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NOTES AND DESCRIPTIONS OF NEW UROCOPTIDAE FROM CUBA AND HISPANIOLA (MOLLUSCA: PULMONATA)

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The following notes and descriptions of new species are based upon material in the Museum of Comparative Zoology which has been collected over the past several years. All species are members of the family Urocoptidae, one of the most dominant families in the West Indies and in a lesser way in Central America and in the southwestern United States. This family occurs also in northern South America, but species are few and present only a very minor element in the molluscan fauna there.

UROCOPTIDAE

ARHEGOCOPTIS Pilsbry

Arhegocoptis Pilsbry, 1903, Manual of Conchology (2) 15:301 (type species, *Cylindrella crenata* Weinland and Martens, original designation).

So far as known, this genus is confined to the southwestern or Tiburon Peninsula of Haiti. Specific localities for the few species are all from the Département du Sud.

According to Pilsbry, *Arhegocoptis* is nearest in relationship to *Eucalodium* Crosse and Fischer, a genus limited in distribution to southern Mexico and Guatemala.

The known species are as follows:

ARHEGOCOPTIS BARBOURI Clench

Arhegocoptis barbouri Clench, 1935, Proc. Boston Soc. Nat. Hist. 41:5, pl. 1, figs. B, F (Tardieu, Mt. LaHotte, Haiti, \pm 3000 feet). [Holotype, MCZ 108593.]

ARCHEGOCOPTIS CRENATA (Weinland and Martens)

Cylindrella crenata Weinland and Martens, 1859, Malakozoologische Blätter 6:54 (Jérémie, Haiti); Pfeiffer, 1869, Novitates Conchologicae 3:440, pl. 97, figs. 33, 34 (Haiti).

ARCHEGOCOPTIS DARLINGTONI Clench

Archegocoptis darlingtoni Clench, 1935, Proc. Boston Soc. Nat. Hist. 41:6, pl. 1, figs. C, G (Tardieu, Mt. LaHotte, Haiti, \pm 3000 feet). [Holotype, MCZ 108592.]

ARCHEGOCOPTIS DECAPITATA (Röding)

Cerion decapitatum Röding, 1798, Museum Boltenianum, p. 90 (no locality given [Haiti]). [See below.]

ARCHEGOCOPTIS EXIMIA (Pfeiffer)

Cylindrella eximia Pfeiffer, 1857, Malakozoologische Blätter 4:232 (locality unknown); Pfeiffer, 1869, Novitates Conchologicae 3:439, pl. 97, figs. 30-32 (Haiti).

ARCHEGOCOPTIS TIBURONICA Clench

Archegocoptis tiburonica Clench, 1935, Proc. Boston Soc. Nat. Hist. 41:6, pl. 1, fig. I. (Tardieu, Mt. LaHotte, Haiti, between 3-4000 feet). [Holotype, MCZ 108591.]

ARCHEGOCOPTIS HAITIENSIS new species

Plate 1, figures 1, 2

Holotype. MCZ 252056, from the top of Morne Rochelois, 25 km WSW of Miragoane, Dépt. du Sud, Haiti, about 3000 feet, collected by W. J. Eyerdam, July 1927.

Paratypes. A series of 5 paratypes from the same locality, MCZ 252057.

Height	Width	
mm	mm	
41	10	Holotype (see Remarks)
27	10	Paratype
26.5	10	“
26.5	10	“

Description. Shell medium in size, reaching 42+ mm in length (decollated), minutely umbilicate and coarsely sculptured.

Color a more or less uniform chocolate-brown and shining on the coarse, axial riblets and dull in between. Whorls 15+ and flat sided. Suture well defined. Spire extended, the upper portion slightly concave. Aperture holostomatous, subcircular, slightly flaring and reflected. Axis simple. Sculpture consisting of a series of somewhat irregular axial costae which are diagonal and fine, irregular axial threads in between the costae. There is a well defined basal ridge.

Remarks. In relationship, this species is nearest to *Archeogocoptis tiburonica* Clench, differing, however, by being much larger, lacking the whorl shoulder and in having a much larger basal ridge. The sculpture is similar in both species, though coarser in *A. tiburonica*.

Many species in the family Urocoptidae lose many of the upper whorls when approaching the adult stage or during their adult life. They produce a plug in one of the mid or earlier whorls and later the whorls above the plug are lost. The fracture is a mechanical one and not automatic, as quite frequently a few adult specimens in a single population may still retain their early whorls. It is of considerable interest to note that *A. haitiensis* apparently does this twice, as three of the five paratypes have plugs seven whorls above the aperture; the remaining two paratypes are young specimens and have lost the early three or four whorls. Only the holotype has retained the mid-whorls.

ARCHEGOCOPTIS DECAPITATA (Röding)

Cerion decapitatum Röding, 1798, Museum Boltenianum, p. 90 (refers to Chemnitz, 1786, Conchylien-Cabinet (1)9: pl. 136, figs. 1256-1257 [fig. 1255, in error]).

Cyclostoma fasciata Lamarek, 1816, Encyclopédie Méthodique, Atlas, p. 12, pl. 461, fig. 7.

Helix truncata Dillwyn, 1817, Descriptive Catalogue of Recent Shells, London 2:948 (Santo Domingo).

Helix fasciata Lamarek: Férussac, 1822, Tableaux Systématiques, p. 61, no. 503 (The Antilles).

Cylindrella fasciata 'Chemnitz' Pfeiffer, 1862, Malakozoologische Blätter 9:199 (Corail [Haiti]).

Cylindrella fasciata 'Chemnitz' Crosse, 1891, Jour. de Conch. 39:134 (Corail, near Jérémie, SW Haiti).

Urocoptis truncata (Dillwyn): Pilsbry, 1903, Manual of Conchology (2)15:154, pl. 39, figs. 27-28 (Corail, near Jérémie, Haiti).

Cyclostoma fasciata Lamarek: Mermoud, 1952, Revue Suisse de Zoologie 59:46, fig. 111.

Remarks. This species has had a long and varied history. The only specific locality previously known was that of Weinland who had collected a single worn specimen in a small water course at Corail, Haiti (Crosse, 1891). From this, Pilsbry had assumed that it had been carried down this stream from the mountains above. In 1927, W. J. Eyerdam collected several dead specimens under stones at the base of a cliff in a forested area on Grande Cayemite, a small island about 6½ miles NE of Corail. It is possible that the specimen found by Weinland may have drifted from Grande Cayemite. The specimens collected by Eyerdam are certainly in the genus *Archegocoptis* and appear to be *A. decapitata* Röding, differing only in that the color band of dull red is on a whorl lower than those figured by both Chemnitz and Lamarek. All specimens so far as known were collected dead.

UROCOPTIS (GONGYLOSTOMA) WHITTUMI new species

Plate 2, figure 1

Holotype. MCZ 59580, from Guabairo, near Soledad, Cienfuegos, Las Villas, Cuba, collected by Clench, Crozier and Navez, October 1928.

Paratypes. MCZ 59284, 86289, 105148, all from the above locality, and collected by various students and visitors to the Harvard Tropical Gardens.

Height	Width	
mm	mm	
11.5	2.7	Paratype
11.6	2.5	"
14.8	3	"
16	3	"
17.3	3.2	Holotype
17.5	3	Paratype
18.5	3	"
20.5	3.5	"

Description. Shell somewhat fusiform, usually decollated, narrow, widest point a little below the middle in the decollated specimens. Color very pale reddish brown, darker on the earlier whorls. Whorls 18 to 22 (not always decollated at the same whorl). Whorls rather flat, evenly tapering towards the spire tip. Last whorl free for one-quarter to one-third of its length. Spire acute, first two whorls a little larger than the third and fourth. Aperture holostomatous, circular, white and reflected.

Columellar axis stout, encircled by a single, wide lamella which bears numerous deep, spine-like crenulations. Sculptured by numerous strong, almost straight riblets, about 17-18 on the second whorl.

Remarks. This species belongs to the group of *U. canteroiana*, but differs in having fewer and stronger riblets, different shape and proportions, and by its internal axis, which is stouter; it is also encircled by a larger lamella, the margin of which possesses a greater number of tooth-like processes.

This shell is very variable in size, but very constant in its relative proportions. The riblets are approximately the same in number on the different sizes.

Named for Mr. Walter Whittum, now of Springfield, Massachusetts, whose kindness and courtesy made many trips possible in the rich collecting ground about Guabairo, at the time he was in charge of a colonia for the Soledad Sugar Company in 1928.

UROCOPTIS (GONGYLOSTOMA) EXQUISITA new species

Plate 2, figure 2

Holotype. MCZ 59286, from one-half mile E of Guabairo, Soledad, Cienfuegos, Cuba, W. J. Clench collector, December 1927.

Paratypes. MCZ 59285, 59579, from the same locality.

Entire specimens		Decollated specimens	
Height		Height	
mm		mm	
14.4	Holotype	12.7	
14.4		12.5	
12.9		11.9	

Description. Shell fusiform, slender, generally entire; when decollated, limited to only a very few of the early whorls. Widest point about midway in decollated shells. Color light horn, not uniform, but generally somewhat marbled with patches of lighter and darker areas, occasionally albinistic; surface somewhat glistening, often translucent in certain areas. Whorls convex, evenly tapering towards both the spire tip and the aperture. In complete shells whorls number 21-23; in decollated specimens 15-18 whorls. Spire acute, first two whorls slightly larger than the third and fourth. Last whorl free, developed with a long, slightly curved neck. Aperture holostomatous, circular, white and well reflected.

Axis of columella thin and sinuous with a single spiral thread. Suture somewhat impressed. Sculpture consisting of very fine oblique axial riblets except on the free whorl which has many relatively coarse riblets, irregularly spaced and nearly encircling the whorl except on the face or aperture side.

Remarks. This species belongs in the subgenus *Gongylostoma* Albers, near *Urocoptis barbourni* Torre and Clench. It differs from *U. barbourni*, however, in being smaller, and with a larger number of whorls in the decollated specimens, and is relatively more slender and more fusiform. The color is very similar, though the shell is a little more translucent in *exquisita*. The free aperture whorl is also much longer than in *U. barbourni*.

The habitat of this species is quite peculiar for the genus in this region, as specimens were found in more or less heavy woods, on the rocky walls of cave entrances, or in other large rocky fissures. The other urocoptids occupied more open areas, especially *U. livida barbourni* and *U. livida atkinsi* Torre and Clench.

UROCOPTIS (GONGYLOSTOMA) CANTEROIANA (Arango)

Plate 2, figure 4

Cylindrella canteroiana 'Gundlach' Arango, 1875 [1876], Anales Real Academia Ciencias Medicas, Fisicas y Naturales, Habana 12:284 (La Vigía, Trinidad [Cuba]); Arango, 1878, Fauna Malacologica Cubana, Habana, p. 117 (environs of Vigía, Trinidad).

Urocoptis canteroiana 'Gundlach' Arango: Pilsbry, 1903, Manual of Conchology (2)15:254.

Height	Width	
mm	mm	
12.5	2.5	Lectotype

Lectotype. Here selected, MCZ 189252, from La Vigía, Trinidad, Cuba, collected by Gundlach and sent to MCZ by Rafael Arango.

Remarks. This species has not been figured previously. It is comparatively rare as only a few specimens have been collected. We have specimens from La Vigía, Finca Cantero, and Finca La Pastora, all in the vicinity of Trinidad, Las Villas, Cuba.

UROCOPTIS (GONGYLOSTOMA) DIAGONALIS new species

Plate 2, figure 3

Holotype. MCZ 59292, from Mina Carlota, Sierra de San Juan, 8 miles S of Cumanayagua, Las Villas, Cuba, W. J. Clench and Calvin Goodrich collectors, November 30, 1927.

Paratype. A single paratype from the same locality is in the Museum of Zoology, University of Michigan.

Height	Width	
mm	mm	
16	3.3	Holotype
15	3	Paratype

Description. Shell reaching 16 mm in height (decollated), fusiform, imperforate and sculptured. Color a dull gray. Whorls 16 (remaining), very slightly convex, the last free for about one-fifth of a whorl. Suture indented. Spire decollated, a loss of 12-14 early whorls. Aperture holostomatous, white and flaring. Sculpture consisting of numerous fine, axial riblets which are slightly diagonal and are flatly sigmoid in shape. On the free portion of the last whorl these riblets become rings and are closer together.

Remarks. This species is related to *U. canteroiana* (Arango), but differs in several of its characters. *U. diagonalis* is larger, has finer sculpture of diagonal riblets which are straight in *canteroiana* and flattened sigmoid in shape in *diagonalis*.

UROCOPTIS (UROCOPTOLA) CAYEMITENSIS new species

Plate 1, figure 4

Holotype. MCZ 254666, from NE Grande Cayemite, a small island about 6½ miles NE of Corail, Département du Sud, Haiti, collected by W. J. Eyerdam, July 1927.

Paratypes. MCZ 254667, population 1; and MCZ 254668, population 2. From the same locality as the holotype.

Height	Width	
mm	mm	
17.2	6.5	Holotype, population no. 1 ¹
18.5	7	Paratype “
17.3	5.8	“ “
15.8	6	“ “
20.5	7.1	“ population no. 2 ¹
20.4	7	“ “
20.1	7	“ “

Description. Shell oblong, glossy, having the greatest diameter above the middle, imperforate, sculptured and rather thin in structure. Color a pale brownish pink. Whorls very slightly

¹ Both populations from the same general area.

convex and tapering above the mid-whorls to the truncated summit. Last whorl with a distinct basal ridge. Spire extended. Aperture nearly circular, the parietal area adnate to the whorl above, lip flaring. Suture moderately impressed. Sculpture consisting of numerous, slightly diagonal, axial costae, which do not produce crenulations at the suture. Axis with a single twist.

Remarks. This species is a member of the *U. sericea* (Pfeiffer) complex which is widely distributed along coastal Haiti within the Gulf of Gonave. *Urocoptis cayemitensis* differs from *U. sericea* by being much smaller, imperforate, and in having a uniform sculpture throughout. The spire is truncated between the seventh and eighth whorls from the aperture.

UROCOPTIS (UROCOPTOLA) EKMANI new species

Plate 1, figure 5

Holotype. MCZ 260871, from La Source, NW Gonave Island, Haiti, collected by W. J. Eyerdam, August 1927.

Paratypes. MCZ 260872, from the locality of the holotype.

Height	Width	
mm	mm	
25	11	Holotype
26	11	Paratype
22.5	10.2	"

Description. Shell large, elliptical in shape, remaining whorls reaching 26 mm in height, imperforate, rather solid and sculptured. Whorls 8 (remaining) and moderately convex. Flesh colored with a few, small, irregular, dark brownish red flecks on all of the whorls. Spire extended and tapering rapidly from the mid-area and produced at an angle of about 55° . Aperture sub-circular, holostomatous, one specimen out of eight being adnate above. There is a slight and closed rimation at the umbilical area. Suture slightly indented. Sculpture consists of diagonal and straight, fine axial riblets on the upper whorls and diagonal and arcuate axial riblets on the lower whorls. Protoconch unknown.

Remarks. This species is related to *Urocoptis bencomoi* Clench, but is smaller, proportionally narrower, and has the lip holostomatous.

Named for Dr. Erik L. Ekman, the Swedish botanist who was with W. J. Eyerdam during his trip to Gonave Island.

UROCOPTIS (UROCOPTOLA) CARIBBAEA new species

Plate 1, figure 3

Holotype. MCZ 260873, from 1 mile E of Pointe à Raquette, south central Gonave Island, Haiti, collected by W. J. Eyerdam, July 1927.

Paratypes. MCZ 260874, from the same locality.

Height	Width	
mm	mm	
24.8	12	Holotype
22	11.6	Paratype
22.5	11	"
22.5	11.4	"

Description. Shell large, reaching about 25 mm in height, imperforate, rather solid and sculptured. Whorls 7 (remaining) and moderately convex. Flesh colored with a few small, irregular, dark brownish red flecks on all of the whorls. Spire extended and tapering to the apex and the base from the mid-area and produced at an angle of about 60°. Aperture subcircular and adnate on the parietal area. Suture slightly indented. Sculpture consists of diagonal and straight, fine axial riblets and somewhat arcuate on the last whorl. Riblets on the two remaining early whorls more widely spaced. Protoconch unknown.

Remarks. This species is closely related to *U. ekmani*, differing in being shorter, with different proportions, having all specimens adnate on the parietal area and in having the axial riblets more widely spaced on the remaining early whorls.

UROCOPTIS (IDIOSTEMMA) PERPLICATA (Beck)

Helix (Cochlodina) perplicata Férussac, 1821 [1822], Tableaux Systématiques Animaux Mollusques, p. 61 or 65, no. 506 (The Antilles) [*nomen nudum*].

Brachypodella perplicata Férussac: Beck, 1837, Index Molluscorum, p. 89 [refers to Férussac's pl. 163, fig. 9].

Clausilia perplicata Férussac: Deshayes [in] Lamarek, 1838, Animaux sans Vertèbres (2)8:216.

Cylindrella perplicata Férussac: Philippi, 1847, Abbildungen Conchylien 2:217, pl. I (Achatina), fig. 9 (The Antilles).

Cylindrella perplicata Férussac, 1851, Histoire Naturelle Générale et Particulière 2:229, pl. 163, fig. 9 (The Antilles); non *Cylindrella perplicata* Férussac. Pfeiffer 1840 [in] Weigmann, Archiv für Naturgeschichte 1:41 (Fundador, Matanzas, Cuba).

Cylindrella fastigiata 'Gundlach' Pfeiffer, 1860, Malakozoologische Blätter 7:20 (Baracoa, Mata, and Yunque, Cuba); Pfeiffer, 1865, Novitates Conchologicae 2:263, pl. 65, figs. 23-25 [Syntypes, MCZ 26639, 86621].

Urocoptis fastigiata Pfeiffer: Pilsbry, 1903, Manual of Conchology (2)15:171, pl. 45, figs. 36-41 (Baracoa, El Yunque, Mata, Oriente, Cuba).

Brachypodella perplicata Férussac: Pilsbry, 1903, Manual of Conchology (2) 16:83, pl. 7, figs. 23-24 (Antilles).

Remarks. Considerable confusion has existed concerning the proper name for this species. Pilsbry retained both *perplicata* and *fastigiata* in two different genera but noted under *perplicata* that "the ribs follow one another from whorl to whorl, as in *Urocoptis fastigiata*," but he gave no indication that the two names applied to the same species.

Since Pilsbry's Manual of Conchology was published in 1903 far more material in this family is available for study, not only from Cuba but from the entire West Indies as well.

The credit for the name of this species must go to Beck rather than to Férussac, as Férussac did not publish this name until 1851. The plates were issued much earlier but there were no names attached to them. Through some source, other than publication, these names were available, and Beck was the first to cite a plate and figure for this species.

Specimens examined. CUBA: ORIENTE, Farallones de Barigua; Yunque de Baracoa; Silla de Báez, W of Baracoa; Sabana, Cabo Maisi; Zona de la Caleta, Baracoa; Arriba Mandinga, Baracoa; Arriba Guandao, Mandinga; Mata, Punta Maisi; Boca de Taco, Nibujón, Baracoa.

BRACHYPODELLA (BREVIPEDELLA) IMITATRIX Pilsbry

Brachypodella (Brevipedella) imitatrix Pilsbry, 1903, Manual of Conchology (2)16:47, pl. 8, figs. 54-55 (Port-au-Prince, Sans-Souci, St. Marc, and La Ferrière, Haiti).

Remarks. This species has a much wider distribution than most species in the Urocoptidae, extending as it does from Haiti to the Samaná peninsula in eastern Santo Domingo.

A closely related species, *B. angulifera* (Gundlach), occurs in eastern Cuba.

Specimens examined. HAITI: Bizonton, Lasbaines; Port-au-Prince and Diquini. SANTO DOMINGO: Mt. Isabel de Torres, Puerto Plata, at 1200 to 1600 feet; Sanchez; Peñon de Basiles and Peñon de Maria Luisa, both Santa Bárbara de Samaná, and Punta Lirio, 2 miles E of Santa Bárbara de Samaná.

BRACHYPODELLA (GYRAXIS) SAMANA new species

Plate 2, figure 5

Holotype. MCZ 57214, from Peñón de Maria Luisa, Santa Bárbara de Samaná, República Dominicana, collected by W. J. Clench, H. D. Russell and R. A. McLean, August 1937.

Paratypes. MCZ 57218, from the same locality; and MCZ 57213 from Peñón de Basiles in the same general area.

Height	Width	
mm	mm	
14.5	2.5	Holotype
12.5	2.4	Paratype
14.5	2.5	"
12.8	2.4	"

Description. Shell slender, imperforate, generally entire, widest at the mid-section of the shell and finely sculptured. Color marbled in yellowish and light brown with some areas white, the brownish areas translucent, the white and yellowish areas somewhat opaque. Whorls 13 to 14 in entire specimens and moderately convex with the last whorl free. Suture well defined. Spire acute, aperture holostomatous, subcircular with the lip flaring slightly. Axis gyrate. Sculpture consisting of numerous, fine, axial, slightly diagonal and slightly curved costae; the first two whorls finely and axially costate. On the early whorls certain of these costae in small groups impinge slightly on the suture.

Remarks. This species is closely related to *Brachypodella (Gyraxis) sericata* Pilsbry. It differs by being larger, having slightly coarser thread-like costae and having the marbled coloration, *sericata* being a dull white.

Brachypodella sericata Pilsbry was collected originally by William M. Gabb during 1869-71 while on a geological survey of Santo Domingo. Unfortunately, the recent mollusks collected by him seldom had specific locality data. We collected this species in some numbers at San Lorenzo Bay, Bahía de Samaná. This locality can be considered the type locality as Gabb surveyed this area about the Bahía de Samaná.

(Received December 1, 1965.)

Plate 1

FIGS. 1-2. *Archegocoptis haitiensis* n. sp. Morne Rochelois, 25 km WSW of Miragoane, Dépt. du Sud, Haiti, at 1000 meters. Fig. 1, Paratype, MCZ 252057; fig. 2, Holotype, MCZ 252056 (both 3X).

FIG. 3. *Urocoptis (Urocoptola) caribbaea* n. sp. 1 mile E of Pte. à Raquette, S central Gonave Island, Haiti. Holotype, MCZ 260873 (3X).

FIG. 4. *Urocoptis (Urocoptola) cayemitensis* n. sp. NE Grande Cayemite, Dépt. du Sud, Haiti. Holotype, MCZ 254666 (4X).

FIG. 5. *Urocoptis (Urocoptola) ekmani* n. sp. La Sourcee, NW Gonave Island, Haiti. Holotype, MCZ 260871 (3X).

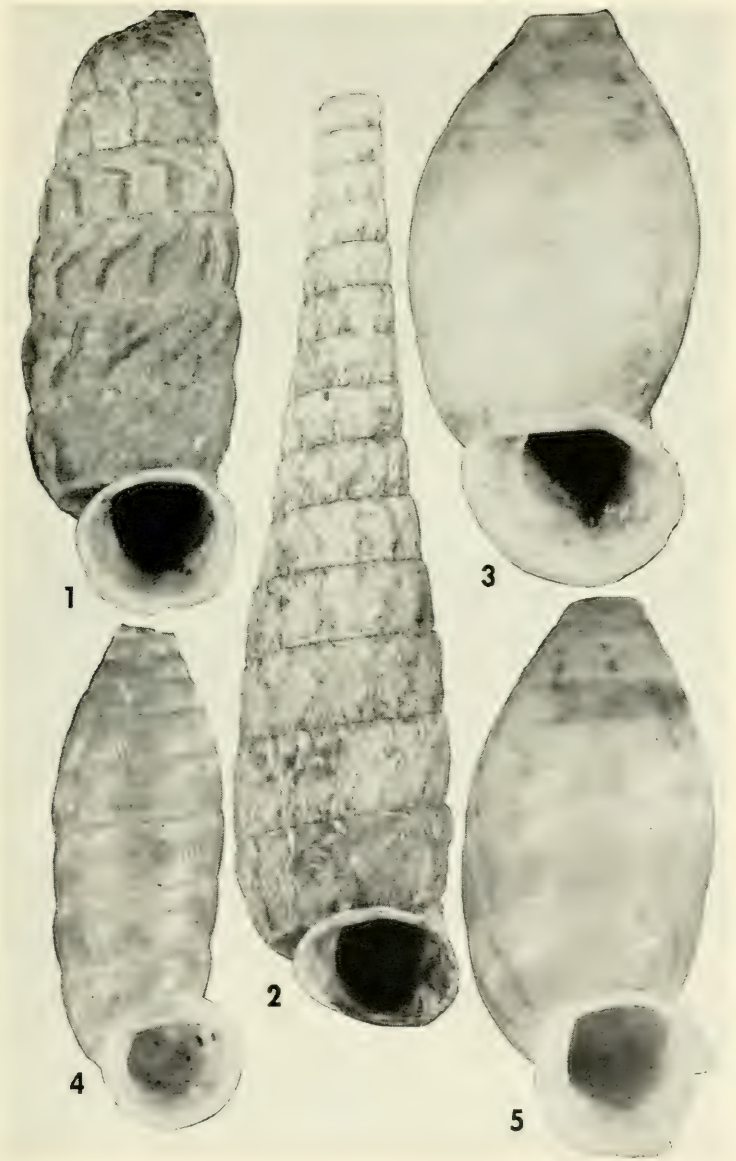


PLATE 1

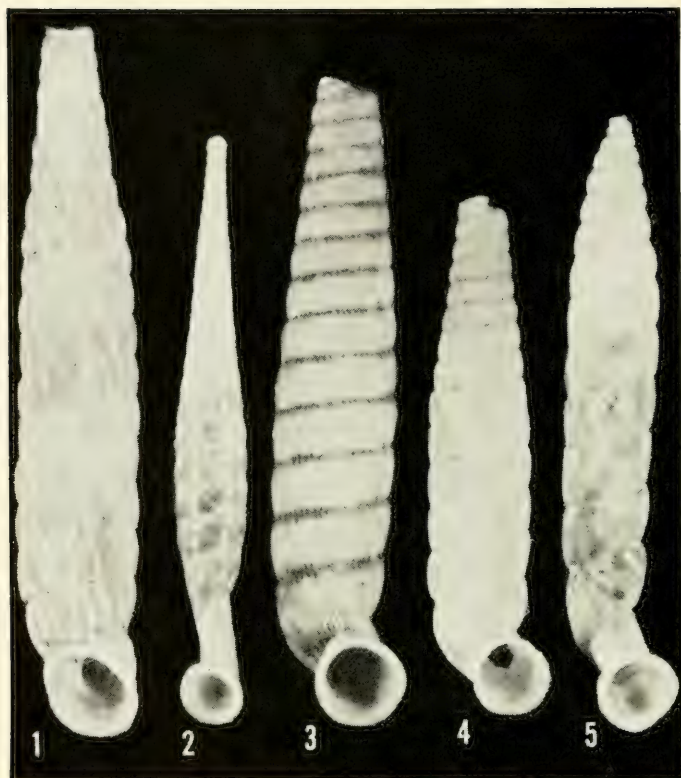


Plate 2

FIG. 1. *Urocoptis (Gongylostoma) whitumi* n. sp. Guabairo, Soledad, Las Villas, Cuba. Holotype, MCZ 59580 (5.5 X).

FIG. 2. *Urocoptis (Gongylostoma) exquisita*, n. sp. $\frac{1}{2}$ mile E of Guabairo, Soledad, Las Villas, Cuba. Holotype, MCZ 59286 (5.5 X).

FIG. 3. *Urocoptis (Gongylostoma) diagonalis* n. sp. Mina Carlota, Sierra de San Juan, 8 miles S of Cumanayagua, Las Villas, Cuba. Holotype, MCZ 59292 (5.5 X).

FIG. 4. *Urocoptis (Gongylostoma) canteroiana* (Arango). (La Vigía, Trinidad [Las Villas, Cuba]). Lectotype, MCZ 189252 (5.5 X).

FIG. 5. *Brachypodella (Gyraxis) samana* n. sp. Peñon de María Luisa, Santa Bárbara de Samaná, República Dominicana. Holotype, MCZ 57214 (5.5 X).