



***Terebra limatula* Dall, 1889 and *T. acrior* Dall, 1889 (Gastropoda: Terebridae); two problematic taxa from the western Atlantic**

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In a recent paper Terryn (2011) synonymized *Terebra limatula* Dall, 1889 and *T. l.* var. *acrior* Dall, 1889. This paper proposes that the two taxa are separate species; and that Terryn's determination that *Terebra crassireticula* Simone, 1999 is a junior synonym of *T. limatula* may also be in error.

When Dall first described *Terebra limatula*, he had with him specimens from a number of localities that ranged from Barbados to the Gulf of Mexico to North Carolina. He advised the reader that there seemed to be two different types of sculpture: "The sculpture of the Antillean specimens tend to be stronger, the alveoli between the ridges deeper, and the spirals fewer than in the northern specimens. The latter usually have three or four above the suture, the Antillean two or three. If these differences are worth naming, the variety may be called *T. limatula* var. *acrior*" (Dall, 1889: 66).

Unfortunately, Dall did not choose a holotype or a type locality for either taxon, and, to complicate matters, the form from Puerto Rico shown by him and Simpson (Dall & Simpson, 1901; pl. 57, fig. 6) is not the "Antillean" form *T. limatula* var. *acrior*, as stated in that work, but the "northern" form with more numerous spirals and weaker ornamentation (Fig. 1). Dall's *lapsus* and imprecision has caused the author of a recently published paper (Terryn, 2011) to conclude, erroneously in my view, that *Terebra limatula* and *T. l.* var. *acrior* are synonymous. Terryn also designates a lectotype from the type series (USNM 93971; see Figs. 2a, 2b herein).

In his study, Terryn also considers that *Terebra limatula* is synonymous with *T. crassireticula* Simone, 1999 (nom. nov. pro *Terebra reticulata* Simone & Verissimo, 1995) (Fig. 3). Unfortunately, and based on his synonymy, Terryn refers us to Simone & Verissimo, 1995 and Simone, 1999 for the description and protoconch image of *T. limatula* instead of giving us an original description as well as an image of the lectotype's protoconch. Simone & Verissimo describe the *T. crassireticula* protoconch as having "1.5 whorls, smooth, bluntly round" (p. 462; Fig. 3).

Although the general characters of the designated lectotype of *Terebra limatula* and the holotype of *T. crassireticula* are very similar (compare Figs. 2 and 3), the columellar structures of the two specimens differ. Terryn indirectly addresses these differences by stating that while the lectotype and paralectotypes of *T. limatula* are all damaged shells, the holotype of *T. crassireticula* is "fully adult and complete" and "with thickened columellar callus" (p. 70); however, Luiz Simone informs me (2 Dec., 2011) that none of the specimens of *T. crassireticula* has the central columellar fold shown in the lectotype of *T. limatula* (Fig. 2) and in the specimen of the same taxon shown by Dall & Simpson (Fig. 1).

The type locality, as per the lectotype of *T. limatula* designated by Terryn (and quoting from Dall, 1889: 66) is "U. S. Fish Commission Station 2402, in the Gulf of Mexico, between the delta of the Mississippi and Cedar Keys Fla., in 111 fms, mud." Terryn adds the coordinates 34.33°N, 76.2°W, which are discrepant with Dall's locality, as these coordinates would place the station off the east coast of the United States and not in the Gulf of Mexico. I have contacted the NOAA Central Library and was told that the coordinates for *Albatross*, the ship by which the specimen in question was dredged, Station 2402, are 28°26'N, 85°33.3'W (Skip Theberge, 5 Dec., 2011). These coordinates are compatible with Dall's locality.

I have in my collection two lots referable to *T. limatula* dredged off Alabama and therefore in the general area of the lectotype. One was dredged at 29°21'N, 87°42' W, in 140 m (EFG 14421), and another was dredged at 29° 28'N, 87° 27.30'W in 173 m (EFG 14650; Fig. 4). I have a third specimen dredged in Bahía de Campeche that is also referable to *T. limatula* (EFG 26290, Fig. 5). Although the yellowish banding of this specimen does not appear in the coloration described by Dall ("white to pale buff", p. 63), Dall's specimens were collected empty and damaged. The specimens in my collection show a protoconch of approximately 2 whorls, and more bulbous than that of *T. crassireticula* (compare Fig. 3 with Figs. 4, 5). There are three specimens at the Academy of Natural Sciences, Philadelphia (ANSP 33723) collected in Bimini, Bahamas by Dr. William Rush. They are probable syntypes of *T. limatula*, as the collecting data and the collector's name coincide with Dall's listing of type material (p. 66). Mr. Terryn chose only one of them (Figs. 6a, 6b) as a paralectotype of *T. limatula*, indicating that the other two specimens "clearly belong to a different species (and genus/group)" (p. 64). However, all three specimens (two of them rather eroded) seem to be referable to *T. limatula* (Terryn, 2011; figs 5–7).

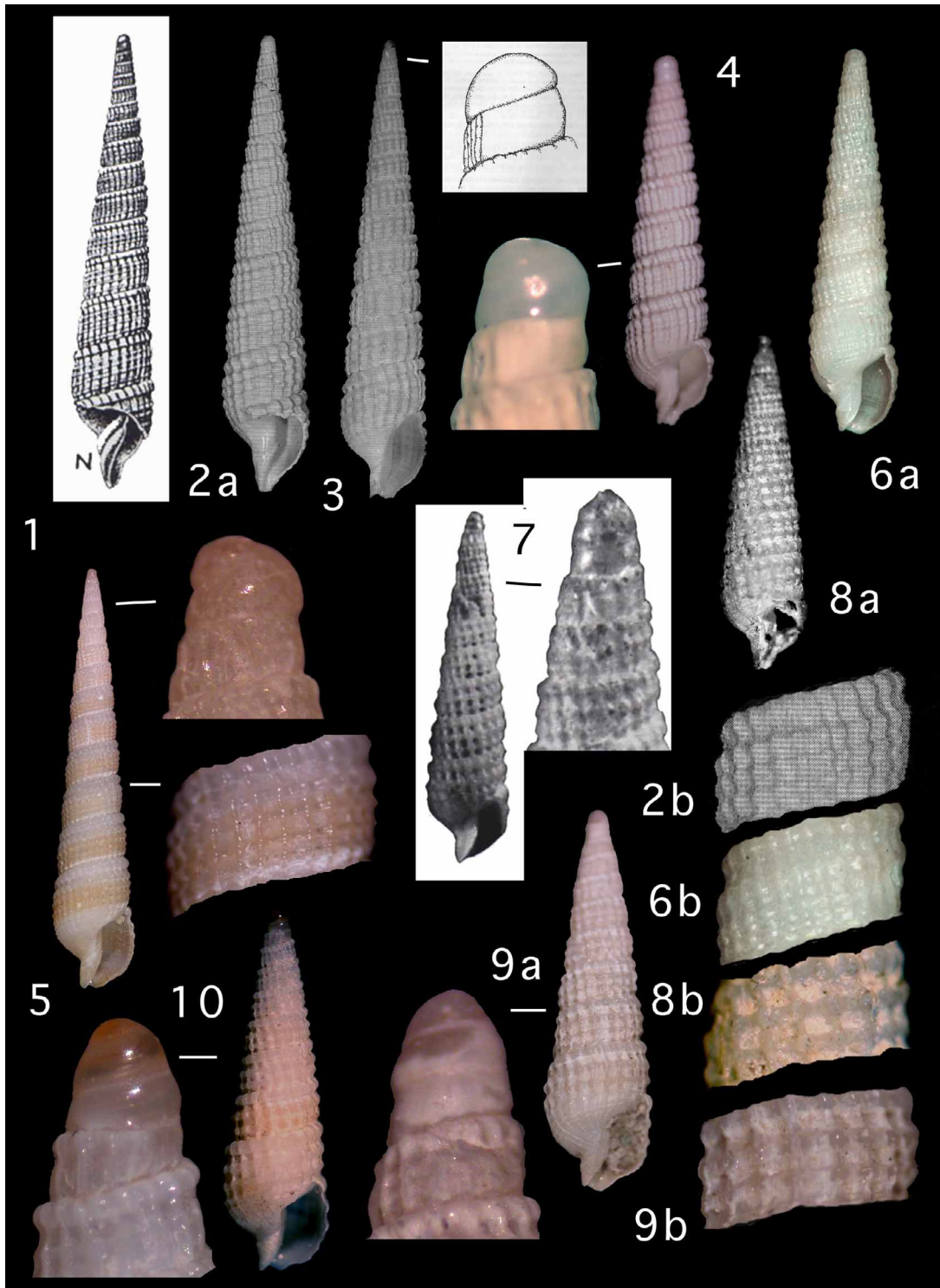


PLATE 1. *Terebra limatula* “var. *acrior*” Dall, 1889. Mayagüez. USNM 159689 Harbor, Puerto Rico, 21.3 mm. Specimen figured by Dall & Simpson, 1901, pl. 57, fig. 6. **2a, 2b.** *Terebra limatula* Dall, 1889. Lectotype, U. S. Fish Commission Station 2402, in the Gulf of Mexico, between the delta of the Mississippi and Cedar Key, Florida., in 111 fms. **3.** *Terebra crassireticulata* Simone & Verissimo, 1995. Holotype MZUSP 27930; slope off Ubatuba, São Paulo, Brazil, 320 m, 25mm. **4.** *Terebra limatula* Dall, 1889. Off Alabama, 29° 28' N, 87° 27.30'W; in 173 m, 8.7 mm (EFG 14650). **5.** *Terebra limatula* Dall, 1889. Bahía de Campeche, Mexico, 20°51.16'N, 92°26.28'W, in 93–94 m (EFG 26290). **6a, 6b.** *Terebra limatula* “var. *acrior*“ Dall, 1889. Paralectotype, ANSP 33723, Bimini, Bahamas, 9.3 mm **7.** *Terebra acrior* Dall, 1889. Syntype, USNM 87294; Barbados, 100 fms, 8 mm. Images from Kaicher (card No. 2710). **8a, 8b.** *Terebra limatula* var. *acrior* Dall, 1889. Syntype, MCZ 7015, Campeche Bank Mexico, 23°13'N, 89°16'W, in 84 fms, 7.4 mm **9a, 9b.** *Terebra acrior* Dall, 1889. Off Alabama, 29°14'N, 88° 16' W; in 100 m, 7.8 mm (EFG 14597). **10.** *Terebra acrior* Dall, 1889. SW of Key West, Florida, in 135 m (EFG 28313).

I now refer the reader to Kaicher, 1981, card No. 2710 (Fig. 7). The card identifies the image as the “holotype” [my quotes] of *Terebra acrior*. However, although this may be the first time that the name is used as a full species, Kaicher is in error, as none of the specimens in the type series was designated a holotype until Terryn’s (2011) publication. This particular specimen (USNM 87294) is labeled a syntype of *T. limatula* var. *acrior* (Cheryl F. Bright, USNM, pers. comm.). It was dredged off Barbados in 100 fathoms by the R/V/ *Blake*, and, because of its ornamentation and locality, it must be assumed that it represents the “Antillean” variation, i.e., *acrior*, described by Dall. What is most salient in Kaicher’s description is that the specimen has “about 3 1/2 nuclear whorls” (Fig. 7), very different from that of *T. crassireticula* and from the specimens in my collection referable to *T. limatula*. In addition to the differences stated by Dall, *T. acrior* is proportionately wider, is more evenly reticulated, and its sub-sutural cord is not as separated from the next cord anteriorly as in *T. limatula*. *T. acrior* is also a smaller species, the largest recorded measuring only 10.4 mm (EFG 26318).

There is a syntype at the Museum of Comparative Zoology, Harvard (MCZ 7015, Figs 8a, 8b) that is also referable to *T. acrior*. It was dredged by the R/V *Blake* on the Campeche Banks, Gulf of Mexico at 23°13’N, 89°16’W, in 84 fathoms. The accompanying museum label reads that it was identified by Dall as *Terebra limatula* var. *acrior*. I have in my collection four lots referable to *T. acrior*: Bahía de Campeche, Mexico, dredged at 22°16.21’N, 91°29.14’W, 111–116 m (EFG 27953) and 20°0.35’N, 92°26.10’W, 73–77 m (EFG 26318); off Alabama, dredged at 29°14’N, 88° 16’ W, 100 m (EFG 14597, Figs. 9a, 9b); SW of Key West, Florida (García, 2008. p. 7, fig. 21; see Fig. 10 herein). There is a specimen collected off SE Florida in the collection of Mr. Dieter Cosman, Fort Lauderdale, Florida also referable to *T. acrior* (García, 2008: 7, fig. 22).

Contrary to Dall’s geographical distinctions for the two taxa, *T. limatula* and *T. acrior* are sympatric in the Gulf of Mexico. On consideration of Dall & Simpson’s record of *T. limatula* from Puerto Rico, the two taxa are assumed to be sympatric elsewhere in the Caribbean.

Although *Terebra limatula* Dall, 1889 is considered by Terryn to be a senior synonym of *T. acrior* Dall, 1889 and *T. crassireticula* Simone, 1999, the three taxa seem to be distinct. *Terebra acrior* has a stronger sculpture and a protoconch of about 3 1/2 nuclear whorls; it is proportionately wider, more evenly reticulated, and of smaller size, *Terebra crassireticula* is similar in general appearance, but lack the distinct central columellar fold, of *T. limatula*.

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