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**DISTORSIO RETICULATA VS. DISTORSIO CLATHRATA IN THE
WEST INDIES***
(MOLLUSCA: GASTROPODA)

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In the past there has been a great deal of nomenclatural confusion surrounding the Caribbean gastropod commonly referred to as *Distorsio clathrata* (LAMARCK, 1822), and the Indo-Pacific form known as *Distorsio reticulata* 'Bolten' RÖDING, 1798. This confusion between two distinct species from opposite sides of the world arose when LAMARCK (1822) modified his original concept of *Triton clathratum* (1816) and included many East Indian figures and references in his re-evaluation of the species. Actually, as was pointed out by IREDALE (1929:34) and various subsequent authors, the West Indian *Distorsio* should date from LAMARCK's figures and name (1816) and not from his description of 1822.

LAMARCK (1816) figured and named *Triton clathratum*; however, when LAMARCK (1822) described in some detail *Triton clathratum*, of the five references listed, only one refers to the West Indian species, the other four refer to *Distorsio reticulata* 'Bolten' RÖDING, 1798, an East Indian species. LAMARCK (1822:186) stated that his species was found in the South American seas; however, in the same paper (576-577) he reports this species as a fossil from Grignon (Eocene) and living in the Southern Ocean. Apparently, LAMARCK used material from both the West Indies and East Indies in his 1822 description. As no *Distorsio* has since been reported from Grignon, see PILSBRY (1922:358), we must assume that Lamarck's locality data was incorrect or that he confused his recent material with *Distorsio tortuosum* (BORSON, 1822:306-307) from the Miocene of Italy. This unwarranted combination was perpetuated and added to as the years passed; authors names were confused, plate references altered, localities switched half-way around the world, with general confusion the result. *Distorsio reticulata* has been recorded in the West Indies and *Distorsio clathrata* has been reported from the East Indies and vice versa. *Distorsio reticulata* 'Bolten' RÖDING, 1798, in itself, has at least six junior synonyms and one questionable sub-species, it has had several generic assignments, and has had several authors' names confused with those of the original authors of the various descriptions and redescriptions. When the troubled history of *Distorsio reticulata* is added to the confusing 1822 description of *Dis-*

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torsio clathrata, a perplexing problem immediately faces any worker attempting to investigate these two species. Synonyms of the species have been interchanged, and to this date, the names of junior synonyms of the East Indian *Distorsio reticulata* are being applied to species from the Atlantic Ocean. It is hoped that the summaries to follow, with the pertinent references, will partially rectify the problem.

Apparently there are no valid applicable synonyms based on Recent representatives of *Distorsio clathrata* (LAMARCK, 1816), outside of a number of East Indian names that have been applied in error; however, there is at least one questionable synonym based on fossil material. GARDNER'S (1947) *Personella floridana* of the Middle Miocene of Florida may possibly be a junior synonym of *Distorsio clathrata*, but as the author has not seen the type material he reserves judgment to a later date and questionably places *Personella floridana* GARDNER, 1947, in the synonymy of *Distorsio clathrata* (LAMARCK, 1816).

In recapitulation, *Distorsio clathrata* (LAMARCK, 1816) has a known geologic range from Middle Miocene to Recent; fossils referable to this species have been reported from the Miocene of Jamaica, Colombia, Mexico, Venezuela, and questionably Florida; it is known from the Mio-Pliocene of Venezuela; and the Pleistocene of Colombia, Venezuela, and questionably Louisiana. The known Recent distribution of this species is from Cape Hatteras, North Carolina, through the Florida Keys and the West Indies to the coast of South America; this species ranges westward to Texas, Eastern Mexico, Eastern Panama, and Northern Colombia; and eastward to the Cape Verde Islands and the coast of West Africa. In comparison, *Distorsio reticulata* 'Bolten' RÖDING, 1798, has a known geologic range of Upper Miocene to Recent; it has been reported from the Miocene of Sumatra; the Pliocene of Java, Ceram, Timor, Sumatra, and French India; and the Plio-Pleistocene of Timor. This species has a known Recent distribution extending from the western Indian Ocean [Red Sea ?] through Ceylon, the East Indies, and the Philippines to the area generally referred to as Polynesia; from these areas, the species ranges northward along the coast of China to southern Japan, its southernmost recorded range is the northern coast of Australia and questionably New South Wales.

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Distorsio clathrata (LAMARCK, 1816)

Plate VI, Figures 3a, 3b, 5a, 5b, 6a, 6b; Plate VII, Figures 2a, 2b, 3a, 3b, 5a, 5b, 6, 7a, 7b.

† 1798 *Distorsio Clatrata* 'Bolten' RÖDING, Mus. Boltenianum, pt. 2, p. 133, nude name, [error for "*clathrata*" *vide* DALL (1915:29)].

1816 *Triton clathratum* LAMARCK, Encyclop. Méth., pl., 413, figs. 4a, 4b, Liste p. 4, not *Triton clathratum* SOWERBY (1833:71).

- 1822 *Triton clathratum* LAMARCK, Hist. Nat. An. s. Vert., vol. 7, p. 186, [South American seas], in part, reference to figures of Lamarck (1816) only.
- 1832 *Triton clathratum* LAMARCK, DESHAYES, Encyclop. Méth. Hist. Nat. des Vers, vol. 3, p. 1061, in part, reference to figures of LAMARCK (1816) only.
- 1838 *Triton clathratum* LAMARCK, POTIEZ and MICHAUD, Gal. des Moll., no. 8, p. 422, [South America], in part, reference to figures of LAMARCK (1816) only.
- 1842 *Triton clathratum* LAMARCK, KIENER, Spécies Gén. et Icon., vol. 7, pp. 21-22, [South America], in part, reference to South America only.
- 1843 *Triton clathratum* LAMARCK, DESHAYES and MILNE-EDWARDS, Hist. Nat. An. s. Vert., ed. 2, vol. 9, pp. 637-638, [South American seas], in part, reference to figures of LAMARCK (1816) only.
- 1864 *Tritonium reticulare* LINNÉ, KREBS, The West Indian Marine Shells, p. 24 [Antillae; Guadeloupe; Jamaica; Carthagera; Tortola], not LINNÉ (1767: 1218), reference to *T. clathratum* LAMARCK, and localities only.
- 1866 *Persona simillima* SOWERBY, GUPPY, Quart. Jour. Geol. Soc. London, vol. 22, pt. 1, p. 288, pl. 17, fig. 13, [Tertiary of Jamaica], not SOWERBY (1850:48).
- 1877 *Distorsio clathrata* LAMARCK, MÖRCH, Malak. Blätter, vol. 24, p. 34, [Porto Rico; St. Thomas; Haiti; South American seas; Catinguiba], in part, references to figures of LAMARCK (1816), and localities only.
- 1877 *Distorsio acuta* PERRY *occidentalis* MÖRCH, Malak. Blätter, vol. 24, p. 34, [St. Thomas; Guadeloupe; Jamaica; Carthagera; Tortola], in part, reference to localities only.
- 1877 *Distorsio cancellata* ROISSY, MÖRCH, Nachrichtenblatt, vol. 9, p. 59, [West Indies], not ROISSY (1805:56) *fide* WATSON (1886:395).
- 1878 *Persona cancellina* ROISSY, KOBELT, Jahrb. Deutschen Malak. Gesel., vol. 5, p. 370, [West Indies], in part, reference to West Indies only, not ROISSY (1805:56) *fide* WATSON (1886:395).
- 1881 *Distorsio cancellinus* ROISSY, TRYON, Man. of Conch., vol. 3, p. 35, [St. Thomas and other West Indian islands], in part, reference to West Indian localities only, not ROISSY (1805:56) *fide* WATSON (1886:395).
- 1883 *Distorsio cancellinus* ROISSY, TRYON, Struct. and Syst. Conch., vol. 2, p. 124, [West Indies], in part, reference to West Indies only, not ROISSY (1805:56) *fide* WATSON (1886:395).
- 1889 *Distortrix reticulata* LINK, DALL, Bull. Mus. Comp. Zool. [Harvard], vol. 18, no. 6, pp. 221-222, [Montserrat; Guadeloupe; Grenada; Barbados; Key West; Tortola; Cape Hatteras], in part, reference to localities only, not LINK (1807:123).
- 1889 *Distortrix reticulata* LINK, DALL, Bull. U. S. Nat. Mus., no. 37, pp. 132-133, [Cape Hatteras, North Carolina to Barbados], in part, reference to localities only, not LINK (1807:123).
- 1901 *Distortrix reticulata* LINK, DALL and SIMPSON, U. S. Fish. Com. Bull. for 1900, vol. 1, p. 416, [Mayaguez, Porto Rico], in part, reference to locality only, not LINK (1807:123).
- † 1901 *Distortrix reticulata clathrata* LAMARCK, DALL and SIMPSON, U. S. Fish. Com. Bull. for 1900, vol. 1, p. 416, [Mayaguez, Porto Rico].

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- 1922 *Distortio reticulata* LINK, MAURY, Bull. Am. Paleo., vol. 9, no. 38, p. 115, [Cape Hatteras, North Carolina to Barbados, West Florida and Mustang Island, Texas], in part, reference to localities only, not LINK (1807:123).
- † 1922 *Distortio reticulata clathratus* LAMARCK, MAURY, Bull. Am. Paleo., vol. 9, no. 38, p. 115, [Porto Rico and the Gulf of Mexico near Key West, also at Chandeleurs, Louisiana; Pleistocene, New Orleans pumping station No. 7].
- 1922 *Distorsio clathrata* LAMARCK, PILSBRY, Proc. Acad. Nat. Sci. Phila., vol. 73, pp. 357, 359, [Antillean].
- 1928 *Distorsio (Distorsio) clathratus gatunensis* TOULA, WOODRING, Carnegie Instn. Wash., Pub. 385, pp. 300-302, pl. 19, figs. 2, 3, [“Miocene, Cumana, Venezuela” (Guppy). Bowden, Jamaica (Middle Miocene)], in part, reference to Venezuela and Jamaica localities, text, and figures only, not TOULA (1909:700-701).
- 1929 *Distorsio* aff. *gatunensis* TOULA, WEISBORD, Bull. Am. Paleo., vol. 14, no. 54, p. 273, pl. 8, fig. 3, [near Usiacuri, Atlantico, Columbia (Miocene)], in part, text, figure, and locality only, not TOULA (1909:700-701).
- 1930 *Distorsio clathratus* LAMARCK, RUTSCH, Eclog. Geol. Helvetiae, vol. 23, no. 2, pp. 607-610, pl. 17, figs. 4, 5, [Mio-Pliocene—Punta Zamuro, Puerto Cumarebo, and Sabanas Atlas, Falcón, Venezuela; Quarternary—Cabo Blanco near La Guaira, Distrito Federal, Venezuela].
- 1934 *Distorsio clathrata* LAMARCK, JOHNSON, Proc. Boston Soc. Nat. Hist., vol. 40, no. 1, p. 114, [Cape Hatteras, North Carolina; Florida Keys and the West Indies], in part, not reference to *Distorsio reticulata* LINK.
- 1935 *Distorsio clathratus gatunensis* TOULA, SCHUCHERT, Hist. Geol. Antillean-Caribbean Region, p. 376, [Tuxtepec formation (Middle Miocene) of Veracruz, Oaxaca, and Chiapas, Mexico], in part, Mexican localities only, not TOULA (1909:700-701).
- 1942 *Distorsio clathrata* LAMARCK, WEBB, U. S. Moll., p. 43, pl. 15, fig. 2, [Florida Keys].
- † 1947 *Personella floridana* GARDNER, U. S. Geol. Surv., Prof. Paper 142-H, pp. 535-536, pl. 53, fig. 8, [Shoal River formation of the Alum Bluff Group (Middle Miocene), Walton County, Florida].
- 1948 *Distorsio clathratus* LAMARCK, M. SMITH, Triton Helmet and Harp Shells, p. 22, pl. 8, figs. 6, 12, [South Florida; West Indies; off Cape Hatteras; Limon Bay, Panama (CLARK)], in part, not reference to *Distorsio reticulata* LINK.
- 1950 *Distortrix ridens* REEVE, NICKLÈS, Moll. Test. Marins . . . , Man. Ouest-Africains, vol. 2, pp. 86-87, fig. 133, [Antilles; Cape Verde Islands; Senegal; French Congo; Belgian Congo], in part, text, figure, and localities only, not REEVE (1844: Triton sp. 46), not REEVE (1844a:115).
- 1951 *Distorsio clathrata* LAMARCK, MORRIS, A Field Guide to the Shells of Our Atlantic and Gulf States, p. 179, pl. 14, fig. 4, [Florida to the West Indies].
- 1951 *Distorsio clathrata* LAMARCK, OLSSON and MCGINTY, Nautilus, vol. 65, no. 1, pp. 26-28, pl. 1, figs. 10-12, [Florida and West Atlantic waters].

- 1951 *Distorsio clathrata* LAMARCK, M. SMITH, East Coast Marine Shells, ed. 4, p. 133, pl. 42, fig. 8, [Lake Worth, Florida to the West Indies], in part, not reference to *Distorsio reticulata* LINK.
 1952 *Distorsio clathrata* LAMARCK, PULLEY, Texas Jour. Sci., vol. 4, no. 2, p. 175, pl. 2, fig. 10, [off Port Isabel, Texas; beaches of Mustang Island and Padre Island, Texas].

Distorsio reticulata 'Bolten' RÖDING, 1798

- Plate VI, Figures 1a, 1b, 2a, 2b, 4a, 4b; Plate VII, Figures 1a, 1b, 4a, 4b.
 † 1742 ——— GUALTIERI, Index Test., pl. 31, fig. D.
 1758 ——— SEBA, Loc. Rerum Nat. Thes. . . ., pp. 159-160, pl. 60, fig. 5.
 1773 ——— MARTINI, Neues Syst. Conch.-Cab., vol. 2, pt. 1, pp. 85-86, pt. 2, pl. 41, figs. 405, 406, [Coast of Hitoe = northern peninsula of Ambon (Amboina) Island, East Indies—Lat. 3°35' S., Long. 128°10' E.], in part, references to RUMPHIUS (1741:28—locality) and figures of Seba (1758, in part, fig. 5, not fig. 6) only.
 1780 ——— FAVANNE, La Conchyliologie, ed. 3, pl. 31, fig. H2.
 1783 ——— SCHROETER, Einl. in die Conch., vol. 1, *Murex* no. 3, pp. 543-544, refers to the figures of SEBA (1758) and MARTINI (1773).
 1790 *Murex anus* [variety Beta] GMELIN, [in] LINNÉ Syst. Nat., ed. 13, vol. 1, pt. 6, p. 3536, [South Asia], in part, reference to figure of GUALTIERI (1742) and Asian locality only.
 1798 *Distorsio Reticulata* 'Bolten' RÖDING, Mus. Boltenianum, pt. 2, p. 133, refers to the figures of MARTINI (1773).
 1803 *Murex cancellinus* LAMARCK, Ann. Mus. Hist. Nat. Paris, vol. 2, p. 225, [Southern Ocean], in part, references to the Southern Ocean and to the figures of MARTINI (1773) only.
 1805 *Murex cancellinus* [LAMARCK] ROISSY, BUFFON Hist. Nat., Moll., vol. 6, p. 56, sp. 12, *vide* WATSON (1886:395).
 1807 *Distortrix reticulata* LINK, Besch. der. Nat.-Samml. Univ. Rostock, pt. 3, p. 123, refers to the figures of MARTINI (1773) and to BOLTEN (1798).
 1811 *Distorta acuta* PERRY, Conchology, pl. 10, fig. 1, [New South Wales].
 1817 *Murex mulus* DILLWYN, Descript. Cat. Recent Shells, vol. 2, p. 704, [Coasts of Hitoe], refers to RUMPHIUS (1741-28—locality); the figures of GUALTIERI (1742); SEBA (1758); MARTINI (1773); and FAVANNE (1780); the text of SCHROETER (1783) and GMELIN (1790).
 1822 *Triton clathratum* LAMARCK, Hist. Nat. An. s. Vert., vol. 7, p. 186, in part, references to figures of GUALTIERI (1742); MARTINI (1773); and FAVANNE (1780) only; pp. 576-577, [Southern Ocean], in part, references to Southern Ocean and LAMARCK (1803 [in part]) only.
 1825 *Murex mulus* [DILLWYN] WOOD, Index Test., p. 123, pl. 26, fig. 46b, [Coasts of Hitoe], refers to the figures of GUALTIERI (1742); MARTINI (1773); and FAVANNE (1780).
 1832 *Triton clathratum* LAMARCK, DESHAYES, Encyclop. Méth. Hist. Nat. des Vers, vol. 3, p. 1061, in part, references to the figures of GUALTIERI (1742); MARTINI (1773); FAVANNE (1780); and PERRY (1811); and the text of LAMARCK (1822:186 [in part]) only.
 1836 *Triton clathratum* LAMARCK, JAY, Cat. Recent Shells, p. 57, [East Indies], in part, not LAMARCK (1816), but LAMARCK (1822) in part.

- 1838 *Triton clathratum* LAMARCK, POTIEZ and MICHAUD, Gal. des. Moll., vol. 1, no. 8, p. 422, in part, references to the figures of GUALTIERI (1742) and MARTINI (1773) and to the text of LAMARCK (1803 [in part]) and LAMARCK (1822:186 [in part]) only.
- 1842 *Triton Clathratum* LAMARCK, HANLEY, The Conchologist's Book of Species, pp. 93-94, 154, [East Indies], in part, not LAMARCK (1816), but LAMARCK (1822) in part.
- 1842 *Triton clathratum* LAMARCK, KIENER, Spécies Gén. et Icon., vol. 7, pp. 21-22, pl. 14, fig. 1, [China], in part, reference to figure of GUALTIERI (1742) and China locality only, not LAMARCK (1816), but LAMARCK (1822) in part.
- 1843 *Triton clathratum* LAMARCK, DESHAYES and MILNE-EDWARDS, Hist. Nat. An. s. Vert., ed. 2, vol. 9, pp. 637-638, in part, references to the figures of GUALTIERI (1742); SEBA (1758); MARTINI (1773); FAVANNE (1780); PERRY (1811); WOOD (1825: fig. 46b. not fig. 46); and KIENER (1842) and the text of ROISSY (1805); DILLWYN (1817); DESHAYES (1832 [in part]); and POTIEZ and MICHAUD (1838 [in part]) only, not LAMARCK (1816), but LAMARCK (1822) in part.
- 1844 *Triton cancellinus* LAMARCK, REEVE, Conch. Icon., vol. 2, *Triton* sp. 45, pl. 12, fig. 45, [Ceylon, Philippine Islands].
- 1844 *Triton ridens* REEVE, Conch. Icon., vol. 2, *Triton* sp. 46, pl. 12, fig. 46, [Philippine Islands].
- 1844 *Triton decipiens* REEVE, Conch. Icon., vol. 2, *Triton* sp. 102, pl. 20, fig. 102, [Mindanao Island, Philippines].
- 1844 *Triton ridens* REEVE, Proc. Zool. Soc. London, pt. 12, p. 115, [Philippine Islands], refers to REEVE (1844: *Triton* sp. 46).
- 1844 *Triton decipiens* REEVE, Proc. Zool. Soc. London, pt. 12, pp. 121-122, [Island of Mindanao, Philippines], refers to REEVE (1844: *Triton* sp. 102).
- 1853 *Distorsio cancellina* DESHAYES, H. ADAMS and A. ADAMS, Gen. Recent Moll., vol. 1, pp. 104-105; vol. 3, pl. 11, fig. 2, as *Distortio cancellina*.
- 1853 *Distorsio decipiens* REEVE, H. ADAMS and A. ADAMS, Gen. Recent Moll., vol. 1, p. 105.
- 1853 *Distorsio ridens* REEVE, H. ADAMS and A. ADAMS, Gen. Recent Moll., vol. 1, p. 105.
- 1853 *Distorsio reticulata* LINNÉ [sic], H. ADAMS and A. ADAMS, Gen. Recent Moll., vol. 1, p. 105.
- 1856 *Triton clathratum* LAMARCK, HANLEY, Wood's Index Test., p. 129, pl. 26, fig. 46b [Ceylon], refers to the figures of KIENER (1842) and REEVE (1844: *Triton* sp. 45), not LAMARCK (1816), but LAMARCK (1822) in part.
- 1859 *Persona ridens* REEVE, CHENU, Man. de Conch., vol. 1, p. 155, fig. 706.
- 1859 *Persona clathrata* LAMARCK, CHENU, Man. de Conch., vol. 1, p. 155, fig. 707, not LAMARCK (1816), but LAMARCK (1822) in part.
- 1877 *Distorsio clathrata* LAMARCK, MÖRCH, Malak. Blätter, vol. 24, p. 34, in part, reference to figure of GUALTIERI (1742) only.
- 1877 *Distorsio acuta* PERRY *occidentalis* MÖRCH, Malak. Blätter, vol. 24, p. 34, in part, references to figures of MARTINI (1773); PERRY (1811); WOOD (1825); and KIENER (1842: pl. 14, fig. 1, not pl. 11, fig. 1); and text of Bolten (1798) and DILLWYN (1817) only.

- 1877 *Distorsio acuta* PERRY, MÖRCH, *Nachrichtsblatt*, vol. 9, p. 59, [East Indies].
- 1878 *Persona cancellina* ROISSY, KOBELT, *Jahrb. Deutschen Malak. Gesel.* vol. 5, p. 370, [East Indies], in part, reference to East Indies only.
- 1878 *Persona decipiens* REEVE, KOBELT, *Jahrb. Deutschen Malak. Gesel.* vol. 5, p. 370 [Philippines] refers to REEVE (1844: *Triton* sp. 102) and REEVE (1844a).
- 1878 *Persona ridens* REEVE, KOBELT, *Jahrb. Deutschen Malak. Gesel.*, vol. 5, p. 370, [Philippines], refers to CHENU (1859: fig. 706).
- 1878 *Persona cancellina* ROISSY, KOBELT, *Jahrb. Deutschen Malak. Gesel.*, vol. 5, p. 370, [East Indies], in part, references to East Indies; figures of PERRY (1811: pl. 10, not pl. 11); KIENER (1842); and CHENU (1859: fig. 707); and text of ROISSY (1805); DESHAYES and MILNE-EDWARDS (1843 [in part]); and MÖRCH, (1877: *D. clathrata*) only.
- 1881 *Distorsio cancellinus* ROISSY, TRYON, *Man. of Conch.*, vol 3, p. 35, pl. 17, figs. 175, 177, 178, [Ceylon; China; Philippines], in part, cited figures and localities only.
- 1883 *Distorsio cancellinus* ROISSY, TRYON, *Struct. and Syst. Conch.*, vol. 2, p. 124, pl. 46, fig. 64, [Red Sea; China; Polynesia], in part, references to Indo-Pacific localities and cited figure only.
- 1895 *Distortrix reticulata* LINK, PILSBRY, *Cat. Mar. Moll. Japan*, p. 47, [Japan], in part, not reference to REEVE (1844: *Triton* sp. 41).
- 1903 *Persona metableta* COSSMANN, *Jour. de Conch.*, vol. 51, pp. 159-160, pl. 6, figs. 4, 5, [Karikal District, French India (Pliocene)].
- 1908 *Distorsio cancellinus* ROISSY, ROGERS, *The Shell Book*, p. 54, pl. 11, figs. 1, 2.
- 1909 *Distortrix cancellinus* ROISSY, SCHEPMAN, *Prosobranchia Siboga Exped.*, pp. 113-114, [Madura Strait; Bay of Bima; Manipa Island; Timor Sea].
- 1922 *Distorsio reticulata* LINK, PILSBRY, *Proc. Acad. Nat. Sci. Phila.*, vol. 73, pp. 357-359, [Oriental].
- 1928 *Distortrix cancellinus* ROISSY, FAUSTINO, *Sum. Philippine Mar. and Fresh-Water Moll.*, p. 232, [Cebu; Mindanao].
- 1931 *Persona (Distorsio) reticulata Kueneni* KOPERBERG, *Jaarb. Mijne- wezen Nederl.-Indië for 1930*, vol. 7, pp. 118-119, (Pliocene and Pliocene of Timor).
- 1931 *Persona reticulata* LINNÉ [sic], VAN DER VLERK, *Leid. Geol. Meded.*, vol. 5, p. 240, [Upper Miocene and Pliocene of the East Indies], refers to other works that give the following geologic time ranges: SONDÉ beds of Java [Lower and Upper Pliocene]; Upper Miocene of West Sumatra; Pliocene of North Sumatra; Pliocene of Timor; and Pliocene of Seran.
- 1948 *Distorsio reticulatus* ROEDING, M. SMITH, *Triton Helmet and Harp Shells*, p. 23, pl. 8, fig. 10, [Indian Ocean; China; Philippines].
- 1948 *Distorsio (Persona) ridens*, REEVE, WEBB, *Handbook for Shell Collectors*, p. 105, pl. 51, fig. 10, [Hong Kong].
- 1951 *Distorsio reticulata* RÖDING, HIRASE, *A Handbook of Ill. Shells*, pl. 96, fig. 5, [Wakayama-ken, Honshu Island, Japan].

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EXPLANATION OF PLATE VI

- Figures 1a, 1b. *Distorsio reticulata* 'Bolten' RÖDING. "Lower Pliocene," Atjeh Province, Sumatra. Length 51 mm., maximum diameter 26 mm. Hypotype No. 33361 (Univ. Calif. Mus. Paleo. Type Coll.).
- Figures 2a, 2b. *Distorsio riticulata* 'Bolten' RÖDING. Recent, China. Length 67 mm., maximum diameter 37 mm. Hypotype No. 33362 (Univ. Calif. Mus. Paleo. Type Coll.) Note double spiral cording on shoulder of body whorl in figure 2b.
- Figures 3a, 3b. *Distorsio clathrata* (LAMARCK). Pleistocene, La Cieba, Atlantico, Colombia. Length 48 mm., maximum diameter 29 mm. Hypotype No. 33363 (Univ. Calif. Mus. Paleo. Type Coll.). Note prominent third tooth within the outer lip in figure 3a.
- Figures 4a, 4b. *Distorsio reticulata* 'Bolten' RÖDING. Upper Pliocene, Type Bodjong formation, Bantam Province, Java. Length 33 mm., maximum diameter 19 mm. Hypotype No. 33364 (Univ. Calif. Mus. Paleo. Type Coll.).
- Figures 5a, 5b. *Distorsio clathrata* (LAMARCK). Middle Miocene, Type Bowden formation, Bowden, Jamaica. Length 53 mm., maximum diameter 30 mm. Hypotype No. 33366 (Univ. Calif. Mus. Paleo. Type Coll.).
- Figures 6a, 6b. *Distorsio clathrata* (LAMARCK). Undifferentiated Miocene, near San Eulalio, Veracruz, Mexico. Length 24 mm., maximum diameter 16 mm. Hypotype No. 33367 (Univ. Calif. Mus. Paleo. Type Coll.). Note body whorl sculptured with regularly spaced spirals lacking any indication of bilirate ridges or of a keel on the shoulder.

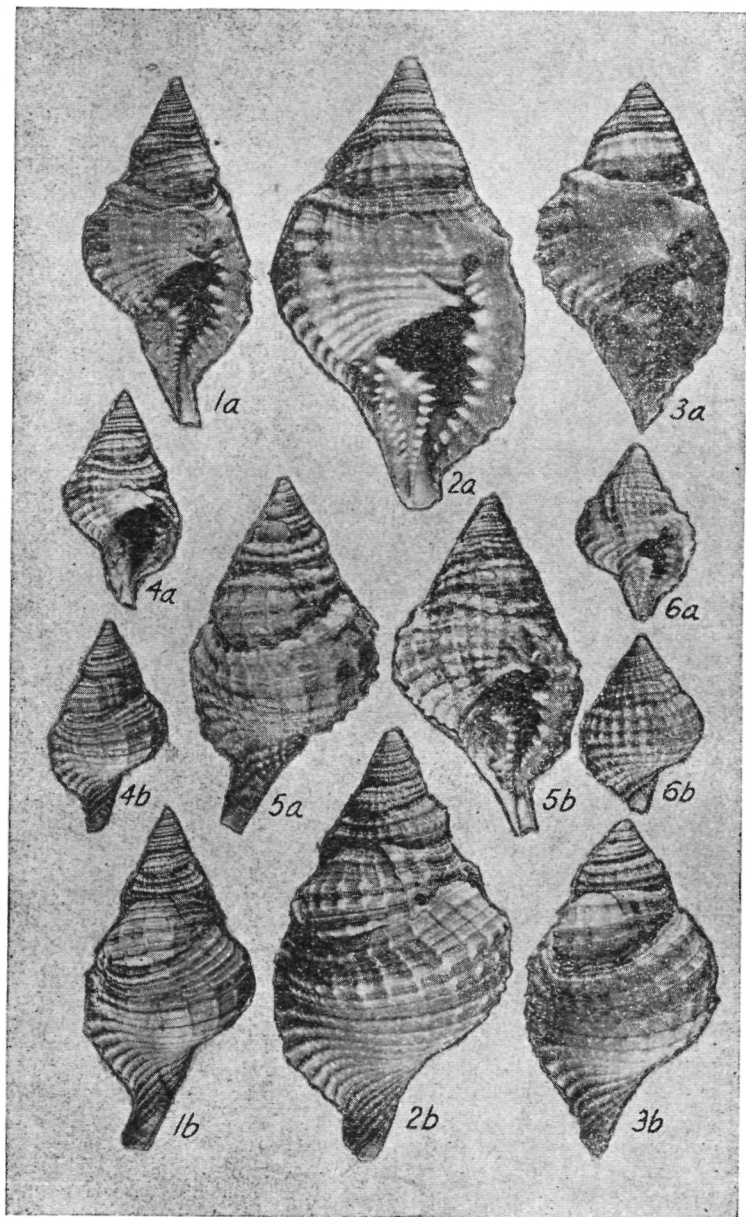


PLATE VI

EXPLANATION OF PLATE VII

- Figures 1a, 1b. *Distorsio reticulata* 'Bolten' RÖDING. Recent, Idi. Atjeh Province, Sumatra. Length 50 mm., maximum diameter 27 mm. Hypotype No. 33368 (Univ. Calif. Mus. Paleo. Type Coll.). Note that in figure 1a the primary teeth within the outer lip are nearly equal in size as opposed to the prominent development of the third tooth in *D. clathrata*.
- Figure 2a. "*Triton clathratum*," after LAMARCK, 1816, plate 413, figure 4b.
- Figure 2b. "*Triton clathratum*," after LAMARCK, 1816, plate 413, figure 4a.
- Figures 3a, 3b. *Distorsio clathrata* (LAMARCK). Recent, Limon Bay, Panama. Length 50 mm., maximum diameter 28 mm. Hypotype No. 8110 (Stanford Univ. Paleo. Type Coll.).
- Figures 4a, 4b. *Distorsio reticulata* 'Bolten' RÖDING. Recent, Indo-Pacific Region. Length 44 mm., maximum diameter 23 mm. Hypotype No. 33369 (Univ. Calif. Mus. Paleo. Type Coll.). Note development of a secondary row of columellar denticles in figure 4a.
- Figures 5a, 5b. *Distorsio clathrata* (LAMARCK). Middle Miocene, Cubagua Island, Neuva Esparta, Venezuela. Length 30 mm., maximum diameter 17 mm. Hypotype No. 33370 (Univ. Calif. Mus. Paleo. Type Coll.).
- Figure 6. *Distorsio clathrata* (LAMARCK). Recent, St. Joseph Island, Texas. Length 31 mm., maximum diameter 20 mm. Hypotype No. 33371 (Univ. Calif. Mus. Paleo. Type Coll.).
- Figures 7a, 7b. *Distorsio clathrata* (LAMARCK). Middle Miocene, Tuberá Group, near Tuberá Mountain, Atlantico, Colombia. Length 37 mm., maximum diameter 22 mm. Hypotype No. 9888 (Calif. Acad. Sci. Paleo. Type Coll.). Note development of lirate ridges in figure 7a which may be mistaken for the secondary columellar denticles of *D. reticulata*.

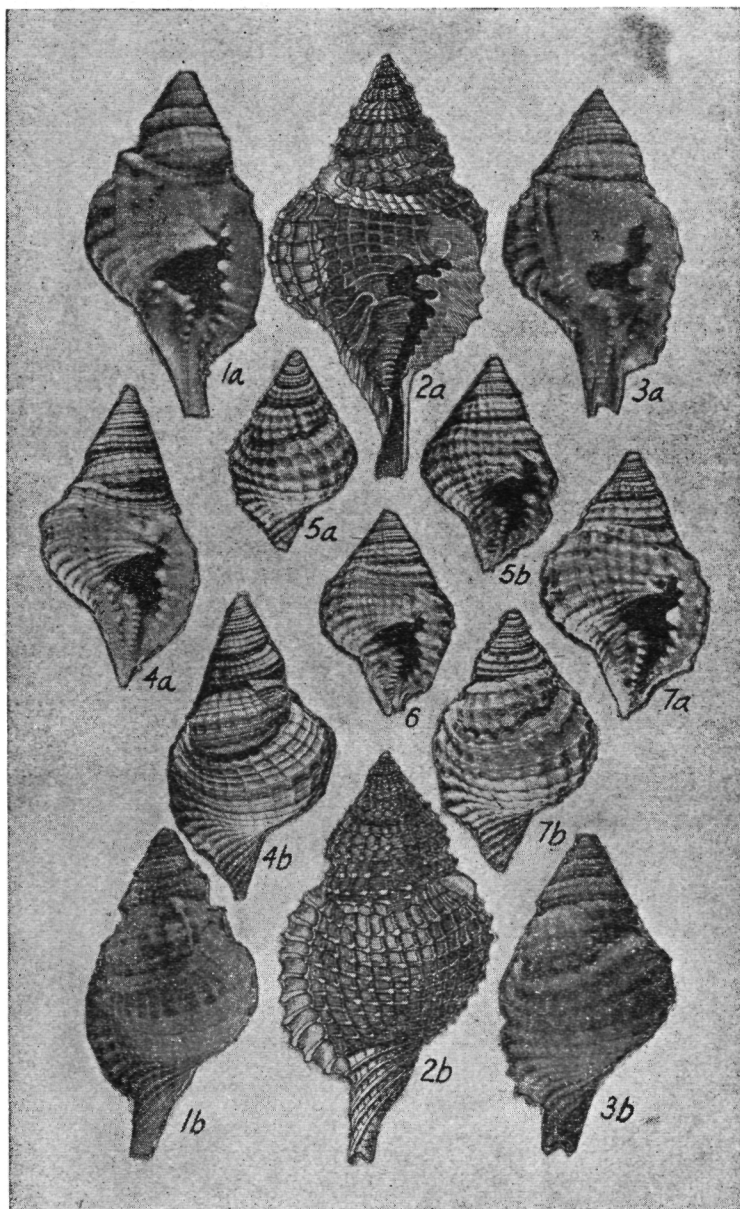


PLATE VII

