

STUDIES ON THE FAUNA OF CURAÇAO AND OTHER
CARIBBEAN ISLANDS: No. 94.

THE NON-MARINE MOLLUSCA OF ST. MARTIN
(Lesser Antilles)

by

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Introduction	119		
COLLECTORS OF NON-MARINE SHELLS ON ST. MARTIN	120		
LIST OF LAND- AND FRESHWATER MOLLUSCA FROM ST. MARTIN	123		
Helicinidae	18	— <i>servilis</i>	131
1 <i>Helicina fasciata</i>	125	18a — — <i>riisei</i>	131
Ampullariidae		Pupillidae	
2 <i>Ampullarius glaucus</i>	125	19 <i>Pupoides albilabris nitidulus</i> .	132
Chondropomidae		Succineidae	
3 <i>Chondropoma ignea</i>	126	20 <i>Succinea approximans</i>	132
4 — <i>julieni</i>	126	20a — — <i>martiniana</i>	132
5 — <i>pupaeformis</i>	126	21 — <i>candearna</i>	132
6 <i>Adamsiella crenulata</i>	126	22 <i>Omalonyx guadeloupensis</i> . .	133
6a — — <i>martinensis</i>		Euconulidae	
n. subsp.	126	23 <i>Guppya gundiachi</i>	133
7 <i>Annularia occidentale</i>	128	Ferussaciidae	
Hydrobiidae		24 <i>Cecilioides gundiachi</i>	133
8 <i>Lyrodes coronatus</i>	128	Subulinidae	
9 — <i>crystallinus</i>	128	25 <i>Subulina octona</i>	134
Physidae		26 <i>Leptinaria lamellata</i>	134
10 <i>Aplexa sowerbyana</i>	129	27 — <i>gloynii</i>	134
11 — <i>orbignyi</i>	129	28 <i>Lamellaxis gracilis</i>	135
Planorbidae		29 — <i>micrus</i>	135
12 <i>Plesiophysa granulata</i>	129	30 <i>Opeas pumilum</i>	135
13 <i>Australorbis glabratus</i>	130	31 <i>Obeliscus swiftianus</i>	135
13a — — <i>christopherensis</i> .	130	Oleacinidae	
14 — <i>olivaceus</i>	130	32 <i>Melaniella gracillima</i>	
Chondrinidae		<i>sanctithomensis</i>	136
15 <i>Gastrocopta barbadensis</i>	131	Bulimulidae	
16 — <i>pellucida</i>	131	33 <i>Bulimulus guadaloupensis</i> . .	136
16a — — <i>hordeacella</i>	131	33a — — <i>eyriesi</i>	137
17 — <i>polyptyx</i>	131	34 — <i>diaphanus</i>	137

35	— <i>fraterculus</i>	137		Streptaxidae	
36	— <i>lehmanni</i>	137	42	<i>Streptartemon deplanchei</i> . .	140
37	— <i>limnoides</i>	137	42a	— — forma <i>martiniana</i>	140
38	<i>Drymaeus elongatus</i>	137	43	<i>Gulella bicolor</i>	140
38a	— — <i>anguillensis</i> . .	138		Sagdidae	
38b	— — forma <i>extinctus</i> .	138	44	<i>Hojeda subaquila</i>	140
	Amphibulimidae		45	<i>Lacteoluna selenina</i>	141
39	<i>Pellicula depressa</i>	138		Camaenidae	
	Urocoptidae			<i>Pleurodonte lychnuchus</i> . . .	141
40	<i>Pseudopineria viequensis</i> . .	139		Helminthoglyptidae	
40a	— — <i>schrammi</i>	139	46	<i>Cepolis euclasta</i>	141
41	<i>Brachypodella antiperversa</i> . .	139		Sphaeriidae	
			47	<i>Eupera viridante</i>	142
	LITERATURE				142

After our studies about the marine mollusks of St. Martin, (COOMANS 1963a, 1963b), this publication will deal with the land and freshwater shells of the island. The non-marine mollusks of St. Martin were already fairly well known at the end of the last century (MAZÉ 1890, p. 22–34), who mentioned 36 species, mainly collected by H. E. VAN RIJGERSMA. VERNHOUT (1914) compiled from the literature the land and freshwater mollusks of the Netherlands Antilles, and he listed 37 species from St. Martin (not including 12 brackish water species). VERNHOUT's list was entirely copied by SCHEPMAN (1915). Many specific names have changed since 1914, and more collecting was done on St. Martin during the last decades.

This publication will cover all the species of non-marine mollusks known to us from the literature, from museum collections, and from our own collecting on St. Martin. One new subspecies of *Adamsiella crenulata* is described and figured here.

Preceding the species list we give some historical remarks about the collectors of non-marine shells on St. Martin.

The author is grateful to Dr. W. J. CLENCH, a specialist himself in West Indian land mollusks, for his comments and informations after reading the manuscript.

Dr. H. A. REHDER loaned us the material of land mollusks from St. Martin, present in the collection of the United States National Museum in Washington.

Important informations were received from Mr. H. BAMBERG (Uppsala), Rev. H. B. HERRINGTON (Westbrook), Dr. I. KRISTENSEN (Den Helder), Dr. C. O. VAN REGTEREN ALTENA (Leiden), Dr. W. R. TAYLOR (Ann Arbor), and Dr. P. WAGENAAR HUMMELINCK (Utrecht).

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COLLECTORS OF NON-MARINE SHELLS ON ST. MARTIN

It is known from the literature that several malacologists have collected land and freshwater shells on St. Martin, although the number of species collected by each is rather small.

M. BEAU (? -1858)

The French naval officer BEAU, "Chef de bataillon d'infanterie de la marine", made up a list of the mollusks he had collected in Guadeloupe and some other French islands, belonging to that territory (Saint-Martin, Marie-Galante, Les Saintes, and La Désirade). The list was published in the "Revue Coloniale" of December 1857, and again as a separate edition in 1858. Two landshells from St. Martin are mentioned there (1858, p. 14). Some years before, BEAU had sent shells from Guadeloupe to S. PETIT DE LA SAUSSAYE (1792-1870) in France, who published on them in the "Journal de Conchyliologie", vol. 2 (1851) and 4 (1853). BEAU (1858) wrote in the "Journal" (vol. 7) about the usable mollusks from Martinique and Guadeloupe; in the same year he had an accident in Martinique, and died (FISCHER 1858, p. 393).

Hendrik Johannes KREBS (1821-1907)

KREBS collected shells on St. Martin before 1864 (COOMANS 1963a, p. 60). He was a Danish apothecary, who lived in St. Thomas from 1843 till 1870. KREBS (1864), published a species list of marine mollusks from the West Indies, in which he mentioned 118 species of gastropods and 3 pelecypods from St. Martin (COOMANS 1963a, p. 63-72). It is not known if he also collected land shells, since these were not mentioned by him in 1864, nor in later publications.

Hendrik Elingsz VAN RIJGERSMA (1835-1877)

The first Dutch malacologist to collect land shells on St. Martin was VAN RIJGERSMA, between 1863 and 1877. His collection must be considered lost. Fortunately he had exchanged mollusks for insects with KOHLMANN (HOLTHUIS 1959, p. 72). The non-marine mollusks of this collection are known to us, thanks to the publication of MAZÉ (1890). A number of 23 (to 28) species of land and freshwater shells was collected by VAN RIJGERSMA. This is still the largest number of non-marine shells from St. Martin, collected by one malacologist. A special study on the malacological activities of VAN RIJGERSMA will be published in the future.

P. KOHLMANN

A French priest and entomologist, who was a member of the "Société Entomologique de France" from 1858 to 1869. He taught science at the seminary college

in Basse-Terre, Guadeloupe. On 19 December 1867 he was appointed chaplain at Marigot, French St. Martin, where he stayed until 15 July 1875. Then he left to become chaplain in St. Claude, Guadeloupe. KOHLMANN was a friend of VAN RIJGERSMA, and he added more specimens to the collection of mollusks that he had received from VAN RIJGERSMA. At least 18 species of land and freshwater shells were collected by KOHLMANN on St. Martin, according to MAZÉ (1890). We were not able to receive more information about KOHLMANN; his shell collection is not in the parish of Marigot, nor at St. Claude.

Edouard Auguste MARIE (1835–1888)

Also a French naval officer, "Commissaire adjoint de la marine", who was stationed for a short time in Guadeloupe. MARIE donated a collection of shells from Guadeloupe to the Academy of Natural Sciences at Philadelphia in 1884 (ROBERTS 1885, p. 340). MARIE did not publish on the shells he collected in the West Indies, but he is famous for his collecting and publications on New Caledonia. After MARIE's death in Paris on 11 June 1888 (CROSSE & FISCHER 1889, p. 94), his widow sold the mollusk collection to HUGH FULTON in London (CROSSE 1890c, p. 347). The Rijksmuseum van Natuurlijke Historie in Leiden purchased in 1914 a collection of shells from FULTON and SOWERBY, among which were three species of land shells from St. Martin (VERNHOUT 1914, p. 187). It is not impossible that these species came from the MARIE collection. Dr. C. O. VAN REGTEREN ALTENA informed us that the collector is not indicated on the labels. MARIE must have collected in St. Martin before 1879, in that year DE FOLIN described three new Caecidae from the island, collected by MARIE. One species was named for the collector: *Meioceras mariae*.

Hippolyte Pierre MAZÉ (? –1892)

Another French naval officer who published with A. SCHRAMM on the algae of Guadeloupe in 1865 (TAYLOR 1960, p. 4, 651), the second issue appeared in 1866, the third in 1870–1877. The algae of St. Martin are mentioned in these papers. MAZÉ published on the algae of French Guyana in 1868, after that he turned to mollusks and was especially interested in non-marine shells. While stationed in 1873 on Martinique as "Commissaire-Ordonnateur" he collected shells, on which he published one year later (MAZÉ 1874). He returned to Guadeloupe about 1876 as "Commissaire général de la marine". MAZÉ (1883) published about the land shells of Guadeloupe and neighboring French islands, except St. Martin. A supplement to this paper (1890) was mainly on the mollusks of St. Martin, mostly collected by VAN RIJGERSMA and KOHLMANN, a few species by MAZÉ himself. Therefore it can be concluded that MAZÉ collected on St. Martin after 1883, and during that time received the Rijgersma-Kohlmann land shells. From correspondence between them we found out that MAZÉ knew VAN RIJGERSMA personally; it is therefore remarkable that MAZÉ misspelled VAN RIJGERSMA's name in his publication: Van Rijgersma.

Several land shells were named after MAZÉ by CROSSE (1874, p. 202–203), as was *Conus masei* Deshayes, a rare species from deep water near Martinique. After retiring, MAZÉ remained in Guadeloupe, where he died on 29 January 1892 (CROSSE 1894, p. 84). During his life, MAZÉ had donated a number of marine shells to the L'Herminier Museum in Guadeloupe. Since he died in Guadeloupe, it is possible that his important land shell collection also went to this Museum. Dr. P. WAGENAAR

HUMMELINCK visited Guadeloupe in January 1964, and he informed us: "The building of the Musée L'Herminier still exists, but is no longer in use as a museum. It is now the office of the Department of Agriculture. There is left one showcase with shells without labels. I was informed that much of the material was taken from the Museum to Paris. Shortage of time prevented me to examine the lofts and archives of the Museum".

Per Theodor CLEVE (1840–1905)

The Swedish geologist CLEVE, professor at the University of Uppsala, visited the Virgin Islands and the northern islands of the Lesser Antilles, including St. Martin (southern part only), during the winter of 1868–1869 (CLEVE 1871, p. 3). He did not mention VAN RIJGERSMA, who lived on St. Martin during CLEVE's trip. The collection of fossil mollusks was sent to CARL MAYER in Zürich, but the examination of this material was not yet finished after ten years (CLEVE 1881, p. 190–191). MAYER probably never published about this collection. CLEVE had sent recent shells from the Antilles to TH. BLAND (1871, p. 56), but it is not definitely known if material from St. Martin was included. Some of the recent shells, collected by CLEVE on St. Martin, are kept in the Academy of Natural Sciences in Philadelphia.

J. J. BROWN

This physician and shell collector from Shebogyan, Wisconsin, U.S.A., made several collecting trips to the West Indies for both marine and land shells ("The Conchologists' Exchange", vol. 1, no. 3, p. 9, September 1886). BROWN was at least once in St. Martin, where he had collected on 15 May 1890.

Philippe DAUTZENBERG (1849–1935)

The Belgian-French malacologist DAUTZENBERG was for one day on St. Martin during March 1895 (DAUTZENBERG, 1900, p. 146). He made a field trip to collect land shells, resulting in one species.

B. J. EMANUELS

A Dutch physician on St. Martin, who looked for Planorbidae between 1923 and 1927. (Some species of *Australorbis* are intermediate host of the *Bilharzia* parasite, *Schistosoma mansoni*.) He collected one species (EMANUELS 1933, p. 286–287).

Paul BARTSCH (1871–1960)

The American malacologist BARTSCH made a collecting trip for land shells to many Antillean islands in 1929. He visited St. Martin on 22 July: "On San Martin Island we chartered an automobile and drove to Grand Case Bay, collecting at suitable places along the way and exploring the high hill bounding the bay, and later the western end of the island" (BARTSCH 1930, p. 102). Although BARTSCH described his trip, he never published about the material he had collected. Dr. H. A. REHDER sent us the shells collected by BARTSCH in St. Martin, and some other lots of landshells

from this island in the collection of the United States National Museum in Washington. After identification of this material, we learned that BARTSCH had collected 10 species at the French part of St. Martin. According to the labels BARTSCH recognized one new subspecies in his material, but he never published about it.

Pieter WAGENAAR HUMMELINCK (1907-)

This Dutch biologist visited St. Martin several times (1949, 1955, 1963) and he collected land shells on these trips. Part of his material has been studied (VAN DER KUYP 1951; HAAS 1960, 1962; VENMANS 1963); more publications can be expected in the future. At the present time 14 species of land and freshwater mollusks are reported from St. Martin, collected by WAGENAAR HUMMELINCK.

George A. SEAMAN

One species is recorded by CLENCH (1958, p. 19) having been collected on St. Martin by SEAMAN, an ornithologist at St. Croix, Virgin Islands.

Hendrikus Eduard COOMANS (1929-)

When the author was on St. Martin in June 1959, mainly to collect marine mollusks, four species of landsnails were taken. One of these had not been recorded from the island before.

The Rijksmuseum van Natuurlijke Historie in Leiden had one land shell from St. Martin (VERNHOUT 1914, p. 181), obtained from J. SEMMELINK (1837-1912). Dr. C. O. VAN REGTEREN ALTENA provided us with data about SEMMELINK, who had been government physician in the formerly Dutch East Indies. He was a shell collector, but apparently never was in the West Indies.

The marine shells of St. Martin, and their collectors, are treated in our previous publications (COOMANS 1958, 1963a, 1963b).

LIST OF LAND- AND FRESHWATER MOLLUSCA FROM ST. MARTIN

This list contains all the species and literature references known to us from the island of St. Martin. As far as possible the collectors of the specimens are indicated. Whenever the collector is dubious, his name is preceded by a question mark. If a record was copied from another author, the collector's name is not repeated, but reference is made to the original author.

The species of St. Martin as mentioned by SCHEPMAN (1915, p. 480) are not considered in our list, since SCHEPMAN only copied the names from VERNHOUT (1914) without further commentary. VERNHOUT compiled many records from St. Martin, his main source of information was MAZÉ (1890). VERNHOUT modernized MAZÉ's nomenclature, but many names have changed since 1914.

In the taxonomy of the Gastropoda we used the system of WENZ (1938-1944) for the operculates, and ZILCH (1959-1960) for the pulmonates.

Abbreviations used in the list:

A.M.N.H. = American Museum of Natural History, New York.

M.C.Z. = Museum of Comparative Zoology, Cambridge.

U.S.N.M. = United States National Museum, Washington.

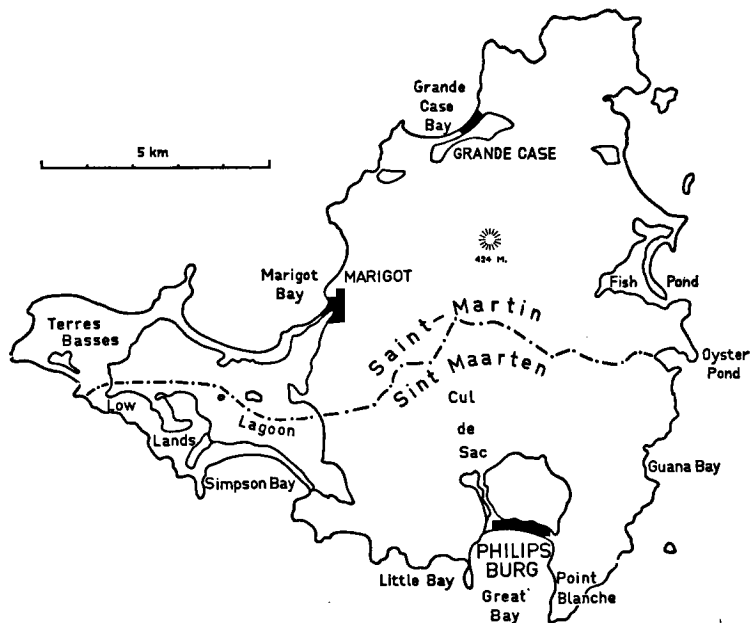


Fig. 38. Sketch-map of the island of ST. MARTIN.

Class GASTROPODA

Subclass STREPTONEURA (= Prosobranchia)

Family HELICINIDAE

Subfamily HELICININAE

Genus *Helicina* Lamarck, 1799

Type species by subsequent designation: *Helicina neritella* Lamarck.

Subgenus *Helicina* s.str.1. *Helicina* (*Helicina*) *fasciata* (Lamarck)

Helicina picta Férussac, MAZÉ 1890, J. Conchyl. 38, p. 33-34 [coll. Mazé, ? van Rijgersma, ? Kohlmann.]

Helicina fasciata Lam., VERNHOUT 1914, Notes Leyden Mus. 36, p. 183 [ref. Mazé].

Three specimens from St. Martin in A.M.N.H. (no. 63463), ex CROOKE collection, with the original label written by TH. BLAND (collected by VAN RIJGERSMA). – One lot in M.C.Z., ex TH. BLAND, collected by VAN RIJGERSMA. – One specimen was collected by BARTSCH on the hill top east of Grande Case Bay (U.S.N.M. no. 389963).

Family AMPULLARIIDAE

Genus *Ampullarius* Montfort, 1810

Type species by original designation: *Nerita urceus* O. F. Müller.

Subgenus *Effusa* Jousseaume, 1889

Type species by original designation: *Ampullaria luteostoma* Swainson = *Helix glaucus* Linnaeus.

2. *Ampullarius* (*Effusa*) *glaucus* (Linnaeus)

Ampullaria effusa Müller, MAZÉ 1890, J. Conchyl. 38, p. 31 [coll. Mazé, ? van Rijgersma, ? Kohlmann].

Ampullaria glauca L., VERNHOUT 1914, Notes Leyden Mus. 36, p. 183 [ref. Mazé].

Family CHONDROPOMIDAE

Subfamily CHONDROPOMINAE

Genus *Chondropoma* L. Pfeiffer, 1847

Type species by subsequent designation: *Cyclostoma sagra* d'Orbigny = *Cyclostoma pictum sagra* d'Orbigny.

3. **Chondropoma ignea** Reeve

Chondropoma igneum Rve., VERNHOUT 1914, Notes Leyden Mus. 36, p. 187, [coll. ? Marie].

4. **Chondropoma julieni** Pfeiffer

Chondropoma Julieni Pfeiffer, MAZÉ 1890, J. Conchyl. 38, p. 32 [coll. Mazé, ? van Rijgersma, ? Kohlmann].

Chondropoma julieni Pfr., VERNHOUT 1914, Notes Leyden Mus. 36, p. 183 [ref. Mazé], 187 [coll. ? Marie].

5. **Chondropoma pupaeformis** (Sowerby)

Tudora pupaeformis Sowerby var. β , MAZÉ 1890, J. Conchyl. 38, p. 31, [coll. van Rijgersma, Kohlmann].

Tudora pupaeformis Sow. var. β , VERNHOUT 1914, Notes Leyden Mus. 36, p. 183 [ref. Mazé], 187 [coll. ? Marie].

This species was found in phosphate blocs, it is extinct on St. Martin. BLAND (1871, p. 58) described it as "an undetermined species which inhabits St. Martin, . . . closely allied to *Tudora pupaeformis*." BLAND had received fossil specimens from E. D. COPE, collected by VAN RIJGERSMA; other specimens from St. Martin were sent to him by P. T. CLEVE or R. SWIFT. — One lot in M.C.Z., ex TH. BLAND, collected by VAN RIJGERSMA.

Subfamily ADAMSIELLINAE

Genus **Adamsiella** L. Pfeiffer, 1851

Type species by original designation: *Turbo mirabilis* Wood.

Subgenus **Adamsiellops** Henderson & Bartsch, 1920

Type species by original designation: *Cyclostoma ignilabris* C. B. Adams.

6. **Adamsiella (Adamsiellops) crenulata** (Férussac)

Chondropoma crenulatum Férussac, MAZÉ 1890, J. Conchyl. 38, p. 32, [coll. Kohlmann].

Chondropoma crenulatum Fér., VERNHOUT 1914, Notes Leyden Mus. 36, p. 183, [ref. Mazé].

6a. **Adamsiella (Adamsiellops) crenulata martinensis**

"Bartsch mss" new subspecies (Fig. 39-41)

In the material from St. Martin collected by BARTSCH on 22 July 1929 we found three lots with on the label the name "*Adamsiellops crenulata martinensis* B. mss". Description: Shell like *crenulata*, but smaller, maximum size 13 mm. The adult has four to five whorls, the apical whorls being decollated. The color is pale light brown, the four spiral rows of reddish brown spots are hardly visible in the subspecies.

Holotype: Length 12 mm, width 6 mm (Fig. 39-40).

Type locality: Hill top east of Grande Case Bay, St. Martin. U.S.N.M. no. 389964, holotype; no. 389961, 26 paratypes; no. 652968, 23 paratypes; no. 636106, 31 paratypes, of which a juvenile specimen is figured, to show the apical whorls and

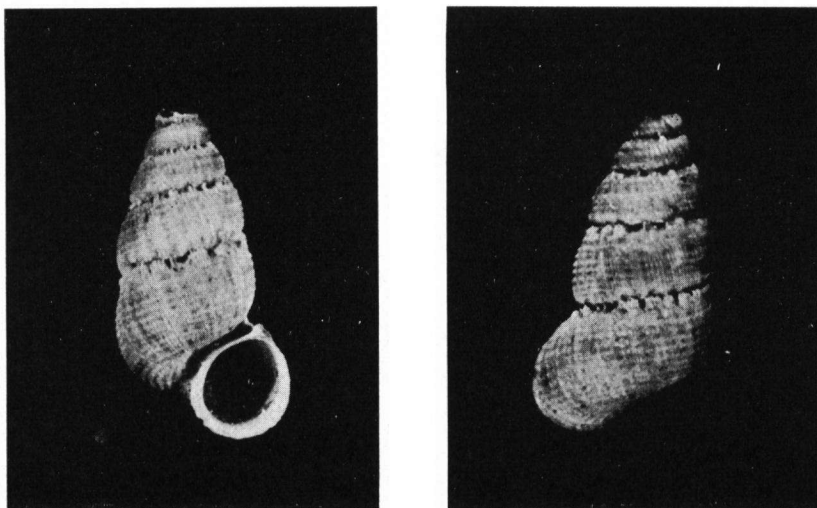


Fig. 39-40. *Adamsiella (Adamsiellops) crenulata martinensis* new subspecies, from St. MARTIN. Holotype, length 12 mm. (U.S.N.M. no. 389964).

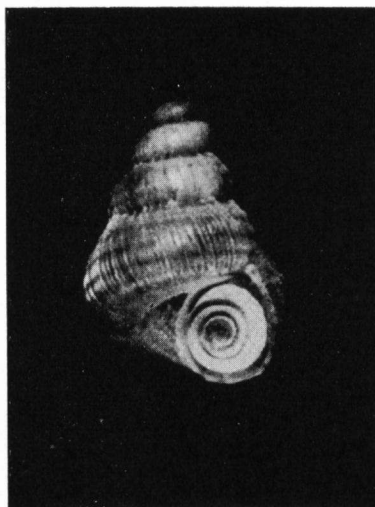


Fig. 41. *Adamsiella (Adamsiellops) crenulata martinensis* new subspecies, from St. MARTIN. Paratype, length 3 mm. Juvenile specimen with apical whorls and operculum. (U.S.N.M. no. 636106).

operculum (Fig. 41). Some paratypes have been donated to the Zoological Museum in Amsterdam.

Subfamily ANNULARIINAE

Genus *Annularia* Schumacher, 1817

Syn. *Choanopoma* L. Pfeiffer, 1847.

Type species by subsequent designation: *Turbo lincina* Linnaeus.

Subgenus *Annularia* s.str.

7. *Annularia* (*Annularia*) *occidentale* (Pfeiffer)

Choanopoma occidentale Pfr., KOBELT 1880, Jahrb. Deutsch. Malak. Gesellsch. 7, p. 282.

Choanopoma occidentale, FISCHER 1880-1887, Manuel de Conchyliologie, p. 272.

Choanopoma occidentale Pfeiffer, MAZÉ 1890, J. Conchyl. 38, p. 32 [coll. van Rijgersma, Kohlmann].

Choanopoma occidentale Pfr., VERNHOUT 1914, Notes Leyden Mus. 36, p. 183 [ref. Mazé].

FISCHER (1880-1887, p. 272) stated: "*Choanopoma occidentale* n'a été trouvé qu'à Saint-Martin" (has been found only on St. Martin).

Family HYDROBIIDAE

Subfamily LITTORIDININAE

Genus *Lyrodes* Döring, 1884

Type species by original designation: *Lyrodes guaraniticus* Döring. WENZ (1939, p. 572) considered *Lyrodes* a synonym of *Potamopyrgus* Stimpson 1865. However, MORRISON (1939, p. 87-88) has proved that these are two distinct genera. The American species belong to *Lyrodes*, the genus *Potamopyrgus* is confined to New Zealand.

8. *Lyrodes coronatus* (Pfeiffer)

Paludestrina Candeara Orbigny, MAZÉ 1890, J. Conchyl. 38, p. 31 [coll. van Rijgersma, Kohlmann].

Amnicola coronata Pfeiffer, CROSSE 1892, J. Conchyl. 40, p. 39-40.

Amnicola coronata L. Pfr., CROSSE & FISCHER 1900, Étud. moll. terr. Mexique et Guatemala 2, p. 267 [ref. Mazé].

Amnicola coronata Pfr., VERNHOUT 1914, Notes Leyden Mus. 36, p. 183 [ref. Mazé, a.o.].

9. *Lyrodes crystallinus* (Pfeiffer)

Paludestrina Auberiana Orbigny, MAZÉ 1890, J. Conchyl. 38, p. 31 [coll. van Rijgersma, Kohlmann].

Amnicola auberiana d'Orb., VERNHOUT 1914, Notes Leyden Mus. 36 [ref. Mazé].

This species is sometimes considered a subspecies of *L. coronatus*. — Many specimens were collected by the author on 5 June 1959, in the freshwater pond north of Little Bay.

Subclass EUTHYNEURA (Pulmonata)

Family PHYSIDAE

Genus *Aplexa* Fleming, 1820

Type species by original designation: *Bulla hypnorum* Linnaeus.

Subgenus *Stenophysa* Martens, 1898

Type species by original designation: *Physa sowerbyana* d'Orbigny.

10. *Aplexa* (*Stenophysa*) *sowerbyana* (d'Orbigny)

Aplexa Sowerbyana Orbigny, MAZÉ 1890, J. Conchyl. 38, p. 30, [coll. van Rijgersma].
Aplexa sowerbyana d'Orb., VERNHOUT 1914, Notes Leyden Nus. 36, p. 183, [ref. Mazé].

According to AGUAYO & JAUME (1947, p. 115) *Physa sowerbyana* d'Orbigny 1841 is a junior synonym of *Physa marmorata* Guilding 1828. However, *marmorata* does not belong into the genus *Aplexa*, it is placed in *Physa* (HARRY & HUBENDICK 1964, p. 13).

11. *Aplexa* (*Stenophysa*) *orbignyi* Mazé

Aplexa Orbignyi Mazé, MAZÉ 1890, J. Conchyl. 38, p. 30, [coll. Kohlmann].
Aplexa orbignyi Mazé, VERNHOUT 1914, Notes Leyden Mus. 36, p. 183, [ref. Mazé].

Aplexa orbignyi is a new name for *Physa acuta* "Draparnaud" in d'Orbigny 1841, non Draparnaud 1805.

Family PLANORBIDAE

Subfamily PLESIOPHYSINAE

* Genus *Plesiophysa* P. Fischer, 1883

Type species by monotypy: *Physa striata* d'Orbigny 1841 (non Menke 1830) = *Physa granulata* "Shuttleworth" Sowerby 1873.

12. *Plesiophysa granulata* (Sowerby)

Physa (Plesiophysa) Guadeloupensis Fischer, MAZÉ 1890, J. Conchyl. 38, p. 30 [coll. van Rijgersma].

Physa guadeloupensis Fischer, VERNHOUT 1914, Notes Leyden Mus. 36, p. 183 [ref. Mazé].

Plesiophysa guadeloupensis (Mazé), BEQUAERT & CLENCH 1939, p. 176 [ref. Mazé].
"Physa" *striata* d'Orbigny, AGUAYO & JAUME 1947, p. 115.

Mazé (1883, p. 30-31) placed two species in *Plesiophysa*: *P. guadeloupensis* "Fischer" Mazé and *P. striata* d'Orbigny. BEQUAERT & CLENCH (1939, p. 176) and later authors (AGUAYO & JAUME 1947, p. 115; ZILCH 1960, p. 730) considered these two names to belong to only one species. HARRY & HUBENDICK (1964, p. 60) thought that all the names described in the genus *Plesiophysa* in recent years, *P. pilsbryi* Aguayo, *P. ornata* Haas, *P. hubendicki* Richards & Ferguson, are synonyms, the earliest valid name is *P. granulata*.

Subfamily PLANORBINAE

Genus *Australorbis* Pilsbry, 1934

Type species by original designation: *Planorbis guadeloupensis* Sowerby = *Planorbis glabratus* Say.

The genus *Australorbis*, together with some other American (*Tropicorbis*, *Taphius*, *Platytafhius*) and African genera (*Biomphalaria*, *Afroplanorbis*) belong to the tribus Biomphalariæ. This is an anatomically and conchologically homogenous group, therefore HUBENDICK (1955, p. 533) doubted if the present separation into genera can be maintained. BARBOSA et al. (1961) support this opinion and unite these genera into one single genus, which should be called *Biomphalaria*. HARRY & HUBENDICK (1964, p. 41-42) favor the name *Taphius*, this being the only genus in the subfamily Taphiinae, which they consider different from the Planorbinae. The International Commission on Zoological Nomenclature, opinion 735, gives preference to the generic name *Biomphalaria* over the names *Planorbina*, *Taphius* and *Armi-gerus* (Bull. Zool. Nomencl. 22 (1965), p. 94-99). As long as this problem is not settled, we prefer to use the system that we have chosen for this paper.

13. *Australorbis glabratus* (Say)

Taphius glabratus (Say), HARRY & HUBENDICK 1964, p. 46.

13a. *Australorbis glabratus christopherensis* Pilsbry

Australorbis glabratus christopherensis Pilsbry, VAN DER KUYP 1951, Quart. J. Trop. Med. Hyg. 3, p. 283 [coll. Wagenaar Hummelinck].

14. ? *Australorbis olivaceus* (Spix & Wagner)

Planorbis ? *Olivaceus*, EMANUELS 1933, Geneesk. Tijdschr. Ned. Ind. 73, p. 286-287 [coll. Emanuels].

Planorbis olivaceus (?) VAN DER KUYP 1949, Amer. J. Trop. Med. 29, p. 260 [ref. Emanuels].

Planorbis olivaceus (?), VAN DER KUYP 1951, Quart. J. Trop. Med. Hyg. 3, p. 283 [ref. Emanuels].

EMANUELS was not convinced if he had collected this species. He referred to it as a *Planorbis* species that resembles *olivaceus*. - It is sometimes considered a subspecies of *A. glabratus*.

Family CHONDRINIDAE

Subfamily GASTROCOPTINAE

Genus **Gastrocopta** Wollaston, 1878

Type species by original designation: *Pupa acarus* Benson. The genus *Gastrocopta* was placed by HAAS (1960, p. 6) in the family Vertiginidae. As stated before, we follow the system of ZILCH (1959–1960), who assigns it to the Chondrinidae.

Subgenus **Gastrocopta** s.str.

15. **Gastrocopta (Gastrocopta) barbadensis** (Pfeiffer)
Gastrocopta (Gastrocopta) barbadensis barbadensis (Pfeiffer), HAAS 1960, Stud. Fauna Curaçao 10, p. 6–7, pl. 2 fig. A, [coll. Wagenaar Hummelinck].
16. **Gastrocopta (Gastrocopta) pellucida** (Pfeiffer)
Pupa pellucida Pfeiffer, MAZÉ 1890, J. Conchyl. 38, p. 26–27, [coll. van Rijgersma, Kohlmann].
Pupa pellucida Pfr., VERNHOUT 1914, Notes Leyden Mus. 36, p. 182, [ref. Mazé].
 One lot in M.C.Z., ex TH. BLAND, collected by VAN RIJGERSMA.
- 16a. **Gastrocopta (Gastrocopta) pellucida hordeacella** (Pilsbry)
Gastrocopta (Gastrocopta) pellucida hordeacella (Pilsbry), HAAS 1960, Stud. Fauna Curaçao 10, p. 10, pl. 3 fig. A, [coll. Wagenaar Hummelinck].
17. **Gastrocopta (Gastrocopta) polyptyx** Pilsbry
Gastrocopta (Gastrocopta) polyptyx Pilsbry, HAAS 1960, Stud. Fauna Curaçao 10, p. 10, pl. 4 fig. A-B [coll. Wagenaar Hummelinck].
18. **Gastrocopta (Gastrocopta) servilis** (Gould)
Gastrocopta (Gastrocopta) servilis servilis (Gould), HAAS 1960, Stud. Fauna Curaçao 10, p. 11 [coll. Wagenaar Hummelinck].
- 18a. **Gastrocopta (Gastrocopta) servilis riisei** (Pfeiffer)
Gastrocopta (Gastrocopta) servilis riisei (Pfeiffer), HAAS 1960, Stud. Fauna Curaçao 10, p. 11–12 [coll. Wagenaar Hummelinck].

Family PUPILLIDAE

Subfamily PUPILLINAE

Genus **Pupoides** L. Pfeiffer, 1854

Type species by subsequent designation: *Bulimus nitidulus* L. Pfeiffer. The genus *Pupoides* has been placed in the family Vertiginidae by HAAS (1960, p. 5). We follow the system of ZILCH (1959–1960), according to which it belongs in the Pupillidae.

Subgenus **Pupoides** s.str.19. **Pupoides (Pupoides) albilabris nitidulus** (Pfeiffer)

Bulimulus nitidulus Pfeiffer, MAZÉ 1890, J. Conchyl. 38, p. 26, [coll. van Rijgersma].

Pupoides nitidulus Pfr., VERNHOUT 1914, Notes Leyden Mus. 36, p. 182, [ref. Mazé].

Pupoides marginatus nitidulus (Pfr.), PILSBRY 1921, Manual Conchology (2) 26, p. 113, [ref. Mazé].

Pupoides (Pupoides) marginatus nitidulus (Pfeiffer), HAAS 1960, Stud. Fauna Curaçao 10, p. 5, [coll. Wagenaar Hummelinck].

PILSBRY (1921, p. 113) cited MAZÉ wrong: "Philisbourg, Guadeloupe", instead of St. Martin. — One lot in M.C.Z., ex TH. BLAND, collected by VAN RIJGERSMA. — *Pupa albilabris* C. B. Adams 1841 is a new name for *Cyclostoma marginata* Say 1821 (non *C. marginatum* G. Fischer 1807).

Family SUCCINEIDAE

Subfamily SUCCINEINAE

Genus **Succinea** Draparnaud, 1801

Type species by original designation: *Succinea amphibia* Draparnaud = *Helix putris* Linnaeus.

We feel that the genus *Succinea* is in need of a revision. ZILCH (1959, p. 199–200) recognized six subgenera, of which four are hardly distinct.

20. **Succinea approximans** Shuttleworth

Succinea approximans Shuttleworth, CROSSE 1890a, J. Conchyl. 38, p. 47.

Two lots were collected in St. Martin by BARTSCH, both on the hill top east of Grande Case Bay (U.S.N.M. no. 389965, three specimens, ident. Dr. W. J. CLENCH; no. 389957, three specimens). — Six specimens from St. Martin in A.M.N.H. (no. 64921), ex CROOKE (misidentified as *S. riisei* Pfeiffer).

20a. **Succinea approximans martiniana** Mazé

Succinea approximans Shuttleworth var. β . *Martiniana* ?, MAZÉ 1890, J. Conchyl. 38, p. 28, [coll. van Rijgersma].

Succinea approximans Shuttl. var. *martiniana* ? Mazé, VERNHOUT 1914, Notes Leyden Mus. 36, p. 182, [ref. Mazé].

MAZÉ described *martiniana* as a new variety, although he doubted if it can be considered a distinct variety. The type locality is Oyster Pond.

21. **Succinea candeana** Lea

Succinea Candeeana Lea, MAZÉ 1890, J. Conchyl. 38, p. 27–28, [coll. van Rijgersma, Kohlmann].

Succinea candeana Lea, VERNHOUT 1914, Notes Leyden Mus. 36, p. 182, [ref. Mazé].

Genus **Omalonyx** d'Orbigny, 1841

Syn. *Homalonyx* Agassiz, 1846.

Type species by monotypy: *Helix unguis* Férussac.

Subgenus **Omalonyx** s.str.22. **Omalonyx (Omalonyx) guadeloupensis** (Lesson)

Homalonyx Guadeloupensis Lesson, MAZÉ 1890, J. Conchyl. 38 p. 28–29 [coll. Kohlmann].

Omalonyx guadeloupensis Less., VERNHOUT 1914, Notes Leyden Mus. 36, p. 182 [ref. Mazé].

Family EUCONULIDAE

Genus **Guppya** Mörch, 1867

Type species by original designation: *Guppya vaccus* Mörch (err.) = *Conulus vacans* Guppy = *Helix gundlachi* L. Pfeiffer.

Subgenus **Guppya** s.str.23. **Guppya (Guppya) gundlachi** (Pfeiffer)

Helix Gundlachi Pfeiffer, MAZÉ 1890, J. Conchyl. 38, p. 24 [coll. van Rijgersma, Kohlmann].

Conulus gundlachi Pfr., VERNHOUT 1914, Notes Leyden Mus. 36, p. 181 [ref. Mazé].

One lot in M.C.Z., collected by VAN RIJGERSMA. – One specimen was collected by BARTSCH (U.S.N.M. no. 389955) on the hill top east of Grande Case Bay.

Family FERUSSACIIDAE

Genus **Cecilioides** Férussac, 1814

Type species by original designation: *Bulimus acicula* Bruguière = *Buccinum acicula* O. F. Müller.

Subgenus **Geostilbia** Crosse, 1867

Type species by monotypy: *Geostilbia caledonica* Crosse (probably a junior synonym of *Achatina gundlachi* L. Pfeiffer).

24. **Cecilioides (Geostilbia) gundlachi** (Pfeiffer)

Cionella (Cecilioides) Gundlachi (Achatina) Pfr., CLESSIN 1878, Nomenclator Heliceorum viventium, p. 334.

Caecilianella Gundlachi Pfr., BINNEY 1884, Ann. New York Acad. Sci. 3, p. 101, pl. 7 fig. F, pl. 16 fig. F-G [coll. van Rijgersma].

Geostilbia Gundlachi Pfeiffer, MAZÉ 1890, J. Conchyl. 38, p. 23 [coll. van Rijgersma].

Geostilbia Gundlachi Pfeiffer, CROSSE 1890b, J. Conchyl. 38, p. 250.

Geostilbia Gundlachi Pfeiffer, CROSSÆ 1891, J. Conchyl. 39, p. 151–152.

Caecilioides (Geostilbia) gundlachi (Pfeiffer), PILSBRY 1908, Manual Conchology (2) 20, p. 43 [ref. Binney, Mazé].

Caecilioides gundlachi Pfr., VERNHOUT 1914, Notes Leyden Mus. 36, p. 182 [ref. Mazé, a.o.].

Family SUBULINIDAE

Subfamily SUBULININAE

Genus *Subulina* Beck, 1837

Type species by subsequent designation: *Bulimus octona* Bruguière.

25. *Subulina octona* (Bruguière)

Stenogyra (Subulina) octona Chemnitz, MAZÉ 1890, J. Conchyl. 38, p. 22 [coll. van Rijgersma, Kohlmann].

Subulina octona Brug., VERNHOUT 1914, Notes Leyden Mus. 36, p. 182 [ref. Mazé].

Subulina octona (Bruguière), HAAS 1962, Stud. Fauna Curaçao 13, p. 49-51, pl. 8 fig. C [coll. Wagenaar Hummelinck].

Seven specimens were collected by BARTSCH (U.S.N.M. no. 389967 and 652969) on the hill top east of Grande Case Bay.

Genus *Leptinaria* Beck, 1837

Type species by original designation: *Helix unilamellata* d'Orbigny = *Achatina lamellata* Potiez & Michaud.

Subgenus *Leptinaria* s.str.

26. *Leptinaria (Leptinaria) lamellata* (Potiez & Michaud)

Tornatellina (Leptinaria) lamellata Potiez et Michaud, MAZÉ 1890, J. Conchyl. 38, p. 23 [coll. Mazé, ? van Rijgersma, ? Kohlmann].

Leptinaria lamellata Pot. et Mich., VERNHOUT 1914, Notes Leyden Mus. 36, p. 182 [ref. Mazé].

One specimen was collected by BARTSCH (U.S.N.M. no. 389959) on the hill top east of Grande Case Bay.

Subgenus *Neosubulina* E. A. Smith, 1898

Type species by monotypy: *Neosubulina harterti* E. A. Smith.

27. *Leptinaria (Neosubulina) gloynii* (Gibbons)

Leptinaria (Neosubulina) gloynii (Gibbons), HAAS 1962, Stud. Fauna Curaçao 13, p. 54 [coll. Wagenaar Hummelinck].

Genus *Lamellaxis* Strebel & Pfeffer, 1882

Type species by subsequent designation: *Spiraxis mexicanus* L. Pfeiffer.

Subgenus *Allopeas* H. B. Baker, 1935

Type species by original designation: *Bulimus gracilis* Hutton.

28. **Lamellaxis (Allopeas) gracilis** (Hutton)

Stenogyra (Opeas) subula Pfeiffer, MAZÉ 1890, J. Conchyl. 38, p. 22-23 [coll. Kohlmann].

Opeas gracile Hutt., VERNHOUT 1914, Notes Leyden Mus. 36, p. 182 [ref. Mazé].

Lamellaxis (Allopeas) gracilis (Hutton), HAAS 1962, Stud. Fauna Curaçao 13, p. 56, pl. 10 fig. F-G [coll. Wagenaar Hummelinck].

29. **Lamellaxis (Allopeas) micrus** (d'Orbigny)

Stenogyra (Opeas) octonoides C. B. Adams, MAZÉ 1890, J. Conchyl. 38, p. 22 [coll. van Rijgersma, Kohlmann].

Opeas micra d'Orb., VERNHOUT 1914, Notes Leyden Mus. 36, p. 182 [ref. Mazé].

Lamellaxis (Allopeas) micron (Orbigny), HAAS 1962, Stud. Fauna Curaçao 13, p. 57, pl. 7 fig. B [coll. Wagenaar Hummelinck].

Genus **Opeas** Albers, 1850

Type species by subsequent designation: *Helix goodalli* Miller 1822 (non *H. goodalli* Férussac 1821) = *Bulimus pumilus* L. Pfeiffer 1840.

Subgenus **Opeas** s.str.

Syn. *Synopeas* Joussemaume 1889, non Foerster 1856.

30. **Opeas (Opeas) pumilum** (Pfeiffer)

Opeas pumilum (Pfeiffer), HAAS 1962, Stud. Fauna Curaçao 13, p. 55, pl. 11 fig. D [coll. Wagenaar Hummelinck].

Subfamily OBELISCINAE

Genus **Obeliscus** Beck, 1837

Type species by tautonymy: *Helix (Cochlicella) obeliscus* Moricand.

Subgenus **Stenogyra** Shuttleworth, 1854

Type species by original designation: *Bulimus terebraster* Lamarck.

31. **Obeliscus (Stenogyra) swiftianus** (Pfeiffer)

Stenogyra (Opeas) Swiftiana Pfeiffer, MAZÉ 1890, J. Conchyl. 38, p. 23 [coll. van Rijgersma].

Obeliscus (Stenogyra) swiftianus (Pfeiffer), PILSBRY 1906, Manual Conchology (2) 18, p. 268 [ref. Mazé].

Obeliscus swiftianus Pfr., VERNHOUT 1914, Notes Leyden Mus. 36, p. 182 [ref. Mazé].

Five specimens from St. Martin are in the U.S.N.M. (no. 203537), identified by TH. BLAND, from "coll. ULRICH".

Family OLEACINIDAE

Subfamily OLEACININAE

Genus *Melaniella* L. Pfeiffer, 1857

Syn. *Pichardiella* P. Fischer, 1887.

Type species by subsequent designation: *Bulimus acuticostatus* d'Orbigny.

Subgenus *Melaniella* s.str.32. *Melaniella (Melaniella) gracillima sanctithomensis* (Pilsbry)

Pichardiella gracillima sanctithomensis (Pilsbry), HAAS 1962, Stud. Fauna Curaçao 13, p. 58-59 [coll. Wagenaar Hummelinck].

Family BULIMULIDAE

Genus *Bulimulus* Leach, 1814

Type species by original designation: *Helix exilis* Gmelin, 1790 (non *H. exilis* O. F. Müller, 1774) = *Bulimus guadaloupensis* Bruguière.

Subgenus *Bulimulus* s.str.

Syn. *Leptomerus* Albers, 1850.

33. *Bulimulus (Bulimulus) guadaloupensis* (Bruguière)

Bulimus Guadalupensis Brug., BEAU 1858, Catal. coquill. Guadeloupe et dépendances, p. 14 [coll. Beau].

Bulimus exilis Gm., BLAND 1861, Ann. Lyc. Nat. Hist. New York 7, p. 359.

Bulimulus exilis Gmelin, KOBELT 1880, Jahrb. Deutsch. Malakozool. Gesellsch. 7, p. 282.

Bulimulus exilis Gmel., GUNDLACH 1883, Anal. Soc. Esp. Hist. Nat. 12, p. 42.

Bulimulus exilis Gmelin, et ses deux variétés β et γ , MAZÉ 1890, J. Conchyl. 38, p. 24 [coll. Mazé, ? van Rijgersma, ? Kohlmann].

Bulimulus (Bulimulus) exilis (Gmelin), PILSBRY 1897, Manual Conchology (2) 11, p. 37 [ref. Bland, Mazé], 39 [coll. ? van Rijgersma].

Bulimulus (Orthotomium) exilis Gmelin, DAUTZENBERG 1900, Mém. Soc. Zool. France 13, p. 152 [coll. Dautzenberg].

Bulimulus guadalupensis Brug., VERNHOUT 1914, Notes Leyden Mus. 36, p. 181 [ref. Bland, a.o.].

Many specimens were collected by the author on 10 June 1959, south of Oysterpond. - The U.S.N.M. has many specimens from St. Martin in seven lots: no. 57794 "coll. RAWSON and STEARNS", no. 203533 "coll. ULRICH", no. 273781 "coll. VAUGHAM"; collected by BARTSCH were no. 389960 and 652971 (both hill top east of Grande Case Bay), no. 530840 (Grande Case Bay), no. 652972 (Red Hill). [The situation of Red Hill is uncertain. - There is a 'Red Rock' (265 m) 3 km ENE of Grand' Case, and there are 'Mornes Rouges' (80 m) in the Terres Basses, 9 km WSW of Grand' Case. The hill top some 800 m NE of the same place is named 'First Stick Hill' (224 m).]

33a. **Bulimulus (Bulimulus) guadaloupensis eyriesi** (Drouët)

Bulimulus Eyriesi Drouët, MAZÉ 1890, J. Conchyl. 38, p. 24 [coll. van Rijgersma].

Bulimulus (Bulimulus) exilis var. *eyriesii* (Drouët), PILSBRY 1897, Manual Conchology (2) II, p. 39–40 [ref. Mazé].

Bulimulus guadalupensis Brug. var. *eyriesii* Drou., VERNHOUT 1914, Notes Leyden Mus. 36, p. 181 [ref. Mazé].

34. **Bulimulus (Bulimulus) diaphanus** (Pfeiffer)

One specimen was collected by the author on 10 June 1959, south of Oysterpond. This species was not recorded from St. Martin before, it was known from Saba and St. Eustatius (PILSBRY 1897, p. 47). – Three specimens from St. Martin are in the U.S.N.M., no. 492689, misidentified as *Bulimus fraterculus* Fér., ex. H. PRIME, collected by J. J. BROWN on 15 May 1890.

35. **Bulimulus (Bulimulus) fraterculus** (Potiez & Michaud)

Bulimulus fraterculus Férussac, MAZÉ 1890, J. Conchyl. 38, p. 25 [coll. van Rijgersma].

Bulimulus fraterculus "Fér." Pot. et Mich., VERNHOUT 1914, Notes Leyden Mus. 36, p. 182 [ref. Mazé].

Five specimens from St. Martin in the A.M.N.H. (no. 62489), obtained from the CROOKE collection.

36. **Bulimulus (Bulimulus) lehmanni** (Pfeiffer)

Bulimulus Lehmanni Pfeiffer, MAZÉ 1890, J. Conchyl. 38, p. 25 [coll. Mazé, ? van Rijgersma, ? Kohlmann].

Bulimulus (Bulimulus) lehmanni (Pfeiffer), PILSBRY 1897, Manual Conchology (2) II, p. 42 [ref. Mazé].

Bulimulus lehmanni Pfr., VERNHOUT 1914, Notes Leyden Mus. 36, p. 181 [ref. Mazé].

37. **Bulimulus (Bulimulus) limnoides** (Férussac)

Bulimulus limnoides Férussac, MAZÉ 1890, J. Conchyl. 38, p. 26 [coll. van Rijgersma, Kohlmann].

Bulimulus (Bulimulus) limnoides (Férussac), PILSBRY 1897, Manual Conchology (2) II, p. 42–43 [coll. van Rijgersma].

Bulimulus limnoides Fér., VERNHOUT 1914, Notes Leyden Mus. 36, p. 181 [ref. Mazé, Pilsbry].

Genus **Drymaeus** Albers, 1850

Type species by subsequent designation: *Helix hygrohylaesus* d'Orbigny.

Subgenus **Drymaeus** s.str.38. **Drymaeus (Drymaeus) elongatus** (Röding)

Syn. *D. virgulatus* (Férussac).

Bulimus virgulatus Fer., BEAU 1858, Catal. coquill. Guadeloupe et dépendances, p. 14 [coll. Beau].

Bulimus elongatus Bolt., BLAND 1861, Ann. Lyc. Nat. Hist. New York 7, p. 359.

Bulimulus elongatus Bolten, KOBELT 1880, Jahrb. Deutsch. Malakozool. Gesellsch. 7, p. 282.

Bulimulus elongatus Bolten, GUNDLACH 1883, Anal. Soc. Esp. Hist. Nat. 12, p. 41.

Bulimulus virgulatus Férussac, MAZÉ 1890, J. Conchyl. 38, p. 25 [coll. van Rijgersma, Kohlmann].

Drymaeus elongatus (Bolten), PILSBRY 1899, Manual Conchology (2) 12, p. 23–24 [coll. ? van Rijgersma, ref. Mazé].

Drymaeus elongatus Bolten, VERNHOUT 1914, Notes Leyden Mus. 36, p. 181 [ref. Mazé, a.o.].

Five lots from St. Martin are in the U.S.N.M.: no. 273780 and 273823, many specimens "coll. VAUGHAN"; collected by BARTSCH were many specimens, no. 530830 (Grande Case Bay), 530838 (top of hill), and 530842 (Red Hill).

38a. **Drymaeus (Drymaeus) elongatus anguillensis** (Pfeiffer)

Drymaeus elongatus variety *anguillensis*, PILSBRY 1899, Manual Conchology (2) 12, p. 25–27 [coll. ? van Rijgersma].

PILSBRY (p. 27) stated: "Some of the St. Martin and St. Barts examples might also be called *anguillensis*".

38b. **Drymaeus (Drymaeus) elongatus forma extinctus** (Pfeiffer)

Bulimus extinctus Pfeiffer, known from St. Martin (BLAND 1881, p. 122, as *Bulimulus extinctus*), can be considered a fossil form of *Drymaeus elongatus* (PILSBRY 1899, p. 25).

Family AMPHIBULIMIDAE

Genus *Pellicula* P. Fischer, 1856

Type species by original designation: *Pellicula depressa* P. Fischer (non *Succinea depressa* Rang) = *Succinea appendiculata* L. Pfeiffer.

39. ***Pellicula depressa*** (Rang)

Pellicula depressa Rang, MAZÉ 1890, J. Conchyl. 38, p. 27 [coll. Kohlmann].

Amphibulima (Pellicula) depressa (Rang), PILSBRY 1899, Manual Conchology (2) 12, p. 242–243 [ref. Mazé].

Amphibulima depressa Rang, VERNHOUT 1914, Notes Leyden Mus. 36, p. 182 [ref. Mazé].

Family UROCOPTIDAE

Subfamily UROCOPTINAE

Genus *Pseudopineria* Aguayo, 1938

Type species by monotypy: *Bulimus viequensis* Pfeiffer.

This genus is not mentioned by ZILCH (1959–1960). The species belonging to *Pseudopineria* were formerly placed into *Pineria*, AGUYAO (1938, p. 71–73) disclosed that the radulae in the two genera are different.

40. **Pseudopineria viequensis** (Pfeiffer)

Pineria Viequensis Pfr., BINNEY 1884, Ann. New York Acad. Sci. 3, p. 126, pl. 14 fig. C, pl. 15 fig. B [coll. van Rijgersma].

Pineria viequensis (Pfeiffer), PILSBRY 1903, Manual Conchology (2) 16, p. 111-112 [coll. van Rijgersma, ref. Binney].

Pineria viequensis Pfr., VERNHOUT 1914, Notes Leyden Mus. 36, p. 182 [ref. Binney, a.o.].

The collection of the A.M.N.H. has 13 specimens (no. 65911 and 70663) from St. Martin, ex CROOKE. - One lot is in the M.C.Z., ex TH. BLAND, collected by VAN RIJGERSMA.

40a. **Pseudopineria viequensis schrammi** (Fischer)

Pineria Schrammi, BLAND & BINNEY 1871, Ann. Lyc. Nat. Hist. New York 10, p. 23 [coll. van Rijgersma].

Helix Schrammi, NOLAN 1872, Proc. Acad. Nat. Sci. Philad. [24], p. 290 [coll. van Rijgersma].

Pineria Schrammi Fisch., BLAND 1881, Ann. New York Acad. Sci. 2, p. 124.

Pineria Schrammi Fischer, MAZÉ 1890, J. Conchol. 38, p. 27 [coll. van Rijgersma, Kohlmann].

Pineria viequensis var. *Schrammi* (Fischer), PILSBRY 1903, Manual Conchology (2) 16, p. 112 [coll. ? van Rijgersma].

PILSBRY stated: "some individuals from St. Martin and St. Barts approach this form." - BLAND & BINNEY, and VERNHOUT considered "*Pineria*" *schrammi* a synonym of *P. viequensis*. - In the U.S.N.M. are 16 specimens from St. Martin (no. 57325 "coll. RAWSON, STEARNS", and no. 203653 "coll. ULRICH").

Genus **Brachypodella** Beck, 1837

Syn. *Cylindrella* L. Pfeiffer, 1840, part.

Type species by subsequent designation: *Helix (Cochlodina) subula* Férussac.

Subgenus **Brachypodella** s.str.41. **Brachypodella (Brachypodella) antiperversa** (Férussac)

Cylindrella collaris Férussac, MAZÉ 1890, J. Conchyl. 38, p. 27, [coll. van Rijgersma, Kohlmann].

Brachypodella (Brachypodella) antiperversa (Férussac), PILSBRY 1903, Manual Conchology (2) 16, p. 79-80, [ref. Mazé].

Brachypodella antiperversa Fér., VERNHOUT 1914, Notes Leyden Mus. 36, p. 182, [ref. Mazé].

Family **STREPTAXIDAE**Subfamily **STREPTAXINAE**Genus **Streptartemon** Kobelt, 1905

Type species by original designation: *Helix (Streptaxis) streptodon* Moricand.

42. **Streptartemon deplanchei** (Drouët)

Streptaxis (*Streptartemon*) *deplanchei* Drouët, CLENCH 1958, *Nautilus* 72, p. 19 [coll. Seaman].

CLENCH stated that this species is introduced into St. Martin in rather recent times from northern South America. It is a rare species, and was not reported before from the West Indies.

42a. **Streptartemon deplanchei forma martiniana** (Venmans)

Streptaxis (*Streptartemon*) *deplanchei* var. *martiniana* nov. var., VENMANS 1963, *Stud. Fauna Curaçao* 14, p. 69, 73, fig. 21g, pl. 2 no. 13-15 [coll. Wagenaar Hummelinck].

VENMANS (1963, p. 69) considered this variety as an ecological race. - There is certainly no genetic difference between this "variety" and the typical species from South America, since this species was introduced in St. Martin recently (see former species).

Subfamily ENNEINAE

Genus *Gulella* L. Pfeiffer, 1856

Type species by subsequent designation: *Pupa menkeana* Pfeiffer.

Subgenus *Huttonella* L. Pfeiffer, 1856

Type species by subsequent designation: *Ennea kraussi* Pfeiffer.

43. ***Gulella* (*Huttonella*) *bicolor*** (Hutton)

Gulella (*Huttonella*) *bicolor* (Hutton) Pilsbry, VENMANS 1963, *Stud. Fauna Curaçao* 14, p. 44, 52, fig. 10 w-y [coll. Wagenaar Hummelinck].

This species is introduced in the West Indies, its origin is Africa.

Family SAGDIDAE

Subfamily SAGDINAE

Genus *Hojeda* H. B. Baker, 1926

Syn. *Microphysa* Albers, 1860, non Westwood, 1834.

Type species by original designation: *Thysanophora vanattai* H. B. Baker.

44. ***Hojeda subaquila*** (Shuttleworth)

Helix subaquila Shuttleworth, MAZÉ 1890, *J. Conchyl.* 38, p. 23 [coll. van Rijgersma].
Thysanophora subaquila Shuttl., VERNHOUT 1914, *Notes Leyden Mus.* 36, p. 181 [ref. Mazé].

One lot is in the M.C.Z., ex TH. BLAND, collected by VAN RIJGERSMA. - Five specimens from St. Martin, "coll. ULRICH", are in the U.S.N.M. (no. 203521). - Many specimens were collected by BARTSCH on the hill top east of Grande Case Bay (U.S.N.M. no. 389956 and 389966).

Genus **Lacteoluna** Pilsbry, 1926

Type species by original designation: *Helix selenina* Gould.

Subgenus **Lacteoluna** s.str.45. **Lacteoluna (Lacteoluna) selenina** (Gould)

Helix bracteola Férussac, MAZÉ 1890, J. Conchyl. 38, p. 23 [coll. Mazé, ? van Rijgersma, ? Kohlmann].

Thysanophora vortex Pfr. var. *bracteola* Fér., VERNHOUT 1914, Notes Leyden Mus. 36, p. 181 [ref. Mazé].

Family **CAMAENIDAE** (Pleurodontidae)Subfamily **CAMAENINAE**Genus **Pleurodonte** Fischer von Waldheim, 1807

Type species by subsequent designation: *Helix lychnuchus* O. F. Müller.

Subgenus **Pleurodonte** s.str.**Pleurodonte (Pleurodonte) lychnuchus** (Müller)

Helix lychnuchus Müller, MAZÉ 1874, J. Conchyl. 22, p. 163.

Helix lychnuchus Müller, MAZÉ 1890, J. Conchyl. 38, p. 24 [coll. Mariste].

Pleurodonte lychnuchus Müll., VERNHOUT 1914, Notes Leyden Mus. 36, p. 181 [ref. Mazé].

MAZÉ (1890, p. 24) stated that only one empty shell was collected on the beach at Marigot, it was probably introduced. Therefore this species does not belong to the fauna of St. Martin.

Family **HELMINTHOGLYPTIDAE**Subfamily **CEPOLINAE**Genus **Cepolis** Montfort, 1810

Type species by original designation: *Cepolis nicolsonianum* Montfort = *Helix cepa* O. F. Müller.

Subgenus **Plagioptycha** L. Pfeiffer, 1855

Type species by subsequent designation: *Helix loxodon* L. Pfeiffer.

46. **Cepolis (Plagioptycha) euclasta** (Shuttleworth)

One specimen was collected in St. Martin by BARTSCH (U.S.N.M. no. 652970), on the hill top east of Grande Case Bay, it was identified by Dr. W. J. CLENCH.

Class PELECYPODA

Family SPHAERIIDAE

Genus *Eupera* Bourguignat, 1854

Type species by monotypy: *Pisidium moquinianum* Bourguignat = *Cyclas modioli-formis* Anton.

47. *Eupera viridante* (Morelet in Prime)

Sphaerium viridans Morelet, Mazé 1890, J. Conchyl. 38, p. 34 [coll. Mazé, ? van Rijgersma, ? Kohlmann].

Eupera viridans Morel., VERNHOUT 1914, Notes Leyden Mus. 36, p. 183 [ref. Mazé].

The Reverend H. B. HERRINGTON, specialist in Sphaeriidae, kindly informed us that this species should be placed in the genus *Eupera*. THIELE (1934, p. 853) considered *Eupera* Bourguignat 1854 a junior synonym of *Byssanodonta* d'Orbigny 1846. However, KLAPPENBACH (1960) has proved that these names belong to distinct genera: *Byssanodonta* has a smooth hinge, that in *Eupera* bears teeth. According to CLENCH (1963, p. 412) the two genera do not belong even in the same family. *Pisidium* and *Byssanodonta* form the Pisidiidae, *Sphaerium* and *Eupera* make the Sphaeriidae; for the use of these family names see Direction 27 (1955) of the International Commission on Zoological Nomenclature.

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