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Marine gastropods from the ABC islands and other localities 14.
The family Terebridae with the description of a new species from Aruba
(Gastropoda: Terebridae).

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ABSTRACT

The species of the family Terebridae occurring at the Dutch Leeward Islands (Aruba, Bonaire, and Curaçao), and other parts of the tropical western Atlantic are reviewed on the basis of material in the Zoölogisch Museum, Amsterdam. A new species is described from Aruba. *Terebra leptaxis* Simone, 1999 is considered a junior synonym of *T. doellojuradoi* Carcelles, 1953. Key words: Mollusca, Gastropoda, *Terebra*, *Hastula*, taxonomy, Caribbean, ABC Islands, Aruba.

INTRODUCTION

This is the 14th part of the series of additions and corrections to the paper by De Jong & Coomans (1988) on the marine gastropods from the Dutch Leeward Islands. As in the previous parts this publication is referred to as J&C and the species numbers used by J&C are preceding each description.

The Terebridae, or auger shells, are well-covered in Bratcher & Cernohorsky (1987). Good figures are also given by Matthews *et al.* (1975). Simone (1999) describes the anatomy of several Brazilian species. Some of the species have confusingly similar shells.

ABBREVIATIONS

Names of institutions have three or four letters, names of collectors (all material quoted in ZMA) have two. For other abbreviations, see part 1 (Faber, 2004).

FV = Frère Fredericus Verberne
J&C = De Jong & Coomans (1988)
MF = Marien Faber
RM = Robert Moolenbeek
SD = subsequent designation
ZMA = Zoölogisch Museum, Amsterdam

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SYSTEMATICS

Class: Gastropoda
Subclass: Prosobranchia
Superorder: Caenogastropoda
Order: Neogastropoda
Superfamily: Conoidea
Family: Terebridae

Genus *Terebra* Bruguière, 1789 (genus without a species). Type species: *Buccinum subulatum* Linnaeus, 1758, by monotypy, Lamarck, 1799.

Terebra aff. *arcas* Abbott, 1954 (fig. 9)

A shell of what probably is this species from deeper water is included for comparison with *T. glossema* (see below). The whorls are more convex, and the apex is white. It is not known from the ABC islands.

Terebra curacaoensis De Jong & Coomans, 1988 (figs 1-4)

(573) Bratcher & Cernohorsky (1987) described and figured *T. alba* J. E. Gray, 1834, which is very similar to *T. curacaoensis*, and may be a northern variety of the same, although the specimens I have seen differ consistently from those of *T. curacaoensis* in having a more pronounced spiral sculpture which gives the teleoconch a more beaded look.

Terebra curacaoensis is not always white, occasionally being grey, yellowish, orange to light brown. But most specimens seen are white. Despite its name, *T. alba* is not always white, but the few specimens I have seen almost all are white. The Gulf of Mexico, Padre Island, Texas, was designated as type locality for *T. alba*. Bratcher & Cernohorsky (1987) mentioned an occurrence from "Florida and the Gulf of Mexico through the Caribbean Is[lands]". *Terebra alba* is well figured in Redfern (2001).

Malacolog (www.malacolog.org) reports this species from 14.5° N to 26° N, and from 61° W to 97° W. *Terebra curacaoensis* is known from Aruba, Bonaire, and Curaçao (ZMA) and especially common on the last mentioned island. The only shell from outside the ABC Islands in the ZMA collection is from Puerto Rico. *Terebra alba* is not known from the ABC Islands. Our shells are from the northern Bahamas Abaco (MF), and New Providence (MF).

Confusion with *T. vinosa* (Dall, 1889) seems possible (see Bratcher & Cernohorsky, 1987: 160-161), but this species has concave teleoconch whorls. Both *T. curacaoensis* and *T. alba* differ from *T. protexta* (Conrad, 1846) (another very common small, whitish *Terebra* from the West Indies), principally in having a smaller, narrower, smoother, and more glossy shell. *Terebra rushii* (Dall, 1889) from southern Florida has a much smoother, pure white shell with conspicuous spiral sulci and hardly any axial sculpture (fig. 5). *Terebra doellojuradoi* Carcelles, 1953, has a much coarser shell sculpture (figs. 10-11).

Terebra doellojuradoi Carcelles, 1953 (figs 10-11)

This species superficially resembles *T. curacaoensis*, *T. glossema*, and *T. arcas*, but has a rougher sculpture and a uniform brown colour. Described from Uruguay, it is believed to be different from more northern (*i.e.* south Brazilian) shells, described by Simone (1999: 229) as "*T. leptaxis* n. sp."

The latter was said to be longer, more slender with fewer axial ribs and no columellar callus. Comparison of the figured types of both

species clearly shows that both have the same number of axial ribs, if not less in *T. doellojuradoi*, and that the slenderness is highly similar as well (*T. leptaxis*: slenderness holotype = 4.04 at ca. 12 whorls; *T. doellojuradoi* slenderness holotype = 4.09, also at ca. 12 whorls). The absence or presence of a columellar callus apparently depends on maturity, and therefore I synonymize both nominal species. According to Bratcher & Cernohorsky (1987), *T. doellojuradoi* occurs north to the Gulf of Mexico. The range given in Malacolog (22.65° N to 23.88° N; 45.15° W to 41.55° W) is in error, N(orth) should be S(outh) (Gary Rosenberg, pers. comm.).

Terebra glossema Schwengel, 1942 (figs 6-8, 12-13)

(572) At Aruba a rather common species. I have not yet seen a shell from Curaçao or Bonaire. Note the pinkish early whorls. Some specimens from Aruba (FV) are light brown, but in all other respects identical. Young *T. dislocata* (Say, 1822) are much broader, with wider and stronger axial ribs (fig. 18).

Terebra incisa n. sp. (figs 14-17)

(574) This species, listed as "*T. spec. 1*" by J&C, is not in Bratcher & Cernohorsky (1987). I am now convinced that this represents a new species. Hence it is described here.

Description holotype.-

Shell small, dextral, slender, acute, about four times as high as wide. With a smooth protoconch of slightly over one whorl, and 8 nearly straight-sided teleoconch whorls sculptured with many poorly developed slanting axial ribs, which run from suture to suture, and which are interrupted abapically by a very weak spiral furrow. Progressively the ribs become weaker, the last whorls being rather smooth. Axial sculpture of extremely weak microscopic striae. Aperture subquadrate, inner lip straight but bent inwards posteriorly, to form an anal fasciole. Outer lip rather thin, smooth.

Length 12.3 mm; width 3.5 mm.

Type locality.-
Aruba, sand dredgings (FV).

Type material.-
Holotype (ZMA 407026); 64 paratypes (ZMA 407028), all from the type locality; 1 paratype Aruba, Noordkust (north coast) (FV).

Other material examined.-
Curaçao, Daaibooibaai, beach (1 specimen, AB).

Distribution.-
Terebra incisa n. sp. is only known from Aruba (rather common) and Curaçao (rare).

Etymology.-
This species is named for the peculiar sculpture, which consists of nothing but incised grooves.

Remarks.-
The shell of this species is larger and heavier than in *T. curacaoensis*. The protoconch is about twice as wide, although it has nearly one whorl less. Its teleoconch sculpture is much less well developed, and the shell is of a duller white, never brownish.
Terebra rushii (Dall, 1889) also has incised spiral lines, but these are much more pronounced; the axial sculpture is weaker, the sutures are deeper, and the whole shell is much more slender (see fig. 5).
The rare deeper water *Terebra juanica* Dall & Simpson, 1901 has sigmoid axial ribs, a smaller protoconch, and is deep reddish brown.

“*Terebra spec. 2*”

(574a) Closer examination of this rather worn, bleached juvenile shell from the Herman Sloots collection revealed that it very probably represents *Terebra crenulata* (Linnaeus, 1758), a species with an exclusively Indo-Pacific distribution. There are no similar species in the western Atlantic.
Another species from the Sloots collection, labelled as from the Dutch Leeward Islands, namely *Engina slootsi* De Jong & Coomans, 1988, appeared to be based on an Indo-Pacific

species of *Habromorula* (Muricidae), see Houart (1995).

Genus *Hastula* H. & A. Adams, 1853.

Type species, by SD Cossmann, 1896: *Buccinum strigilatum* Linnaeus, 1758 (provided that “*Terebra strigillata* Lamarck” is a lapsus; vide Woodring, 1928: 143, footnote).

J&C place the next two species in *Terebra*. According to Bratcher & Cernohorsky (1987) *Hastula* is a valid genus. In shell characters it differs from *Terebra* mainly in having smooth and shine shells without spiral sculpture.

Hastula hastata (Gmelin, 1791)

(575) This species has slender ribs which do not swell into nodes. Known from all three islands.

Hastula cinerea (Von Born, 1778)

(576) Like the preceding, this species is characterised by a smoothish shell, without spiral ribs. It differs in being larger. It has been found at all three islands.

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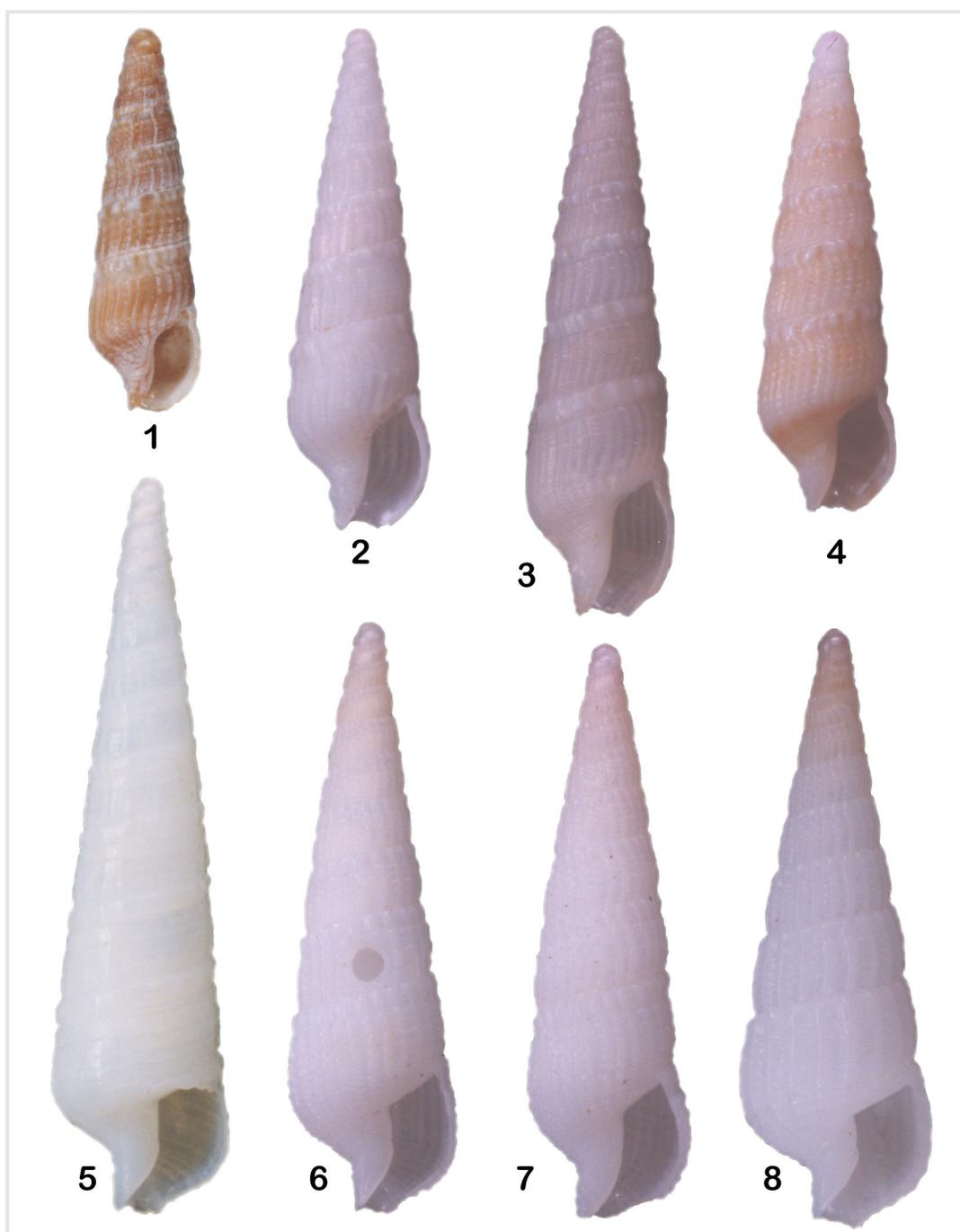
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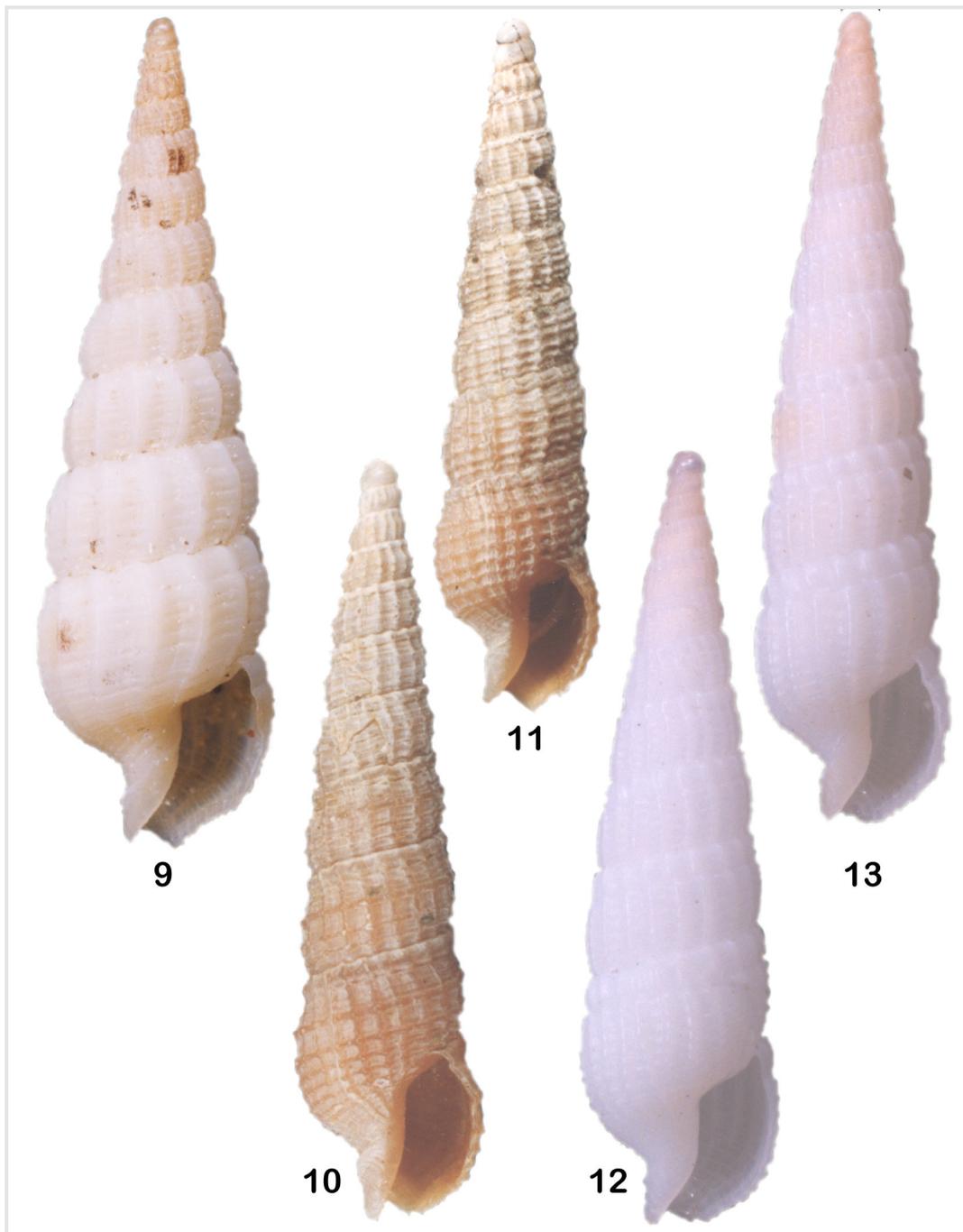
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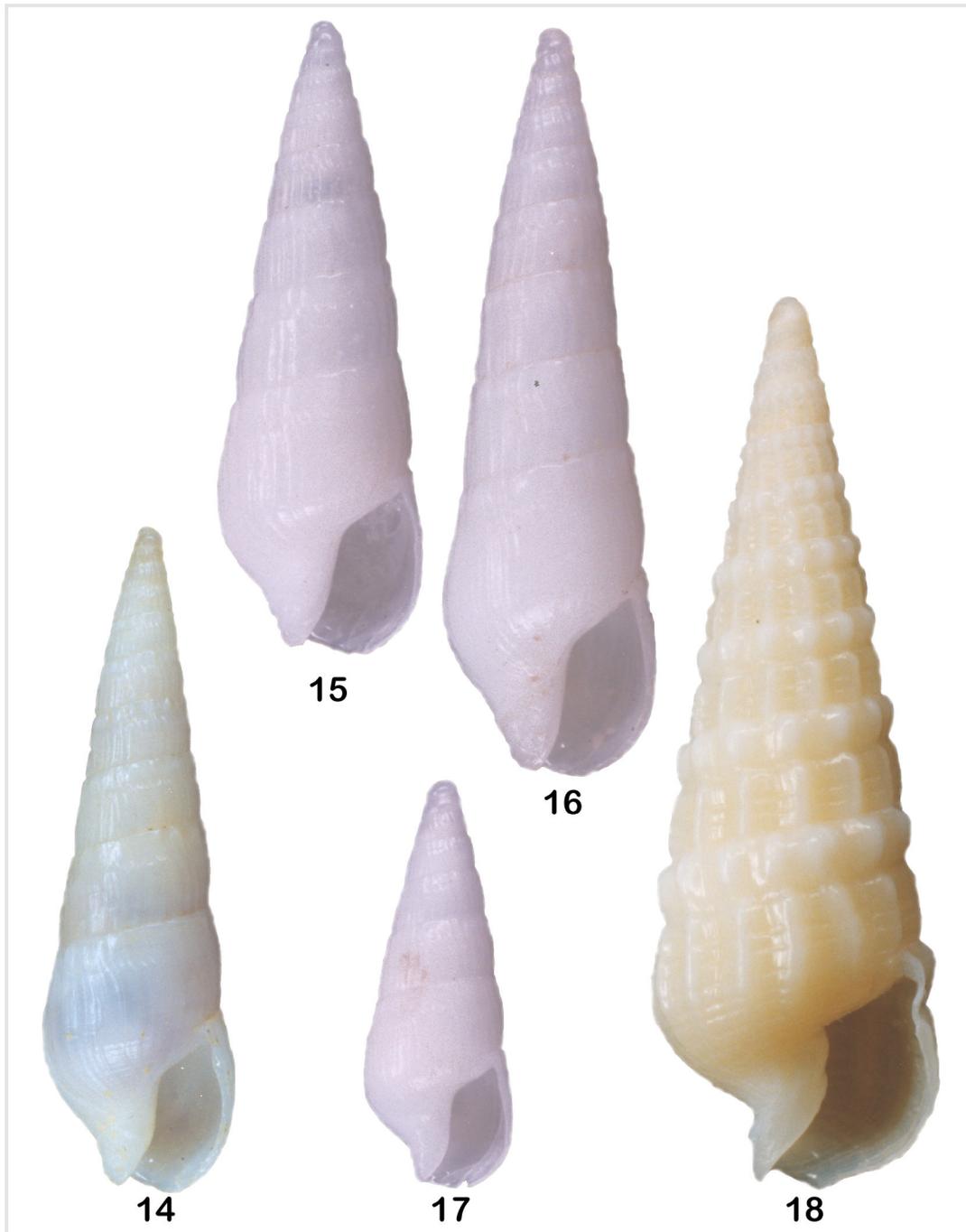
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Figs 1-8. Terebridae. **1.** *Terebra curacaoensis* De Jong & Coomans, 1988; Curaçao (AB); juvenile, ventral; 6.2 mm; 9.0x ; **2.** *T. curacaoensis* De Jong & Coomans, 1988; Curaçao (AB); subadult, ventral; 8.3 mm; 8.9x ; **3.** *T. curacaoensis* De Jong & Coomans, 1988; Curaçao (AB); adult, ventral; 9.7 mm; 9.0x ; **4.** *T. curacaoensis* De Jong & Coomans, 1988; Curaçao (AB); subadult, ventral; 7.9 mm; 8.9x ; **5.** *Terebra rushii* (Dall, 1889); Florida, South Miami Beach, beach (MF; Feb 97/01); subadult, ventral; 11.9 mm; 9.1x; **6.** *Terebra glosemma* Schwengel, 1942; Aruba, sand dredgings (FV); subadult, ventral; 9.7 mm; 9.0x; **7.** *T. glosemma* Schwengel, 1942; Aruba, sand dredgings (FV); subadult, ventral; 9.4 mm; 8.9x; **8.** *T. glosemma* Schwengel, 1942; Aruba, sand dredgings (FV); subadult, ventral; 9.7 mm; 9.1x.



Figs 9-13. Terebridae **9.** *Terebra* aff. *arcas* Abbott, 1954; Guyana, 7°59' N, 57°28' W (coll. Hugo Kool); subadult, ventral; 14.7 mm; 8.2x; **10.** *Terebra doellojuradoi* Carcelles, 1953; Brasil "Praça XV" (Rio de Janeiro) (J. Elsen); adult, ventral; 11.5 mm; 8.8x; **11.** *T. doellojuradoi* Carcelles, 1953; Brasil "Praça XV" (Rio de Janeiro) (J. Elsen); adult, ventral; 12.4 mm; 8.9x; **12.** *Terebra glosemma* Schwengel, 1942; Aruba, sand dredgings (FV); adult, ventral; 12.4 mm; 9.1x; **13.** *T. glosemma* Schwengel, 1942; Aruba, sand dredgings (FV); adult, ventral; 13.2 mm; 8.9x.



Figs 14-18. Terebridae. **14.** *T. incisa* n. sp.; Aruba, north coast, beach (FV); paratype, adult; 15 mm; 6.5x [same specimen figured in J&C, pl. 43 fig. 574]; **15.** *Terebra incisa* n. sp.; Aruba, sand dredgings (FV); paratype 1, subadult, ventral; 10.5 mm; 8.9x; **16.** *T. incisa* nov spec.; Aruba, sand dredgings (FV); holotype, subadult, ventral; 12.3 mm; 8.9x; **17.** *T. incisa* n. sp.; Aruba, sand dredgings (FV); paratype 2, juvenile, ventral; 6.7 mm; 8.9x; **18.** *Terebra dislocata* (Say, 1822); Bahamas, Abaco, Boat Harbour, beach (MF; Fab 98/10); subadult, ventral; 14.4 mm; 9.0x.