonyx (Omalonyx) guadeloupensis – Mazé, 1890 : 29 (Guadeloupe: La Grande Terre).

Homalonyx unguis, var. *Guadeloupensis* – Mazé, 1890: 28 – 29 (“Rare”, St. Martin).

Omalonyx guadeloupensis – Coomans, 1967, 133.

Distribution. — Guadeloupe, Dominica.

Remarks. — The shell of *Omalonyx matheroni* (Potiez & Michaud, 1838) – according to Delannoye *et al.* (2015: 224) a senior synonym of *O. guadeloupensis* (Lesson, 1838) – is more or less rudimentary and quite different from that of *Succinea* species. We have not seen material from St. Martin. The shell, as described and figured by Potiez & Michaud (1838), seems similar to shells belonging to the genus *Amphibulima* Lamarck, 1805.

Family Pupillidae Turton, 1831

- ***Pupoides albilabris* (C.B. Adams, 1841)**

Cyclostoma marginata Say, 1821: 172 (Upper Missouri). Preoccupied by *Cyclostoma marginatum* G. Fischer, 1807.

Pupa albilabris – C.B. Adams, 1841: 271. New name for *Cyclostoma marginata* Say, 1821 (non G. Fischer, 1807).

Pupoides albilabris nitidulus – Coomans, 1967: 132. (St. Martin).

Pupa nitidulus – (L. Pfeiffer, 1839: 352) (Cuba).

Pupa fallax Say, 1825: 121 – Gibbons, 1879a: 131; Vernhout, 1914: 179.

Pupoides (Pupoides) marginatus nitidulus – Haas, 1960: 5 (St. Martin).

Pupoides marginatus nitidulus – Haas, 1960: 5. (St. Martin; Lesser Antilles).

Pupoides albilabris – Questel 2017:12 (Saint-Barthélemy).

Distribution. — Caribbean (Breure et al., 2016: 62), North American mainland, Venezuela (Wagenaar Hummelinck, 1940: 96).

Remarks. — This species was reported by Haas (1960: 5) from St. Martin and Anguilla. This species was first described by Say (1821) as *Cyclostoma marginata*, which is however a homonym of *Cyclostoma marginatum* G. Fischer, 1807. It was Pilsbry (1948: 923) who showed that the oldest available name is *Pupa albilabris*.

Material examined. — **St. Martin**: TN: 09; WH: 057-00, 058-00, 072-00, 078-00, 080-00, 082-00, 461b, 458-11, 606a, 609-00, 709-00, 829-00; **Anguilla**: WH: 048.

Family Valloniidae Morse, 1864

- ***Pupisoma (Ptychopatula) dioscoricola* (C.B. Adams, 1845)**

Helix dioscoricola C.B. Adams, 1845: 16 (Jamaica). Lectotype at Museum of Comparative Zoology University of Cambridge 275929 (Jacobson & Boss, 1973: 346, pl. 90 fig. 11).

Pupisoma (Ptychopatula) dioscoricola – Hausdorf, 2007: 1483-1489, figs 1, 2, 6.

Distribution. — According to Hausdorf (2007) this is one of the most widespread snails in tropical and subtropical America. It is most frequent in lowland forest (Hausdorf, 2007). One fresh juvenile shell has been found recently in rather moist wood.

Remarks. — This species was not mentioned by Coomans (1967); it is reported here for the first time from St. Martin.

Material examined. — **St. Martin**: TN: 19; WH: 065, 067, 072.

Family Vertiginidae Fitzinger, 1833

- ***Gastrocopta servilis* (Gould, 1843)**

Pupa servilis Gould, 1843: 356, pl. 16 fig. 14 (Matanzas, Cuba).

Gastrocopta (Gastrocopta) servilis servilis – Haas, 1960: 11 (St. Martin).

Gastrocopta servilis riisei – Coomans, 1967: 131. (St. Martin).

Gastrocopta (Gastrocopta) servilis – Coomans, 1967: 131. (St. Martin).

Distribution. — This species was reported by Haas (1960: 11) from St. Martin, Anguilla and Saint-Barthélemy. It has been introduced to many islands of the Caribbean.

Material examined. — **St. Martin**: AH: 30, 35; TN: 7, 8, 9, 10, 11, 12, 14; WH: 068, 458.1; 473.00; 829-00; **Anguilla**: AH: 8; WH: 053.

- ***Gastrocopta barbadensis* (L. Pfeiffer, 1853)**

Pupa barbadensis L. Pfeiffer, 1853: 554 (Barbados).

Gastrocopta (Gastrocopta) barbadensis – Haas, 1960: 6 (St. Martin). Coomans, 1967: 131. (St. Martin).

Distribution. — This species was reported by Haas (1960: 6) from St. Martin, Anguilla, Barbuda, Antigua, coastal area of Venezuela, Colombia and Saint-Barthélemy.

Material examined. — **St. Martin**: AH: 09, 35; TN: 7, 8, 9, 10, 11, 12, 14, 18; WH: 048, 068.00, 458.1, 473-00, 829-00.

- ***Gastrocopta polyptyx* (Pilsbry, 1916)**

Gastrocopta polyptyx Pilsbry, 1916: 89, pl. 17 figs 5, 6, 7 (Saint Thomas, Virgin Islands).

Gastrocopta (Gastrocopta) polyptyx – Haas, 1960: 10. Coomans, 1967: 131 (St. Martin).

Distribution. — This species was reported by Haas (1960: 10) from St. Martin. It occurs also on Bermuda, Jamaica, Antigua.

Material examined: **St. Martin**: AH: 35; WH: 458.1.

- ***Gastrocopta pellucida* (L. Pfeiffer, 1841)**

Pupa pellucida L. Pfeiffer, 1841: 46 (Cuba).

Pupa pellucida – Maze, 1890: 26-27 (“Peu commun”, St. Martin).

Gastrocopta (Gastrocopta) pellucida hordeacella – Haas, 1960: 10 (St. Martin)

Gastrocopta pellucida hordeacella – Coomans, 1967: 131 (St. Martin).

Distribution. — This species was reported by Haas (1960: 10) from St. Martin as *Gastrocopta pellucida hordeacella* (Pilsbry, 1916).

Remarks. — *G. pellucida* occurs in continental America and is relatively scarce on St. Martin, having been found at only two sites. We do not regard the Antillean material as a separate subspecies (Pilsbry, 1916: 79).

Material examined. — **St. Martin:** AH: 05; WH: 485-1.

Family Orthalicidae Albers, 1860

- ***Pellicula depressa* (Rang, 1835)**

Succinea depressa Rang, 1835: pl. 55 (Guadeloupe).

Pellicula depressa – Coomans, 1967: 138; Bertrand, 2002: 36 (St. Martin).

Distribution. — Described from Guadeloupe, and additionally reported from Pic Paradis, St. Martin.

Remarks. — Coomans (1967) cited Mazé (1890) and Bertrand (2002) followed Coomans (1967). We have not seen this species.

- ***Bulimulus guadalupensis* (Bruguière, 1789)**

Bulimus guadalupensis Bruguière, 1789: 313 (“l’île de la Guadeloupe”).

Bulimulus exilis — Mazé, 1890: 24 (“Commun”, St. Martin; Saint-Barthélemy).

Bulimulus (Bulimulus) guadalupensis (sic) – Coomans, 1967: 136 St. Martin.

Bulimulus (Bulimulus) guadalupensis – Breure, 1974: 15, pl. 2 figs 6-10. (St. Martin).

Bulimulus guadalupensis – Bertrand, 2002: 36, pl. 1 fig. D; Yokoyama, 2013: 117 foto 3; Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 23 (St. Martin).

Bulimulus guadalupensis – Questel 2017: 10 (Saint-Barthélemy).

Distribution. — This species occurs on most islands of the Antilles, from Jamaica and Hispaniola to Grenada.

Remarks. — For an extensive synonymy, see Breure, 1974: 15.

Material examined: **St. Martin:** AH: 12, 15, 16, 19, 23, 24, 27, 28, 31, 32, 33; AR: 01, 02, 03, 04; TN: 1, 2, 3, 4, 7, 8, 9, 10, 11, 13, 14, 15, 18, 19, 20; WH: 057-00, 057-10, 058-00, 060-00, 061-00, 063-00, 064-00, 065-00; 066-00, 067-0, 068-00, 071-A, 070-00, 071-00, 071-10, 072-00, 073-00, 074-00, 076-00, 077-00, 078-00, 080-00, 081-00, 082-00, 083-00, 085-00, 086-00, 087-00, 088-00, 089-00, 090-00, 092-00, 299, 458-a, 458-A, 458-Aa, 461a, 461b, 467-a, 467-b, 473a, 473-b, 474A, 474-11, 478, 538-02, 542-00, 606, 606a, 680, 709, 829-0; **Anguilla:** AH: 9; WH: 046; **Saint-Barthélemy:** AH: 1, 3, 4, 5, 7.

- ***Bulimulus eyriesii* (Drouët, 1859)**

Bulimus eyriesii Drouët, 1859: 63, tab. I, fig. 12-13 (“Guyane Française, Îlet-la-Mère”).

Bulimulus Eyriesi — Mazé, 1890: 24-25 (“Rare” St. Martin).

Bulimulus (Bulimulus) guadalupensis eyriesi – Coomans, 1967: 137 (St. Martin).

Bulimulus (Bulimulus) eyriesii – Breure, 1974: 46, pl. IV, figs 1-3 (St. Martin).

Distribution. — French Guyana.

Remarks. — This species was described from French Guyana, but not reported from other areas. We consider Coomans' (1967) record to be a misidentification.

Material examined. — None.

- ***Bulimulus diaphanus* (L. Pfeiffer, 1855)**

Bulimus diaphanus L. Pfeiffer, 1855: 125 (Saint Thomas, Virgin Islands).

Bulimulus fraterculus — Mazé, 1890: 25 ("Rare" St. Martin).

Bulimulus (Bulimulus) diaphanus – Coomans, 1967: 137 (St. Martin).

Bulimulus (Bulimulus) fraterculus – Coomans, 1967: 137 (St. Martin).

Bulimulus (Bulimulus) diaphanus fraterculus – Breure, 1974: 32, pl. 3 figs 6-10, pl. 7 fig. 1. (St. Martin).

Bulimulus diaphanus fraterculus – Questel 2017:10 (Saint-Barthélemy).

Distribution. — Most islands between Hispaniola and Guadeloupe. The typical subspecies occurs from Hispaniola to Saint Croix. *Bulimulus diaphanus fraterculus* occurs from St. Martin to the Îles des Saintes.

Remarks. — On St. Martin this species is rare. Breure (1974) listed 12 specimens, but only two have locality data (Oyster Pond). Eight old shells are collected at Billy Folly on St. Martin by TN during his last visit in 2015. The status of this taxon is uncertain, and perhaps it should be regarded as a full species. DNA-analysis of *fraterculus* look-a-likes (*hummelincki*, *gittenbergeri*) might be useful.

Material examined. — **Saint-Barthélemy:** AH: 7. **St. Martin:** TN: 01

- ***Bulimulus lehmanni* (L. Pfeiffer, 1865)**

Bulimus Lehmanni L. Pfeiffer, 1865: 123 (Anguilla).

Bulimulus Lehmanni — Mazé, 1890: 25 - 26 ("Rare" St. Martin).

Bulimulus (Bulimulus) lehmanni – Coomans, 1967: 137. Breure, 1974: 35, pl. 4 figs 72-78, pl. 6 fig. 5. (St. Martin).

Bulimulus lehmanni – Bertrand, 2002: 36, pl. 1 fig. C. (St. Martin).

Distribution. — Dog Island, Anguilla.

Remarks. — Described from Anguilla, this species also occurs on Dog Island. It was reported from St. Martin by Mazé (1890). Bertrand (2002) mentioned and figured this species but did not give any locality details. We have not seen specimens from St. Martin but because of the proximity of Anguilla to St. Martin, it may also occur on St. Martin.

Material examined. — **Anguilla:** AH: 1, 7, 12, 13; WH: 046.

- ***Bulimulus limnoides* (A. Férussac, 1832)**

Helix limnoides A. Férussac, 1821: 57 [ed. 'Janvier'], 53 [ed. 'Juin'] [nomen nudum] (Guadeloupe, Saint-Vincent).

Bulimulus limnoides – Mazé, 1890: 26 ("Rare", St. Martin).

Helix limnoides A. Férussac, 1832: iv, pl. 142 figs 9-10.

Bulimulus (Bulimulus) limnoides – Coomans, 1967: 137 (St. Martin).

Bulimulus (Bulimulus) limnoides – Breure 1974: 12, pl. 1 figs 1-6, pl. 6 fig. 6. (Guadeloupe, Dominica, Martinique, St. Vincent).

Distribution. — Guadeloupe, Dominica, Martinique, Saint Vincent.

Remarks. — Reported from St. Martin by Mazé (1890), but this is probably based on an erroneous identification (Breure 1974: 12). It occurs in wet montane forest, a habitat which does not exist on St. Martin.

Material examined. — None.

- ***Drymaeus elongatus* (Röding, 1798)**

Helix elongata (Röding, 1798) in: Museum Boltenianum, no. 1371 (no locality).

Helix (Cochlogena) virgulata A. Férussac, 1822: 58 [ed. 'Janvier'], 54 [ed. 'Juin'] (Puerto Rico).

Bulimulus virgulatus – Mazé, 1890: 25 (“Assez abondant” St. Martin).

Drymaeus (Drymaeus) elongatus – Coomans, 1967: 137 - 138; Bertrand, 2002: 36, pl. 1 fig. B. Yokoyama, 2013: 117 foto 1; Neckheim & Hovestadt, 2016: 22, fig. 2, pl. 1 fig. 24. (St. Martin).

Bulimus extinctus – Pfeiffer, 1854: 103 (1855). (St. Croix).

Bulimus anguillensis – Pfeiffer 1865: 123 (Anguilla).

Drymaeus (Drymaeus) elongatus anguillensis – Coomans, 1967: 138 (St. Martin).

Drymaeus (Drymaeus) elongatus forma *extinctus* – Coomans, 1967: 138. (St. Martin).

Drymaeus elongatus – Questel 2017: 11 (Saint-Barthélemy).

Distribution. — This species is known from several islands of the Lesser Antilles arc, viz. Anegada, Anguilla, Barbuda, Puerto Rico, St. Barts, St. Croix, St. Eustatius, St. Martin.

Remarks. — Several forms or varieties have been described. Pilsbry (1899) considered this one of the most variable species of the genus but did not regard the named forms to be of subspecific value. *Drymaeus elongatus anguillensis* from Anguilla, but also from St. Martin, Saint-Barthélemy and Saint Croix, is “typically rather small, slender and pale coloured” (Pilsbry, 1899: 26). Coomans (1967: 138) mentioned fossil material, the so called form *extinctus*, which is “rather slender with pyramidal spire of flat whorls” (Pilsbry, 1899: 26). Our material from Anguilla, St. Martin and Saint-Barthélemy does not differ significantly neither among these islands, nor from material from islands farther away (e.g., Bonaire).

Material examined. — **St. Martin**: AH: 15, 16, 19, 20, 24, 27, 31; TN: 1, 5, 6, 8, 9, 10, 11, 14, 19; WH: 058-00, 060-00, 063-00, 064-00, 078-00, 085-00, 087-00, 088-00, 542-d; **Anguilla**: AH: 1, 11, 15; **Saint-Barthélemy**: AH: 2, 4, 7, 12.

Family Urocoptidae Pilsbry, 1898

- ***Macroceramus signatus* (Guilding, 1828)**

Macroceramus signatus Guilding, 1828: 168 (Tortola).

Bulimus articulatus – Turton, 1831: 85.

Bulimus cylindrus – Gray, 1840: 20.

Distribution. — Tortola, Anegada, Anguilla.

Remarks. — *Macroceramus signatus* is locally common on Anguilla, and has never been seen on St. Martin or Saint-Barthélemy.

Material examined. — **Anguilla**: AH: 4, 9, 11, 12, 13.

- ***Pseudopineria viequensis* (L. Pfeiffer, 1856)**

Bulimus viequensis L. Pfeiffer, 1856: 47 (Vieques).

Pineria Schrammi – Mazé, 1890: 27 (“Assez commun” St. Martin).

Pseudopineria viequensis – Coomans, 1967: 139; Kraus 1995: 28; Neckheim & Hovestadt, 2016: 21, pl. 1 figs 12, 13 (St. Martin).

Pseudopineria viequensis schrammi (Fischer, 1858) – Coomans, 1967: 139 (St. Martin).

Pseudopineria viequensis – Questel 2017: 13 (Saint-Barthélemy).

Distribution. — Puerto Rico, Vieques, Anegada, Anguilla, Saint-Barthélemy, Barbuda, Guadeloupe, Marie-Galante, and La Desirade.

Remarks. — *Pseudopineria viequensis* is common on St. Martin in suitable habitats. It prefers limestone rocks, where it lives in solution holes. *Pseudopineria schrammi* was described from Guadeloupe and is regarded by Kraus (1995) as a synonym of *P. viequensis*. On Meschrine Hill, immediately west of Billy Folly, a scalarid form occurs, but this population has a more typical form lower on the hill. We also found this species on Anguilla and Saint-Barthélemy.

Material examined. — **St. Martin**: AH: 01, 06, 35; TN: 9, 10; WH: 077-00, 078-00, 081-00; 082-00, 087-00, 472-00, 473-A, 473-b, 473-00, 474-A, 474-11, 542-a, 542-01, 610-00, 078-00, 083-00, 086-00; **Anguilla**: AH: 1, 6, 7, 9, 16; **Saint-Barthélemy**: AH: 6.

- ***Brachypodella antiperversa* (Férussac, 1821)**

Helix antiperversa - Férussac, 1821: 65 [edition 'Janvier'], 61 [edition 'juin'] (Les Antilles, Porto-Rico).

Helix antiperversa Férussac, 1832: iv, pl. 163 figs 5-6 (Guadeloupe, Martinique).

Cylindrella collaris - Mazé, 1890: 27 ("Abondant" St. Martin. "Existe à Saint-Barthélemy").

Brachypodella (Brachypodella) antiperversa - Coomans, 1967: 139 (St. Martin).

Distribution. — Guadeloupe, Marie-Galante, Martinique, St. Martin.

Remarks. — *Brachypodella collaris* was reported by Mazé (1890) from near Grand Case, where it was found on walls, close to the sea, and in sand and detached limestone blocks. This area is urbanized and despite repeated searches by us, it has not been found again. Possibly it was transported with building material from Guadeloupe, where it is common. Mazé (1890) also reported this species from Saint-Barthélemy.

Material examined. — None.

Family Achatinidae Swainson, 1840

- ***Lissachatina fulica* (Férussac, 1821)**

Achatina fulica Férussac, 1821: 53 [ed. 'Janvier'], 49 [ed. 'Juin'] (type locality: 'Ile de France').

Achatina fulica - Bertrand, 2002: 35, pl. 1 fig. E (St. Martin); Yokoyama, 2013: 116 foto 1.

Achatina fulica - Questel 2017: 10 (Saint-Barthélemy).

Distribution. — Introduced from Africa into many tropical regions, among others in America and Asia.

Remarks. — Not mentioned by Coomans (1967), this species was first reported from St. Martin by Bertrand (2002). This alien species is now almost everywhere on St. Martin, from Pic Paradis down to the Lowlands. It is considered a serious agricultural pest, and perhaps also a disease carrier. Its effect on other molluscs occurring on St. Martin is uncertain.

Material examined. — **St. Martin**: AH: 04; TN: 7, 8, 11a, 16; **Anguilla**: AH 13; **Saint-Barthélemy**: AH 1, 2, 5, 8, 11.

Family Ferussaciidae Bourguignat, 1883

- ***Cecilioides aperta* (Swainson, 1840)**

Macrospira aperta Swainson, 1840: 335, fig 97e, f (no locality given).

Achatina gundlachi - L. Pfeifer, 1850b: 80 (Cuba).

Geostilbia Gundlachi - Mazé, 1890: 23 ("Tres rare", St. Martin).

Cecilioides (Geostilbia) gundlachi - Coomans, 1967: 133 (St. Martin).

Cecilioides aperta - Pilsbry, 1946: 187 ("West Indies generally").

Cecilioides gundlachi - Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 11 (St. Martin).

Distribution. — This species is widely distributed around the Caribbean and in South America (Mijail Pérez 2017).

Remarks. — The tiny snails live buried in the soil.

Material examined. — **St. Martin**: TN: 14; WH: 060, 067, 092.

- ***Karolus consobrinus* (d'Orbigny, 1841)**

Achatina consobrina d'Orbigny, 1841: 171, pl. 11 figs 7, 9 (Cuba).

Cecilioides consobrina – Simone, 2006: 183 (Brazil).

Karolus consobrinus – Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 10 (St. Martin).

Distribution. — Widely distributed from North America to the Guiana Shield.

Remarks. — This species was not mentioned by Coomans (1967) or Mazé (1890).

Fresh shells can be found under leaves in moist forest on top and in rather dry forest, in the ground. Like the similar but larger *C. aperta*, this is a blind, subterranean species.

Material examined. — **St. Martin**: TN: 07, 15.

Family Subulinidae P. Fischer & Crosse, 1877

- ***Beckianum beckianum* (L. Pfeiffer, 1846)**

Bulimus beckianum L. Pfeiffer, 1846: 82 (“Ins. Mindoro”, Philippines).

Beckianum beckianum – Bertrand, 2002: 35 (St. Martin); Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 8 (St. Martin).

Beckianum beckianum – Questel 2017: 10 (Saint-Barthélemy).

Distribution. — Central America, Brazil, Greater and Lesser Antilles.

Remarks. — Not mentioned by Coomans (1967), this species was reported by Bertrand (2002) from the Lowlands. We found it common along roads.

Material examined. — **St. Martin**: AH: 21; TN: 7, 8, 11, 13; **Saint-Barthélemy**: AH: 2, 6.

- ***Allopeas gracile* (Hutton, 1834)**

Bulimus gracilis Hutton, 1834: 84-85, 93 (“beneath a flower pot at Mirzapoor”; “at the base of the outer walls of my Bungalow”; “beneath stones at Futtehpour Sikra”; “between Agra and Neemuch”).

Stenogyra subula – Mazé, 1890: 22-23 (“Rare”, St. Martin, Saint-Barthélemy).

Lamellaxis (Allopeas) gracilis – Haas, 1962: 56; Coomans, 1967: 135.

Allopeas gracile – Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 5 St. Martin).

Distribution. — Subtropical areas, worldwide (Breure *et al.*, 2016: 34).

Remarks. — This species was reported by Haas (1962: 56) from St. Martin, Anguilla, and Saint-Barthélemy.

Material examined: **St. Martin**: AH: 05, 11, 14, 30, 34; TN: 1, 3, 7, 8, 9, 11, 13; WH: 059-00, 060-00, 061-00, 072-00, 083-00, 088, 092-00, 461-b, 467b, 473-A, 473-b, 474A, 474-11, 542-a, 609-00, 083-00, 709, 830-01; **Anguilla**: WH: 047; **Saint-Barthélemy**: AH: 3, 5, 7, 8.

- ***Allopeas micra* (d’Orbigny, 1835)**

Helix micra d’Orbigny, 1835: 9 (Santa Cruz, Bolivia). No locality given.

Bulimus octonoides C.B. Adams, 1845: 12 (Dublin Castle, Jamaica). Lectotype at Museum of Comparative Zoology Harvard University 156175 (Jacobson & Boss, 1973: 395, pl. 81 fig. 13).

Stenogyra octonoides – Mazé, 1890: 22 (“Se rencontre dans presque toutes les parties de l’île”; St. Martin, also Saint-Barthélemy).

Lamellaxis (Allopeas) micron – Haas, 1962: 57 (St. Martin); Coomans, 1967: 135. (St. Martin).

Allopeas micra – Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 6. (St. Martin).

Distribution. — Widely distributed over South America from Mexico to Bolivia, the Caribbean islands (Breure *et al.*, 2016), and Florida (Emerson & Jacobson, 1976).

Remarks. — Reported by Haas (1962) from St. Martin, Anguilla and Saint-Barthélemy.

Material examined. — **St. Martin**: AR: 02; TN: 9, 10, 11, 12, 14, 15; WH: 058, 059-00, 061, 063, 064, 065, 066, 067, 068, 071, 071A, 072, 073, 074, 077, 078, 080, 082, 088, 092, 458Aa, 468b, 473b, 461b, 538b, 829; **Anguilla**: AH: 9; WH 047, 083-00; **Saint-Barthélemy**: AH: 3, 5, 9.

- ***Leptinaria (Leptinaria) lamellata (Potiez & Michaud, 1838)***

Achatina lamellata Potiez & Michaud, 1838: 128, pl. 11 fig. 7 (Santa Cruz, Bolivia).

Tornatellina (Leptinaria) lamellata – Mazé, 1890: 23 (“Assez abondant”, St. Martin; also Saint-Barthélemy).

Leptinaria (Leptinaria) lamellata – Coomans, 1967: 134. (St. Martin).

Leptinaria lamellata – Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 7. (St. Martin).

Distribution. — Central and South America, Greater and Lesser Antilles.

Remarks. — *Leptinaria unilamellata* (d’Orbigny, 1835) is considered a nomen nudum by Delannoey et al. (2015: 264). Haas, 1962: 52, did not mention this species for St. Martin.

Material examined. — **St. Martin**: TN: 4; WH: 064-00, 065-00.

- ***Neosubulina gloynii (Gibbons, 1879)***

Cionella gloynii Gibbons, 1879: 135, pl. I fig. 1. (St. Ann’s, Curaçao; probably the Schaarlo, back of Willemstad (Baker, 1924: 88).

Leptinaria (Neosubulina) gloynii – Haas, 1962 : 54, (St. Martin); Coomans, 1967: 134 (St. Martin).

Leptinaria gloynii – Neckheim & Hovestadt 2016, 21, pl. 1 fig. 2. (St. Martin).

Distribution. — Central and South America, Greater and Lesser Antilles.

Remarks. — This species is closely related to a species described from Aruba and Bonaire (Hovestadt & van Leeuwen, 2017: 25). The material from St. Martin is slightly more slender than Curaçao specimens, but otherwise identical. *Neosubulina gloynii* is introduced to St. Martin.

Material examined. — **St. Martin**: AH: 11; WH: 058, 458-Aa, 064, 709.

- ***Obeliscus swiftianus (L. Pfeiffer, 1852)***

Bulimus swiftianus L. Pfeiffer, 1852: 150 (Saint Thomas).

Stenogyra Swiftiana – Mazé, 1890: 23 (“Tres rare” St. Martin).

Obeliscus (Stenogyra) swiftianus – Coomans, 1967: 135 (St. Martin).

Obeliscus swiftianus – Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 4 (St. Martin).

Distribution. — Described from Saint Thomas; reported from Cuba, Puerto Rico, Bermuda, and Guadeloupe.

Material examined. — **St. Martin**: AH: 26, 35; WH: 061.00, 078-00; 709; **Anguilla**: AH: 9.

- ***Opeas pumilum (L. Pfeiffer, 1840)***

Bulimus pumilus L. Pfeiffer, 1840: 252 (Cuba).

Opeas pumilum – Haas, 1962: 55; Yokoyama 2013: 116, foto 5 (the figured specimen is probably *Subulina octona*); Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 3 (St. Martin).

Opeas (Opeas) pumilum (L. Pfeiffer) – Coomans, 1967: 135 (St. Martin).

Distribution. — Worldwide in tropical and subtropical areas, frequently in gardens.

Remarks. — Reported by Haas (1962: 55) from St. Martin.

Material examined. — **St. Martin**: AH: 21; TN: 2; WH: 092-00, 461-a, 463-A, 474-A, 542-A.

- ***Subulina octona (Bruguière, 1789)***

Bulimus octona Bruguière, 1789: 325 (Guadeloupe).

Stenogyra octona – Mazé, 1890: 22 (“Commun” St. Martin, Saint-Barthélemy).

Subulina octona – Haas, 1962: 49. Coomans, 1967: 134; Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 1 (St. Martin).

Subulina octona – Questel 2017: 12 (Saint-Barthélemy).

Distribution. — In tropical and subtropical areas, worldwide.

Remarks. — Reported by Haas (1962) from St. Martin and Saint-Barthélemy.

Material examined. — **St. Martin**: AH: 10, 19, 21, 22, 31; AR: 01, 02, 03, 04; TN: 1, 2, 4, 8, 11, 13, 14, 15, 18, 19, 20; WH: 058-00, 059-00, 060-00, 064-00, 065-00, 066-00, 067-00, 070-00, 071-00, 071-10, 074, 092-00, 467a, 467b, 467-02, 472-00, 473A; **Saint-Barthélemy**: AH: 5, 7, 9, St. Martin).

Family Oleacinidae H. Adams & H. Adams, 1855

- ***Melaniella gracillima sanctithomensis* (Pilsbry, 1907)**

Varicella gracillima sanctithomensis Pilsbry, 1907: 57, pl. 15, fig 11 (St. Thomas).

Pichardiella gracillima sanctithomensis – Haas, 1962: 58 (St. Martin, Anguilla).

Melaniella (Melaniella) gracillima sanctithomensis – Coomans, 1967: 136 (St. Martin).

Melaniella gracillima sanctithomensis – Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 9 (St. Martin).

Distribution. — Virgin Islands, Anguilla, St. Martin, Saba.

Remarks. — This subspecies was reported by Haas (1962), from St. Martin and Anguilla. It also occurs on Saba (van Leeuwen *et al.*, 2015: 27).

Material examined. — **St. Martin**: WH: 458-Aa, 458-b, 072-00, 073-00, 074-00, 092-00, 54201, 709-00.

Family Streptaxidae Gray, 1860

- ***Gulella bicolor* (Hutton, 1834)**

Pupa bicolor Hutton, 1834: 86, 93. (“at Mirzapoor beneath garden pots”; “at the base of the walls of my Bungalow”; “rocks between Agra and Neemuch”).

Gulella (Huttonella) bicolor – Coomans, 1967: 140. Venmans, 1963: 44-52.

Huttonella bicolor – Questel 2017:10 (Saint-Barthélemy).

Distribution. — Worldwide in (sub)tropical areas (Breure *et al.*, 2016: 36).

Material examined. — **St. Martin**: TN: 1, 11, 13; **Saint-Barthélemy**: AH: 3.

- ***Streptartemon deplanchei* (Drouët, 1859)**

Streptaxis Deplanchei Drouët, 1859: 56, pl. 1 figs 6-9 (Îslet-la-Mère, Guyane).

Streptaxis (Streptartemon) deplanchei – Clench, 1958: 19 (St. Martin).

Streptaxis (Streptartemon) deplanchei var. *martiniana* Venmans, 1963: 69, fig. 20, 21g, pl. 2 fig. 13-15 (“St. Martin, Agricultural Experiment Station St. Peter, Cul de Sac”).

Streptartemon deplanchei – Coomans, 1967: 140 (St. Martin).

Streptartemon deplanchei forma *martiniana* – Coomans, 1967: 140 (St. Martin).

Streptartemon spec. – Questel 2017: 12 (Saint-Barthélemy).

Distribution. — Guyana, St. Martin.

Remarks. — This species was described from French Guiana (Drouët 1859) and later on also reported from Brazil (Baker, 1914: 628). Clench (1958: 19) recorded it as *Streptaxis (Streptartemon) glaber* from St. Martin, and considered it a recent introduction. Venmans (1963: 63) studied *S. deplanchei* and compared specimens from St. Martin with specimens from French Guiana. Specimens from St. Martin differed by being larger and having slightly more whorls; Venmans (1963: 69) considered this larger form an ecological race, i.e. *Streptaxis (Streptartemon) deplanchei* var. *martiniana*. The name of Venmans is

nomenclaturally unavailable, as it is considered by ICZN Article 15.2 as an infrasubspecific name (since it is a variety name that has been published after 1960).

This species lives in woods at higher levels, usually in leaf litter.

Material examined. — **St. Martin**: AH: 02, 04, 10, 15, 22, 34; AR 04; TN: 8, 15, 16; WH: 061, 066, 067, 070, 074, 467, 467b.

- ***Streptartemon glaber* (L. Pfeiffer, 1850)**

Streptaxis glabra L. Pfeiffer, 1850a: 126 (Demerara (Guyana)).

Streptartemon glaber – Neckheim & Hovestadt, 2016: 23, pl. 1 fig. 30 (St. Martin).

Distribution. — This species is known from the northern mainland of South America and from the islands in the east part of the Caribbean Sea but nowadays also known from Saba (van Leeuwen *et al.*, 2015: 27) and Martinique (Delannoye *et al.*, 2015: 278). It probably spreads easily to other islands. Also found as old shells on Saint-Barthélemy (Questel, 2017).

Remarks. — See Venmans (1963: 53) for additional synonyms. This species was not recorded from St. Martin by Coomans (1967). Neckheim and Hovestadt (2016) recorded this species for the first time for St. Martin.

This species is found in wooded areas, usually in leaf litter.

Material examined. — **St. Martin**: AH: 10, 22; AR: 03; TN: 15, 19, 20.

Families Gastrodontiidae, Sagdidae, Thysanophoridae, Euconulidae.

Frequently small shells are found in ground litter which defy identification. These members of the Gastrodontiidae, Euconulidae, Sagdidae and Thysanophoridae can be very similar conchological. As a consequence, several samples remained unidentified, but locality details of that material are given below.

Material examined: **St. Martin**: AH 5, 11, 14, 19, 35; TN: 7, 8, 9, 10, 11, 14, 15, 18, 19, 20; WH 058.00, 059.00, 060.00, 067.00, 071.00, 072.00, 073.00, 074.00, 076.00, 077.00, 080.00, 458Aa, 458.Aa, 458b, 473.A, 473b, 474.A, 709.00; **Anguilla**: AH 09; **Saint-Barthélemy**: AH 08, 09.

Family Thysanophoridae Pilsbry, 1926

- ***Thysanophora plagiptycha* (Shuttleworth, 1854)**

Helix plagiptycha Shuttleworth, 1854: 37-38 (“Sub ligno putrescente et sub saxis prope Humaca, Fajardo, Ceiba, ad Rio Bianco et in Insula Vièque; ubique rara”).

Thysanophora plagiptycha – Pilsbry, 1920: 93-96 figs 1-4. Neubert & Gosteli, 2003: 44, pl. 20 fig. 4. (Puerto Rico, Vieques).

Distribution. — This species occurs on Puerto Rico and Vieques.

Remarks. — This is a first record for St. Martin.

Material examined. — **St. Martin**: WH: 065.

Family Gastrodontiidae Tryon, 1866

- ***Zonitoides arboreus* (Say, 1817)**

Helix arborea Say, 1817: pl. 2 fig. 4 (type locality unknown).

Distribution. — Widespread in North America (Pilsbry, 1946), and introduced to other countries worldwide.

Material examined. — **St. Martin**: WH: 072.

Family Euconulidae H.B. Baker, 1928

- ***Guppya gundlachi* (L. Pfeiffer, 1840)**

Helix pusilla L. Pfeiffer 1839: 351. (Cuba).

Helix gundlachi – L. Pfeiffer, 1840: 250 (type locality unknown).

Helix Gundlachi – Mazé, 1890: 24 (“Rare”, St. Martin).

Guppya (*Guppya*) *gundlachi* – Coomans, 1967: 133 (St. Martin).

Distribution. — Florida, Texas, Central America, and the West Indies.

Remarks. — We found fresh empty shells in a moist wooded area (TN 15). Bleached shells were found at several sites.

Material examined. — **St. Martin:** TN: 15; WH: 059, 060, 071, 082, 083, 092.

Family Sagdidae Pilsbry, 1895

- ***Hyalosagda subaquila* (Shuttleworth, 1854)**

Helix subaquila Shuttleworth, 1854: 37 (“Copiosissime prope Ceiba, Fajardo, San Juan, Hamacao et Luquillo, etiam in Insula Vièque”).

Hojeda subaquila – Coomans, 1967: 140 (St. Martin).

Hyalosagda subaquila – Neubert & Gosteli, 2003: 51, pl. 26 fig. 2. (Puerto Rico, Vieques).

Hojeda subaquila – Questel 2017: 10 (Saint-Barthélemy).

Distribution. — This species originates from Puerto Rico and Vieques. It is also reported from Mona Island (Thompson, 1987).

Material examined. — **St. Martin:** WH: 067.00.

- ***Lacteoluna selenina* (A.A. Gould, 1848)**

Helix selenina Gould, 1848: 38 (“Georgia and Florida”).

Helix vortex – L. Pfeiffer, 1839: 351 (Cuba).

Helix bracteola – Deshayes in: Férussac & Deshayes, 1850: 84, pl. 86 fig. 2 (Martinique).

Helix bracteola – Mazé, 1890: 23 (“Peu commun”, St. Martin).

Lacteoluna selenina – Coomans, 1967: 141 (St. Martin).

Distribution. — Yucatan, Florida, Cuba, Bahamas, Hispaniola, Lesser Antilles.

Remarks. — This is a rare species on St. Martin; only two juvenile shells have been found at Billy Folly.

Material examined. — **St. Martin:** AR: 01; WH: 082.00.

Family Philomycidae Gray, 1847

- ***Pallifera spec.***

“Glittery tree slug” – Yokoyama, 2013: 117 (St. Martin).

Remarks. — According to Yokoyama (2013) this forest-dwelling slug forages at night. *Pallifera* slugs also occur in North America. We have not seen this species.

Family Helminthoglyptidae Pilsbry, 1939

- ***Euclastaria musicola euclasta* (Shuttleworth, 1854)**

Helix musicola Shuttleworth, 1854: 38-39 (“Forma typica ad folia Musarum prope Luquillio; varietas prope Humacao et San Juan, locis umbrosis ad folia delapsa”).

Helix euclasta Shuttleworth, 1854: 38 ("Forma typica in insula St. Thomas; var. β . in Insula Vièque; γ . prope in Insula Portorico").

Helix subaquila – Mazé, 1890: 23 ("Assez rare" St. Martin, Saint-Barthélemy).

Cepolis euclasta – Bertrand, 2002: 36. St. Martin.

Cepolis (Plagioptycha) euclasta – Coomans, 1967: 141. St. Martin.

Plagioptycha euclasta – Neubert & Gosteli, 2003: 23, pl. 25 fig. 3. St. Thomas.

Plagioptycha musicola – Neubert & Gosteli, 2003: 37, pl. 25 fig. 2.

Euclastaria musicola euclasta – Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 27. (St. Martin).

Distribution. — Cuba, Puerto Rico, US and British Virgin Islands.

Remarks. — The habitat of this species is unknown, but it possibly lives in ground litter. We found only empty but fresh shells.

Shuttleworth described *Helix euclasta* and *Helix musicola* in 1854 on the same page. Van der Schalie (1948) considered *euclastia* to be a synonym of *musicola*, in spite of the fact that *euclasta* has page priority. Pilsbry (1926) described *Euclastaria* – a new subgenus, with *Helix musicola* as type.

Material examined. — **St. Martin**: TN: 7, 8; WH: , 070, 072, 073.

Family Pleurodontidae Ihering, 1912

Pleurodonte spec.

Helix lychnuchus – Mazé, 1890: 24.

Pleurodonte badia (Férussac, 1832) – Bertrand, 2001: 35, pl. 1 fig. G. (St. Martin).

Pleurodonte guadeloupensis – Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 21.

Remarks. — Coomans (1967) cited Mazé (1890) and mentioned the isolated finding of *Pleurodonte lychnuchus* (Müller, 1774) on the beach at Marigot. *Pleurodonte lychnuchus* occurs in Guadeloupe, and it has never been found again on St. Martin. This old record was possibly based on an accidental introduction, a misidentification, or a mislabelled specimen.

Recently Clement & al. (2016) reported finding *P. lychnuchus* near Pic Paradis, but the specimens they figured (Clement et al. 2016: pl. 6) are *P. guadeloupensis martinensis* subsp. nov., which is described below. Bertrand (2002: 35, pl. 1 fig. G) reported it from the western slopes of Pic Paradis as *Pleurodonte badia* (Férussac, 1832) and stated that the shells are similar to *P. badia* from Guadeloupe. We consider this taxon different from other described subspecies of *Pleurodonte guadeloupensis*.

Pleurodonte guadeloupensis was first described by Férussac (1832) as *Helix badia*. This name was preoccupied by *Helix badia* Gmelin, 1791, and therefore the species was renamed *P. guadeloupensis* by Pilsbry (1889: 87).

L. Smith (1911) described *P. guadeloupensis* var. *roseolabrum*, characterized by a rose-colored peristome, from Martinique. Pilsbry & Cockerell (1937) considered this a subspecies (Pilsbry, 1937).

Pilsbry & Cockerell (1937) described *P. guadeloupensis dominicana* from Dominica. It differs from the nominate subspecies by its relatively small size and a wide gap between the inner and the outer tooth. *Pleurodonte guadeloupensis guadeloupensis* from Guadeloupe is characterized by a well-formed inner and outer tooth, with a relatively small gap in between.

The specimens occurring on St. Martin differ from the subspecies from other islands. They are considered an endemic subspecies of St. Martin.

- ***Pleurodonte guadeloupensis martinensis* subsp. nov.**

(Plate 2, figs 16-19)

Type locality. — St. Martin (French part), Leeward Antilles, along trail from La Loterie to Pic Paradis, 233 m a.s.l.; 18°04'34.6" N, 63°03'22.1" W; A. Hovestadt leg., 09.ix.2008.

Type series. — Naturalis Biodiversity Center RMNH MOL 5006696 (holotype).

Paratypes, all from the type locality: RMNH 5006697/7; collections of A. Hovestadt/3 and C.M. Neckheim/3.

Additional material, not paratypes. —Two specimens from the trail to Mont O'Reilly.

Description of holotype. — Shell dextral, heliciform, globose, with spire depressed; solid. Whorls ca. $4\frac{1}{2}$, periphery of last whorl obtusely angular, with distinct keel. Height 8.5 mm, width 14.8 mm. Protoconch (first $1\frac{1}{3}$ whorls) smooth. Teleoconch marked with low ribs, ca. 7 or 8 per mm, and irregular growth lines. Periostracum dark chestnut-brown. Umbilicus closed. Aperture subquadrate, peristome purplish, slightly reflected, on basal part with 2 teeth. Outer tooth stands upright, at an angle of 90° to basal lip; inner tooth broad, low, and on its outer side connected to basal lip by a broad slanting lamella, creating a J-shaped space between inner and outer tooth.

Paratypes. —The 13 paratypes are quite uniform and do not show any variation in the aperture and the position of the teeth or the keel.



Plate 2 – **Figs 1 - 6.** *Pleurodonte* species and subspecies from Guadeloupe and St. Martin. **Figs 1 - 2.** *Pleurodonte guadeloupensis guadeloupensis* (Pilsbry, 1889). **Fig. 1.** (13.0 x 8,5 mm), Guadeloupe, near Pigeon. **Fig. 2.** Details of aperture. **Figs 3-6.** *Pleurodonte guadeloupensis martinensis* subsp. nov., holotype (14.4 x 7.8 mm), near La Loterie. **Fig. 3.** Complete specimen. **Fig. 4.** details of aperture. **Fig. 5.** Umbilical view. **Fig. 6.** Apical view.

Differentiation. — Compared to *P. g. guadeloupensis* (Pilsbry, 1889), *P. g. martinensis* subsp. nov. differs by the shape and position of the teeth and by the prominent keel. It is more depressed and has also a more prominent keel than in *P. guadeloupensis dominicana* (Pilsbry, 1889).

Remarks. — Specimens have only been found in the central part of the island, on the densely wooded hills of Pic Paradis and surroundings, along the trail from La Lotterie and along the northeast bound trail from the main road near Pic Paradis to Mont O'Reilly.

Etymology. — Named after the island where it was found.

- ***Zachrysia provisoria* (L. Pfeiffer, 1858)**

Helix provisoria L. Pfeiffer, 1858: 39 (Cuba).

Zachrysia provisoria – Bertrand, 2002: 35, pl. 1 fig.; A. Yokoyama, 2013: 116; Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 22 (St. Martin; Saint-Barthélemy).

Zachrysia provisoria – Questel 2017: 12 (Saint-Barthélemy).

Distribution. — This species originates from Cuba (Pilsbry, 1928: 587). It was introduced on Barbados Chase and Robinson (2001) n Saba (van Leeuwen *et al.*, 2015: 27), several other Caribbean islands (Breure *et al.*, 2016: 46), and in Florida (Auffenberg *et alii*, 2011: 2-3).

Remarks. — This species was reported by Bertrand (2002: 35) from the western side of Pic Paradis. We recently found it living in a variety of habitats on St. Martin and also on Saint-Barthélemy.

Material examined. — **St. Martin:** AH: 04; TN: 7, 12, 18, 19, 20; **Saint-Barthélemy:** AH: 1, 9.

Family Polygyridae Pilsbry, 189

- ***Polygyra cereolus* (Megerle von Mühlfeld, 1816)**

Helix cereolus Megerle von Mühlfeld, 1816: 11, pl. 2 fig. 18a, b (Florida).

Helix carpenteriana – Bland, 1860: 7 (Key Biscayne, Florida).

Polygyra cereolus – Neckheim & Hovestadt, 2016: 21, pl. 1 fig. 19.

Distribution. — *Polygyra cereolus* is native to Florida but now introduced to several Caribbean islands (Charles, 2014). TN found many fresh empty shells along Little Bay Pond. It is introduced on St. Martin.

Material examined. — **St. Martin:** TN: 11.

- ***Polygyra plana* (Dunker in Philippi, 1843)**

Helix plana Dunker, 1843 in: Philippi, 1843: 51, pl. III.1 fig. 11 [*Helix* pl. III fig. 11] (“*Indiae occidentalis*?”).

Polygyra cf. plana – Bertrand, 2002: 35, pl. 1 fig. F.

Distribution. — Native to the Bahamas, also on Bermuda. Introduced to St. Martin, and reported by Bertrand (2002: 35 pl. 1 fig. F from Eastern Point and Mullet Bay).

Remarks. — See Bieler & Slapcinsky (2000) for a listing of synonyms. The specimen figured by Bertrand could be *P. cereolus* (Megerle von Mühlfeld, 1818). An apertural view is unfortunately lacking (see also Charles, 2014).

Material examined. — None.

Family Helicidae Rafinesque, 1815

- ***Cornu aspersum* (O.F. Müller, 1774)**

Helix aspersa – Müller 1774: 59.

Cornu aspersum – Questel 2017: 11 (Saint-Barthélemy).

Distribution. — From origin north Africa, widely spread by the Romans in west and south Europe, now occurring worldwide, not reported however from St. Martin or Anguilla

Family Sphaeriidae Deshayes 1855 (1820)

- ***Eupera viridans* (Prime, 1865)**

Sphaerium viridante Prime, 1865: 57, fig. 59 (Pointe-à-Pitre, Guadeloupe, type-locality).

Sphaerium viridans – Mazé, 1890: 34 (“Assez rare”, St. Martin)

Eupera viridante – Coomans, 1967: 142.

Eupera viridans – Pointier, 2008: 66-67 (Guadeloupe).

Distribution. — Coomas (1967) and also Mazé (1890) mentioned this species but we have not found it on St. Martin or Saint-Barthélemy. This small freshwater clam occurs in southern parts of North America, Cuba and some Caribbean islands (Massemin et al., 2011).

Material examined. — None.

Discussion

In total 7 freshwater (with one possibly extinct taxon) species and 47 species of terrestrial molluscs (with four either misidentifications or extinctions) are known to occur on St. Martin, thus in all 54 species. This is a considerable number when compared to the 13 taxa that have been recorded for Anguilla and the 19 for Saint-Barthélemy. The relatively low number of taxa on these last two islands can be explained by the less intensive collecting. Anguilla has almost the same surface area as St. Martin, but the diversity of available habitats is certainly less when compared to St. Martin. Saint-Barthélemy is more diverse, but is about 3 times smaller than St. Martin.

Freshwater molluscs have not been collected on Saint-Barthélemy and Anguilla. The species collected on St. Martin occur also on other islands of the Lesser Antilles; no unusual species have been encountered. *Gundlachia radiata* is found for the first time on St. Martin.

Terrestrial taxa on St. Martin are more or less the same taxa that one can find on other smaller islands like Saba (van Leeuwen *et al.*, 2015) and Saint Kitts and Nevis (Breure *et al.*, 2016). These islands differ in having a greater elevation with extended rainforests and lack significant areas where limestone is available. There are some surprising elements, however. *Chondropoma pupiforme* (Sowerby, 1843) is restricted to St. Martin and Anguilla and *Diplopoma sulculosum* (L. Pfeiffer, 1852) on the other hand to Anguilla and Saint-Barthélemy, but no annulariid taxa occur on Saba, Saint Kitts or Nevis. *Pleurodonte guadeloupensis martinensis* subsp. nov. is an endemic subspecies with close relatives on Saint Kitts and Guadeloupe. *Bulimulus lehmanni* (L. Pfeiffer, 1865) is an endemic of Anguilla, its occurrence on St. Martin is uncertain.

Overall the malacofauna of St. Martin does not seem to have changed very much when one compares the list compiled by Coomans (1967) with our present findings, except for the massive occurrence of *Lissachatina fulica* and the less common occurrence of *Zachrysis provisoria* and *Streptartemon glaber*. Building activity and the fragmentation of suitable habitats might pose a threat. Billy Folly for example, where there is extensive building activity on the western slopes, is one of the very few large limestone hills on St. Martin. *Pleurodonte guadeloupensis martinensis* and *Diplopoma crenulatum* (Potiez & Michaud, 1838) live in the central hills, in densely wooded areas and do not seem to be threatened. The annulariid taxa of Anguilla and Saint-Barthélemy are common to abundant and are not exposed to immediate threats.

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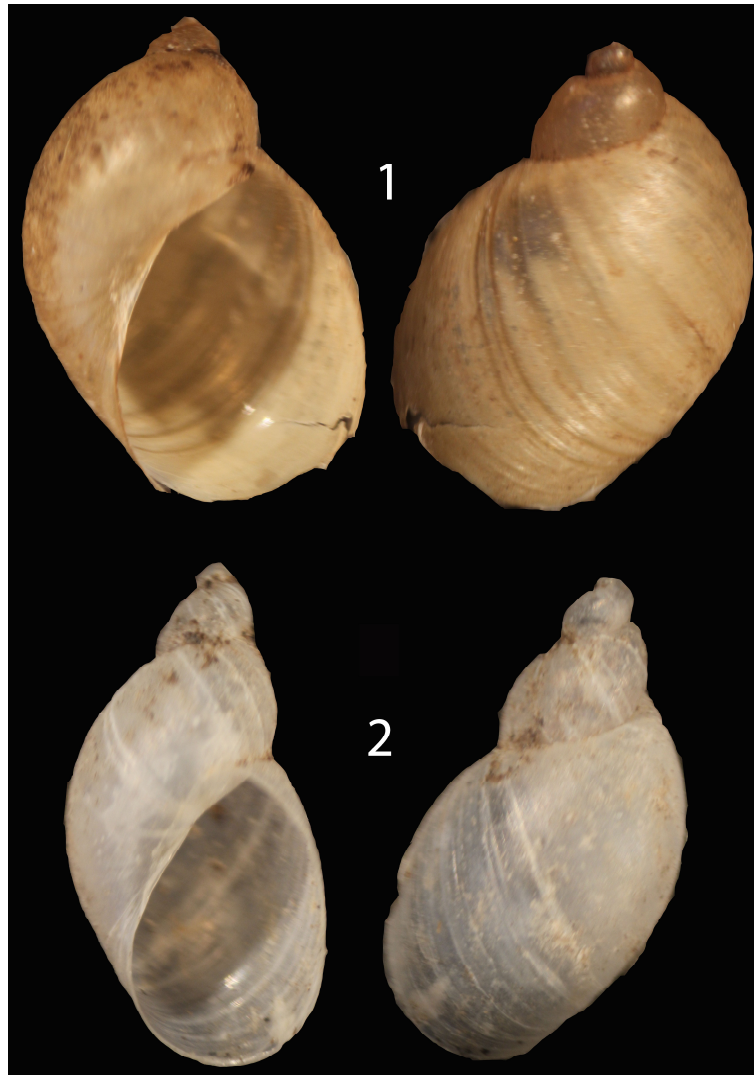


Plate 3 - Fig 1. *Succinea* spec, form A, (7.3 mm). Fig. 2. *Succinea* spec, form B (8.9 mm).

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Appendix 1. Sites of St. Martin, Anguilla and Saint-Barthélemy.

Sites are referred to by a number, preceded by the two letter combination denoting the collector (see material and methods). Format: site number – date (dd-mm-yyyy) – description of site – coordinates.

Sites sampled by A. Hovestadt (AH) and Thijs de Boer (TB) on St. Martin:

01 - 01-08-1981: 100 m before top of Paradise Peak, leg. TB; 02 - 02-08-1981: Paradise Peak, leg. TB; 03 - 01-08-1981: ca. 500 m S of Rouge Beach. Leg. TB; 04 - 09-11-2008: along trail from La Loterie to Paradise Peak, elev. 233 m. 18°04'34.6" N, 63°03'22.1" W; 05 - 09-11-2008: valley between two unnamed hills, at Billy Folly SE of airport, elev. 83m, N18°01'45.0" - W63°05'21.6"; 06 - 09-11-2008: SE side of Billy Folly, SE of site 05, elev. 98m, N18°01'36.8" - W63°05'20.0"; 07 - 10-11-2008: E of Plum Point, elev. 34 m, N18°04'19.2" - W63°08'33.9"; 08 - 10-11-2008: just N of Cupecoy Beach, N of border, elev. 51m, N18°03'21.5" - W63°08'05.7"; 09 - 10-11-2008: limestone slope N of W end of airport, elev. 12 m, N18°02'28.1" - W63°07'07.3"; 10 - 06-12-2013: along trail from La Loterie to Paradise Peak, elev. 178 m, N 18°04'37.3" - W 63°03'30.4"; 11 - 27-11-2014: First-Stick Hill, E of Grand-Case, elev. 205 m, N 18°06'30.5" - W 63°02'56.3"; 12 - 28-11-2014: Sentier des Froussards, N of French Cul-de-Sac. N

18°07'13.7" - W 63°02'05.0" alt.; 74 m 13 - 29-11-2014: surroundings Grotte du Puits Terres Basses. N 18°03'48.1" W 63°08'13.4" alt. 2 m; 14 - 27-10-2015: NW hilltop of Billy Folly. N18°01'45.0" W63°05'22.0" Alt. 67 m; 15 - 27-10-2015: N slope of Cole Bay Hill. N18°01'54.6" W63°04'26.5"; 16 - 28-10-2015 Guana Bay Road, E part. N18°01'57.1" W63°01'41.5" Alt. 50 m; 17 - 28-10-2015: Pea Tree Hill. N18°06'09.3" W63°02'17.7" Alt. 170m; 18 - 09-11-2016: garden of Mary's Boon Hotel, S side of airport. N 18°92'26.5" W 63°06'17.6" Alt. 1 m; 19 - 19-11-2016: near top of Sentry Hill. N 18°02'21.9" - W 63°04'17.3" Alt. 358m; 20 - 19-11-2016: along trail to Sentry Hill. N 18°02'11.1" - W 63°04'17.9" Alt. 181m; 21 - 19-11-2016: coastal area N of Friars Bay. N 18°15'48.3" - W 63°04'23.4" Alt. 10 m; 22 - 20-11-2016: Halfway Saint Peters Hill to Mont des Accords. N 18°03'18.5" - W 63°04'25.8" Alt. 247 m; 23 - 21-11-2016: hill E of Mullet Bay. N 18°02'44.5" - W 63°06'56.6" Alt. 20 m; 24 - 21-11-2016: NW side of Paradise Peak. N 18°64'43.6" - W 63°03'04.3" Alt 400 m; 25 - 21-11-2016: dunes E of Salines d'Orient. N 18°04'33.9" - W 63°01'08.2" Alt 1 m; 26 - 21-11-2016: rock garden of Simpson Bay Resort. N18°01'47.3" - W 63°05'38.3" Alt. 22 m; 27 - 22-11-2016: along trail to Fort Williams. N 18°01'22.7" - W 63°01'33.9" Alt. 76 m; 28 - 22-11-2016: N side of Pointe Blanche Hill. N 18°00'38.5" - W 63°02'22.8" Alt. 105m; 29 - 22-11-2016: Guana Bay Ridge. N 18°01'52.1" - W 63°02'08.1" Alt. 121 m; 30 - 22-11-2016: Babit Point, E of Oyster Pond. N 18°03'24.4" - W 63°00'42.5" Alt. 10 m; 31 - 23-11-2016: along trail to Petit Fond N 18°04'56.8" - W 63°02'09.3" Alt 167m; 32 - 23-11-2016: Fort Louis, Marigot. N 18°04'14.2" - W 63°05'06.8" Alt. 120m; 33 - 24-11-2016: trail to Mont Caréta. N 18°05'22.7" - W 63°02'45.0" Alt. 65m; 34 - 24-11-2016: trail to Mont Caréta. N 18°05'32.4" - W 63°02'42.9" Alt. 68m; 35 - 24-11-2016: Billy Folly, near triangulation point. N 18°01'42.2" - W 63°05'18.8" Alt. 73m; 36 - 31-05-1980: Étang near Grand Case.

Sites sampled by Tello Neckheim (TN) on St. Martin

01 - 6-2-1991: Phillipsburg, Zagersgut, in garden. N 18°02'44.40" - W 63°03'44.18" ; 02 - 7-2-1991: Anse Marcel, under trees on the beach. N 18°06'51.26" - W 63°02'23.01"; 03 - 8-2-1991: Dawn Beach Hotel, along the beach. N 18°02'50.56" - W 63°01'0.23"; 04 - 9-2-1991: Peak Paradise, on the bottom of bush at the end of the road. N 18°07'76.56" - W 63°05'06.07"; 05 - 11-2-1991: Long beach, west lowlands, in mangrove along Grand étang. N 18°03'38.84" - W 63°08'42.67"; 06 - 12-2-1991: Fort Amsterdam, under old wall. N 18° - W 63°; 07 - 7-11-2015: Cay Bay Hill, E side of hill, upper Beethoven road, along road under bushes, ground sample. N 18°02'42.9" - W 63°06'92.1"; 08 - 7-11-2015: Cay Bay Hill, E side of hill, lower Beethoven road, along road under bushes, ground sample. N 18°02'44.2" - W 63°06'82.4"; 09 - 7-11-2015: Billy Folly, north-west of the top, near parking place, ground sample. N 18°02'91.58" - W 63°08'89.56"; 10 - 7-11-2015: Billy Folly, NW of the top, among red coloured rocks, ground sample. N 18°02'92.60" - W 63°08'86.48"; 11 - 8-11-2015: Little Bay Pond, SW side, along path near the pond, drift. N 18°02'44.2" - W 63°06'58.5"; 12 - 8-11-2015: E side of Little Bay Pond, along the path in scrub. N 18°02'44.2" - W 63°06'58.5"; 13 - 9-11-2015: Fort Amsterdam, W side, under old wall; very dry and hot, ground sample. N 18°01'45.7" - W 63°06'00.9"; 14 - 11-11-2015: Pigeon Pea Hill, in garden under big Tamarind tree, near hotel Marquis, ground sample. N 18°10'88.6" - W 63°04'08.7"; 15 - 11-11-2015: First Stick Hill, on top with limestone, grazed over by cattle, ground sample. N 18°10'90.6" - W 63°04'83.8"; 16 - 11-11-2015: La Loterie, along stream near viewing point in bush, ground sample. N 18°07'92.10" - W 63°05'69.45"; 17 - 11-11-2015: La Loterie, along stream near viewing point in stream. N 18°07'90.11" W 63°05'72.83"; 18 - 11-11-2015: La Loterie, along stream near farm/restaurant. N 18°07'81.55" - W 63°06'12.91"; 19 - 12-11-2015: W of St Peter Hill, along path in dry wood, ground sample. N 18°05'29.8" W 63°07'89.1"; 20 - 12-11-2015: W of St Peter Hill, on top in rather moist wood, ground sample. N 18°04'55.0" - W 63°08'27.2"; 21 - 12-11-2015: W of St Peter Hill, along the path in wood with big old trees, ground sample. N 18°04'88.3" - W 63°08'35.1".

Sites sampled by Anna. Rojer (AR) on St. Martin

01 - 08-08-1996: Billy Folly; 02 - 09-08-1996: Sentry Hill; 03 - 09-08-1996: Marigot Hill; 04 - 09-08-1996: Williams Hill.

Sites sampled by Wagenaar Hummelinck (WH) on St. Martin

057- 22-06-1973: Peninsula N of Grand Case, 2-10 m; 057A - 22-06-1973: N of Grand Case, SW slope of Belle Hill, 20-50; 058 - 20-06-1973: First Stick Hill, N of Grand Case, 170 m; 059 - 20-07-1973: Cocksies, N of Grand Case, 110 m; 060 - 22-06-1973: Pea Tree Hill, E of Grand Case; 061 - near Pea Tree Hill, 22-06-1973, 30 m; 063 - La Croisade, Quartier d'Orleans, 22-06-1973, 70 m; 064 - Pic du Paradis, 25-06-1973, 400 m; 065 - Flagstaff, W slope, 22-07-1973, 400 m; 066 - Mildrum, N of Cul-de-Sac, 65-70 m; 067 - Mildrum, about 20 m from 066, 24-06-1973, 65-70; 068 - W of Oysterpond, 20-07-1973, 30-40; 070 - Backy Hill at Prince's Quarter Hotel, 19-06-1973, 120-140; 071 - Naked Boy Hill, 20-06-1973, 260 m; 071A - Naked Boy Hill, 20-06-1973, 150 m; 072 Guana Bay ridge, 02-07-1973, 130-140 m; 073 Hope Hill,

E of Philipsburg, 21-06-1973; 074 N of Point Blanche Bay, 02-05-1973, 50 m; 077 Corner Hill (Meschrine Hill), near Cole Bay – 28-06-1973, 10-20 m; 078 N of Mullet Pond, Low Lands 26-06-1973, 10 m; 080 near Cupecoy Bay, roadside, 23-06-1973, 10 m; 081 Cupecoy Bay Hill, lowlands, 23-06-1973; 082 N of Cupecoy Bay, 26-06-1973, 40-50 m; 083 Near the Grotte du Puits de Terres Basses, 16-08-1973, 20 m; 085 N of Grand Etang, Terres Basses, 26-06-1973, 10-25m; 086 S of Falaises des Oiseaux, Terre Basses, 19-06-1973, 40 m; 087 Mornes de Lakem, Terres Basses, 26-06-1973, 30 m; 088 Mornes Rouges, 23-06-1973, 20-25 m; 089 Morne aux Cabris, 23-06-1973, 15 m; 092 Colline Nettlé, Simson Lagoon, 29-06-1973, 5-15 m; 099 Puits des Terres Basses, 16-07-1973; 458 Point Blanche, W slope, 17-05-1949, 40 m; 458a Pointe Blanch, 29-07-1967, 60 m; 458b Idem, 25-06-1973 70-80 m; 458A idem, 25-06-1973, 70-80 m; 458 Aa Point Blanche W slope, 25-06-1973, 100-110 m; 461b old battery, SE of Philipsburg, 01-10-1963, 5-15 m; 467 Saint Peter Cul-de-Sac, 24-05-1949; 467a Saint Peter, Cul-de-Sac, 29-06-1955; 467b Saint Peter, Cul-de-Sac, 02-10-1963; 469 Cul-de-Sac, at bridge, 24-05-1949; 471 Lay Bay, 27-05-1949; 472 Meschrine Hill (Corner Hill), W top, 27-05-1949; 473 Meschrine Hill, W base, 27-05-1949; 473A Meschrine Hill, W base, W slope, 02-08-1967; 473-B Meschrine Hill, SW 27-06-1973, 10-20 m; 474 Devils Hole, cave, 04-08-1949; 474A sink hole, 27.VII.1955; among debris; 475 lowlands, Flamingo Pond, 08-06-1949; 477 Lowlands, SW shore of Flamingo Pond, 08-06-1949; 542 Devils Hole swamp, 04-08-1949; 542a idem, 26-07-1955; 606 Point Blanch Bay, near shore, 05-06-1955; 606A Point Blanch Bay, near shore, 26-09-1963; 609 Little Bay Pond, shore, 04-06-1953, 0-2 m; 610 lowlands, Mullet Pond Bay, 27-06-1955, 15 m; 680 Little Bay Pond, E shore, 04-06-1955; 709 Fort Willem ruins, 02-10-1963, 220 m; 829 Point Blanche Bay, 29-7-1967, 10 m.

Sites sampled on Anguilla by P. Wagenaar Hummelinck (WH)

046 – 30-06-1973: Crocus Hill, cliff N of bay, 10-30 m; 047 – 01-07-1973: Crocus Hill, S of bay, 20-30 m; 048 – 01-07-1973 Badcox Pond, W of Gauls Pond, 2-3 m; 051 – 02-07-1973; near Blowing Point, 1 km N, 2-3 m; 053 – 02-07-1973: Low South Hill, SW of Sandy Ground, 3-6 m; 482 – 18-06-1949: Forest Point, near Saltwell,

Sites sampled on Saint-Barthélemy by A. Hovestadt (AH)

01 – 24-11-2013: near old church tower Lorient. N 17°54'18.0" - W 62°40'25.0" Alt. 18m; 02 – 24-11-2013: N side of Morne de Vitet, along road to Devet. N 17°54'08.8" - W 62°48'24.3" Alt. 143 m; 03 – 24-11-2013: E side of Grand Etang, near Grand Cul-de-Sac. N 17°54'33.5" - W 62°47'55.0" Alt. 1 m; 04 – 24-11-2013: dunes at W side of Anse de Grand Saline. N 17°53'28.5" - W 62°49'21.0"; 05 – 25-11-2013: Fort Gustave. N 17°54'02.8" - W 62°51'05.2" Alt. 31m; 06 – 25-11-2013: along road to Anse Gouverneur, at highest point. N 17°53'11.9" - W 62°50'14.7" Alt. 121m; 07 – 26-11-2013: N side of La Grand Vigie, SE of Colombier N 17°51'44.4" - W 62°51'32.3" Alt. 115 m; 08 – 26-11-2013: along trail from Colombier to Anse de Colombier. N 17°55'19.0" - W 62°52'06.0" Alt. 10 m; 09 – 26-11-2013: N side of Morne Lurin along road to Col Tourterolle. N 17°53'36.0" - W 62°50'15.0" Alt. 145 m; 10 – 27-11-2013: W side of Col Tourelle, along road to Lurin. N 17°53'34.2" - W 62°50'00.6" Alt. 90 m; 11 – 28-11-2013: Halfway Lorient and pass, road to Grand Fond. N 17°54'02.0" - W 62°49'11.1" Alt. 13 m; 12 – 28-11-2013: Halfway Grand and Petit Cul-de-Sac. N 17°54'12.5" - W 62°47'59.2" Alt. 29 m; 13 – 28-11-2013: surroundings of Gouverneur. N 17°53'10.7" - W 62°50'06.9" Alt. 95m.

Sites sampled on Anguilla by A. Hovestadt (AH)

01 – 30-11-2013: E of White Hill. N 18°15'04.3" - W 62°59'35.5" Alt. 25 m; 02 – 30-11-2013: W of Grey Pond, East End. N 18°14'32.9" - W 62°59'27.4" Alt. 24 m; 03 – 30-11-2013: forest E of airport. N 18°12'18.7" - W 63°02'27.4" Alt. 40 m; 04 – 30-11-2013: N of Little Harbour Bay. N 18°11'31.2" - W 63°04'00.5" Alt. 11 m; 05 – 30-11-2013: Crocus Hill, Old Court House. N 18°15'10.4" - W 63°01'35.6"; 06 – 30-11-2013: S of Upper Shoal Bay. N 18°15'10.2" - W 63°01'35.6". Alt. 17 m; 07 – 01-12-2013: N coast approx. 2 km SW of Shoal Bay. N 18°14'49.9" - W 63°02'49.0" Alt. 31 m 08 – 01-12-2013: S of Limestone Bay. N 18°13'53.8" - W 63°04'12.1" Alt. 23 m; 09 – 01-12-2013: Iguana Cave, Katoucha Bay. N 18°12'38.9" - W 63°04'12.1" Alt. 60 m; 10 – 01-12-2013: E of Rendez-Vous Bay Saltpond. N 18°10'38.0" - W 63°06'00.0" Alt. 13 m; 11 – 02-12-2013: Lower South Hill along Spring Path Road. N 18°11'13.6" - W 63°06'16.0" Alt. 15 m; 12 – 02-12-2013: West End Village W of pond. N 18°08.0" - W 63°09'35.5" Alt. 7 m; 13 – 03-12-2013: W of cemetery, S of Mead Bay. N 18°10'33.5" - W 63°08'31.0" Alt. 29 m; 14 – 03-12-2013: E of Gull Pond, W end. N 18°09'45.2" - W 63°08'56.9" Alt. 1 m; 15 – 04-12-2013: Junk's Hole, E end. N 18°15'25.8" - W 62°59'00.7" Alt. 17 m; 16 – 04-12-2013: N of museum, E end of island N 18°14'23.5" - W 62°59'49.9" Alt. 5 m.

Appendix 2. Non-marine molluscs from Tintamarre.

Tintamarre is a small, limestone-rich island, nearly 3 km off the northeast shore of St. Martin. We have not collected there, however, Wagenaar Hummelinck visited the island in 1949 and 1973 (Wagenaar Hummelinck, 1981: 37). We have seen material from the following sites (WH stands for Wagenaar Hummelinck. Numbers refer to the original localities visited by Wagenaar Hummelinck, see Wagenaar Hummelinck, 1981):

WH 455: bluff N of White Bay (20-06-1949).

WH 455a: idem (15-07-1973).

WH 0103: Colline du Soldat, NE of island (15-07-1973).

The following taxa were found:

Diplopoma crenulatum (Potiez & Michaud, 1838) WH 103, WH 455a.

Pupoides albilabris (L. Pfeiffer, 1858) WH 455, WH 455a.

Gastrocopta barbadensis (L. Pfeiffer, 1843) WH 455a.

Gastrocopta servilis (Gould, 1843) WH 455A, 103.

Pseudopineria viequensis (L. Pfeiffer, 1835) WH 455a.

Allopeas micra (d'Orbigny, 1835) WH 455a.

Table 1 Overview of taxa for each island.

x = present ; e = extinct ; r = reported in literature, not seen by us, accepted as part of the malacofauna for that island ; r error = erroneously reported and not considered a part of the malacofauna for that island.

	St. Martin	Anguilla	Saint- Barthélemy
<i>Helicina fasciata fasciata</i>	x		
<i>Lucidella striatula christophori</i>	x		
<i>Vitta virginea</i>	x		
<i>Pomacea glauca</i>	e		
<i>Melanoides tuberculata</i>	x		
<i>Chondropoma julieni</i>	e		
<i>Chondropoma pupiforme</i>	x	x	
<i>Diplopoma crenulatum</i>	x		
<i>Diplopoma sulculosum</i>		x	x
<i>Pyrgophorus parvulus</i>	x		
<i>Gundlachia radiata</i>	r		
<i>Aplexa marmorata</i>	r		
<i>Haitia acuta</i>	x		
<i>Sarasinula plebeia</i>	r		
<i>Leidyula floridana</i>			x
<i>Veronicella cubensis</i>			x
<i>Diplosolenodes cf. occidentalis</i>	r		
<i>Omalonyx guadeloupensis</i>	r		
<i>Succinea cuvierii</i>	r		
<i>Succinea type A and type B</i>	r	x	r
<i>Pupoides albilabris</i>	x	x	
<i>Pupisoma dioscoricola</i>	x		

<i>Gastrocopta servilis</i>	x	x	
<i>Gastrocopta barbadensis</i>	x		
<i>Gastrocopta polyptyx</i>	x		
<i>Gastrocopta pellucida</i>	x		
<i>Pellicula depressa</i>	r		
<i>Bulimulus guadalupensis</i>	x	x	x
<i>Bulimulus eyriesii</i>	r error		
<i>Bulimulus diaphanus</i>	r		fossil?
<i>Bulimulus lehmanni</i>	r	x	
<i>Bulimulus limnoides</i>	r error		
<i>Drymaeus elongatus</i>	x	x	x
<i>Macroceramus signatus</i>		x	
<i>Pseudopineria viequensis</i>	x	x	x
<i>Brachypodella antiperversa</i>	e		e
<i>Lissachatina fulica</i>	x	x	x
<i>Cecilioides gundlachi</i>	x		
<i>Karolus consobrinus</i>	x		
<i>Beckianum beckianum</i>	x		x
<i>Allopeas gracile</i>	x	x	x
<i>Allopeas micra</i>	x	x	x
<i>Leptinaria lamellata</i>	x		
<i>Neosubulina gloynii</i>	x		
<i>Obeliscus swiftianus</i>	x		x
<i>Opeas pumilum</i>	x		
<i>Subulina octona</i>	x		x
<i>Melaniella gracillima</i>	x		
<i>Huttonella bicolor</i>	x		x
<i>Streptartemon deplanchei</i>	x		
<i>Streptartemon glaber</i>	x		x
<i>Thysanophora plagioptycha</i>	x		
<i>Zonitoides arboreus</i>	x		
<i>Guppya gundlachi</i>	x		
<i>Hyalosagda subaquila</i>	x		x
<i>Lacteoluna selenina</i>	x		
<i>Pallifera spec.</i>	r		
<i>Euclastaria musicola euclasta</i>	x		
<i>Pleurodonte guadeloupensis martinensis</i>	x		
<i>Zachrysia provisorica</i>	x		x
<i>Polygyra plana</i>	r		
<i>Polygyra cereolus</i>	x		
<i>Cornu aspersum</i>			x
<i>Eupera viridans</i>	r		
Total	47+7=54	13	19