STUDIES ON THE FAUNA OF CURAÇAO, ARUBA, BONAIRE AND THE VENEZUELAN ISLANDS: No. 2.

A SURVEY OF THE MAMMALS, LIZARDS AND MOLLUSKS.

This annotated list of the mammals, lizards and mollusks of the Leeward Group, is based on author's collection and therefore includes additional mainland-records of the island-species.

As a rule a short commentary is given only as a guide to the adopted nomenclature and classification, in case of controversial data which are not yet settled, if important for our knowledge of regional distribution, mentioning vernacular names. Regarding the mammals, all known material-records are included.

Species of *Peropteryx, Gonatodes, Phyllodactylus, Anolis, Ameiva, Cnemidophorus, Gymnophthalmus, Potamopyrgus,* and especially those of *Odocoileus, Sylvilagus, Tudora* and *Cerion* are more extensively treated.

Generally new synonyms are separately listed behind sole bibliographical references. Station-numbers of mollusk-records are printed in italics if living specimens have been collected. Other specimens which were not obtained in a fresh state are only approximatively dated. Important new localities are indicated by an exclamation-mark.

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Amsterdam and the Zoological Museum of the State-University in Utrecht.

MAMMALIA

PRIMATES

CEBIDAE

Cebus margaritae Hollister, 1914

Robinson, 1896, p. 651 (sub *apella*); Allen, Gl. M., 1902, p. 97 (sub *fatuellus*); Hollister, 1914, p. 105.

MARGARITA, 13.VII.1895, 1 spec., teste Robinson et Hollister. Margarita.

ARTIODACTYLA

CERVIDAE

Odocoileus Rafinesque, 1832

Cervinae, with distal portion of lateral metacarpals persisting, naviculo-cuboid of tarsus free from cuneiform, vomer dividing aperture of posterior nares, upper canines lacking, sub-basal snag rising from inner surface of complex antlers, spotted young. Alaska to Perú, Bolivia and northern Brasil.

Key to the South American species

[chiefly from literature]

1a Pelage long-haired, hairs on back to 35—55 mm long; greyish colours predominating (— in the mountains at higher altitudes —) 2

1b Pelage short-haired, hairs on back to 20—30 mm long; yellowish and brownish colours predominating (— in the mountains at low altitudes and in the lowlands —) 3

2a Blackish eye-ring, complete of fragmentary; dark spot on base of foot, dark line in front of underpart of leg; no metatarsal-gland (— Colombian Andes, Sierra de Mérida —) ..... *Od. columbicus* (Fitzinger, 1879)

[*Od. lasiotis* Osgood, 1914]

2b Whitish eye-ring; without dark markings on leg; no metatarsal-gland (— Andes of Ecuador, Perú, Bolivia and probably northern Chile —) .... *Od. peruvianus* (Gray, 1874)

3a Greyish-brown colours predominating; upperparts often varied with much black; hairs on back to 30 mm long, rather erect, not stiff; probably no metatarsal-gland (— Guyana, northern Brasil and probably eastern Venezuela —) ..... *Od. spinosus* (Gay et Gervais, 1846)

[*Cervus savannarum* Cabanis et Schomburgk, 1848]

3b Yellowish or reddish-brown colours predominating; upperparts varied with little black; hairs on back to 20 mm long, smoothened, stiff; no metatarsal-gland (— Venezuela, Colombia, Curaçao, Margarita and probably Guyana and northern Brasil —) ..... *Od. gymnotis* (Wiegmann, 1833)

[?? *Cervus mangivorus* Schrank, 1818. ? *Cervus goudotii* Gay et Gervais, 1846. *Gymnotis wiegmanni* Fitzinger, 1879. *Odocoileus margaritae* Osgood, 1910]

Key to the subspecies of *Odocoileus gymnotis*

[data on *Od. gymn. tropicalis* from literature]

1a Outside of ears well haired; reddish-brown colours predominating (—western Colombia; type-locality: Valley of the Dagua —) .... *Od. gymnotis tropicalis* Cabrera, 1918

1b Outside of ears sparsely haired; yellowish or brownish-yellow colours predominating (— eastern Colombia, Venezuela, Curaçao and Margarita —) 2

2a Outside of ears rarely nearly naked in centre; upperparts generally brownish greyish-yellow; usually a very small blackish spot in upper postorbital region; frequently a small but distinct black antorbital spot; often a rather distinct blackish neckstreak 3

2b Outside of ears often nearly naked in centre; upperparts generally greyish brownish-yellow; no blackish spot in upper postorbital region; no distinct black antorbital spot; sometimes a rather distinct blackish neckstreak 4

3a Generally a small but distinct black antorbital spot; usually a rather distinct blackish neckstreak (— Curaçao; type-locality —) .... *Od. gymnotis curassavicus* subsp. nov.

3b Probably no distinct black antorbital spot; without a rather distinct blackish neckstreak (— La Goajira and probably Santa Marta district —) ..... considered identical with *Od. gymnotis curassavicus*

4a Frontals usually rather abruptly elevated and rather strongly ridged medially, probably rarely deeply indented between base of pedicel and orbit (— assumed to occur in northern Venezuela only; type-locality: "Gegend des Orenoco" —) ... *Od. gymnotis gymnotis* (Wiegmann, 1833)

4b Frontals usually abruptly elevated and strongly ridged medially, usually deeply indented between base of pedicel and orbit (— Margarita; type-locality —) ..... *Od. gymnotis margaritae* Osgood, 1910

Rising from our incomplete and often confusing knowledge of South American deer, the accepted species and subspecies are delimitated in a rather arbitrary way.

General data on *Odocoileus gymnotis*

[Observed in Curaçao (c), Margarita (m), the mainland of Venezuela (v) and The Hague, from specimens which were brought from the Venezuelan mainland, state of Sucre (n).]

The first 2—3 months of their life, the young have a conspicuous white-spotted coat, the hairs generally are soft and more erect than in older specimens, the upperparts are rather equally vivid yellowish-brown, often with a slight reddish tinge (c, v, n). After the first moult the pelage is still rather soft, but in other respects is quite the same as those of the adults (c, v, n). Resulting from the design of the hair, the brown or brownish-yellow colour is more obvious in the fresh-moulted pelage. Vague remnants of the white spots may be observed in adult state in mediodorsal region (c, m, v, n). — Impregnation may occur at the age of 1 year (n); the gestation being about 7½ months (n). Whelping occurs in February (c, n), March (n), April (n), June (v, n),

TABLE 6.

Skull-measurements in adult *Odocoileus gymnotis*
(in mm; distances in straight lines; left and right averaged)

Locality	Curaçao						Margarita			
Number	5	6	7	8	9	v.d.H.	14	15	16	17
Sex	m.	m.	m.	m.	m.	m.	f.	m.	m.	m.
tip of premaxilla — supraoccipital process	235	232	251	248	256	248	209	240	240	233
tip of premaxilla — back of occipital condyle	222	220	236	232	—	235	197	229	230	221
tip of premaxilla — intercondyloid incision	205½	202½	217	217	—	217	183	213	214	207
tip of premaxilla — anterior edge of auditory canal	200	197	210	209	215	209½	179½	204	205	200
tip of premaxilla — anterior border of choana	143	140	150½	151	156	153	—	149	149	145
crown-length of upper molariform series	70½	72	72?	72	71½	71½	(66)	68½	70½	69
crown-length of upper M^1-M^3	41	42½	42	42	41	42	39	32	40½	40
tip of premaxilla — front of P^1	71	69	75?	75½	78	76½	(66)	72	71	71
alveolar-lenght of upper molariform series	68½	68½	69?	69½	67½	67	(66½)	67	67	65½
between inner-edges of P^1-alveoles	24½	25	31½	29	32	27	(25)	30	30	28
between outer-edges of P^1-alveoles	45	47	53½	50	50	49½	(41)	49	47½	49
between inner-edges of M^2-alveoles	35½	37	39½	37	42	35	33	39	41	40
between outer-edges of M^2-alveoles	64½	67½	73?	68½	72	69	60	68	69	67½
tip of premaxilla — median tip of nasalbone	54	54	57½	56	57	55½	54	54½	57	55½

median tip of nasalbone — supraoccipital process	190	187	203	200	208	200	163	194	191	185
median length of nasalbone	68½	66½	71½	73½	74	73½	51½	70½	66½	67
breadth of nasalbone	18	17	21	21	20	20	14½	17½	17½	17
tip of premaxilla — anterior border of orbit	122	120	127	129	130	127	107	121	122	119
width of orbit, parallel to skull-axis	37	37	40	38	39	40	39	39	40	39½
height of orbit, perpendicular to skull-axis	35	36	37	39	39	39	34½	38	39	37½
posterior border of orbit — supraoccipital process	97	98	111	104	112	104	82	100	101	97
between borders of orbits	55	55	64	61	61	59½	44	57	58	55
between outside of zygomatical arches	98	100	111	109	113	110	85	105	105	101
breadth near mastoid prominences	73	70	80	80	85	80	64½	84	83½	77
between paraoccipital processes	53	51	52	55	—	47	42	51	52	49
height of braincase across parietalbone and basisphenoid	59	61	59	63	64	65	52½	63	60½	60
supraoccipital process — nuchal tubercles	32	32	34	32	—	33	26½	33½	31½	31½
nuchal tubercles — opposite innerside of foramen magnum	20½	19½	19	20	—	20	19	19	18½	19½
between inner-edges of occipital condyles	20	18	15½	19	—	18½	16½	15½	17	16
between outer-edges of occipital condyles	44	44	43	45½	—	44½	36½	41	44½	42½
top of forehead — basal-level	90	90	95	85	90	94	75	90	85	80
diameter of pedicel, averaged on narrowest part	16	19	23	22	26	22	×	35	25	20
top of mandible — coronoid process	191	194	—	—	207	206	171	—	—	—
top of mandible — dentary condyle	179	178	190	—	191	188½	163	—	—	—
tip of mandible — angular process	175	174	185	—	184	183	160	—	—	—
tip of mandible — front of P_1	58½	56½	(65½)	—	70	70½	(52½)	—	—	—
alveolar-length of lower molariform series	77½	79½	74	—	72	72½	73½	—	—	—
top of coronoid process — basal-level	96	93	101?	—	—	110	87	—	—	—

July (v), August (c, v) and December (n); number of young as a rule 1 (c. v, n), rarely 2 (v). The first rubbing of the antlers happens at about 13 (n) or 10 (n, abnormal) months; their growth takes about 3 months yearly at quite regular intervals (n); they are shed in March (v, n), July (n, abnormal), November (c) and December (v.).

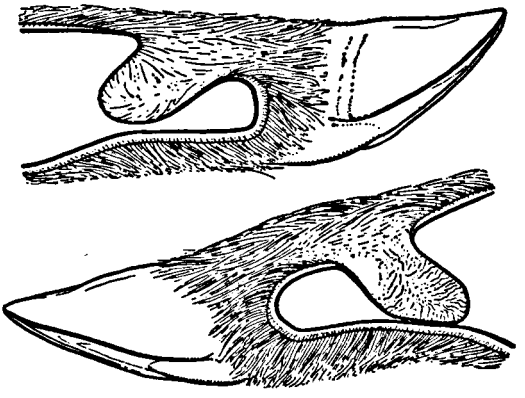

Fig. 20. Length-section of left forefoot (above) and left hindfoot (below) of a 5 months old male *Odocoileus gymnotis gymnotis*; showing the well developed pedal-glands. (nat. size)

Odocoileus gymnotis margaritae Osgood, 1910

Osgood, 1910, p. 24 (sub *margaritae*); Cabrera, 1918, p. 307.

MARGARITA, Vicinity of Puerto Manzanillo (P. Viejo), 1 male, killed at New York, May 16, 1910, abt. 1½ year old, teste Osgood; vicinity of Puerto Manzanillo, born abt. May 1935, died in Porlamar at the fall of 1936 (Odocoileus 14, female, skull); Boca del Pozo, Macanao, V. 1936 (Odoc. 15, male, skull); Laguna Dulce, Macanao, V. 1936 (16—17, males, skulls; eastern Margarita, V. 1936 (18—20, females, skins).

Venado, venao.

Characters. Outside of ears sparsely haired, often nearly naked in centre, the skin usually rather darkly coloured; upperpart of body yellowish or greyish-brown; no blackish spot in upper postorbital region, no distinct black spot above anterior eye-corner; a long blackish neckstreak. Condylobasal-length of skull abt. 225 mm, equals abt. 2,2 zygomatical-breadth; frontals usually abruptly elevated, strongly ridged medially, frequently deeply indented between base of pedicel and orbit.

Though I am not convinced that the cranial characters, in which, according to Osgood, *Odocoileus margaritae* differs from its relative of the mainland, should even justify a separation as subspecies, lack of material prohibits a definite decision in this matter.

Occurring in Margarita in rather limited numbers, probably more common in Macanao and along the southern slopes of the Cerros de Copey.

Odocoileus gymnotis curassavicus subsp. nov.

Cervus capreolus, Simons, 1868, p. 155. *Odocoileus margaritae* Osgood, van der Horst, 1924, p. 6, fig. p. 5. *Odocoileus gymnotis* (Wiegmann), Hummelinck, 1938, p. 209, fig. p. 38.

Holotype: Rijksmuseum van Natuurlijke Historie, Leiden, collector's number Odocoileus 5 (skeleton, skin, tongue, liver, kidneys, genital organs; tab. IX). Type-locality: Island of Curaçao. Description: Adult male with shedded antlers, about 40 kg; large pedal-glands in fore- and hindfeet, well developed tarsal-glands, no metatarsal-glands. Condylobasal-length of skull 222 mm, preorbital-length 122 mm, zygomatical-breadth 98 mm; hindfoot 350 mm, foreleg 465 mm. Upperpart of body yellowish-grey, slightly brown, finely punctuated with dark-grey or black; between ears with a rather conspicuous concentration of black, about 1½ cm broad, narrowing to a vague dark line which fades towards centre part of neck; a pair of distinct black, oval spots in antorbital region, about 2½ × ½ cm; no blackish spot in upper postorbital region; outside of ears rather dark greyish, finely punctuated with black and somewhat yellow, regularly though sparsely covered by thin, to 5 mm long hairs, the central part rather naked at first sight, more densely haired towards margin and base, the anterior part and margin somewhat darker, slightly blackish, the skin rather lightly coloured.

Paratypes: Rijksmuseum van Natuurlijke Historie, Leiden, coll. nr. Odoc. 2 (rather juvenile female, skeleton, skin, tongue, heart and lungs, digestive tract, kidneys; tab. X); Zoölogisch Museum, Amsterdam, cf. van der Horst, 1924, fig. p. 5, Curaçao (adult male, skull, skin); id. Curaçao (female, skin); id., Curaçao (skin).

Diagnosis. Outside of ears sparsely haired, occasionally nearly naked in centre, the skin rather lightly coloured; upperpart of body generally brownish greyish-yellow; usually a small blackish spot in upper postorbital region, a distinct black spot above anterior eye-corner; a short, vague, blackish neck-streak. Condylobasal-length of skull abt. 230 mm, equals abt. 2,2 zygomatical-breadth; frontals rather abruptly elevated, distinctly ridged medially, rather deeply indented between base of pedicel and orbit.

CURAÇAO, St. Silvester, St. Hyronimus, 22.XI.1936 (Odocoileus 5, shot by H. J. Paffen, male, skull, skin, skel., etc.); Savonet, born VIII.1936, brought to The Hague IV.1937, died 20.V.1937 (Odoc. 2, van der Linde Schotborgh don., female, skull, skin, etc.); Knip (cf. van der Horst, 1924, fig. p. 5, male, skull, skin); Curaçao (Amsterdam, female, skin); Curaçao (Amsterdam, skin); St. Hyronimus, XI.1936 6, male, skull, skel.); Savonet, X.1936 (7, male, skull); Savonet, X.1936 (8—9, van der Linde Schotborgh don., males, skulls); Savonet, X.1936 (10, antlers); Savonet, V.1930 (11—11a, antlers); Curaçao, XI.1936 (12—13, St. Thomas College don., antlers). CURAÇAO?, II.1937 (3, de Wit don., juv., female?, skull, headskin, feet); II. 1937 (4, de Wit don., juv., male?, skull, headskin, feet). — GOAJIRA, Serrania Macuire, Puerto López, born. abt. VIII. 1936, died in Curaçao II. 1937 (1, male, skull, headskin, feet). — Tab. IX—X.

Biná, binaar, binau, hert (Cur.); venado, iráma (Goaj.).

The Goajira-specimen (Odoc. 1) and the two juveniles from Curaçao? (Odoc. 3—4), which might be imported from northeastern Colombia, have no black antorbital spot and no trace of neckstreak; they are, therefore, only provisionally reckoned to this subspecies.

Occurring in western Curaçao in very limited numbers only, especially on the plantations St. Hyronimus, Savonet, Knip and St. Kruis; probably rather common in the northern part of the peninsula of La Goajira and South of Rio Hacha. On Curaçao, their number might be estimated at about 100 in 1930, at about 100—150 in 1936; formerly they appear to have been more numerous and were also found in the eastern part of the island. In 1931 shooting and keeping was prohibited by the Government. — Mainland-fawns are not unfrequently kept by the inhabitants of the islands; on Curaçao and Aruba most of these came from the Santa Marta region and La Goajira, on Bonaire and Margarita Venezuelan specimens may be found. In consequence of the keeping-prohibition, a few captive mainland-specimens have been set free on Curaçao.

RODENTIA

LEPORIDAE

Sylvilagus Gray, 1867

Hares, with small tail, interparietal generally persisting as a distinct bone, ear shorter than hindfoot, postorbital process united with cranium and enclosing a narrow foramen, sole densely furred. Southern United States to northern Argentina.

Key to the North Venezuelan, Northeast Colombian and Curaçoan species and subspecies

1a Nape deep black; hindfoot *78*—85 mm, forefoot *37*—39 mm; condylobasal-length of skull *61*—64½ mm;
interorbital-breadth *13½*—15¼ mm, nasalbone *30½*—31½ mm, outer edges of upper P^1-alveoles *16½*—17¾ mm;
ear-length *52½*—56 mm, ear-width *36*—38 mm;
zygomatical-breadth *33½*—34½ mm, lower alveolar-length *13¾*—14¾ mm, breadth of lower I 5¼—5½ mm (— Curaçao, Aruba; type-locality Aruba —) .....
..... *Sylv. nigronuchalis nigronuchalis* (Hartert, 1894)

1a' Probably the same characters (— Falcón, northern Zulia; type-locality vicinity of Maracaibo —) .....
..... *Sylv. nigronuchalis continentis* Osgood, 1912

1b Nape light yellowish-brown; hindfoot *85*—90 mm, forefoot *40*—*45*—46 mm; condylobasal-length of skull *65*—*68*—70½ mm 2

2a Interorbital-breadth behind posterior supraorbital processes *12½*—14¼ mm, length of nasalbone *32*—34 mm, distance between outer edges of upper P^1-alveoles *17¾*—18 mm, condylobasal-length *65*—*67* mm;
ear-length *55*—*57* mm, ear-width *41*—42 mm, forefoot *43*—45 mm;
zygomatical-breadth *33¾*—35½ mm, lower alveolar-length *14¼*—15 mm, breadth of lower I 5¾—6 mm.
(— La Goajira, Santa Marta district; type-locality Bonda, near Santa Marta —) .....

..... *Sylv. cumanicus superciliaris* (J. A. Allen, 1899) comb. nov.

2b Interorbital-breadth behind posterior supraorbital processes *14¾—15*—15½ mm, length of nasalbone *35½*—38 mm, distance between outer edges of upper P^1-alveoles *19—20¼—21½* mm, condylobasal-length *66½—68—70½* mm 3

3a Ear-length from notch 63 mm, ear-width 47 mm, forefoot 40 mm; condylobasal-length 70 mm;

zygomatical-breadth 36¼ mm, lower alveolar-length 15½ mm, breadth of lower I 6 mm (— Sucre, prob. Aragua, Carabobo and Falcón; type-locality Cumaná —) ..... *Sylv. cumanicus cumanicus* (Thomas, 1897)

3b Ear-length from notch *53—54—57* mm, ear-width *38—39*—40 mm, forefoot *44—45*—46 mm; condylobasal-length *66½—68—70½* mm 4

4a Zygomatical-breadth *36¼—36½* mm, alveolar-length of lower molariform series *16*—16¼ mm, combined breadth of lower I at top *6¾—7* mm, condylobasal-length *66½*—69½ mm (—Los Testigos; type-locality Testigo Grande —) .....

..... *Sylv. cumanicus avius* Osgood, 1910 comb. nov.

4b Zygomatical-breadth *35¾—37½* mm, alveolar-length of lower molariform series *14¾—15¾* mm, combined breadth of lower I at top *6—6* mm. condylobasal-length *68—70½* mm (—Margarita; type-locality —) ... *Sylv. cumanicus margaritae* (Miller, 1898) comb. nov.

Characters of *Sylv. nigron. nigronuchalis* from 19 specimens, of *cum. superciliaris* from 5 spec. (La Goajira), of *cum. cumanicus* from 1 spec. (Araya), of *cum. avius* from 5 spec., of *cum. margaritae* from 6 spec.

It is certain that the relation of species and subspecies will prove to be much more complicated than this synopsis lead us to suppose. The relation between these species and the many other named forms of South-American *Sylvilagus* is still very vague.

Sylvilagus nigronuchalis nigronuchalis (Hartert, 1894)

Hartert, 1894, p. 40 (sub *Lepus nigr.*); Osgood, 1910, p. 28 (sub *nigr.*); van der Horst, 1924, p. 5 (sub *Sylvilagas nigr.*). — *Lepus cuniculus*, Simons, 1868, p. 156.

CURAÇAO, Malpays, 30.XI.1936 (Sylvilagus 21—23); Dokterstuin, 27.X.1936 (Sylv. 24); Dokterstuin, 23.X.1936 (25); St. Hyronimus, 21.XI.1936 (26); St. Silvester, St. Hyronimus, 25.XI. 1936 (27); Eastern Curaçao, V.1920 (cf. van der Horst, 1 spec.); Curaçao, 1908 (1 spec., teste Osgood). ARUBA, Oranjestad, 14.XII.1936 (28); Oranjestad, 2.I.1937 (29—30); Santa Cruz, 2.I.1937 (31); Droemidera, Fontein, 9.I.1937 (32—33); Falcón near Tanki Leendert, 26.XII. 1936 (34—36); Fontein, 29.VI.1930 (37—38); Oranjestad?, 8.I.1937 (39); Aruba, 1892 (1 spec., teste Hartert); Aruba, 1909 (3 spec., teste Osgood). — Tab. X.

Kaniensjie, konijntje.

According to the description of Osgood, *Sylvilagus nigronuchalis continentis* may be practically identical with the insular form.

Rather commonly found on the islands of Curaçao and Aruba, rare in well-populated districts. Very probably not occurring on Bonaire.

Sylvilagus cumanicus margaritae (Miller, 1898) comb. nov.

Robinson, 1896, p. 651 (sub *Lepus brasiliensis*); Miller, 1898, p. 97 (sub *Lepus marg.*); Osgood, 1910, p. 29 (sub *marg.*).

MARGARITA, Los Robles, 5.VI.1936 (Sylvilagus 12—13); San Antonio, 27.V.1936 (Sylv. 14); Laguna Dulce, Macanao, 20.V.1936 (15—16); Porlamar, 2.VI.1936 (17—20); Margarita, VII.1895 (1 spec., teste Miller et Robinson); Margarita, 1909 (13 spec., teste Osgood). Conejo.

Rather often occurring in the easten part of Margarita, more common in te western part.

Sylvilagus cumanicus avius Osgood, 1910 comb. nov.

Osgood, 1910, p. 29 (sub *avius*).

TESTIGOS, Isla de Conejo, 17.VI.1936 (Sylvilagus 7—11); Tamarindo (Testigo Grande), 14.II.1909 (1 spec., teste Osgood).

Common on the small, uninhabited Isla de Conejo of Los Testigos; not found on Tamarindo, the type-locality of this insular form.

Only differing from *Sylv. cum. margaritae* in having a broader skull with heavier dentition.

SCIURIDAE

Sciurus nesaeus Gl. M. Allen, 1902

Robinson, 1896, p. 651 (sub *aestuans hoffmanni*); Allen, Gl. M., 1902, p. 93; Osgood, 1910, p. 26.

MARGARITA, El Valle, 8.VII.1901 (1 spec., teste Allen et Robinson); El Valle, 1909 (2 spec., teste Osgood).

Margarita.

MURIDAE

Epimys rattus (Linné, 1766)

Simons, 1868, p. 156 (sub *Mus rathus*); Allen, Gl. M., 1902, p. 94 (sub *Mus alexandrinus*); Sánchez, 1921, p. 67 (sub *Mus*).

MARGARITA, El Valle, 1901 (1 spec., teste Allen); Porlamar, 29.V.1936 (Epimys 1—4); near Porlamar, 26.V.1936 (Epim. 5—6, M. A. C. Hinton et R. W. Hayman det.). CURAÇAO, Piscadera, 28.XI.1936(7).

Rata, rata casera (Marg.); rata, djaka, rat, huisrat (Cur.).

Widely spread; Margarita, Curaçao.

Epimys norvegicus (Erxleben, 1777)

Martin, 1888 I, p. 119 (sub *Mus decumanus*).

CURAÇAO, 1885 (1 spec., mus. Leiden, cf. Martin). Doubtful.

Widely spread; Curaçao?

Mus musculus Linné, 1766

Simons, 1868, p. 156; Martin, 1888 I, p. 119; Allen, Gl. M., 1902; Sánchez, 1921, p. 67.

MARGARITA, 1901 (4 spec., teste Allen); Porlamar, 22.V.1936 (Mus 1—2, with 5 juv.); Porlamar, 26.V.1936 (Mus 3—4); Porlamar,

1.VI.1936 (5—6); Porlamar, 1.VII.1936 (7). CURAÇAO, Willemstad, 1885 (6 spec., mus. Leiden, cf. Martin); Bloemhof, Willemstad, 1.XI.1936 (8); Piscadera, 20.X.1936 (9).

Ratón, ratón de casa (Marg.); raton, muis, huismuis (Cur.).

Widely spread; Margarita, Curaçao.

CRICETIDAE

Oryzomys spec.

MARGARITA, Cueva Honda del Piache, 10.VII.1936 (mandibles). CURAÇAO, Grot van Hato, 21.IX.1936 (mandibles, M. A. C. Hinton et R. W. Hayman det.).

Hesperomys? spec.

ARUBA, Vader Piet near Fontein, 9.II.1937 (1 spec. juv., M. A. C. Hinton et R. W. Hayman det.).

OCTODONTIDAE

Echimys flavidus (Hollister, 1914)

Robinson, 1896, p. 651 (sub *Loncheres* spec.); Hollister, 1914, p. 143 (sub *Loncheres*).

MARGARITA, El Valle, 9.VII. 1895 (1 spec., teste Hollister et Robinson).

Margarita.

XENARTHRA

DASYPODIDAE

Dasypus novemcinctus Linné, 1766

MARGARITA, El Valle, 22.VI.1936 (Dasypus 1, male).

Cachicamo.

Texas to northern Argentina, Trinidad, Grenada; Margarita!.

CHIROPTERA

EMBALLONURIDAE

Peropteryx canina trinitatis (Miller, 1899) comb. nov.

Miller, 1899, p. 178 (sub *trin.*); Allen, Gl. M., 1902, p. 95 (sub *Peropteryx* spec.); Pittier et Tate, 1932, p. 270 (sub *canina*).

MARGARITA, El Valle, 13.VII.1901 (1 spec., teste Allen, cf. Pittier et Tate); Guatamare, near El Valle, 25.V.1936 (Peropteryx 1—49).

Murcielago (collective noun for bat in Venezuela).

According to Miller, *P. trinitatis* is distinguished from *P. canina* by its small size; the differences, however, may hardly justify a separation as subspecies. The species *canina* is widely distributed on the continent, from Guatemala to the Mato Grosso, only intruding the West Indies from the South as far as Trinidad and Grenada; the specimens from the latter localities (*P. trinitatis* and *P. canina phaea*) are very closely related or probably identical to those from the adjacent mainland. Margarita.

TABLE 7.

Variation in *Peropteryx canina trinitatis*

(females in ordinary numbers, males in thick type)

tibia, in mm (external measurement, with foot turned back)	forearm, in mm (external measurement with folded thumb)											totals	
	38½	39	39½	40	40½	41	41½	42	42½	43	43½		
16½	1												1
17			2			1						1	2
17½		1	2	2		2	1					3	5
18		1	1	2	21	5	6	8		2		22	6
18½								2	4	1		7	
19								1			1	2	
totals	1	2	5	4	1 2	8	7	11	4	3	1	35	14

PHYLLOSTOMIDAE

Chilonycteris parnelli (Gray, 1843)

Tomes, 1861, p. 66 (sub *osburnii*); Peters, 1873, p. 360; Rehn, 1904, p. 194.

MARGARITA, Cave of El Piache near El Valle, 10.VII.1936, St. 142 (Chilonycteris 1—3).

Probably belonging to this species, though differing from the Jamaica-specimens (cf. Tomes et Rehn) by longer extremities (forearm 58½—61 mm, tibia 22—22½ mm, in males).

Jamaica (*C. parn. parnelli*), Cuba (*C. parn. boothi*), Puerto-Rico (*C. parn. portoricensis*), once recorded from Puerto Cabello, Venezuela (teste Peters); Margarita!.

Mormoops megalophylla megalophylla Peters, 1864

MARGARITA, Cave of El Piache near El Valle, 10.VII.1936, St. 142 (Mormoops 1—6).

Mexico to Ecuador and Venezuela, Trinidad; Margarita!.

Mormoops megalophylla intermedia (Miller, 1900)

Miller, 1900, p. 160 (sub *interm.*); Rehn, 1902, p. 170; Osgood, 1910, p. 30.

CURAÇAO, Cave of Hato, 29.IV.1900, and other parts of the island (164 spec., teste Miller); Curaçao, 1908 (80 spec., teste Osgood). ARUBA, Cave of Quadirikiri, 29.VI.1930 (Mormoops 7); Cave of Quadirikiri, 9.II.1937, St. 251 (Morm. 8—10).

Raton die anotsjie (collective noun for bat in Curaçao, Aruba and Bonaire).

Curaçao, Aruba!.

Micronycteris megalotis (Gray, 1842)

Robinson, 1896, p. 651 (sub *Schizostoma megalotes*); Allen, Gl. M., 1902, p. 96.

MARGARITA, El Valle, 12.VII.1895 (2 spec., teste Robinson et Allen); Cave near El Valle, 13.VII.1901 (2 spec., teste Allen).

Honduras to Bolivia and Brasil; Margarita.

Glossophaga soricina (Pallas, 1766)

Martin, 1888 I, p. 119; Allen, Gl. M., 1902, p. 96. — *Glossophaga elongata* Miller, 1900, p. 124; Miller, 1900, p. 159; Miller, 1913, p. 423.

TESTIGOS, Isla de Conejo, 17.VI.1936, St. 165 (Glossophaga 1—9). MARGARITA, Cave near El Valle, 13.VII.1901 (2 spec., teste Allen). BONAIRE, Cueba Watapana, 1.IV.1937, St. 183 (Gloss. 10—12). CURAÇAO, Willemstad, 4.XII.1899 (some spec., teste Miller, 1900); Cave of Hato and other localities, 1900 (27 spec., teste Miller, 1900; Cave near Hermanus, 1885 (3 spec., mus. Leiden, cf. Martin); Cave of Hato, 16.IX.1936, St. 219 (13—14). ARUBA, Seroe Canashito, 7.XII.1936 (15—16); Cave near Fontein, 1885 (1 spec., mus. Leiden).

The specimens do not agree with the description of *G. elongata*, though partly coming from the type-locality of that species; *G. elongata* is therefore provisonally treated under *G. soricina*. The specimens from the Testigos-islands, which, on geographical grounds, could be attributed to *G. longirostris* Miller, differ from those of Bonaire, Curaçao and Aruba in having larger ears and a longer free tip of tail.

According to Miller, 1913, *G. soricina* is distributed over the entire continent from Brasil and Paraguay to central Mexico, with the Tres Marias-islands and Jamaica; *G. longirostris* appears to be restricted to the coast-region of northern South America and the southern Caribbees; *G. elongata* is confined to Curaçao. Los Testigos!, Margarita, Bonaire!, Curaçao, Aruba!.

Leptonycteris curasoae Miller, 1900

Miller, 1900, p. 126; Trouessart, 1904, p. 114 (sub *curacaoae*).

CURAÇAO, 1899? (1 spec., teste Miller). ARUBA, Cave of Quadirikiri, 29.VI. 1930 (Leptonycteris 1—7).

Curaçao, Aruba!.

NATALIDAE

Phodotes tumidirostris (Miller, 1900)

Miller, 1900, p. 160 (sub *Natalus*); Osgood, 1910, p. 30.

CURAÇAO, Cave of Hato, 1.V.1900 (2 spec., teste Miller); Curaçao, 1908 (2 spec., teste Osgood).

Curaçao. A subspecies *continentis* Thomas has been described from the mainland of Venezuela; the related species *stramineus* (Gray), distributed from Mexico to Brasil, has been recorded from Dominica and Hispaniola.

VESPERTILIONIDAE

Myotis nigricans (Wied, 1823)

van der Horst, 1924, p. 5. — *Myotis nesopolus* Miller, 1900, p. 123; Osgood, 1912, p. 65.

CURAÇAO, Willemstad, 4.XI.1899 (1 spec., teste Miller); Fort Beekenburg, 8.IV.1920 (1 spec., mus. Amsterdam, cf. van der Horst); Willemstad, spring 1940 (1 spec., fr. M. Realino don.; doubtful).

Finding no differences to justify the existence of a *M. nesopolus*, this species is treated provisionally under *M. nigricans*.

Mexico to Brasil, Argentina and Bolivia, West Indies; Curaçao. *M. nesopolus* should be confined to Curaçao.

Rhogeëssa minutilla Miller, 1897

Robinson, 1896, p. 651 (sub *Vesperugo parvulus*); Miller, 1897, p. 139 (non viso); Allen, Gl. M., 1902, p. 95.

MARGARITA, 8.VII.1895 (1 spec., teste Allen et Robinson); El Valle, VII.1901 (1 spec., teste Allen).

Margarita. Very closely related to *R. tumida* H. Allen and *R. io* Thomas from the Venezuelan mainland.

MOLOSSIDAE

Molossus major (Kerr, 1792)

Allen, Gl. M., 1902, p. 96 (sub *obscurus*); Werner, 1925, p. 556 (? sub *rufus*).

MARGARITA, El Valle, VII.1901 (3 spec., teste Allen); Guatamare, near El Valle, 25.V.1936 (Molossus 1—2). BONAIRE, 1925 (?teste Werner); Dos Pos, 5.VI.1930 (Moloss. 3—5); Hofje Fontein, 22.V.1930 (6—7); Kralendijk, 24.X.1930 (8).

Werner's record of *M. rufus* from Bonaire might possibly refer to this species.

M. major, narrowly delimitated according to Miller, 1913, occurs in Dominica, Trinidad and northern Venezuela; in its wider sense, considered identical with *M. obscurus* Geoffroy, it has a distribution from Central America and the West Indies to Perú and Brasil. Margarita, Bonairel.

Molossus pygmaeus Miller, 1900

Miller, 1900, p. 162; Miller, 1913, p. 92.

CURAÇAO, Willemstad, 16.I.1900 (1 spec., teste Miller); Hofje Porto Marie, 18.IV.1930 (Molossus 9).

Possibly confined to Curaçao, but with several resembling forms on the continent.

MARSUPIALIA

DIDELPHYIDAE

Philander trinitatis venezuelae (Thomas, 1903)

Allen, Gl. M., 1902, p. 92 (sub *Caluromys philander*); Pittier et Tate, 1932, p. 253.

MARGARITA, El Valle, 12.VII.1901 (1 female, 3 juv., teste Allen). Sucre; Margarita.

Marmosa mitis robinsoni Bangs, 1898

Robinson, 1896, p. 651 (sub *Didelphys murina*); Bangs, O., 1898, p. 95 (sub *robinsoni*); Allen, Gl. M., 1911, p. 194 (sub *robinsoni*); Tate, 1933, p. 118.

MARGARITA, El Valle?, 12.VII.1895 (3 spec., teste Bangs et Robinson).

Sucre; Margarita.

SAURIA

GEKKONIDAE

Gonatodes albogularis (Duméril et Bibron, 1836)

Cope, 1885, p. 180, 182 (sub *Goniodactylus*); Stejneger, 1917, p. 265; de Rooy, 1922, p. 250; Ruthven, 1923, p. 2; Cochran, 1934, p. 4.

GOAJIRA, Tucacas, St. 286 (Gonatodes 76—79); Cabo de la Vela, St. 290 (Gonat. 80—81); Uribia, St. 288 (82—86); Rio Hacha, 18.I.1937 (87). ARUBA, teste Cope. CURAÇAO, Pietermaai, II.1940 (88—91; fr. Realino don.); mus. Amsterdam, cf. de Rooy; teste Cope, Ruthven, Cochran.

Machurito, curumachár, culumasár (Goaj.); totekkie, toertiekie (Cur.).

The records for Curaçao and Aruba might possibly refer to recently introduced specimens.

Colombia, Venezuela; Aruba, Curaçao.

Gonatodes vittatus (Lichtenstein, 1856)

Boulenger, 1885 I, p. 60; Ruthven, 1923, p. 2.

PARAGUANA, Carirubana, 15.II.1937 (Gonatodes 1—7); Cerro Transverso, St. 280 (Gonat. 8). LA GUAIRA, Cabo Blanco, St. 121 (9—10). GUANTA, St. 122 (11—12). CARÚPANO, Esmerarda, St. 124 (13—14); Puerto Santo, St. 125 (15—19). ARAYA, Chacopata, St. 127 (20—22); Isla de Caribes, St. 128 (23). COCHE, St. 129 (observed). CUBAGUA, St. 130 (24). MARGARITA, La Asunción, St. 148 (25); Porlamar, St. 155 (26—35); Porlamar, 4.VIII.1936 (36—37); Morro Moreno, 8.VII.1936 (38); Isla Blanca, St. 156 (39—43). TESTIGOS, Morro de la Iguana, St. 158

(44); Chiwo, St. 159 (45—51); Angoletta, St. 160 (52—54); Isla de Conejo, St. 165 (55). FRAILES, Puerto Real. St. 166 (56); La Pecha, St. 168 (57—61). CURAÇAO, mus. Leiden, Schilt coll.; teste Boulenger. ARUBA, Heintje Croes, St. 276 (62—67); Oranjestad, 22.XII.1936 (68—69); Oranjestad, 24.XII.1936 (70); Oranjestad 4.I.1937 (71); Oranjestad (72—75). — Tab. XII.

Mea-mea (E. Venez.); lagartija (Parag.); totekkie, toertiekie (Ar.).

The records for Curaçao were perhaps based on introduced specimens or may be due to inexact labelling.

Colombia, Venezuela, Southern Lesser Antilles; Margarita!, Coche!, Cubagua!, Los Testigos!, Los Frailes!, Curaçao?, Aruba.

Gonatodes spec. (? albogularis aff.)

TORTUGA, St. 173 (Gonatodes 92—94). ORCHILA, Huespen, St. 175 (Gonat. 95).

Mea-mea.

Tortuga!, Orchila!.

Gonatodes spec. (? vittatus aff.)

ROQUES, Gran Roque, St. 176 (Gonatodes 96).

Mea-mea.

Los Roques!.

Gonatodes spec. (? Gymnodactylus aff.)

HERMANOS, Morro Pando, St. 170 (Gonatodes 97—100; 97 and 100 in Rijksmuseum van Natuurlijke Historie, Leiden; 98—99 in Zoölogisch Museum, Amsterdam); Morro Fondeadero, St. 169 (observed).

Mea-mea.

Characters. Snout acutely pointed, somewhat concave mediodorsally, 3—3½ mm long, equalling height of head, ¾ headwidth, ½ distance from tip of snout to ear, 1¼ distance from ear to posterior eye-border; tip of snout to vent 23—25 mm; length of foreleg abt. 7 mm, of hindleg abt. 10 mm; generally 12 lamellae beneath fourth finger, 14 beneath fourth toe; about 40(—45) scales between anterior border of foreleg and vent; tubercles in gular region abt. ⅔ size of those in middorsal region; upperparts greyish (in life reddish), without any well marked design, underparts much lighter. — Juveniles with a well marked laterodorsal, dark-brown stripe, abruptly beginning in occipital region, narrowing and becoming more vague on tail; each stripe with an irregular series of several spots in groundcolour medially, with a little yellow dot in each centre anteriorly; two narrow yellow stripes below and above the eye, disappearing in occipital region.

Los Hermanos!.

Gymnodactylus antillensis van Lidth de Jeude, 1887

van Lidth de Jeude, 1887, p. 129; de Rooy, 1922, p. 250; Ruthven, 1923, p. 2; Werner, 1925, p. 534; Cochran, 1934, p. 4.

ORCHILA, teste Cochran. AVES, Ave de Barlovento, St. 179A (Gymnodactylus 1—17); Ave de Barlovento, St. 179 (Gymnod. 18—32). BONAIRE, Bronswinkel, St. 198 (33—36); Salinja Tam. 23.XI.1930 (37); Dos Pos, 24.V.1930 (38—41); Dos Pos, 7.VI.1930 (42); Tanki Onima, St. 194 (43—46); Fontein, St. 191 (47—49); Spelonk, 23.XI.1930 (50—51); Spelonk, St. 187 (52); Kralendijk, 21.VIII.1930 (53—54); Kralendijk, 14.IX.1930 (55—56); Kralendijk, 29.IX.1930 (57—67); Kralendijk, 6.X.1930 (68—70); Kralendijk, 1.XII.1930 (71—80); Lima, St. 184 (81). KLEIN BONAIRE, 10.IX.1930 (82). KLEIN CURAÇAO, St. 200 (83—90). CURAÇAO, Ronde Klip, St. 201 (91); S. Mainsjie, St. 203 (92—93); Seinpost, St. 204 (94—96); Tafelberg, St. 206 (97); Newport, St. 207 (98—99); Newport, St. 208 (100); Quarantaine, St. 210 (101); Willemstad, V.1939 (102); S. Pretoe, St. 213 (103—104); Piscadera, 8.IX. 1936 (105—106); Piscadera, 10.III.1937 (107); Evertszberg, St. 214 (108); Hato, St. 217 (109—111); S. di Cueba, St. 227 (112); Hofje Savonet, 4.V.1930 (113); Westpunt, St. 238 (114); S. Djerimi, St. 242 (115); S. Pieter, Lagoen, 22.IV.1930 (116—118); Pietermaai, II.1940 (119—127, fr. Realino don.); Scherpenheuvel, II.1940 (128—135, fr. Realino don.); Brakke Put Ariba, II.1940 (136—155, Realino don.). — Tab. XII.

Toertiekie, totekki (Cur., Bon.); mea-mea (Aves).

Referring to the type-locality of this species, van Lidth de Jeude stated that "Many specimens were captured in Curaçao and Aruba"; further investigations proved, however, that the latter locality may be safely excluded. The occurrence on Orchila could not be ascertained.

Curaçao, Klein Curaçao, Bonaire, Klein Bonaire, Las Aves!, Orchila.

Phyllodactylus martini van Lidth de Jeude, 1887

van Lidth de Jeude, 1887, p. 130; de Rooy, 1922, p. 250 (sub *julieni*); Ruthven, 1923, p. 3 (sub *pulcher*); Parker, 1935, p. 482. — *Phyllodactylus pulcher*, Ruthven, 1926, p. 2; Stejneger, 1933, p. 49, Cochran, 1934, p. 4 [p. p.: Bonaire]. *Phyllodactylus julieni*, Hummelinck, 1938, p. 209.

BONAIRE, Kralendijk, 5.XII.1930 (Phyllodactylus 15). KLEIN BONAIRE, teste Ruthven, 1923. CURAÇAO, S. Mainsjie, St. 203 (Phyllod. 16—17); Seinpost, St. 204 (18); Newport, St. 207 (19); Newport, St. 208 (20—21); Emmastad, IX.1930 (22); S. Pretoe, St. 213 (23); Piscadera, 1.IX.1936 (24); Evertszberg, St. 214 (25); S. Spreit, St. 215 (26); Hato, St. 217 (27); S. Teintje, St. 231 (28); S. Pieter, Lagoen, 22.IV.1930 (29—30); Scherpenheuvel, II.1940 (38—39, Realino don.); Brakke Put Ariba, II.1940 (40—48, Realino don.).

Toertiekie pega-pega, totekkie pegapega, pega-pega.

Characters (together with 8 additional specimens from Curaçao). Large-tubercles on back well developed, distinctly keeled, escutcheon-shaped, sharp, central ones in well defined longitudinal rows, slightly and gradually smaller towards sides; region between eye and ear with irregularly placed, strongly developed, sharp large-tubercles; supraocular tubercles slightly or distinctly enlarged, the largest exceeding those of frontal region; 2 postmentals, usually

broadly in contact; upper postnasals as a rule separated by 3 tubercles, the middle-one equalling the others or smaller, sometimes with two small tubercles in centre; (16—)18—20(—22) longitudinal dorsal rows of large-tubercles between anterior border of forelimb and level of vent; (18—)20—24(—26) longitudinal ventral rows of scales; (38—)40—44(—46) transversal ventral rows of scales, between anterior border of forelimb and vent; 11—13 transverse lamellae beneath fourth toe, about 10—11 beneath fourth finger.

Curaçao, Bonaire, Klein Bonaire; Puerto-Rico?.

Phyllodactylus julieni Cope, 1885

Cope, 1885, p. 180; Ruthven, 1923, p. 3 (sub *pulcher*) [p. p.: Aruba]; Burt et Burt, 1933, p. 9 (sub *spatulatus*) [p. p.: Aruba]; Parker, 1935, p. 482. — *Phyllodactylus spatulatus*, Ruthven, 1926, p. 2. *Phyllodactylus pulcher*, Cochran, 1934 [p. p.: Aruba].

ARUBA, Fontein, 2.VII.1930 (Phyllodactylus 31); Rooi Spoki, St. 255 (Phyllod. 32); S. Canashito, St. 266 (33); S. Jamanota, St. 270 (34—35); Baca Morto, Oranjestad, 16.XII.1936 (36); Tibusji, St. 273 (37). — Tab. XIII.

Totekki pegapega, pega-pega.

Characters. Large-tubercles on back well developed, distinctly keeled, escutcheon-shaped, rather sharp, central-ones in rather well defined longitudinal rows, distinctly smaller towards sides; region between eye and ear with rather regularly placed, rather well developed, rather sharp large-tubercles; supraocular tubercles slightly or rather distinctly enlarged, the largest exceeding those of frontal region; usually 3 postmentals, sometimes 2, which are narrowly in contact; upper postnasals commonly separated by 3 tubercles, the middle-one nearly equalling the others or smaller, very often separated by 4 tubercles, with two small tubercles in centre; about 24—26 longitudinal dorsal rows of large-tubercles; about 34—42 transversal dorsal rows of large-tubercles, between anterior border of forelimb and level of vent; 22—26 longitudinal ventral rows of scales; about 38—44 transversal ventral rows of scales, between anterior border of forelimb and vent; about 12—13 transverse lamellae beneath fourth toe, 11—12 beneath fourth finger.

Aruba.

Phyllodactylus mülleri H. W. Parker, 1935

Parker, 1935, p. 483.

ARAYA, Isla de Caribes, St. 128 (Phyllodactylus 1). MARGARITA, Punta Mosquito, St. 152 (Phyllod. 2—4); Porlamar, 7.VI.1936 (5); Porlamar, 12.VII.1936 (6); Porlamar, 4.VIII.1936 (7); Morro Moreno, Porlamar, 8.VII.1936 (8—9).

Salamanqueja.

Characters. Large-tubercles on back well developed, distinctly keeled, escutcheon-shaped, sharp, central-ones in well defined longitudinal rows, slightly and gradually smaller towards sides; region between eye and ear with rather irregularly placed, well developed, sharp large-tubercles; supraocular tubercles subequal, the largest smaller than those of frontal region; 2 postmentals, broadly in contact; upper postnasals separated by 2 or 3 tubercles, the middle-one

smaller and situated anteriorly; 16—18 longitudinal dorsal rows of large-tubercles; 24—30 transversal dorsal rows of large-tubercles, between anterior border of forelimb and level of vent; 20—24 longitudinal ventral rows of scales; 40—46 transversal ventral rows of scales, between anterior border of forelimb and vent; 13—14 transverse lamellae beneath fourth toe, about 10 beneath fourth finger.

Northern Venezuela, Patos Island near Trinidad; Isla de Caribes near Cochel, Margarital.

Phyllodactylus rutteni sp. nov.

Holotype: Rijksmuseum van Natuurlijke Historie, Leiden, collector's nr. Phyllodactylus 11. Type-locality: Isla Blanquilla (Venezuela), Valuchu. Description: Rather juvenile female?, with broad transverse bands of white and brown; tip of snout to vent 31 mm, regenerating tail 24 mm, 3 postmentals, upper postnasals separated by 3 tubercles, about 28 longitudinal dorsal rows of large-tubercles, about 42 transverse rows of large-tubercles between anterior border of forelimb and level of vent, about 26 longitudinal ventral rows of scales, about 46 transversal rows of scales between anterior border of forelimb and vent, 12 transverse lamellae beneath fourth toe, 10 beneath fourth finger.

Paratypes: Rijksmuseum van Natuurlijke Historie, Leiden, coll. nr. Phyllod. 12, topotypical, and Phyllod. 10. Zoölogisch Museum, Amsterdam, coll. nr. Phyllod. 13, topotypical, and Phyllod. 14. — Named in honour of Prof. Dr. L. M. R. Rutten, geologist, Utrecht.

Diagnosis (compared with *P. martini, P. julieni* and *P. mülleri*). Large-tubercles on back weakly developed, indistinctly keeled, round, blunt, central-ones in ill defined longitudinal rows, rapidly smaller and becoming indistinguishable towards sides; region between eye and ear with scattered, weakly developed, flat large-tubercles; supraocular tubercles very slightly enlarged, the largest usually exceeding those of frontal region; 3 or 2 postmentals; upper postnasals separated by 3 tubercles, the middle-one equalling the others or smaller and situated anteriorly; about 26—30 longitudinal dorsal rows of large-tubercles; about 36—46 transversal dorsal rows of large-tubercles, between anterior border of forelimb and level of vent; about 24—30 longitudinal ventral rows of scales; about 44—50 transversal ventral rows of scales, between anterior border of forelimb and vent; about 12—13 transverse lamellae beneath fourth toe, about 11 beneath fourth finger.

HERMANOS, Morro Pando, St. 170 (Phyllodactylus 10). BLANQUILLA, Valuchu, St. 171, 21.VII.1936 (Phyllod. 11); El Jaque, 22.VII. 1936 (12—13). TORTUGA, St. 173? (observed). ROQUES, Gran Roque, St. 176 (14).

Salamanqueja.

Los Hermanos!, Blanquilla!, Los Roques!.

Thecadactylus rapicaudus (Houttuyn, 1782)

Martin, 1888 I, p. 141; Ruthven, 1923, p. 3; Werner, 1925, p. 535. TESTIGOS, Isla de Conejo, St. 165 (Thecadactylus 1—2). BONAIRE, teste Martin, Ruthven, Werner. CURAÇAO, S. Teintje, St. 231

(Thecad. 3—4); Curaçao, s.d. (5). ARUBA, Santa Cruz, 23.XII.1936 (6); Oranjestad, 21.XII.1936 (7—9); Oranjestad, VI.1936 (10). TRINIDAD, Tetron Bay, St. 295 (11).

Salamanqueja (Test.); pega-pega (Cur., Ar.).

Tropical South America, Central America, West-Indies, Trinidad; Los Testigos!, Bonaire, Curaçao, Aruba.

IGUANIDAE

Anolis lineatus Daudin, 1802

Ruthven, 1923, p. 7; Barbour, 1930, p. 131.

CURAÇAO, Seinpost, St. 204 (Anolis 147—148); Tafelberg, St. 205 Anol. 149); Tafelberg, St. 206 (150); Newport, St. 207 (151); Newport, St. 208 (152); Scherpenheuvel, 12.IX.1936 (153—159); Emmastad, X.1930 (160); Piscadera, 10.III.1937 (161); Evertszberg, St. 214 (162—164); S. Spreit, St. 215 (165); Hato, St. 217 (166—173); S. Cabajé, St. 225a (174); Dokterstuin, 27.X.1936 (175); S. di Cueba, St. 227 (176—177); S. di Cueba, St. 228 (178—179); Zevenbergen, 23.IV.1930 (180—181); Hofje Savonet, 27.IV.1930 (182—183); Boca Grandi, 30.IV.1930 (184); Westpunt, St. 238 (185—187); Plaja Abau, St. 241 (188); St. Kruis, 21.IV.1930 (189—191); Curaçao, s. d. (192—194); Scherpenheuvel, II.1940 226—227, fr. Realino don.). ARUBA, Fontein, 5.VII.1930 (195—197); Rooi Lamoenchi, St. 257 (198—204); S. Canashito, St. 266 (205); Hooiberg, 20.VI.1930 (206—211); Pos di Noord, 26.VI.1930 (212—215); Westpunt, St. 274 (216); Solito, St. 275 (217—219); Bubali, 22.XII.1936 (220); Heintje Croes, 18.VI.1930 (221—222); Oranjestad, 17.VI.1930 (223—224); Oranjestad, 5.VII.1930 (225). — Tab. XIV.

Waltaka, kako, ragadiesjie die paloe.

Curaçao, Aruba.

Anolis bonairensis bonairensis Ruthven, 1923

Anolis bonairensis Ruthven, 1923, p. 4; Werner, 1925, p. 536. — *Anolis leachii*, Hartert, 1902, p. 294 [prob.]. *Anolis alligator*, Meek, 1910, p. 416 [prob.].

AVES [prob.], teste Meek. BONAIRE, Dos Pos, 24.V.1930 (Anolis 29—30); Rincón, 25.V.1930 (Anol. 31—59); Fontein, 21.IX.1930 (60—61); Spelonk, 23.XI.1930 (62); Bolivia, 2.IV.1937 (63—75); Kralendijk, 25.IX.1930 (76—101); Kralendijk, 28.IX.1930 (102—137); Kralendijk, 20.XI.1930 (138—140); Kralendijk, 28.III.1937 (141). KLEIN BONAIRE, 17.X.1930 (142); Klein Bonaire, St. 199 (143—145); Klein Bonaire, St. 199a (146).

Ragadiesjie die paloe, kako.

Characters (compared with *A. bonairensis blanquillanus*). As a rule with black crossbars, rarely vermiculated with black; design generally distinct on head and whole back; adult males about 60—70(—75) mm, females 50—55 (—60) mm from tip of snout to vent; distance from snout-tip to anterior border of ear *1.25* length of tibia; occipital scale usually in contact with one or two

pairs of the scales of the supraorbital semicircles; scales of supraorbital semicircles often separated, commonly one pair, very often two pairs in contact; (22—)23—*25*—26(—27) lamellae under phalanges II and III of fourth finger.

Bonaire, Klein Bonaire, Las Aves?.

Anolis bonairensis blanquillanus subsp. nov.

Holotype: Rijksmuseum van Natuurlijke Historie, Leiden, collector's nr. Anolis 15. Type-locality: Isla Blanquilla (Venezuela), El Jaque. Description: Adult male; tip of snout to vent 81 mm, id. to ear 21 mm, tibia 18½ mm, hindleg 56 mm, foreleg 35 mm, tail 133 mm regenerating; 23 lamellae under phalanges II and III of fourth finger, 27 under those of fourth toe; occipital scale in contact with 3 scales of the supraorbital semicircles, two pairs of scales of the supraorbital semicircles in contact; greyish, on headtop and sides of neck with distinct black vermiculations, gular appendage rather large, in life yellow with whitish speckles (in females much smaller and whitish), tail-tip abnormal white in colour.

Paratypes: Rijksmuseum van Natuurlijke Historie, Leiden, coll. nr. Anolis 7, 16—17. Zoölogisch Museum, Amsterdam, coll. nr. Anolis 8—10. Zoölogisch Museum, Utrecht, coll. nr. Anolis 1—3, 6, 28.

Diagnosis (compared with *A. bonairensis bonairensis*). Usually vermiculated with black, sometimes with black crossbars; design generally distinct on head and anterior part of back only; adult males about 80—85 mm, females 60—65 mm from tip of snout to vent; distance from snout-tip to anterior border of ear *1.15* length of tibia; occipital scale in contact with, as a rule, two pairs of the scales of the supraorbital semicircles; scales of supraorbital semicircles never separated, usually two pairs in contact; (22—)23—*23.5*—25(—26) lamellae under phalanges II and III of fourth finger.

LOS HERMANOS, Morro Fondeadero, St. 169 (Anolis 1—6). BLANQUILLA, Playa Valuchu, 21.VII.1936 (Anol. 7); Plantió del Jaque, St. 172, 22.VII.1936 (8—28).

Los Hermanos!, Blanquilla!.

Anolis chrysolepis Duméril et Bibron, 1837

Hartert, 1902, p. 294.

CURAÇAO, teste Hartert.

Referring possibly to an introduced specimen.

Venezuela, Trinidad, Guyana, Brasil; Curaçao?.

Iguana iguana iguana (Linné, 1758)

Boulenger, 1885 II, p. 189 (sub *tuberculata*); Meek, 1910 (sub *tuberculata*); Dunn, 1934, p. 1.

GOAJIRA, Rio Hacha, 19.I.1937 (Iguana 1—3). PARAGUANA, Carirubana, 16.II.1937 (Ig. 4). CARÚPANO, Puerto Santo, St. 125 (5). ARAYA, Isla de Caribes, St. 128 (6—9). MARGARITA, Guatamare, near El Valle, 26.V.1936 (10—12, 29—34); Porlamar, 31.V.1936 (13, 16—25,

TABLE 8.

Variation in *Anolis bonairensis bonairensis* (ordinary numbers) and *Anolis bonairensis blanquillanus* (in thick type)

tibia, in mm

tip of snout to anterior border of ear, in mm

	8	8½	9	9½	10	10½	11	11½	12	12½	13	13½	14	14½	15	15½	16	16½	17	17½	18	18½	19	19½	20	totals
11	1		**1**																							1 **1**
11½			1																							1
12		1			1																					2
12½				3	1																					4
13					2																					2
13½					1	3	2																			6
14						1	6	5	**1**																	12 **1**
14½							2	5	1	**1**																8 **1**
15							1	4	9	**12**			**1**													15 **3**
15½								1	2	1	1	**1**	**1**													5 **2**
16											3	**1**														3 **1**
16½											1	2	2													5
17											1	4	4	1	21	**3**										12 **4**
17½												1	6	2	**2**	**1**	1									9 **4**
18													1	5	7	1										14
18½														1	3	2	2									8
19															1	3	41					1				8 **2**
19½																1										1
20																	1									1
20½																							1			**1**
21																				1	1		2	1		1 **4**
21½																							1		2	**3**
22																							1			**1**
totals	1	1	1 **1**	3	5	4	11	15	12 **1**	2 **3**	6	7 **2**	13 **2**	9	13 **3**	7 **4**	7 **2**			1	1	1	5	1	2	118 **28**

28, 35—36); Porlamar, 27.V.1936 (14—15, 37—39); Porlamar, 19.V.1936 (26—27); Laguna Dulce, Macanao, 20.V.1936 (40). TESTIGOS, Morro de la Iguana, St. 157 (41—42); Tamarindo, St. 162 (52); Isla de Conejo, St. 164 (observed). FRAILES, Puerto Real, St. 167 (observed); La Pecha, St. 168 (43). HERMANOS, Morro Pando, St. 170 (44—46); Morro Fondeadero, St. 169 (observed;? 47—50). BLANQUILLA, Valuchu, St. 171 (51). TORTUGA, St. 173 (observed). ORCHILA, Huespen, St. 175 (observed). ROQUES, Gran Roque (observed). AVES, teste Meek. BONAIRE, Lima, 24.VIII.1930 (53—54); Lima, 29.VIII.1930 (55); Rooi Lamoenchi, 15.X.1930 (56); Rincón, 10.V.1930 (57); Slagbaai, 3.XI.1930 (58); Slagbaai, 11.XI.1930 (59). KLEIN BONAIRE, St. 199 (observed). CURAÇAO, St. Kruis, 25.IV.1930 (61—62); S. Cabajé, Porto Marie, 19.IV.1930 (60, 63—67). ARUBA (observed).

Iguana (adult), camaleón (juvenile) (Venez., Colomb.); joewana (Cur., Ar., Bon.), tjoetjoe (juvenile) (Bon.).

The adult specimens of the Frailes Islands are in general noticeably obscured by a dull brownish grey; those of Blanquilla often vary, but might even be blackish. The adults of the Hermanos Islands, however, are largely smoky-black, only the broad bands on the tail being indistinctly visible.

Central and northern South America, Central America, West Indies; Margarita, Los Testigos!, Los Frailes!, Los Hermanos, Blanquilla, Tortuga!, Orchila, Los Roques!, Las Aves, Bonaire, Curaçao, Aruba.

Tropidodactylus onca (O'Shaughnessy, 1875)

Boulenger, 1885 II, p. 97; Ruthven, 1922, p. 59; Cochran, 1934, p. 40.

GOAJIRA, Cabo de la Vela, St. 290 (Tropidodactylus 1—2); Rancheria de la Vela, St. 289 (Tropidod. 3); El Cardón, St. 291 (4). PARAGUANA, Las Piedras, 24.II.1937 (5—7); Carirubana, 20.II.1937 (8—9); Carirubana, 24.II.1937 (10—11); Santa Ana, St. 284 (12); Barunú. Buena Vista, 18.II.1937 (13). MARGARITA, La Asunción, St. 147 (14—15); Los Robles, St. 154 (16—18); Los Robles, 11.VIII.1936 (19); Morro de Moreno, 8.VI.1936 (20); Porlamar, 27.V.1936 (21—34).

Ocório (Goaj.); aguacero (Parag.); camaleón (Marg.).

Adpressed hind-limb reaching from posterior border of tympanum to anterior border of orbit, may sometimes be shorter or longer; (8—)9—10(—12) labials to below of eye-centre. — The scales of the occipital region in the Margarita specimens are in general noticeably smaller than in those of the continent; in addition several specimens of this island show no traces of rhomboidal spots on the back, but are darkly punctuated or vermiculated.

Northern South American; Margarita.

Tropidurus torquatus hispidus (Spix, 1825)

Meek, 1910, p. 416 (sub *hispidus*); Burt et Burt, 1933, p. 48; Cochran, 1934, p. 40.

CARÚPANO, Puerto Santo, St. 125 (Tropidurus 1); Esmerarda, St. 123 (Tropidur. 2). ARAYA, Isla de Caribes, St. 128 (3); Morro de Chacopata.

St. 127 (observed). COCHE, St. 129 (observed). MARGARITA, Boca del Pozo, Macanao, 20.V.1936 (4—8); Laguna Dulce, Macanao, 20.V.1936 (9—15); Puerto Manzanillo, 11.V.1936 (16); Porlamar, 27.V.1936 (17—19); Porlamar, 29.V.1936 (20—48). TESTIGOS, Tamarindo, St. 162 (49—51); Tamarindo, St. 163 (52); Isla de Conejo, St. 164 (53—55). FRAILES, Puerto Real, St. 167 (observed); La Pecha, St. 168 (observed). AVES, teste Meek.

Guaripete.

Meek's record of this species from the Aves Islands is remarkable.

Northern South America, Margarita, Coche!, Los Testigos!, Los Frailes!, Las Aves.

TEIIDAE

Ameiva bifrontata bifrontata Cope, 1862

Cope, 1862, p. 67 (sub *bifr.*); Ruthven, 1922, p. 61 (sub *bifr.*); Ruthven, 1923, p. 7 (sub *bifr.*); Barbour et Noble, 1915, p. 469; Ruthven, 1924, p. 6. — *Cnemidophorus divisus* Fischer, 1879, p. 99 (non viso). *Ameiva divisus,* Ruthven, 1913, p. 1. *Ameiva bifrontata divisus,* Ruthven, 1922, p. 60. *Ameiva bifrontata divisa,* Ruthven, 1924, p. 6. *Ameiva insulana* Ruthven, 1924, p. 1. *Ameiva bifrontata insulana,* Ruthven, 1924, p. 6. *Cnemidophorus arubensis,* de Rooy, 1922, p. 252 [p. p.: female Aruba].

GOAJIRA, Puerto López, St. 285 (Ameiva 1); Cabo de la Vela, St. 289 (Am. 2); Rio Hacha, 18.I.1937 (3—128). PARAGUANA, Carirubana, 19.II.1937 (129—179); Santa Ana, 16.II.1937 (180). CARÚPANO, Puerto Santo, St. 125 (181—187). ARAYA, Isla de Caribes, St. 128 (observed). CUBAGUA, St. 130 (188). MARGARITA, Boca del Pozo, Macanao, 20.V.1936 (189—192); Laguna Dulce, Macanao, 20.V.1936 (193—194); Puerto Manzanillo, 11.V.1936 (195—205); Punta Ballena, Pampatar, 9.V. 1936 (206—214); Los Robles, St. 154 (215); Guatamare, 28.V.1936 (216—219); Porlamar, 19.V.1936 (220—223); Porlamar, 28.V.1936 (224—248); Porlamar, 30.V.1936 (249—250); Porlamar, 5.VIII.1936 (251—257). TESTIGOS, Morro de la Iguana, St. 157 (258—315); Tamarindo, St. 161—163 (316—326); Isla de Conejo, St. 164—165 (327—333). FRAILES, Puerto Real, St. 166—167 (334—335); La Pecha, St. 168 (observed). ARUBA, Hofje Bubali, 22.XII.1936 (336); Oranjestad, 23.XII.1936 (337).

Mato (Venez.); bizure (Parag.); mato, lobo (Goaj.).

The specimens of the Testigos Islands, described by Ruthven as *Ameiva insulana,* might be separable as some lower taxonomic unit from the more typical specimens, principally on the pronounced discontinuity of the brachials and antebrachials. This is the only character in which the specimens of Los Frailes differ from the average-specimen of Puerto Manzanillo, Margarita. — The variation of *Ameiva bifrontata* suggests a rather doubtful value of the distinguishing characters of the subspecies *divisa* Fischer. — The specimens of Aruba are typical in scalation; the black spots being absent or practically absent as in some specimens of Paraguaná.

Northern Venezuela, Colombia, northern Perú; Margarita!, Cubagua!, Los Testigos, Los Frailes!, Aruba.

Ameiva ameiva (Linné, 1758)

Werner, 1900, p. 266 (sub *surinamensis*); Meek, 1910, p. 417 (sub *surinamensis*).

AVES, teste Meek. CURAÇAO, teste Werner.

Both records might possibly be due to an inexact indication of locality or to introduced specimens.

Central, northern and northeastern South America.

Cnemidophorus lemniscatus lemniscatus (Linné, 1758).

Werner, 1900, p. 266 (sub *lemn.*) [prob. excl. Curaçao]; Burt, 1931, p. 30; Cochran, 1934, p. 44.

GOAJIRA, Puerto López, St. 285 (Cnemidophorus 1—2); Cabo de la Vela St. 289 (Cnemid. 3—6); Rio Hacha, 19.I.1937 (7—55). PARAGUANA, Carirubana, 17.II.1937 (56—60); Carirubana, 15.II.1937 (61); Carirubana, 20.II.1937 (62—73); Carirubana, 19.II.1937 (74—112). LA GUAIRA, 19.VIII.1936 (113—115); Cabo Blanco, St. 121 (116). CARÚPANO, Puerto Santo, St. 125 (117—119); Puerto Santo, St. 126 (120). ARAYA, Chacopata, St. 127 (121); Isla de Caribes, St. 128 (122—128). COCHE, St. 129 (observed). CUBAGUA, St. 130 (129). MARGARITA, Boca del Pozo, Macanao, 20.V.1936 (130—135); San Juan Bautista, 11.VIII.1936 (136); Puerto Manzanillo, 11.V.1936 (137—149); Punta Ballena, Pampatar, 9.V.1936 (150); Cerrito, St. 138 (151); Porlamar, 19.V. 1936 (152—157); Porlamar, 28.V.1936 (158—176); Porlamar, 5.VIII.1936 (177); Playa Brava, Porlamar, 4.VI.1936 (178). TESTIGOS, Morro de la Iguana, St. 157—158 (179—180); Angoletta, St. 160 (181—182); Tamarindo, St. 162—163 (183—191). FRAILES, Puerto Real, St. 166—167 (192—195); La Pecha, St. 168 (observed).

Lagartija (Venez.); bizure (Parag.); lagartija, lobo, culu (Goaj.).

Werner cites Curaçao; this probably refers to an introduced specimen or inexact labelling.

Central America, Colombia, Venezuela, Guyana, northern Brasil, Trinidad, Tobago; Margarita, Cubagua!, Coche!, Los Testigos!, Los Frailes!.

Cnemidophorus lemniscatus nigricolor (Peters, 1873)

Meek, 1910, p. 417 (sub *nigr.*) [p. p.: excl. Aruba et prob. Margarita]; Burt, 1931, p. 40; Eisentraut, 1933, p. 228; Cochran, 1934. p. 44.

HERMANOS, Morro Fondeadero, St. 169 (observed); Morro Pando, St. 170 (observed). BLANQUILLA, Playa Valuchu, 21.VII.1936 (Cnemidophorus 196—203); Puerto del Jaque, 22.VII.1936 (Cnemid. 204—207); El Jaque, St. 172 (208—215). TORTUGA, St. 173 (216—221). ORCHILA, Huespen, St. 174—175 (222—232). ROQUES, Gran Roque, St. 176 (233—239); Isla Larga, St. 177 (240); Cayo de Agua, St. 178 (observed). AVES, Ave de Barlovento, St. 179—179A (241—271).

Lagartija.

According to Burt *nigricolor* intergrades with typical *lemniscatus* on Margarita Island, an observation which could not be confirmed.

Los Hermanos!, Blanquilla, Tortuga!, Orchila, Los Roques, Las Aves.

TABLE 9.

Variation in *Ameiva bifrontata*

Locality	Goajira	Paraguaná	Puerto Santo	Margarita	Testigos
Specimens (Ameiva)	128 (1—128)	52 (129—180)	7 (181—187)	69 (189—257)	76 (258—333)
Brachials discontinuous with antebrachials	very rarely	very rarely	rather often	often	nearly always
Postbrachials small and rounded	rarely	often	rather often	very often	generally
Posterior supraoculars not entirely surrounded with granules	very often	often	rarely	often	often
hind-leg reaching to anterior border of ear or further	often	often	often	very often	generally

TABLE 10.

Variation in *Cnemidophorus*

Locality	Continent	Margarita, Testigos, Frailes	Blanquilla, Orchila, Tortuga, Roques, Aves	Bonaire, Klein Bonaire	Curaçao, Klein Curaçao	Aruba
Specimens (Cnemid.)	128 (1—128)	66 (130—195)	76 (196—271)	51 (272—322)	30 (323—352)	28 (353—380)
Longitudinal rows of ventral plates	as a rule 8, rarely 10	as a rule 8, rarely 10	commonly 8, very often 10	usually 12, sometimes 10, often tending to 14	usually 10, rather often 12	usually 8, rather often 10
Femoral pores	18—23—27	21—23—27	24—28—31	36—39—43	26—29—33	28—31—35
Brachials with antebrachials	usually continuous	generally continuous	generally narrowly continuous	always widely discontinuous	as a rule widely discontinuous	generally narrowly discontinuous
Postbrachials enlarged	generally somewhat	generally somewhat	generally slightly	never	very rarely slightly	generally slightly
Species	*lemniscatus lemniscatus*		*lemniscatus nigricolor*	*murinus ruthveni*	*murinus murinus*	*lemniscatus arubensis*

Cnemidophorus lemniscatus arubensis (van Lidth de Jeude, 1887) comb. nov.

van Lidth de Jeude, 1887, p. 132 (sub *arub.*); de Rooy, 1922, p. 252 (sub *arub.*) [p. p.: excl. female]; Werner, 1925, p. 537 (sub *arub.*) [p. p.: excl. Curaçao]; Burt, 1931, p. 51 (sub *murinus arub.*); Cochran, 1934, p. 43 (sub *murinus arub.*). — *Cnemidophorus lemniscatus*, Martin, 1888 I, p. 141. *Cnemidophorus nigricolor*, Meek, 1910, p. 417 [p. p.: Aruba].

ARUBA, Quadirikiri, St. 250 (Cnemidophorus 353); Fontein, St. 252A (Cnemid. 354); Boca Grandi, St. 253 (355); Culebra, St. 254 (356—357); Rooi Lamoenchi, St. 257 (358); Daimari, 3.VII.1930 (360—361); Santa Ana, 26.VI.1930 (362); Punta Braboe, 22.VI.1930 (363—367); Oranjestad, 17.VI.1930 (368—371); Oranjestad, 21.XII.1936 (372); Oranjestad, 23.XII. 1936 (373—377); Aruba s.d. (378); Boekoeti, St. 278 (379—380). — Tab. XIII.

Blausana, ragadiesjie.

Aruba.

Cnemidophorus murinus murinus (Laurenti, 1768)

Werner, 1900, p. 266 (sub *mur.*); Meek, 1910, p. 417 [p. p.: Curaçao]; de Rooy, 1922, p. 252 [p. p.: Curaçao]; Burt, 1931, p. 46; Cochran, 1934, p. 44 [p. p.: Curaçao]; Burt, 1935, p. 1.

KLEIN CURAÇAO, St. 200A (Cnemidophorus 323). CURAÇAO, S. di Boca, St. 202 (Cnemid. 324); Scherpenheuvel, 10.IX.1936 (325—343); Emmastad, 11.IV.1930 (344); Emmastad, 15.V.1930 (345); Bloemhof, 17.X.1936 (346); Schaarloo, St. 212 (347); Paradijs, 23.IX.1936 (348—349); Piscadera, XII.1936 (350); Dokterstuin, 27.X.1936 (351—352).

Blausana, ragadiesjie.

Some records may be taken to indicate that *C. murinus* occurs in Venezuela, Trinidad and Guyana (cf. Werner, de Rooy; Burt, 1931); they probably refer to introduced specimens or are caused by inexact labelling.

Curaçao, Klein Curaçao.

Cnemidophorus murinus ruthveni Burt, 1935

Hartert, 1902, p. 294 (sub *mur.*); Meek, 1910, p. 417 (sub *mur.*) [p. p.: Bonaire]; Werner, 1925, p. 537 [p. p.: Bonaire]; Cochran, 1934, p. 44 (sub *mur. murinus*) [p. p.: Bonaire]; Burt, 1935, p. 14.

BONAIRE, Dos Pos, 31.V.1930 (Cnemidophorus 272); Dos Pos, 6.VI. 1930 (Cnemid. 273—282); Dos Pos, 3.VI.1930 (283—286); Fontein, 21.IX.1930 (287); Boven Bolivia, 31.III.1937 (288—292); Boven Bolivia, 2.IV.1937 (293—307); Kralendijk, 23.V.1930 (308—312); Kralendijk, 25.VIII.1930 (313—314); Kralendijk, 5.IX.1930 (315—316); Kralendijk, 27.IX.1930 (317); Kralendijk, 20.X.1930 (318—319). KLEIN BONAIRE, 10.IX.1930 (320); Klein Bonaire, 17.X.1930 (321); Klein Bonaire, St. 199a (322).

Ragadiesjie, blausana.

Bonaire, Klein Bonaire.

Gymnophthalmus lineatus (Linné, 1758)

Andersson, 1900, p. 16; Werner, 1925, p. 538 (sub *quadrilineatus*); Burt et Burt, 1930, p. 34.

BONAIRE, Dos Pos, 24.V.1930 (Gymnophthalmus 2); Fontein, St. 193 (Gymnophth. 3—4); Spelonk, 23.XI.1930 (5—7). CURAÇAO, Tafelberg, St. 206 (8); Scherpenheuvel, 10.IX.1936 (9); S. Cabajé, St. 225a (10); S. di Cueba, St. 227 (11); Scherpenheuvel, II.1940 (13—14, fr. Realino don.).

Colebra die mispel, colebra meesteri.

Characters (together with 30 additional specimens from Curaçao). 15 longitudinal scale-rows across abdomen; (34—)36—37(—39) transversal scale-rows between occiput and vent; nasal entire, rather often with a faint indication of a lower suture, rarely with a lower suture; (5—)6 femoral pores on each side, in males; 2 yellowish-white longitudinal bands on each side.

Brasil, prob. northeastern South America; Bonaire, Curaçao.

Gymnophthalmus laevicaudus (Cope, 1870)

Ruthven, 1922, p. 64 (sub *sumichrasti*); Burt et Burt, 1930, p. 33.

AVES, Ave de Barlovento, St. 179 (Gymnophthalmus 1). ARUBA, St. Nicolaas, VII.1937 (Gymnophth. 12).

Madre de culebra (Aves); colebra die mispel (Ar.).

Characters. 13 longitudinal scale-rows across abdomen; 33—35 transversal scale-rows between occiput and vent; nasal entire, with a faint indication of a lower suture, or not entire; about 6 femoral pores on each side; 1 yellowish-white longitudinal band on each side anteriorly. — On the continent possibly not clearly separated from *G. lineatus* (cf. Ruthven).

Central Chile to southern Mexico, Venezuela; Aruba!, Las Aves!.

Tretioscincus bifasciatus (Duméril, 1851)

Cope, 1885, p. 181; Ruthven, 1922, p. 63; Ruthven, 1923, p. 9.

MARGARITA, La Asunción, St. 148 (Tretioscincus 1). HERMANOS, Morro Pando, St. 170 (observed). ARUBA, teste Cope et Ruthven, 1923.

Madre de culebra (Marg.).

Northeastern Colombia and northwestern Venezuela; Aruba, Los Hermanos!, Margarita!.

GASTROPODA

ARCHAEOGASTROPODA

HELICINIDAE

Alcadia dysoni (Pfeiffer, 1859)

Baker, 1923, p. 14; Richards, 1938, p. 174.

GUANTA, Stat. 122. CARÚPANO, St. 123. MARGARITA, 135, 138, 139, *139A*, 140, *141*, *144*, *145*, *146*, 154A, 155. TESTIGOS, *157*, 158, *162*.

Venezuela, Trinidad, Bay Islands of Honduras; Los Testigos!, Margarita!.

Lucidella lirata (Pfeiffer, 1847)

Baker, 1923, p. 22.
GUANTA, Stat. 122. MARGARITA, St. 138, 140, *143, 144, 150.* BONAIRE, Riscado near Goto, 1930. CURAÇAO, *234, 235,* Bak Rincón near Hato, 1936.
Venezuela, Central America, West Indies; Margarita!, Bonaire!, Curaçao!.

Stoastomops walkeri Baker, 1924

Baker, 1924. p. 33.
BONAIRE, Stat. 184, *190*; Klein Bonaire, teste Baker.
Bonaire, Klein Bonaire.

MESOGASTROPODA

CYCLOPHORIDAE

Poteria translucida (Sowerby, 1843)

Baker, 1923, p. 31.
MARGARITA, Stat. 141, *143, 144.*
Venezuela, Colombia, Trinidad; Margarita!.

LITTORINIDAE

Tectarius muricatus (Linné, 1758)

CURAÇAO, Stat. *74A.* — Very common on the rocky shores of Curaçao, Aruba and Bonaire, often occurring at a considerable distance from the water-line, as far as the salt-water spray reaches, rarely with *Cerion* and *Tudora;* in this case a living specimen was found in a small fresh-water pool, about 700 m from the sea.

POMATIASIDAE

Cistulops raveni (Crosse, 1872)

Baker, 1924, p. 37. — *C. raveni arubana* Baker, 1924, p. 40.
CURAÇAO, Stat. 201, 212, 213, 213A, *225, 227, 232, 242,* 243A, *244.* ARUBA, St. 248A, *249, 250, 253, 255, 257, 260, 263.*
The specimens do not justify a subdivision of the species.
Curaçao, Aruba.

Tudora Gray, 1850

In the present paper the genus *Tudora* is considered to include only the species listed below and *T. plicatula* (Pfeiff.) from Venezuela, fide H. B. Baker, 1924. The shell has a simplex peristome without breathing devices, the operculum is channelled at the perimeter, the calcareous part consists of vertical growth-lamellae which coalesce at their distal edges. Curaçao, Aruba, Bonaire and mainland of North Venezuela.

Key to the Subgenera and Species, based on the shell and the operculum.

1a Last part of whorls solute; operculum subcircular, more or less convex, nucleus not markedly eccentric .... *Bonairea* H. B. Baker, 1924 (type: *T. maculata)*

Altitude of shell 2½—2¼ minor-diameter, 4½—4 whorls retained, apical-angle generally 15—25°; operculum about 4 whorls, calcareous-plate somewhat larger than chondroic base; no tendency to accentuate spiral-ridges in umbilical-region;

umbilicus narrow or rather narrow; margin of peristome somewhat thickened, not reflected; larger growth-riblets often crested at summit; outer-margin of opercular whorls usually not corroded; average males somewhat smaller than females .... *Tudora maculata* H. B. Baker, 1924

1b Last part of whorls adnate; operculum subovate, more or less concave, nucleus markedly eccentric ..... *Tudora* s.s. 2

2a Altitude of shell 2—1½ minor-diameter, 4½—3½ whorls retained, apical-angle generally 30—60°; operculum 4½—4 whorls, more or less concave, with parietal angle rounded or somewhat angular, nucleus rather markedly eccentric, calcareous-plate somewhat smaller than chondroic base; tendency to accentuate spiral-ridges in umbilical-region; (sect. *Tudora* s.s.)

umbilicus narrow or rather wide; margin of peristome usually thin and strongly reflected in columellar region; growth-riblets not thickened or crested at summit; outer margin of opercular whorls not corroded; average males smaller than females, measurements of sexes intergrading .... *Tudora megacheilos* (Potiez et Michaud, 1838)

2b Altitude of shell 2¼—2 minor-diameter, 6½—6 whorls retained, apical-angle generally 25—35°; operculum 3½—3 whorls, more or less concave with parietal margin reclined, with parietal angle angular, nucleus very markedly eccentric, calcareous-plate much smaller than chondroic base; marked tendency to accentuate spiral-ridges in umbilical-region; (sect. *Tudorata* H. B. Baker, 1924; type *T. muskusi* Baker) 3

3a umbilicus narrow; margin of peristome usually thick, very short in columellar region; growth-riblets with distinct tendency to form sutural buttresses at summit; outer surface of operculum rather distinctly concave with parietal margin markedly reclined, outer margin of whorls usually slightly corroded; average males distinctly smaller than females, measurements of sexes slightly intergrading ..... *Tudora aurantia* (Wood, 1828)

3b umbilicus very narrow, often closed; margin of peristome usually thin, short and strongly reflected in columellar region; growth-riblets or costae with no or indistinct tendency to form sutural buttresses at summit; outer surface of operculum slightly or very sligthly concave with parietal margin somewhat reclined, outer margin of whorls usually strongly corroded; average males distinctly smaller than females, measurements of sexes generally not intergrading ..... *Tudora rupis* H. B. Baker, 1924

Tudora megacheilos megacheilos (Potiez et Michaud, 1838)

Cyclostoma megacheilos Potiez et Michaud, 1838, p. 237, tab. 24 fig. 9—10 ed. 1836.
Cyclostoma simile Sowerby I, 1843, p. 103, tab. 24 fig. 48—49.
Cyclostoma megacheilum, Pfeiffer, 1846, p. 33.
Cyclostoma megachilum, Pfeiffer, 1848, p. 66.
Tudora similis (Sow.) Gray, 1850, p. 48.
Tudora megachila (Pot. et Mich.) Pfeiffer, 1852 (Consp.), p. 38 „Var.: *C. cancellatum* Menke. Curaçao."
Cyclostoma roridum, C. proteus, C. cancellatum, Pfeiffer, 1852 (Monogr.), p. 244 [nomina nuda, in syn.]
Cistula megacheila (Pot. et Mich.) Adams et Adams, 1856, p. 294.
Cyclostoma megachila, Reeve, 1860, p. 198.
Tudora megacheila, Bland, 1861, p. 28.
Tudora megachilos, Martens, 1873, p. 219.
Tudora megacheilos, Kobelt, 1880, p. 286.
Tudora megacheilos megacheilos, Baker, 1924, p. 55 ..., fig. 27, tab. 13 fig. A.
Tudora megacheilos spreitensis Baker, 1924, p. 58 ..., fig. 35, tab. 13 fig. C.
Tudora megacheilos rondeklipensis Baker, 1924, p. 60..., fig. 36, tab. 13 fig. D.
Tudora megacheilos kabrietensis Baker, 1924, p. 61 ..., tab. 13 fig. E.
Tudora megacheilos f. *desculpta* Baker, 1924, p. 56 ..., fig. 34, tab. 13 fig. B.
Cistula megachila, Fischer, 1885, p. 748.
Cyclostoma megachile, Martin, 1888 (2), p. 97.
Chondropoma megacheila (Pot. et Mich.) Dall, 1905, p. 209.
Tudora megacheilus, Gratacap, 1907, p. 117.
Tudora megachile, van der Horst, 1924, p. 2.
Tudora fossor Baker, 1924 (Naut.), p. 94.
Tudora fossor fossor, Baker, 1924, p. 63 ..., fig. 37, tab. 13 fig. G.
Tudora fossor djerimensis Baker, 1924, p. 65 ..., tab. 12 fig. I.
Tudora fossor westpuntensis Baker, 1924, p. 66 ..., tab. 13 fig. H.
Tudora fossor arubana Baker, 1924, p. 68 ..., fig. 38, tab. 13 fig. K.
Tudora fossor canashitensis Baker, 1924, p. 69 ..., tab. 13 fig. I.
Tudora megacheile, van Benthem Jutting, 1925, p. 30.

CURAÇAO, St. *201, 201A, 202, 203, 204A, 205, 207, 210, 211, 212, 213,* 213A, *214, 215, 217, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229,* 229A, *230, 231, 232, 233, 236,* 237, 239, *240, 240A, 241, 242, 242A, 243, 243A, 244, 245A.* ARUBA, St. *246, 247A,* 248, *249, 250,* 253, 253A, *254, 254A, 255, 256, 257, 258, 259, 260, 260A,* 260B, *261, 262, 262A, 263, 264,* 265, 265A, *266, 267, 268, 270, 271, 272, 272A, 275, 276.*

Cocolishi cabritu, kokoliesjie kabritoe (Cur.).

Characters. Altitude of shell, excluding apical-whorls, about 2 times minor-diameter; apical-angle of retained whorls generally 30—45°.

Curaçao, Aruba. — Subfossil or fossil specimes of quaternary age have been found in cave-deposits and loose soil.

Tudora megacheilos pilsbryi H. B. Baker, 1924 comb. nov.

[?] *Cyclostoma megacheilus* Sowerby I, 1843, tab. 31 fig. 276.
[?] *Cyclostoma sowerbyi* Pfeiffer, 1847, p. 56 [other name for *C. megach.* Sow.]
Tudora pilsbryi Baker, 1924 (Naut.), p. 94. [see also: Baker, 1924, p. 62 ..., 113 ... fig. 39, 44, tab. 13 fig. F]
CURAÇAO, St. *206, 207.*

Characters. Altitude of shell, excluding apical-whorls, about 1½ times minor-diameter; apical-angle of retained whorls generally 50—65°.

Curaçao, confined to the Tafelberg St. Barbara. — A fossil specimen of quaternary age has been found in a pocket of phosphate at Hato.

If we compare specimens from the type-localities of Baker's subspecies of *Tudora megacheilos* and *Tudora fossor,* and his species of *Tudora pilsbryi* we find, it is true, several more or less noticeable differences, in which the populations of these localities often may be distinguished from those of other regions; — in other localities however, the different forms are quite intergrading and the various characteristics occur in such varying combinations, that a division of *Tudora megacheilos* in lower systematical categories becomes a rather endless occupation. Only Baker's *Tudora pilsbryi* appeared striking enough to justify a separate denomination.

Key to the Subspecies of *Tudora rupis*

1a Axial-sculpture consists of growth-riblets which are quite regular in size and place, they are small, low and rounded, about as broad as their interspaces, generally 9—6 per mm; spiral-ridges usually narrower than their interspaces, broader than the growth-riblets (— from East Curaçao —) ..... *Tudora rupis rupis* H. B. Baker

1b Axial-sculpture consists of growth-costae which are quite irregular in size and place, they are small or large, low and rounded or high and rather angular, broader or narrower than their interspaces, generally 6—1 per mm; spiral-ridges broader or narrower than their interspaces, broader or narrower than the growth-costae (— from Middle and West Curaçao —) 2

2a Axial-sculpture dominating the spiral-sculpture (— from West Curaçao —) ..... *Tudora rupis muskusi* H. B. Baker

2b Axial-sculpture nor spiral-sculpture dominating (— from Middle Curaçao and the northern part of West Curaçao —) ..... *Tudora rupis grandiensis* H. B. Baker

2c Spiral-sculpture dominating the axial-sculpture (— from Middle Curaçao —) ..... *Tudora rupis hatoensis* subsp. nov.

Tudora rupis rupis H. B. Baker, 1924

Tudora rupis Baker, 1924 (Naut.), p. 93.
Tudora rupis rupis, Baker, 1924, p. 49 ..., fig. 29, tab. 12 fig. E.
Tudora rupis newportensis Baker, 1924, p. 50 ..., fig. 30, tab. 12 fig. D.
CURAÇAO, St. *206, 207.* — Tab. XV.
Curaçao, confined to the Tafelberg St. Barbara and surroundings.

Tudora rupis muskusi H. B. Baker, 1924 comb. nov.

[?] *Cyclostoma costatum* Pfeiffer, 1846, p. 47. [see also: Pfeiffer, 18⁄6, p. 64, tab. 9 fig. 9—10 ed. 1847]
[?] *Tudora costata* (Pfeiff.) Pfeiffer, 1852 (Monogr.), p. 244.
[?] *Cistula costata* (Pfeiff.) Adams et Adams, 1856, p. 294.
Tudora costata, Vernhout, 1914, p. 180.
Tudora muskusi Baker, 1924 (Naut.), p. 93.
Tudora muskusi muskusi, Baker, 1924, p. 51 ..., fig. 31, 41, 43, tab. 12 fig. C.
Tudora rupis Baker, van Benthem Jutting, 1925, p. 30 [identical with *T. musk. bullenensis* Baker]

CURAÇAO, St. *227, 228, 242, 242A, 243.* — Tab. XV.

Curaçao, confined to the western part.

Tudora rupis grandiensis H. B. Baker, 1924 comb. nov.

Tudora muskusi grandiensis Baker, 1924, p. 53 ..., fig. 32, tab. 12 fig. F.
Tudora muskusi bullenensis Baker, 1924, p. 54 ..., fig. 33, tab. 12 fig. G.

CURAÇAO, St. *224, 225, 226, 229, 237.* — Tab. XV.

Curaçao, confined to the central and northwestern part.

Tudora rupis hatoensis subsp. nov.

Holotype: Rijksmuseum van Natuurlijke Historie, Leiden (empty shell). Type-locality: Island of Curaçao, Hato (collector's Station 217). Description: Adult female with 5¾ retained whorls, altitude 16¼ mm, minimum-diameter 7½ mm, maximum-diameter 8½ mm, width penultimate whorl 5¼ mm, altitude of peristome 6½ mm; pale reddish yellow, aperture internally orange; tab. XV.

Paratypes: Rijksmuseum van Natuurlijke Historie, Leiden, coll. St. 217, topotypical. Zoölogisch Museum, Amsterdam, coll. St. 223.

Diagnosis. Axial-sculpture consists of growth-costae which are quite irregular in size and place, generally 6—2 per mm; spiral-sculpture dominating the axial-sculpture; 8—*6,6*—5½ retained whorls, altitude 17½—*(15½* females) *14,5(12½* males)—11½ mm, minimum-diameter 7½—*6,5*—5 mm.

CURAÇAO, St. 217, before the cave of Hato, 17.IX.1936; St. 223, Hermanus, 9.XI. 1936 (somewhat resembling *T. rupis grandiensis).* — Tab. XV.

Curaçao, confined to the central partl.

The animals of this species group themselves into large colonies within an apparent homogeneous territory. If the centres of the different forms should be isolated, e.g. by inundation of the interlying regions, then most malacologists would without hesitation distinguish at least five species: *rupis, hatoensis, grandiensis. bullenensis* and *muskusi,* — each species being confined to a single island or to several neighbouring islands of the archipelago. The present state of affairs, however, shows a clear intergrading between the different forms; with exception of *T. rupis rupis,* owing to the isolation of its area. — The subspecies *muskusi, grandiensis, hatoensis* and probably also *rupis* may be put on a par with geographical races in the sense of Rensch a.o.; together they form a "Rassenkreis" as given by that author.

TABLE 11.

The occurrence of spinose shells in *Potamopyrgus parvulus* in the low limestone-region of southern Bonaire and Klein Bonaire.

localities	light conditions	estimated range of salinity, in mg Cl/l	numbers of specimens	more or less spinose shells in %
Pos Jatoe Largoe . . .	shady, nearly no direct sunlight .	300— 600	200	½
Pos Guajaká, Lima . .	shady, little direct sunlight . . .	400— 600	40	0
Pos Guajaká Chikitoe .	shady, little direct sunlight . . .	? 400— 600?	20	0
Pos Guajaká, Kl. Bon. .	dusky, nearly no direct sunlight .	? 300— 700	40	0
Pos Lansberg (St. 60) .	plenty direct sunlight	300— 700	80	0
Pos Francés (St. 58) . .	shady, with direct sunlight . . .	400— 700?	1000	10
Pos Gabriel	shady, with direct sunlight . . .	400— 700?	60	20
Pos Antonica	dusky, no direct sunlight	? 400— 800	20	70
Tanki Kinkoe	plenty direct sunlight	? 400— 900?	20	0
Pos di Cas, Lima . . .	shady, with direct sunlight . . .	? 400— 900	60	10
Pos di Cas, Kl. Bon. (St. 61)	shady, no direct sunlight	400—1000	300	70
Pos Ichi (St. 52) . . .	plenty direct sunlight	150—1500	600	¼
Pos Baca (St. 53) . . .	direct sunlight	200—1500	200	0
Pos Baca Grandi . . .	plenty direct sunlight	? 300—1600	20	0
Pos Baca Chikitoe (St. 54)	shady, with direct sunlight . . .	300—1600	200	0
Pos Oranjepan (St. 59) .	shady, little direct sunlight . . .	? 800—1600	40	0
Pos Oranjepan	shady, little direct sunlight . . .	? 800—1600	20	0
Pos Calbas, Lima (St. 55)	shady or dusky, no direct sunlight	800—1000	20	20
Pos Blauwduif	dusky, no direct sunlight	?1500—3000	100	10
Pos di Booi	shady, no direct sunlight	?2000—4000	10	100
Pos Caranja (St. 57). .	shady, little direct sunlight . . .	2000—4000	250	100
Pos Caranja Grandi . .	dusky, no direct sunlight	2000—5000	10	100
Pos di Salinja Martinus .	shady, with direct sunlight . . .	? 600—8000?	200	5
Pos Shiki	plenty of direct sunlight	? 600—8000?	100	0
Pos di Hoop	plenty of direct sunlight	?1000—8000?	150	0

Hybrids of species, judged from shell-characters, have only been observed between *Tudora megacheilos megacheilos* and *Tudora rupis muskusi*. In 1922 H. B. Baker (1924, p. 54, tab. 12 fig. H) found a single shell (*"Tud. fossor djerimensis* × *Tud. muskusi"*) on the Seroe Djerimi and one on the Seroe di Boca, St. Martha, and in 1936 three specimens were collected near the Seroe Djerimi (St. 242, 242A) and four near the St. Kruis Baai (St. 243).

Tudora aurantia (Wood, 1828)

Turbo aurantius Wood, 1828 (Suppl.), p. 19, tab. 6 fig. 23.
Cyclostoma aurantium (Wood) Wood, 1828 (Refer.), p. 36.
Cyclostoma aurantiacum Sowerby I, 1843, p. 103, tab. 24 fig. 46—47.
Cyclostoma versicolor Pfeiffer, 1846, p. 33 [substituted for *C. aurantiacum* on account of *Annularia aurantiaca* Schumacher, 1817].
Cyclostoma carneum Pfeiffer, 1848, p. 65, tab. 9 fig. 11—12.
Cistula versicolor (Pfeiff.) Gray, 1850, p. 58.
Tudora versicolor (Pfeiff.) Pfeiffer, 1852 (Consp.), p. 38.
Tudora versicolor var. *carneum* Pfeiff., Pfeiffer, 1852 (Consp.), p. 39.
Tudora aurantiaca (Wood) Smith, 1898, p. 113, 116.
Tudora aurantia, Schepman, 1915, p. 480.
Tudora aurantia aurantia (Wood), Baker, 1924, p. 45 ..., tab. 12 fig. A.
Tudora aurantia wassauensis Baker, 1924, p. 48 ..., fig. 28, tab. 12 fig. B.
Cyclostoma megachile, Pijpers, 1933, p. 45.

BONAIRE, St. *181, 184 184A, 185A, 186, 187, 190, 195, 196, 197;* Klein Bonaire, *199, 199A.* — Tab. XVI.

Bonaire, Klein Bonaire. — Subfossil or fossil specimens of quaternary age have been found in pockets of phosphate and limestone beds.

Tudora maculata H. B. Baker, 1924

Tudora maculata Baker, 1924 (Naut.), p. 92. [see also: Baker, 1924, p. 42 ..., fig. 22—24, 40]
BONAIRE, St. 184, *187*, 190, 190A, *191*, 194; Klein Bonaire, 199. — Tab. XVI.
Bonaire, Klein Bonaire.

HYDROBIIDAE

Potamopyrgus parvulus (Guilding, 1828)

Baker, 1924, p. 70; Baker, 1930, p. 31; Hummelinck, 1933, p. 319.
HIGUEROTE, St. *1.* ROQUES, *41, 42.* BONAIRE, *44, 45,* 46, *47, 48, 49, 52, 53, 54, 55, 57, 58, 59, 60;* Klein Bonaire, *61.* CURAÇAO, *71, 71A, 72, 72A, 76, 76A, 76B, 80, 83, 89.* ARUBA, *92, 93, 94, 95, 96, 101, 102, 102A, 103, 104, 104A, 104B.*
Weakly or distinctly spinose shells frequently occur in the limestone-region of southern Bonaire and Klein Bonaire; they are also to be found in El Gran Roque and, more rarely, in Curaçao.
Venezuela, West Indies; Los Roques!, Bonaire, Curaçao, Aruba.

BASOMMATOPHORA

PHYSIDAE

Physa cubensis Pfeiffer, 1839

Jutting, 1925, p. 28; Baker, 1930, p. 42.
CURAÇAO, St. *72A*, 216.
Venezuela, West Indies; Curaçao.

PLANORBIDAE

Planorbis circumlineatus Shuttleworth, 1854

Baker, 1924, p. 71 (sub *pallidus*); Jutting, 1925, p. 28; Hummelinck, 1933, p. 320.
MARGARITA, St. 10, *13, 18, 20, 23.* BONAIRE, *45,* 46, 50, 52, *53,* 57, 58. CURAÇAO, *66, 67, 70, 71A,* 72, *75,* 78, *81, 82, 83,* 89. PARAGUANA, *105, 106,* 107, *108, 109.* GOAJIRA, *114.*
West Indies, Trinidad, Paraguaná!, N.E. Colombia!; Margarita!, Bonaire, Curaçao.

STYLOMMATOPHORA

VAGINULIDAE

Vaginulus linguaeformis Semper, 1885

Hoffmann, 1925, p. 250 (sub *Sarasinula*).
MARGARITA, St. *150, 155.* (H. B. Baker det.)
Argentina, Brasil, Guyana, Bolivia, Ecuador; Margarita!.

Vaginulus spec.

CURAÇAO, Tanki Wishi near Willemstad, 1937. (fr. Realino don.)

SUCCINEIDAE

Succinea barbadensis Guilding, 1828

Jutting, 1925. p. 27.
CURAÇAO, St. 213A, 227A? 235, 242, 244. (van Benthem Jutting det.)
Lesser Antilles; Curaçao.

Succinea gyrata Gibbons, 1879

Jutting, 1925, p. 27.
BONAIRE, St. 191, 198, 199; Klein Bonaire, s.n. CURAÇAO, St. 213A, 215, *216.* (van Benthem Jutting det.)
Curaçao, Bonaire.

Succinea tamsiana Pfeiffer, 1850

Baker, 1925, p. 3.
MARGARITA, St. 139. (H. B. Baker det.)
Venezuela; Maragarita!.

Succinea spec.

CARÚPANO, St. 123, 124, 125. MARGARITA, 136, 140. TESTIGOS, 158, 159, *160*. HERMANOS, 169, 170. BLANQUILA, 171. PARAGUANA, 279, 282, 283.

The material apparently belongs to different species which are often very similar to the species of this genus cited before.

VERTIGINIDAE

Gastrocopta barbadensis (Pfeiffer, 1853)

Pilsbry, 1916, p. 83. — *G. barbadensis hojeda* Pilsbry, 1924, p. 65.
MARGARITA, St. 136, 150. ORCHILA, *175*. CURAÇAO, *216, 217*. PARAGUANA, 282, *283*. GOAJIRA, 288, 292, 293, 294.

Judging from literature, *Gastrocopta barbadensis* must be considered identical with *G. servilis* (Gould, 1843); both names probably being in synonymy with *G. rupicola* (Say, 1821). The var. *hojeda* Pilsbry of *G. barbadensis* could not be maintained.

West Indies, Trinidad, Paraguaná!, La Goajira!; Margarita!, Orchila!, Curaçao.

Gastrocopta curacoana Pilsbry, 1924

Crosse, 1873, p. 42 (sub *Pupa longurio*); Pilsbry, 1924, p. 62.
BONAIRE, St. 184, 185A, *187*, 190A, *194*; Klein Bonaire, 199. CURAÇAO, 201, *206*, 208, 210, 212, 213, 213A, *215, 217*, 218, *227*, 236, *242*, 243A. ARUBA, 246, *249*, 250, *253, 255*, 257, *263, 275, 276*.

Curaçao, Bonaire, Aruba.

Gastrocopta geminidens (Pilsbry, 1917)

Pilsbry, 1917, p. 228.
MARGARITA, St. 145.

Venezuela; Margarita!.

Gastrocopta iheringi (Suter, 1900)

Suter, 1900, p. 336; Pilsbry, 1916, p. 101.
CARÚPANO, St. 123, *124, 125*. MARGARITA, 131, 132, 136, *138, 139, 140, 144*. TESTIGOS, 157, *158, 162*. FRAILES, 168. PARAGUANA, 279. GOAJIRA, 292, *293, 294*.

Previously reported from Brasil only. This species proved to be very variable in form and size of teeth; the specimens from Rio Hacha (St. 292—294) were especially noticeable for their strong development of the parietal and columellar-lamellae and a curious arrangement and often increasing number of the palatal and basal-plicae. This species might be identical with one or more species of the subgenus *Immersidens*; probably also in synonymy with *G. uvulifera* (Guppy, 1868).

Brasil, Venezuela!, N.E. Colombia!; Margarita!, Los Testigos!, Los Frailes!.

Gastrocopta octonaria Pilsbry, 1924

Pilsbry, 1924, p. 64.

HERMANOS, St. *169, 170.* BLANQUILLA, *171,* 172, 172A, 172B. ORCHILA, *174.* BONAIRE, 184, *187, 191, 194.* CURAÇAO, 202A, 204, 206, 210, 213, 213A, 228, *234, 235, 236, 242,* 243A. ARUBA, *246,* 249, 250, *253, 255, 260, 263,* 268, *268B, 276, 278.* GOAJIRA, 293.

La Goajira!; Aruba, Curaçao, Bonaire, Orchila!, Blanquilla!, Los Hermanos!.

Pupoides marginatus (Say, 1821)

Pilsbry, 1924, p. 61 (sub *P. marginatus nitidulus*); Baker, 1935, p. 200 (sub *P. m. nit.*).

GUANTA, St. 122. CARÚPANO, 125. MARGARITA, 132. BLANQUILLA, *171.* TORTUGA, *173.* ORCHILA, 175. BONAIRE, 185, *191, 198;* Klein Bonaire, teste Baker. CURAÇAO, *213A, 217,* 225, *227.* ARUBA, *255, 256, 263, 276,* 277. PARAGUANA, *279, 283.* GOAJIRA, 292, 293, 294.

West Indies, Venezuela, N.E. Colombia!; Margarita!, Blanquilla!, Tortuga!, Orchila!, Bonaire, Curaçao, Aruba.

Bothriopupa tenuidens (C. B. Adams, 1845)

Pilsbry, 1917, p. 229.

MARGARITA, St. 145, 146.

Greater Antilles, Venezuela; Margarita!.

FERUSSACIIDAE

Caecilioides consobrina (Orbigny, 1845)

Pilsbry, 1908, p. 39; Baker, 1925, p. 3.

MARGARITA, St. 136, 139, *140, 144.* BONAIRE, Goto, Salinja Tam. CURAÇAO, *210,* 213, *235,* 236. ARUBA, *263, 268B.* GOAJIRA, 292, *293,* 294.

Several specimens closely resemble *C. iota* (C. B. Adams) from Jamaica.

West Indies, Venezuela, N.E. Colombia!; Margarita!, Bonaire!, Curaçao!, Aruba!.

Caecilioides gundlachi (Pfeiffer, 1850)

Pilsbry, 1908, p. 43.

CURAÇAO, St. *216.*

West Indies, Guyana; Curaçao!.

SUBULINIDAE

Lamellaxis gracilis (Hutton, 1834)

Pilsbry, 1906, p. 198 (sub *Opeas gracile*); Jutting, 1925, p. 27 (sub *Opeas gracile*); Baker, 1927, p. 7 (sub *Opeas gracile*).

MARGARITA, St. *155,* BONAIRE, Fontein. CURAÇAO, *216,* Porto Marie, St. Kruis. ARUBA, Fontein. GOAJIRA, Rio Hacha.

South America, Central America, West Indies; Margarita!, Bonaire!, Curaçao, Aruba!.

Lamellaxis micra (Orbigny, 1835)

Pilsbry, 1906, p. 193 (sub *Opeas*); Baker, 1924, p. 108 (sub *Opeas*); Baker, 1927, p. 10 (sub *Opeas*).

LA GUAIRA, St. 121. MARGARITA, 136, 139, 140, *155.* TESTIGOS, 158, 163B, 165. CURAÇAO, 216, *245.* ARUBA, Fontein. PARAGUANA, 279. GOAJIRA, 294.

South America, Central America, Florida, West Indies; Margarita!, Los Testigos!, Curaçao, Aruba!.

Synopeas beckianum (Pfeiffer, 1846)

Pilsbry, 1906, p. 189 (sub *Opeas*); Baker, 1927, p. 7 (sub *Opeas*).

GUANTA, St. 122. CARÚPANO, 123, 124, *125,* 126. MARGARITA, 133, 134, 135, *136,* 137, 138, 139, *140,* 141, 141A. TESTIGOS, 159, *162.* BLANQUILLA, *171.* PARAGUANA, *282.* GOAJIRA, *292, 293, 294.*

Venezuela, Colombia, Central America, Mexico, West Indies; Margarita!, Los Testigos!, Blanquilla!.

Subulina octona (Bruguière, 1792)

Pilsbry, 1906, p. 222; Baker, 1927, p. 2.

GUANTA, St. 122. CARÚPANO, 123, 124, *125,* 126. MARGARITA, 136, 138, 139, *140,* 141, 141A, *145, 146, 147, 148, 150, 155,* TESTIGOS, *162, 163A.*

Tropical America, Asia and Africa; Margarita!, Los Testigos!.

Subulina striatella (Rang, 1831)

Rang, 1831, p. 38 (sub *Helix*); Pilsbry, 1906, p. 75.

MARGARITA, St. *143, 144, 149.*

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.

Tropical Africa; Margarita!.

Neosubulina gloynii (Gibbons, 1879)

Baker, 1924, p. 88. — *N. harterti* Smith, 1898, p. 115; Baker, 1924, p. 86. — *N. scopulorum* Baker, 1924, p. 89.

BONAIRE, St. 190, 190A, *191, 193,* 194. CURAÇAO, 201, *205, 206, 207, 208,* 210, 212, 213, 213A, 214, 216, *217, 218, 219, 225,* 227, *232, 234, 235,* 236, *238, 242,* 243A. ARUBA, *246, 255, 260,* 263, *267, 268.*

N. harterti must be considered identical with *N. gloynii*; also *N. scopulorum,* from Aruba, is probably not specifically separable.

Bonaire, Curaçao, Aruba.

Leptinaria lamellata (Potiez et Michaux, 1838)

Pilsbry, 1907, p. 288; Baker, 1927, p. 22.

MARGARITA, St. *144.*

Tropical South America, West Indies; Margarita!.

Luntia insignis E. A. Smith, 1898

Smith, 1898 (J. Conch.), p. 28; Pilsbry, 1906, p. 218.
ARUBA, Fontein.
Trinidad; Aruba!.

OLEACINIDAE

Spiraxis blandi (Crosse, 1873)

Crosse, 1874, p. 66 (sub *Ravenia*); Tryon, 1885, p. 52; Pilsbry, 1907, p. 19; Baker, 1939, p. 11.
ROQUES, teste Crosse.
Described after a single specimen which was collected by H. Raven; anatomy unknown. 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.
Los Roques.

SAGDIDAE

Thysanophora crinita (Fulton, 1917)

Fulton, 1917, p. 240 (sub *Trichodiscina*); Baker, 1924, p. 78. — *T. crinita arubana* Baker, 1924, p. 77.
CURAÇAO, St. 235, *236*. ARUBA, 257, *263*, 268. PARAGUANÁ, 279. GOAJIRA, 293, *294*.
The material does not show any reason to justify a subspecies *arubensis*.
Paraguaná!, La Goajira; Curaçao, Aruba.

Thysanophora plagioptycha (Shuttleworth, 1845)

Baker, 1916, p. 13.
MARGARITA, St. *144*. (H. B. Baker det.)
Tropical America; Margarita!.

Thysanophora vanattai H. B. Baker, 1924

Baker, 1924, p. 79; Baker, 1926, p. 15.
ARUBA, St. *255*.
Aruba.

ZONITIDAE

Guppya gundlachi (Pfeiffer, 1840)

Baker, 1925, p. 7.
MARGARITA, St. *140, 143, 144, 145, 146*. (H. B. Baker det.)
Tropical America; Margarita!.

Guppya molengraaffi Baker, 1924

Baker, 1924, p. 76.
CURAÇAO, St. 234, 235. (H. B. Baker det.)
Curaçao.

Habroconus ernsti (Jousseaume, 1889)

Baker, 1925, p. 9 (sub *Euconulus*).
MARGARITA, St. 146. (H. B. Baker det.)
Venezuela; Margarita!.

Scolodonta starkei H. B. Baker, 1925

Baker, 1925, p. 26.
MARGARITA, St. 140, 146. (H. B. Baker det.)
Venezuela; Maragarita!.

BULIMULIDAE

Bulimulus cacticolus (Reeve, 1849)

Pilsbry, 1897, p. 60; Pilsbry, 1901, p. 144.
MARGARITA, St. 137, 138, *139*, 152, 154A. GOAJIRA, *288*, 290, 294. (H. B. Baker det.)
Venezuela, N.E. Colombia; Maragarita!.

Bulimulus constrictus Pfeiffer, 1841

Pilsbry, 1897, p. 80.
MARGARITA, St. 140, 141. (H. B. Baker et H. G. Richards det.)
Venezuela; Margarita!.

Bulimulus dysoni Pfeiffer, 1846

Pilsbry, 1897, p. 56; Pilsbry, 1901, p. 144.
MARGARITA, Los Vagras, VIII, 1939, H. G. Richards coll. et det.
Venezuela, Central America, Yucatán; Margarita!.

Drymaeus meridanus (Pfeiffer, 1846)

Pilsbry, 1898, p. 303.
MARGARITA, St. 140, 141. (H. B. Baker et H. G. Richards det.)
Venezuela; Margarita!.

Drymaeus multilineatus (Say, 1825)

Pilsbry, 1899, p. 27; Baker, 1924, p. 108.
CARÚPANO, St. 124. MARGARITA, 138, *139*, 140, 141, 143, 154A, 155. TESTIGOS, 162. CURAÇAO, teste Baker. GOAJIRA, *288*, 294.
Florida and Yucatán to Colombia and Venezulea; Margarita!, Los Testigos!, Curaçao.

Drymaeus virgulatus (Férussac, 1821)

Pilsbry, 1899, p. 24 (sub *elongatus*); Baker, 1924, p. 80.
ARAYA, Manglillo. CARÚPANO, St. 124. MARGARITA, 138, 139, *139A*, 140, 141. TESTIGOS, 162. BLANQUILLA, *171*. BONAIRE, 184A, 190A, 197, *s.n.* CURAÇAO, *206, 207*, 212, *217, 220, 221, 225, 227, 228, 229, 230, 231*, 234, *238, 239, 240A, 242*, 243, *243A, 245A*. ARUBA, *263*, 267. GOAJIRA, 287. ST. MARTIN, 299.
West Indies, N. Venezuela, N.E. Colombia!; Margarita!, Los Testigos!, Blanquilla!. Bonaire, Curaçao, Aruba.

Oxystyla maracaibensis (Pfeiffer, 1856)

Pilsbry, 1899, p. 137; Pilsbry, 1901, p. 164; Baker, 1924, p. 85 (sub *O. mar. imitator*).

ARAYA, Manglillo, MARGARITA, St. 134, 136, 137, 138, 139, *139A*, 140. ARUBA (subfoss.) 250, 252B, W. shore. PARAGUANA, 279. S. FALCÓN, s.n. GOAJIRA, 290, *294*.

Venezuela, Colombia; Margarita, Aruba.

Liguus virgineus (Linné, 1767)

Vernhout, 1914, p. 179.

CURAÇAO, "Dr. Epp" coll., cf. Vernhout. The single specimen on which this record is based, might be recently introduced, if not wrongly labelled.

Northern America, Greater Antilles; Curaçao?.

Auris distortus (Bruguière, 1789)

Baker, 1926, p. 32.

GUANTA, St. 122. MARGARITA, 139, 140, 141, 143.

Brasil, Venezuela, Colombia, Trinidad; Margarita!.

Tomigerus cumingi Pfeiffer, 1849

Pilsbry, 1901, p. 109; Baker, 1926, p. 46.

MARGARITA, St. 140, 141, *143, 145, 146*.

Brasil, Venezuela; Margarita!.

CERIONIDAE

Cerion Röding, 1798

The more striking peculiarities of *Cerion*, besides the more or less pupiform, compact and calcareous shell, are: the low entrance of the epiphallus into the penis, the eccessive long and free vas deferens, the diverticulum of the spermathecal duct, the rather long, oblong kidney, with very extensive lumen. Florida, Bahamas, Cuba, Cayman Islands, Hispaniola, Puerto-Rico, Virgin Islands †, St. Croix †, Bonaire, Curaçao, Aruba.

Key to the Subgenera,
based on the shell.

1a Whorls strongly compressed in the direction of the axis, separating septa nearly horizontal;
axial and parietal lamella or teeth present;
parietal-tooth in the angle between columella and parietal wall, entire, rarely penetrating over half of a whorl; axial-lamella long, ascending for several whorls (— recent and of quaternary age; Bonaire, Klein Bonaire, Curaçao, Aruba —) .... *Cerion* s.s. (one species)

1b Whorls more or less compressed in the direction of the axis, separating septa usually dipping for about 30° 2

2a axial and parietal lamella or teeth lacking (— of upper tertiary age; Florida —) ..... *Eostrophia* Dall, 1890 (one species)
2b axial and parietal lamella or teeth present, rarely one lacking ... 3

3a parietal-tooth near middle of parietal wall, entire, rarely penetrating over one third of a whorl; axial-lamella short or long, ascending the columella for one to several whorls (— recent and of quaternary age; Florida, Bahamas, Cuba, Cayman Islands, Hispaniola, Puerto-Rico, Virgin Islands †, St. Croix † —) .... *Strophiops* Dall, 1894 (many species)
3b parietal-tooth near middle of parietal wall, entire or divided, often penetrating over half of a whorl, often with a small accessory tooth within at the columellar side; axial-lamella rather long, sometimes ascending the columella for several whorls (— recent; Inagua, Cuba —) ..... *Diacerion* Dall, 1894 (several species)

Cerion uva (Linné, 1758)

Cochlea alba, ventricosa, bidens, strijs eminentibus exasperata Lister, 1688, tab. 588 fig. 47.
Olivaris striata & fasciata Americana Petiver, 1709, tab. 27 fig. 2 (Cat. p. 4).
Turbo integer, fimbriatus, cylindroidaeus, per longitudinem striatus, ... Gualtieri, 1742, tab. 58 fig. D.
Oxy-strombus. Asper. Clathratus. Albus, ... Klein, 1753, p. 33.
Apiarum [p. p.] Seba, 1758, p. 153, tab. 55 no. 21 fig. interm.
Turbo uva Linné, 1758, p. 765.
Turbo testa cancellata ovata obtusa... Gronow, 1781, p. 328.
Bulimus mumia Bruguière, 1792, p. 348 [cf. Bruguière, 1789, Encycl. Méth. Vers 1, p. 291].
Cerion vulgare Röding, 1798, p. 90 [p. p., non Lister].
Cerion uva (Linné) Röding, 1798, p. 90.
Cerion uva desculptum Pilsbry et Vanatta, 1896, p. 328, tab. 11, fig. 1.
Cerion uva var. *desculptum*, Baker, 1923, p. 7.
Cerion uva uva, Baker, 1924, p. 98 ..., tab. 18.
Cerion uva uva f. *diablensis* Baker, 1924, p. 100, tab. 18 A2.
Cerion uva uva f. *hatoensis* Baker, 1924, p. 100, tab. 18 F6.
Cerion uva knipensis Baker, 1924, p. 102 ..., tab. 19.
Cerion uva knipensis f. *djerimensis* Baker, 1924, p. 103, tab. 19 A1.
Cerion uva arubanum Baker, 1924, p. 104 ..., tab. 20.
Cerion uva bonairensis Baker, 1924, p. 105 ..., tab. 21.
Cerion uva bonairensis f. *kralendijki* Baker, 1924, p. 106, tab. 21 A2.
Cerion uva diablensis, Baker, 1925, p. 42.
Cerion uva hatoensis, Baker, 1925, p. 42.
Pupa uva (Linné) Lamarck, 1801, p. 88.
Helix uva (Linné) Férussac, 1821, p. 62.
Cochlodon uva (Linné) Sowerby I, 1825, p. 40.
Clausilia uva (Linné) Anton, 1839, p. 47.
Helix pentodon Menke, 1846, p. 128 [*Cerion* spec. juv., *C. uva*?].
Strophia uva (Linné) Albers, 1850, p. 203.
Pitys pentodon (Menke) Adams et Adams, 1855, p. 114 [*C. uva*?].
Scalaria curassavica Simons, 1868, p. 150 [nomen nudum].

BONAIRE, St. *181, 184, 184A, 186, 187, 195, 196, 197*; Klein Bonaire, *199, 199A*. CURAÇAO, *201, 201A, 202, 203, 204, 205, 206, 207, 210, 211, 212, 213, 214, 215, 217, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 237, 238, 239, 240, 240A, 241, 242, 242A, 243, 244, 245A*. ARUBA, 253A, 256, *258, 258A, 259, 260B, 261, 262, 262A, 264, 265*. — Tab. XVI.

Cocolishi di carné, kokoliesjie die kalakoena (Cur.)

Cerion uva does not show such morphological differences, which justify a subdivision of the species in subspecies.

A few specimens of *Cerion uva* were found together with a number of recent freshwater-organisms, several marine shells which were clearly imported for food or ornamentation, and other prehistoric remains of people inhabiting the shore of the Lago de Valencia (Berry, 1934, p. 392). The evidence is inadequate to prove if this species really lived in this region, or that it was imported by human agency from the Dutch islands, some 400 km north-northwest.

Bonaire, Klein Bonaire, Curaçao, Aruba. — Subfossil or fossil specimens of quaternary age have been found in loose soil, limestone beds, cave-deposits and pockets of phosphate. — In Aruba limited to the limestone region between Savaneta and Baca Morto, irregularly distributed; dead specimens occur at the Boca Grandi; subfossil or fossil specimens are common to the southern and eastern limestone portion of the island, from Oranjestad as far as the Cerro Colorado and Fontein. H. B. Baker found during his visit in 1922, the living cerions on Aruba restricted to one colony at the Baranca Alto and to another just North of Perkietenbosch. In 1936 however, living *Cerion* occurred in a much larger area, which was centred in some degree round these two localities, although the Baranco Alto itself did not yield a single shell. This may be an indication that recently the cerion-population of Aruba is again increasing and spreading over a larger area.

UROCOPTIDAE

Brachypodella hanleyana (Pfeiffer, 1847)

Pilsbry, 1903, p. 73.

MARGARITA, St. 138, 139, *140*.

Venezuela, Colombia; Margarita!.

Brachypodella leucopleura (Menke, 1847)

Pilsbry, 1903, p. 74; Baker, 1927, p. 27.

MARGARITA, St. 138, 139, *140*.

In some localities *B. leucopleura* and *B. hanleyana* give the impression of well-defined species; in other populations, however, the species can not be distinguished with certainty.

Venezuela; Margarita!.

Brachypodella raveni (Crosse, 1872)

Baker, 1924, p. 90; Jutting, 1925, p. 26. — *B. raveni sanctaebarbarae* H. B. Baker, 1924, p. 91. — *B. raveni knipensis* H. B. Baker, 1924, p. 92. — *B. raveni arubana* H. B. Baker, 1924, p. 93. — *B. gibbonsi* H. B. Baker, 1924, p. 94.

BONAIRE, St. 184, 187, *190*, 190A, *191*; Klein Bonaire, teste Baker. CURAÇAO, *201*, *202A*, 203, *206*, *207*, *210*, *212*, 213, 214, *215*, *217*, 218, *225*, 226, *227*, 232, *242*, *244*. ARUBA, 249, *255*, *260*. *266*, *267*.

The material from Curaçao and Aruba do not justify a subdivision into subspecies; nor is *B. gibbonsi* from Bonaire specifically separable.

Bonaire, Curaçao, Aruba.

Microceramus bonairensis (Smith, 1898)

Baker, 1924, p. 95. — *M. bonairensis curacoana* H. B. Baker, 1923, p. 6. *M. bon. curacoanus*, Baker, 1924, p. 96. — *M. bonairensis arubanus* H. B. Baker, 1924, p. 97.

BLANQUILLA, St. 171, 172B. TORTUGA, 173. BONAIRE, 190A, *191*, 194; Klein Bonaire, *199*. CURAÇAO, *201*, 203, *206*, *207*, *210*, *212*, 213, 213A, *214*, *217*, *225*, 227, *242*. ARUBA, 249, *255*, 260, *263*, *266*, *267*. PARAGUANA, 279.

The specimens from Curaçao, Aruba and Bonaire do not justify a subdivision into subspecies. The shells from Blanquilla and Tortuga are stronger calcificated than those from the former islands and the growth-riblets are more regular, more numerous and well-defined.

Paraguaná!; Blanquilla!, Tortuga!, Bonaire, Curaçao, Aruba.

STREPTAXIDAE

Streptaxis glaber Pfeiffer, 1849

Baker, 1925, p. 39.

CARÚPANO, St. 124. MARGARITA, 138, 140, *143*, 145, 146.

Brasil, Guyana, Venezuela, Trinidad, Barbados; Margarita!.

Ennea bicolor Hutton, 1834

Tryon, 1885, p. 104; Gibbons, 1879, p. 130.

CURAÇAO, St. 212.

East Indies, China; Lesser Antilles, Trinidad; Curaçao!.

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