STUDIES ON THE FAUNA OF CURAÇAO AND OTHER CARIBBEAN ISLANDS: No. 58.

CARIBBEAN LAND MOLLUSCS:
SUBULINIDAE AND OLEACINIDAE

by
FRITZ HAAS
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This publication represents a continuation of a previous article on the Caribbean Vertiginidae (this series, Vol. X, 1960, No. 41), and it will follow the same arrangement as the former. This will not only add to the uniformity of the series, it will, furthermore, make it simpler to compile individual faunal lists from any locality situated within the region treated here. Yet another continuation will follow this article, in which some smaller families with their representatives in the Caribbean region will be listed.

The photographs (Plates X E and XI I excepted) were again taken by Dr. P. WAGENAAR HUMMELINCK, with the technical assistance of Mr. H. van Kooten, at the Zoological Laboratory of the State University, Utrecht.

The greater part of the material has been presented to the Rijksmuseum van Natuurlijke Historie, Leiden, and the Zoologisch Museum at Amsterdam.

SUBULINIDAE

Subulina octona (Bruguière)  Plate VIII

PILSBRY, 1906, p. 72-74, pl. 12 figs. 8-9. BAKER, 1927, p. 2. HUMMELINCK, 1940, p. 97 (Margarita, Testigos, mainland); 1940a, p. 116; 1940b, p. 353-354. RICHARDS & HUMMELINCK, 1940, p. 10 (Margarita).

St. Croix: Upper Bethlehem, hill, sta. 612, 14.VI.1955; Agric. Exp. Sta., 613,
### Table 4. Geographical distribution of *Subulinaidae* and *Oleacinaidae* treated in this paper.

<table>
<thead>
<tr>
<th>Species and subspecies</th>
<th>Bahamas</th>
<th>Virgin Islands</th>
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- **X** = new localities
- **□** = localities already mentioned by Hummelink (1940), and checked
- **⊗** = localities already mentioned by the same, under a different species
- **○** = localities mentioned by the same, but not checked
- . = from literature

Plate 50
13.VI.1955; Fredensborg hill, 615, 11.VI.1955; Canaan, valley, 616, 10.VI.1955; Canaan, garden, gut, 617, 22.VI.1955; western part of St. Croix, 20.X.1955 (G. A. Seaman coll.).


FIG. 53. The localities of the LESSER ANTILLES and the adjacent mainland coast where material of Subulinidae and Oleacinidae — dealt with in the present paper — has been collected.


Los Testigos: Tamarindo, sta. 162, 16.VI.1936.

Margarita: La Fuente, near Cerro Guayamuri, sta. 136, 11.V.1936; El Cerrito, E of La Asunción, 138, 27.V.1936; Cerro de Marmoleta, 139, 13.V.1936; El Piche, base, 140, 10.VII.1936; Toma del Valle, 143, 4.VII.1936; hill SW of La Asunción, 145, 3.VII.1936. — Atano, XII.1948; Cerritos, XII.1948; Cerros de Copey, I.1949 (all G. Marcuzzi coll.).


Venezuela, Mainland: Cabo Blanco, sta. 221A, 10.VIII.1948; near La Guaira, quebrada Los Angelitos, 301, 10.VIII.1948.


Also mentioned by Hummelinck (1940) from several other localities on Margarita and the adjacent Venezuelan mainland.

As was to be expected, this species, which is of worldwide distribution in warm countries, lives on practically all the West Indian islands, and it will doubtless also be found in favorable localities on Curaçao, Aruba, Bonaire, Barbuda, and other islands.

Subulina striatella (Rang)

Pilsbry, 1906, p. 75–78, pl. 11 figs. 89–92. Hummelinck, 1940, p. 97 (Margarita); 1940a, p. 116. Richards & Hummelinck, 1940, p. 10 (Margarita).

While Pilsbry knows this African species only from the islands in the Gulf of Guinea, Hummelinck and Richards & Hummelinck list it from Margarita Island from three different localities. Hummelinck (1940, p. 97) writes “The specimens perfectly agree with the description and figures of S. striatella from Middle West Africa; they are probably closely related or, possibly, identical with Subulina parana Pilsbry, 1906, p. 225, which has been described from young specimens from Brasil.” I was unable, however, to find it in my material from Margarita Island or from the neighbouring islands and the mainland.

Leptinaria (Leptinaria) lamellata (Potiez & Michaud) Plate VII

Pilsbry, 1907, p. 288–291, pl. 42 figs. 39–40, pl. 43 fig. 50. Hummelinck, 1940, p. 97 (Margarita); 1940a, p. 116. Richards & Hummelinck, 1940, p. 10 (Margarita).


Tobago: South of Airport, sta. 582A, 17.1.1955; Scarborough, yard, 17.1.1955; Little Tobago, 584, 18.1.1955.


Venezuela, mainland: Caracas, garden, sta. 550, 19.III.1955; San Juan de los Morros (Sergio Arias coll.).

Leptinaria (Leptinaria) lamellata var. concentrica (Reeve) Plate VII

Pilsbry, 1907, p. 290–291, pl. 46 figs. 1–4.


It remains to be decided whether this race or variety of the widespread L. lamellata should not be considered as a good species on its own. The specimens figured by Pilsbry seem to suggest intermediate forms between the rather obese nominate form and the slender 'variety'; my specimens, however, are all equally slender.

Leptinaria (Leptinaria) pallida (C. B. Adams)

Pilsbry, 1907, p. 294–295, pl. 43 figs. 44–47.


This species is only known from Jamaica and from Haiti, according to Pilsbry. The two not quite perfect specimens before me from New Providence seem to be identical with it, though complete assurance as to the correctness of this classification cannot be given. In any case, the record from the Bahamas cannot be considered a case of endemism, but of importation by some means or other.

Leptinaria (Luntia) insignis (E. A. Smith) Plate XI

Luntia insignis E. A. Smith, 1898, p. 28, fig. 1 (Trinidad); Pilsbry, 1906, p. 218–219, pl. 40 fig. 7; Hummelinck, 1940, p. 98 (Aruba); 1940a, p. 115–116.

Saba: Road to Bottom, sta. 298A, 19.VII.1949.

Described from Trinidad by Smith, and mentioned from Aruba by Hummelinck, Saba is the third known locality of this species. It was only figured once, and badly at that; Pilsbry's figure being a copy of the one originally given by E. A. Smith.

In a general way, Luntia, which I consider with Thiele as a subgenus of Leptinaria, resembles the genus Ravenia Crosse in many respects, except in the shape of the columella, which is entire in Ravenia and obliquely truncate in Luntia.
Leptinaria (Neosubulina) gloynii (Gibbons) Plate IX

PILSBRY, 1907, p. 322-323, pl. 47 figs. 18-19. — Neosubulina gloynii, Baker, 1924, p. 88; Hummelinck, 1940, p. 97 (Curaçao, Aruba, Bonaire; Curaçao material only!); 1940a, p. 116 (same).

St. Martin: Rambeau Valley (French Saint-Martin), 20.V.1949.

Hummelinck (1940) mentions this species from 23 Curaçao localities, from 6 localities on Aruba and 5 on Bonaire. The latter two islands are not represented among the material of this species studied by me. I can record it, however, from St. Martin, where it had not been known to occur before.

It seems impossible to me to separate the var. minuscula Pilsbry from typical gloynii.

Hummelinck writes (p. 97): "N. harterti must be considered identical with N. gloynii; also N. scopulorum, from Aruba, is probably not specifically separable." Since he considers the species harterti (E. A. Smith) and scopulorum H. B. Baker as synonyms of gloynii, the records of the last-named species from the islands of Bonaire and Aruba refer to the two before-mentioned species, treated here as separate though closely related species, and not to Leptinaria (Neosubulina) gloynii (Gibbons).

Leptinaria (Neosubulina) harterti (E. A. Smith) Plate IX

PILSBRY, 1907, p. 323-324, pl. 47, fig. 17. — Neosubulina harterti, Baker, 1924, p. 86-87. Neosubulina gloynii, Hummelinck, 1940, p. 97 (Bonaire material only!); 1940a, p. 116 (same).


The species has not previously been mentioned from Klein Bonaire, or from Curaçao. Nevertheless, it seems to be restricted to Bonaire and Klein Bonaire.

Leptinaria (Neosubulina) scopulorum (H. B. Baker) Plate IX

Neosubulina scopulorum H. B. Baker, 1924, p. 89-90, pl. 16 fig. 63. Neosubulina gloynii, Hummelinck, 1940, p. 97 (Aruba material only!); 1940a, p. 116 (same).


This species seems to be restricted to the island of Aruba.
Cryptelasmus canteroiana (Pfeiffer) var. cienfuegoensis PILSBRY, 1907, p. 332-333, pl. 48 figs. 3, 6, 8-9.

CURAÇAO: Bullen Baai, sta. 341, 22.X.1948.

These are the first records of this subspecies and, in fact, of any representative of the genus Cryptelasmus outside of Cuba.

Opeas pumilum (Pfeiffer) Plate XI

Opeas goodalli PILSBRY, 1906, p. 200-203, pl. 28 figs. 72-74.


This is a species widely distributed over the Greater and Lesser Antilles alike; it occurs also on the neighbouring mainland of South America, spreading as far south as Argentina. Often introduced into foreign countries with hothouse plants.

Opeas octogyrum plicatellum (Guppy) Plate XI

Opeas octogyrum (Pfeiffer) var. plicatellum (Guppy), PILSBRY, 1906, p. 207, pl. 29 fig. 75.


Hitherto, this variety or local race had been reported only from Trinidad Id., which was Guppy's typical locality, and from the islands of Grenada, St. Vincent, and Sta. Lucia.

Diaopeas beckianum (Pfeiffer) Plate X

Opeas beckianum, PILSBRY, 1906, p. 189-192, pl. 27 figs. 42-46, 54-55. — Synopeas beckianum, HUMMELINCK, 1940, p. 97 (Margarita, Testigos, Blanquilla, mainland); 1940a, p. 116-117; 1940b, p. 353-354; RICHARDS & HUMMELINCK, 1940, p. 9-10 (Margarita).
This species is the type of the genus *Synopeas* Jousseaume, 1889. As BEQUAERT (1957, p. 216) has recently shown, this name is preoccupied by *Synopeas* Forster, 1856 (Hymenoptera), so that a new name had to be bestowed upon *beckianum* and allies. I recommend here that the genus in question be henceforth called *Diaopeas*, nov. nomen.


ST. CHRISTOPHER: La Guérite, sta. 419, 2.VII.1949.


MARGARITA: Near El Cerrito, E of La Asunción, sta. 138, 27.V.1936; El Piache, base, SE of El Valle, 140, 10.VII.1936; El Piache, Cueva Honda, 141, 10.VII.1936; Atamio, XII.1948 (G. Marcuzzi coll.).

VENEZUELA, MAINLAND: Cabo Blanco, sta. 121A, 10.VIII.1948; Quebrada Los Angelitos, near La Guaira, 301, 301A, 10.VIII.1948; Caracas, garden at El Paraíso, 550, 19.III.1955; Caracas, V.1950 (G. Marcuzzi coll.); Chazuaramos, on Agave, 3.VIII.1950 (G. Marcuzzi coll.); San Juan de los Morros, II.1952 (Ottolina coll., Sergio Arias coll.); El Indio, N of Barquisimeto, I.1950 (J. Racenis leg.).

SURINAME: Republiek, sta. 563, 3.IX.1955.

Mentioned by HUMMELINCK from Margarita (10 localities), Los Testigos, Blanquilla, and from the mainland of Venezuela (near Guanta, Carupano, on the Para-guaná peninsula) and of Colombia (La Goajira). This species is widely distributed over Central America, a few of the Antilles, and great parts of South America; some of the Antillean localities listed above are new to science.

**Lamellaxis (Allopeas) gracilis** (Hutton)  
Plate X

*Opeas gracile*, PILSBRY, 1906, p. 198–200, pl. 28 fig. 70. — *Lamellaxis gracilis*, HUMMELINCK, 1940, p. 96; 1940a, p. 115–116 (Aruba, Curaçao, Bonaire, Margarita); RICHARDS & HUMMELINCK, 1940, p. 9 (Margarita).


BARBUDA: Near Codrington Village, sta. 603, 5.VII.1955.; sinkhole of Darby’s Cave, 600, 10.VII.1955; Pycrust Well, Highlands, 6.VII.1955.


ARUBA: Hofje Fontein, sta. 359, 30.XII.1948.

VENEZUELA, MAINLAND: Quebrada Los Angelitos, near La Guaira, sta. 301, 10.VIII.1948; San Juan de los Morros (Sergio Arias coll.).

A wide-spread species, obviously often artificially introduced; common throughout the West Indies, Central and South America.

Lamellaxis (Allopeas) micron (Orbigny) Plate VII


NEW PROVIDENCE (Bahamas): Hunt’s Cave, Pine Barrens, sta. 493, 22.VIII.1949.


Aruba: Hofje Fontein, sta. 359, 30.XII.1948.
Venezuela, Mainland: La Guaira, Quebrada Los Angelitos, sta. 301, 10.VIII.1948.
Suriname: Republiek, sta. 563, 3.IX.1955.

Recorded also from Los Testigos Islands, Margarita and a few localities on the adjacent Venezuelan and Colombian mainland, by HUMMELINCK. A species with a very great range of distribution in South America and the Antilles; imported into many other parts of the world.

OLEACINIDAE

*Oleacina (Laevoleacina) solidula* (Pfeiffer) Plate X

Pilsbry, 1907, p. 140–141, pl. 33 fig. 3–4.

**New Providence** (Bahamas): Pine Barrens near Hunt's Cave, sta. 493, 22.VII.1949.

**South Bimini**: At northern lagoon, sta. 497, 20.VIII.1949; Fountain of Youth, 498, 20.VIII.1949.

**Pichardiella gracillima gracillima** (Pfeiffer) Plate XI


**New Providence**: Pine Barrens, N of Carmichael Road, sta. 492, 22.VIII.1949; Pine Barrens near Hunt's Cave, 493, 22.VIII.1949.

**Pichardiella gracillima sanctithomensis** (Pilsbry) Plate XI

Pilsbry, 1907, p. 57, pl. 14 fig. 32.

**Anguilla**: Bedney's Spring, near Long Bay, sta. 483, 18.VI.1949 (3 spec.); N of Sandy Ground, 485, 16.VI.1949 (3 spec.).
Saba: Road to Bottom, sta. 298B, 19.VII.1949 (1 spec.).

These are the first records of this subspecies outside of St. Thomas Island.

'Ravenia blandi' Crosse

_Ravenia blandi_ Crosse, 1874, p. 66-70, pl. 2 fig. 4. — _Spiraxis (Ravenia) blandi_, Pilsbry, 1907, p. 19-20. — _Spiraxis blandi_, Hummelinck, 1940, p. 98; 1940a, p. 116-117; 1940b, p. 354.

This species was found on an island of the Los Roques Group and was described by Crosse, from a single specimen, in 1874. Since then it has never been reported again, either from the original locality or from any additional one.

It was Pilsbry who, in 1907, tentatively classified this insufficiently known species in the genus _Spiraxis_, stressing the fact that, if this arrangement was correct, the species _blandi_ would be the only South American representative of the genus _Spiraxis_.

Strongly aware of the unlikeliness that _blandi_ is a _Spiraxis_, as suggested by Pilsbry, Hummelinck tried to arrange the species in question with truly South American genera: "A curious record; this locality looks like a most unsuitable habitat for _Spiraxis_. A strong similarity to _Pseudosubulina decussata_ H. B. Baker from the state of Táchira should be noted." Thus he hinted that _blandi_ might represent an adult specimen of _Pseudosubulina (Rectaxis) decussata_ H. B. Baker, 1926. If this were correct, it would mean that the unarmed and sharp-lipped aperture of _decussata_ as described and figured by H. B. Baker, would possess in adult specimens a reflexed, tooth-bearing outer margin; a feature unknown in any _Pseudosubulina_!

However, there are additional points that make Hummelinck's suggestion rather improbable. The type specimen of _Ravenia blandi_ is kept at the National Museum of Natural History at Paris, and Dr. A. Franc, the subdirector of said museum, with the helpfulness familiar to everybody who has the good fortune to deal with him, has sent me a camera-lucida drawing of it. This sketch shows that _blandi_ is considerably narrower than the original figure of 1874 suggests and that its whorls are noticeably flatter than shown there. _Pseudosubulina decussata_, however, is broader and has rounder whorls than _blandi_; it also shows fewer riblets on the ultimate whorl than _blandi_, which has 40 of them.

Under these circumstances I believe it wisest to retain the species in question in its original genus _Ravenia_ and to classify this, tentatively, with the Oleacinidae.

The identity of _Ravenia_ with _Luntia_ (genus listed among the Subulinidae), which I had suspected, does not exist since _Ravenia_ lacks the oblique truncation of the columella found in _Luntia_.

_The end._
REFERENCES


Lamellaxis micron (× 6½) — A, Anguilla, sta. 484. B, St. Martin, Great Saltpond C, Saba, sta. 298A. D, St. Eustatius, sta. 423. E, Bonaire, sta. 193A.
Leptinaria lamellata (× 5) — F–G, Trinidad, sta. 575.
Leptinaria lamellata var. concentrica (× 5) — H–I, Trinidad, sta. 573.
Leptinaria gloynii (x 6¼) — A–C, Curaçao, sta. 353; D, Tanki Monpos; E, sta. 205a.

Leptinaria harterti (x 6¼) — F–G, Bonaire, sta. 190B; H–I, sta. 193A.

Leptinaria scopulorum (x 6¼) — J, Aruba, sta. 246a.
‘Ravenia blandi’ (× 13½) — E, Los Roques (type).
Lamellaxis gracilis (× 6½) — F-G, St. Martin, sta. 469. H, Trinidad, Port-of-Spain.
Oleacina solidula (× 5) — I-J, South Bimini, sta. 497.
Cryptelasmus canteroianus cienfuegoensis (× 6) — A, CURAÇAO, sta. 341.
Opeas octogyrum plicatellum (× 6½) — B, St. Croix, sta. 615. C, BARBUDA, sta. 602.
Opeas pumilum (× 6½) — D, St. MARTIN, sta. 461.
Pichardiella gracillima gracillima (× 6½) — E, New PROVIDENCE, sta. 493.
Pichardiella gracillima sanctithomensis (× 6½) — F–H, ANGUILLA, sta. 483.
Leptinaria insignis (I × 11; J × 12½) — I–J, SABA, sta. 298A (same specimen).