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**The *Bordestrap* and related 18<sup>th</sup> century Dutch vernacular names for  
*Trigonostoma scalare* (Gmelin, 1791) and *T. scala* (Gmelin, 1791)  
(Neogastropoda: Cancellariidae)**

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**Abstract:** The complicated history of the prelinnean vernacular name *Bordestrap* is followed in an attempt to trace the type material of *Delphinula trigonostoma* Lamarck, 1822. The syntype figured by Favanne could not be traced; shell MHNG 1095/34 is to all evidence a second syntype; it was in the collections of general Paris and of prof. Richard before it entered the Delessert collection. None of the few shells present in 18<sup>th</sup> century Dutch collections could be traced.

**Introduction:** In the second half of the 18<sup>th</sup> century and till early in the 19<sup>th</sup> century, a then very rare shell was referred to under the vernacular name *Bordestrap* in international literature. This Dutch word refers to the architectural structure of a symmetrical double flight of stairs (*trap* in Dutch) leading from street level to a higher-level platform (*bordes* in Dutch) at the main entrance door of a mansion (Fig. 1). The shell indeed has a similar profile outline. The name was corrupted into *Bordstraps* (Lamarck, 1804: 109), *bordstrape* (Lamarck, 1822: 231; Deshayes 1839: 533), *bords-trappe* (Sowerby, 1832) by non-Dutch authors.

In German words like *Vortreppe*, *Treppengeländer*, *Schiffstreppe* etc. have been used for this or vaguely similar species. The use of the name was expanded to *basterd bordes trap* (*Murex doliarium*; see van Doeveren 1778: 122), *Bastartvortreppe* (*Murex cutaceus* L.) etc. Yet, these names quite often seem to have been used for other, more or less unrelated species.



**Fig. 1.** Example of a *Bordestrap* in architecture in Haasdonk, Belgium.

Although it is only a vernacular name mostly published in rejected publications, the name *Bordestrap* or its corrupt forms are not without importance. Lamarck (1804: 109) mentioned “*le bordstraps des Hollandais*”, and later (1822: 231) wrote: “*J’ai donné le nom de delphinula trigonostoma à la coquille rarissime, vulg. appelée le bordstrape [Favanne, Conch. pl. 79 fig. CC], coquille que j’ai vue, mais que je ne possède pas*”.

The original description by Lamarck does not agree with the conditions for a holotype (ICZN 73.1). Instead, there can be two syntypes for this species: the shell figured by Favanne (1780, pl. LXXIX figs. C) and the one seen by Lamarck (1822: 231) at an unspecified time and place (ICZN 72.4.1.1), if it is not the same as the Favanne shell. Hence, the mention of a type of *D. trigonostoma* in Genève museum (Mermod & Binder, 1963: 170; Verhecken, 1986: 60; Petit & Harasewych, 1987: 79; Hemmen 2007: 276) may need re-examination. The shell seen by Lamarck (a single shell, according to his text) may be of importance to define the species in case the other syntype, the shell figured by Favanne, cannot be traced; or to define the genus

*Trigonostoma*, the type species [by monotypy (Blainville, 1827: 652)] of which is *D. trigonostoma*.

In the present context, it is of importance that Lamarck had problems with his eyesight, that started failing in 1800, and he himself referred to its complete loss (Lamarck, 1819). This compelled him to split up the publication of the last volume of his *HnAsV* into two parts, awaiting a cataract operation (that may never have been performed) for the last part. His vol. 6/1 (February-June 1819) and vol. 6/2 (April 1822) were dictated to his daughter in complete blindness (Packard, 1901: 55).

In the present paper, reference is made to the collection of Masséna (1758-1817), of the *duc de Rivoli*, and of the prince of Essling. These names refer to the same person. François Victor Masséna (1799-1863) was the son of André Masséna, an important general in Napoleon's armies who received the title of 'count of Rivoli' in 1797 after the victory at Rivoli, Italy; and after the battle near Aspern-Essling in Austria in 1809, he was promoted to 'prince of Essling'. The son François Victor, who had a famous shell collection, inherited these titles. To avoid confusion, he is always referred to as Masséna in this paper, even in citations and when the original literature used Rivoli or Essling.

#### Abbreviations:

ICZN	International Code of Zoological Nomenclature, fourth edition, 1999.
<i>HnAsV</i>	Histoire naturelle des Animaux sans Vertèbres
MHNG	Muséum d'Histoire naturelle, Genève
NHMUK	Natural History Museum, London
RBINS	Royal Belgian Institute of Natural Sciences, Brussels

**The *Bordestrap*:** The molluscan species designated by that invalid name has not often been figured correctly under the name *Bordestrap*. The earliest use of this name is in Dutch auction catalogues. Citations like "Leers. Mus." (Meuschen, 1787: 239) or "mus. Leens." (Gmelin, 1791: 3495) refer to figure b on the unnumbered plate facing the title page of the Leers sales catalogue (Meuschen, 1767), but in small characters below the plate it reads: "b. exst. in Museo v. d. M\*\* N° 156". This means that fig. b in fact refers to the V.D.M. [Van der Mieden] sale (1766); the Leers catalogue indeed does not mention a *Bordestrap*. Yet, fig. a on the same plate shows an *Arrosoir* and the legend states: "a exst. in Mus. Leersiano N° 1"; thus indicating the plate dates from the 1767 Leers auction and not from the 1766 VDM catalogue. The latter catalogue mentions (Meuschen, 1766: 8 n° 156) the *Bordes Trap* and states it is slightly smaller than a similar shell under D[Argenville] suppl. I f. This probably refers to the

second edition (1757) where under "*Coquilles univalves* [sic] très rares. Première planche, fig. F" a shell from the famous Dutch Lyonet collection is figured (Fig. 2), and described (p. 384) (figured again in Favanne, 1780 pl. 35 fig. F), but which is quite different from the real *Bordestrap*; it might well represent a specimen of *Thatcheria mirabilis* Angas, 1877.

To all evidence, the cited Meuschen, 1767 figure b (Fig. 3) is the first figure ever given for the *Bordestrap*; it was selected as representing the lectotype of *Buccinum scalare* Gmelin, 1791 by Petit (1984: 58). Synonyms for the latter name are: *Trigona pellucida* Perry, 1811; *Delphinula trigonostoma* Lamarck, 1822 = *Trigonostoma trigonostoma* (Lamarck, 1822).

The last use of this vernacular name (spelled *Bordstrappe*) is by Reeve (1856).

**Confusion in the older literature:** The use of non-binominal vernacular names has led to extensive confusion and discussions.

The sales catalogue of the Oudaan collection (Anon., 1766: 37, n° 397) mentions a very nice "*Bordes-trapje*" together with 6 other shells (hence, not a very rare shell), and at p. 38 n° 401 two unusually nice *Bordes-trappen* (Petiver 1764, Opera Tom. I tab. 101 fig. 14) (Fig. 4); this reference was copied by Martini (1777: 409), who refers it to the *bastert Bordes-trapje*, *Murex cutaceus* Linné. As indicated below, the diminutive name *bordes-trapje* refers to a species quite different from the *Bordestrap*!

Martini (1777: 408, pl. 118 figs. 1085-1088) included species of *Tonna* or *Dolium* under such names as *schmale Vortreppe* and *Bastert Bordes-Trapje*, and states that the Dutch gave it the name *Bordes-Trapje* and also *Vellhoorn*, referring to its periostracum (*vel* in Dutch means skin); this is *Murex cutaceus* Linné.

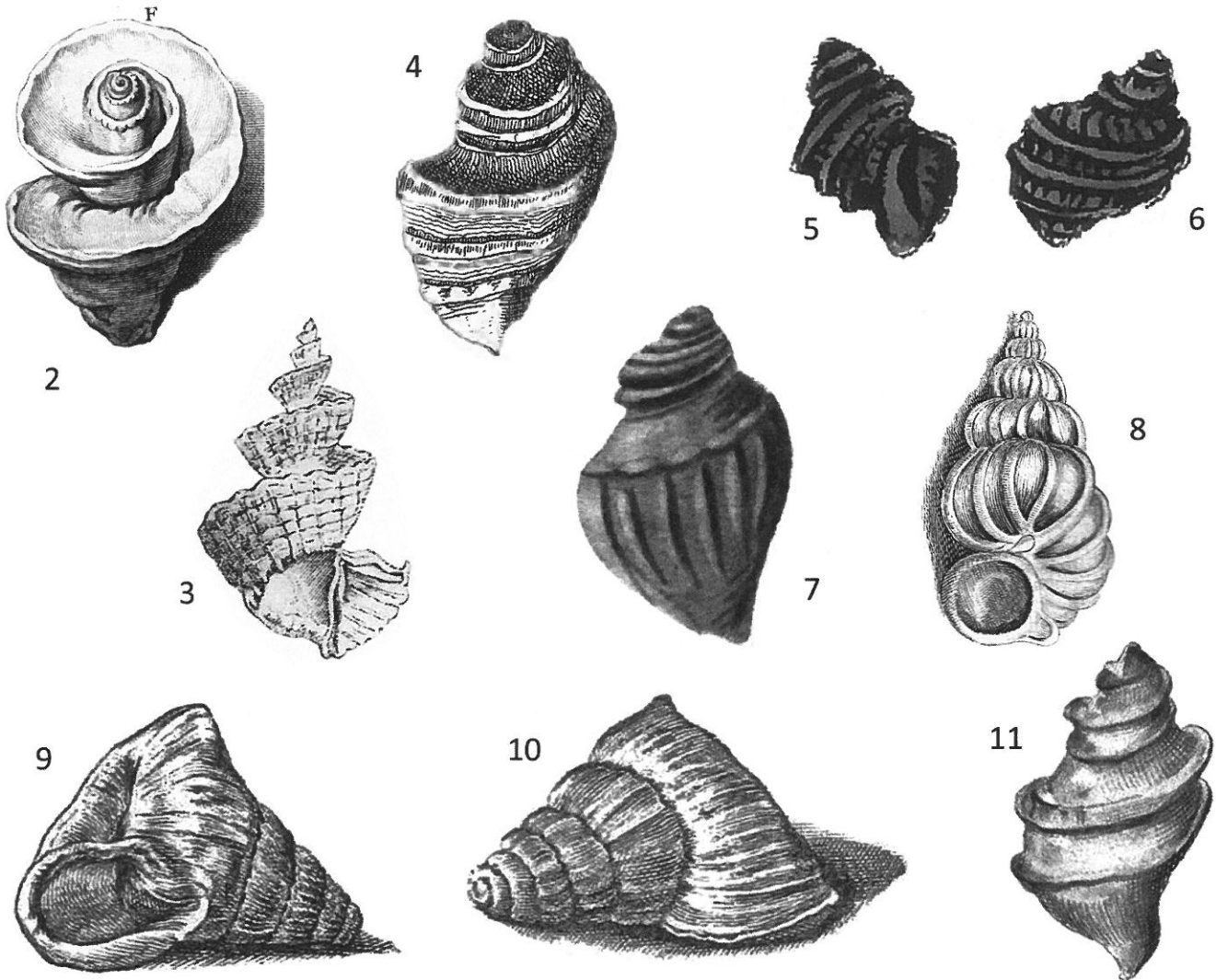
Martini (1777: 411, pl. 118 figs. 1089a, b) described and figured a small, very crudely drawn shell from the East-Indies (Figs. 5-6) under the names *ächte Vortreppe*, *Freytreppe*, *Schifswinde aus Mariland*, and *Bordes-trapje*, and stated that the Dutch gave high value to (such) shells of at least 5 cm that, in any size, belong to the rare cabinet-pieces. According to Schröter (1791: 167), this is not the real *Bordestrap*; that figure indeed does not agree with the VDM figure cited above.

Apart from his full-page plates, Martini (1777) also used smaller plates of about half a page; he called them *Vignettes*; his volume III contains 11 of them. Unfortunately, the "36<sup>te</sup> Vign." (1777: 303) is followed by another "36<sup>te</sup> Vignette" (1777: 383). This led Pfeiffer (1840: 32) to renumber the latter to "Vignette 37"; thus introducing two homonyms: a "Vignette 37" in Martini

(1777: 383), figuring a cross-section (*Durchschnitt*) of “F.1. *Dolium*, 2. *Harpa*”; and another in Chemnitz (1780: 1) (Fig. 12), the figures of which Pfeiffer refers to as: “F. 1-2. *Eburna areolata* Lam. 4; a.b.c. *Cancellaria scalarina* Lam. 3” and “*C. goniostoma* Sow Conch. ill. 43 !” (Pfeiffer, 1840: 43). This error in Vignette numbering has passed unnoticed.

Chemnitz (1780: 6) referred to his 37th Vignette fig. a (representing one view of a shell of *Murex scala* Gmelin, 1791) as “der Argus unter den Fischreusen *Nassa oculata* – *Argus Rumphianus*

und die *Bordestrappe*”. *Fischreuse* is the German word for “fish trap”. Chemnitz (1780: 7) mentioned “die *Fischreuse*, welche bei den Holländern die *Vortreppe* oder *Schifswinde* heisset” and referred to Vignette 37 fig. 2 under the name *Nassa trochlea Belgica*. Yet, further on he (1780: 18) mentioned Vignette 37 figs. 1-2 (the *Eburna*) as representing an umbilicated *Fischreuse*: it appears he considered the *Eburna* to be a cancellariid. Moreover, he evidently mixed up his references to the figures in the 1780 Vignette 37.



**Figs. 2-11: Figures that have been referred to in the context of the *Bordestrap*.**

2. D'Argenville, 1757. *Coquilles univalves* [sic] très rares. *Première planche*, fig. F. 3. Meuschen, 1767: Tab. I fig. b. Was selected as representing the lectotype of *Buccinum scalare* Gmelin, 1791, by Petit (1984: 58). 4. Petiver, 1764, referred to in the Oudaan catalogue (Anon. 1766: 37 n° 397) as “Opera Tom. I tab. 101 fig. 14” (here rendered upside down). 5-6. Martini, 1777: 411, pl. 118 figs. 1089a, b; described and figured under the names *ächte Vortreppe*, *Freytreppe*, *Schifswinde aus Mariland*, and *Bordes-trapje*. 7. Chemnitz, 1780: pl. 122 fig. 1130, the figure referred to as *Missgeburt* by Chemnitz 1780. 8. *Buccinum scalare*, prelinnean name sensu Rumphius (1741: pl. XLIX fig. A) for the *Wenteltrap* (not to be confused with *Buccinum scalare* Gmelin, 1791). 9-10. Pallas, 1774: 33 tab. 3, figs. 7, 8 respectively. 11. Knorr, 1772: Part 3 pl. 7 fig. 2. Reference given by Bruguière for *Buccin cabestan*.



Chemnitz (1780: 26) discussed his (1780) pl. 122 fig. 1130 (Fig. 7) and stated it was a copy of Knorr (1773: VI pl. 17 fig. 7: a figure too bad in contrast to be reproduced here) that should represent a *Bordestrap*, *Vortreppe* or *Schifstreppe*. Yet, as he found this figure unidentifiable, Chemnitz called it a *Missgeburt* (a miscarriage or monstrosity), a terminology repeated by Schröter (1783: 364), who stated it does not deserve nor allow a description. Gmelin (1791: 3495) distinguished his *Buccinum scalare* (based on Vignette 37 a, b, c, and the Meuschen 1767 fig. b) from a form  $\beta$  with the Knorr and Chemnitz *Missgeburt* figures cited above as a reference. Pfeiffer (1840) referred to the same unrecognisable Knorr figure, and used the name “*Buccinum scalare*  $\beta$  Gm. 113”. *Trigonostoma scalare* (Gmelin, 1791) is the valid name for this species, as shown by Petit (1984: 58). Rumphius (1741: 161, pl. 49 fig. A) and Sipman (1741: 175) already used the (prelinnean) name *Buccinum scalare* for the *Wenteltrap* (Fig. 8).

Chemnitz (1780: 27) cited the shell in the Spengler collection figured on “37ste Vignette N° 3 [sic, no n° 3 on the Vignette 37] lit. a. b. c.”, he gave a description (by Spengler!) of the so-called *Bordestrap* (*Treppengeländer*) and then referred to Vignette 37 N° 2 [sic] (the *Eburna*).

It must be noted here that the shell figured in Vignette 37 a.b.c. is not the *Bordestrap* (later named *Buccinum scalare* and *Delphinula trigonostoma*) but *Murex scala*, now *Trigonostoma scala*, for which a neotype has been designated (cfr. Verheeken, 2007: 339, 345). Deshayes (1843: 403) correctly stated “*le Buccinum scalare, dont il faudra avant tout retrancher la variabilité ...*”.

Chemnitz (1780: 27-28) published a text by Spengler (cfr. Verheeken, 2007: 345), discussing the six shells then known under the name *Bordestrap*, mentioned in a letter from Meuschen to Spengler (Chemnitz 1780: 28). Five shells had been in a cabinet in Batavia; two of them came to Holland; one other had been obtained “a long time ago” by Lyonet for 80 Dutch guilders (possibly a specimen of *Thatcheria mirabilis* Angas, 1877, see above), and Gevers, mayor of Rotterdam, purchased one for 23 Ducats at an auction “last April” [1780?]. This meant only six known shells (three in Batavia, three in Holland), apart from the one owned by Spengler (but which is *Murex scala* Gmelin), for which Spengler himself discussed the differences from the real (Dutch) *Bordestrap* (Verheeken, 2007: 345). It is not known what happened to the three shells that had remained in Batavia; one is mentioned in the 1787 Gevers catalogue (see later).

Schröter (1783: 364; 552), referring to Vignette 37 and to Meuschen fig b, mentioned “*die ächte wahre Vortreppe, die Schiffstreppe, das Treppengeländer Holländ. Bordes Trap*”, and stated that the columella

has folds. He stated that the basic colour is yellow; other shells have a colour tending to reddish and are more elongated. He obviously mixed up *Trigonostoma scala* (Gmelin, 1791) and *T. scalare* (Gmelin, 1791). The complicated use of references by Gmelin (1791: 3495) for his *Buccinum scalare* was discussed by Petit (1984: 58).

The *Bordestrap* shell in the Gevers collection (Meuschen, 1787: 239 n° 448) was sold (to whom?) in 1787 for 23 Ducats (Chemnitz 1780: 28). References given are: Leers. Mus. Tab. I f. 6 [sic: must be “b”]; Pall. Spicit. X p. 33 tab. 3 fig. 7, 8 (a species with only a superficial resemblance to the *Bordestrap*) (Figs. 9-10); V.d. Mieden Mus. (p. 8, N° 15).

“*Sous le nom de Bordes Trap, ou on trouve une très ample description de cette conchile [sic] très rare (I p. 1058. –) [the meaning of this is unclear. The Latin version (Meuschen 1787: 288) has « 1 specim. 1058 ». If this refers to Martini fig. 1058, it is a Murex brandaris-like shell; or is it an error for fig. 1088, the schmale Vortreppe, Bastert Bordes-trapje?*”

“*Cet objet singulier, & digne d’admiration, s’est encore trouvé dans aucune [sic] Cabinet qu’à La Haye, dans celui de Mr. le Secrétaire LYONET [possibly the above-cited d’Argenville figure of Thatcheria mirabilis]; dans celui de feu Mr. Le Président V. D. MIEDEN [sale in 1766]; & de la parvenu chez la Duchesse de PORTLAND, à Londres [but no Bordestrap is mentioned in the auction catalogue of the Portland collection (Lightfoot, 1786)]; comme aussi dans le Cabinet de feu Mr. le Comte de WASSENAAR OBDAM, quoique pas inséré dans son Catalogue; à Batavia, chez feu Mr. I. VAN OORT, sous le nom particulier: de Kroon der Alikruiken; un dernier enfin se trouve à Copenhague [sic], chez Mr. le Directeur SPENGLER” [but this is Murex scala Gmelin (= Trigonostoma scala)].*

The fate of some of the *Bordestrap* shells in well-known collections is unknown, since they were no longer mentioned in the auction catalogues of their collection: Portland, Wassenaar-Obdam, Calonne. There are in fact only two clear references to a sale of a *Bordestrap*: the Van der Mieden auction in 1766, sold (to ?) for 20 Ducats (Chemnitz 1780: 28), and the shell purchased (from whom?) by Gevers in April 1780 (Chemnitz 1780: 28), and sold (to ?) at the auction of the Gevers collection (1787). The shell figured by Favanne (1780: figs. CC) might possibly have been the one in the Gevers collection; but this is only based on the dates, without any further proof.

Krünitz (1790: 242-252) discussed the different uses of the name *Bordestrap*. He stated: (p. 242) (transl.) “this name has been used or much more misused so differently by the authors that, in order to avoid all confusion, several of the authors who have used this



name must be cited". He (1790: 242-252) needed ten pages to explain nine different *Bordestrapp* in Martini's work; these will not be repeated here.

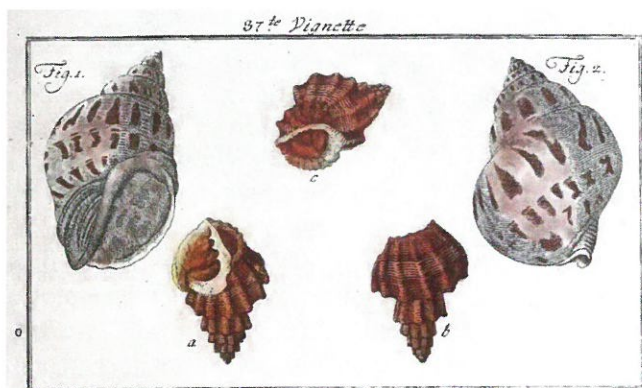


Fig. 12: Chemnitz, 1780: 3, Vignette 37 [different from Martini's second Vignette 36 that was renumbered to 37 by Pfeiffer (1840)].

Probably the first use of the name in a French publication is by Bruguière (1789: 249) who used the name *Ächte Vortreppe* and *Fregtreppe* [sic for *Freytreppe* ?], *Bordes-trapje*" for the *Buccin cabestan* Martini (1777: 411, pl. 118 fig. 1089), a very different species. He refers to another figure by Favanne (1780: pl 34 fig E), but this is clearly a different species, as he stated it is found on the shores of the Strait of Magellan and of Cape of Good Hope.

In the catalogue of the sale organised by Schöen on 30 June 1794 Lichtenstein (1794: 60-61) mentions:

*Buccinum scala*, -Die Treppe Gmel. Sp. 61:

"627. eine kleine weisse Schiffs-Treppe (*Bordestrap*)" with ref.: "Mart. 3 t. 118 f. 1089 a.b" (Figs. 5-6)

"628. Zwey besonders grosse *Bordestrappen*. Knorr 3 t. 7 f. 2." (is the *cabestan*) (Fig. 11)

"*Buccinum scalare*, Treppen-Gelender, Gmel. Sp. 113 645 Ein Safrangelbes Treppen-Gelender, 2 zoll. "Mart. 4 t 122 f. 1130 (selten)" = *Missgeburt!*)

"646 Ein weisses ditto, mit umgebogener Lefze [lip] (sehr selten)".

Although it might yield interesting information, it is rather hopeless to try to find the mention of a shell of the real "Dutch" *bordestrap* in the hundreds of auction catalogues (Dietz, 2006: 375) in France and Holland in that period.

It must be concluded that cited literature references to the *Bordestrap* are very confusing since many of them refer to different species under the same name, or to the same species under different names.

**Rarity of *Bordestrap* shells:** The *Bordestrap* is not

mentioned in D'Argenville (1742, 1757) and is not figured on his plates. That author also gave (1742: 214-216) an overview of the most important shell collections in Holland, but did not mention a *Bordestrap*.

The *Bordestrap* was very rare in collections of that period: it was referred to as "*Cet objet singulier, & digne d'admiration*" (Meuschen, 1787: 239) ("this special object worthy of admiration"); it was probably still rarer in collections than the famous rarities of that period such as *Conus cedonulli*, the *Scalaria*, *Carinaria*, the *Amiraux* (*Conus* sp.). The shell was not present in the collection of de Favannes (Thiéry, 1787: 344-347).

The name *bordestrap*, or a variety of it, is not even cited once in the text volumes by Favanne, 1780 (pdf. files searched digitally) that described all collections that author judged to be of importance in France and other European countries. This is here interpreted as a strong indication of the absence of a shell of that species in France in 1780.

Spengler (in Chemnitz, 1780: 27) mentioned the "classical" rare species (*Amiraux*, wentletraps) and states there are other very rare species, found only as unique pieces. In these rarities Spengler also includes the (transl.) "so extremely rare shell, known only in Holland under the name *Bordestrap*. One cannot find any news on it by any author". He mentioned the *Bordestrap* (*Treppengeländer*) stating (transl.) "the very real *Bordestrappen* belong to the number of rarest cabinet pieces".

Since the early 18<sup>th</sup> century; there has been close contacts between French and Dutch shell collectors: French dealers (e. g. Gersaint) regularly visited Holland in order to fill their stocks; and many Dutch auction catalogues were at least partly published in French. Yet, in his sales catalogues of shells (1736, 1749, ...), the French dealer Gersaint does not mention the name *bordestrap*, either. Nor is it mentioned in other French sales catalogues (e.g. Helle & Remy, 1757). This shows that the French *curieux* were well informed of the rarities only present in Dutch collections. Therefore it is possible that the shell figured by Favanne (1780: figs. c, c) was not present in any collection in France at that time. The only clear data we have on Dutch specimens of the *bordestrap* is the shell purchased by Gevers (in April 1780) (from ?), and sold in 1787 (to ?). Nowadays, Museum Naturalis (Leiden) has two shells of *Trigonostoma scalare* (= *T. trigonostoma*): one from Ceylon, 16.7 x 12.7 mm, and one without locality data, 34 x 28 mm. The former ZMA collection (now in Naturalis, Leiden) had one from the Molluccas, 31.5 x 26 mm. There is no indication that one of these shells originates from 18<sup>th</sup> century material.

Lamarck (1822 tom 6 part 2: 251) stated for *Delphinula*

*trigonostoma*: “coquille rarissime”. Deshayes (1830: 180) mentioned the *coquille très rare* he examined in the collection of Masséna, and “*excessivement rare dans les collections*” (1843: 400). Kiener (1841: 42) refers to the same shell in the Delessert collection as “*coquille très-rare et très-précieuse*”. Chenu (1847: 274, pl. 5 fig. 2) states: “*cette coquille est des plus rares*”. Crosse (1861: 229) calls it “*cette précieuse coquille, la plus rare du genre*”. Löbbecke (1886: 50) cites it as (transl.) “a species long known, but still the rarest and most looked-for of the genus. In recent times it has not appeared in the trade ... I have not been able to obtain it.”

Still, in 1899, a shell of this species was announced as “... *Spondylus regius*, *Cancellaria trigonostoma* qui sont au nombre des grandes raretés malacologiques” (Malloizel, 1899: 139), and was offered for sale as “un exemplaire du rarissime *Cancellaria trigonostoma*”, separate from the rest of the other cancellariids in the Crosse collection (Malloizel, 1899: 140). That shell was purchased by Dautzenberg for 100 Fr. and is kept in the latter’s collection in RBINS; dimensions 20 x 14 mm, labelled (transl.) ‘comes from a Dutch collection’. A second shell in the same collection, 23 x 18 mm, from Bélep, New Caledonia, was collected by Montrouzier.

Nowadays shells of *Trigonostoma scalare* are no longer rare: they are regularly available from localities in the Philippines (Verhecken, 2011: 35).

#### Binominal names for this species:

*Buccinum scalare* Gmelin, 1791: 3495. Lectotype, designated by Petit (1984: 58): the shell figured by Meuschen (1767: fig. b). Gmelin (1791: 3495 n° 113) mentioned “*columella plicata*”

*Trigona pellucida* Perry, 1811: pl. LI n°1-2, shell from the “South Seas”, in the collection of the English writer Miss Mitford (1787-1855), a “most singular and unique shell”, about 39 x 27 mm ; columellar folds indicated. (Fig. 13)

*Delphinula trigonostoma* Lamarck, 1822: 231 n° 3.

*Cancellaria trigonostoma* Deshayes, 1830: 180; Kiener, 1841 pl. 1 fig. 1; Chenu, 1847: 274, pl. 5 fig. 2; Sowerby [II], 1849: pl. xciv figs. 45-46; Reeve, 1856: species 51, pl. xi figs. 51a,b: “*le bordstrappe*, Favanne”.

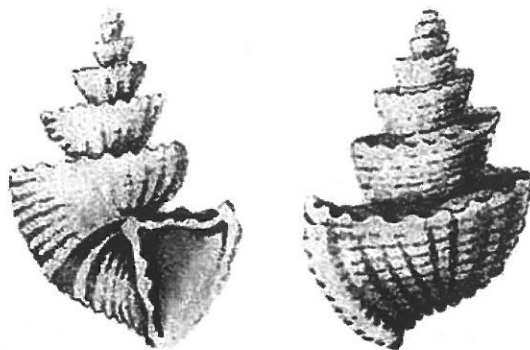


Fig. 13: *Trigona pellucida* Perry, 1811: pl. LI n°1-2, shell from the “South Seas”.

The species was cited as *Cancellaria trigonostoma nobis* [sic] by Sowerby (1832: n° 48, fig. 44) who referred to “the *Bordstrappe* of the Dutch Conchologists”. He mentioned and showed the columellar folds that had escaped the attention of Lamarck, probably because of his blindness. That particular shell clearly had not been figured before (Fig. 14); did it originate from the Portland collection, where a shell of it was mentioned (Meuschen, 1787: 289)? Calonne also bought material from the Gevers collection (Humphrey, 1797: iv), but the sales catalogue of his collection does not mention a *Bordestrap*.

Although the columellar folds of the *Bordestrap* had been remarked by Schröter (1783: 364), and by Gmelin (1791: 3495 n°113) for his *Buccinum scalare*, *Delphinula trigonostoma* was included in *Cancellaria* only by Deshayes (1830: 180), and in *Trigonostoma* by Blainville (1827: 652) who did not notice its relation with *Cancellaria*.

Kiener (1841), Chenu (1847), Sowerby (1849) and Reeve (1856), all cited above, clearly figured the columellar folds, but the published photo of MHNG shell 1095/34 does not show them, although they are mentioned in the text (Mermod & Binder, 1963: 171, fig. 234).



Fig. 14: *Cancellaria trigonostoma nobis* [sic], in Sowerby (1832a: n° 48, fig. 44), shell from Ceylon.



***Delphinula trigonostoma* Lamarck, 1822:** There are three possible interpretations for Lamarck's (1822) statement of having seen a shell of *D. trigonostoma* that he did not possess.

a. Lamarck referred to the shell figured by Favanne (1780: pl. 79, fig. C). Yet, in that case, Lamarck referred to the same shell twice (which seems improbable). This shell would then be the holotype by monotypy.

b. In 1781-82, Lamarck accompanied the son of Buffon as a mentor on a journey through Holland, Germany, and Austria-Hungary to study botanic, mineral and zoological collections (Buffon, 1860: 97). Yet, probably because that journey ended untimely because of misconduct of the young Buffon, no report of that voyage seems to have been published. It is possible and even probable that they were shown a shell of the *Bordestrap* when in Holland. This shell would then belong to the type series (ICZN 72.4.1.1; but 12.3 ?). Therefore it is interesting to establish which shells of the *Bordestrap* were in Dutch collections in that period, and if these can still be traced today, since one of them might be a syntype.

c. Lamarck may have seen another shell in a collection in Paris or elsewhere. This was found to be correct.

**The Favanne figures:** It must be noted that Favanne, 1780, pl. LXXIX, «*Première planche de Coquilles des nouvelles découvertes*» has the figures numbered in two sets: the uppermost: A-Z, and those on the lower half of the plate: A-N. Hence this plate has two different shells indicated «C»; the two figures C referred to by Lamarck are in the lower part. The explanations by Favanne (1780: 463) of pl. 79, fig. C obviously refer to the uppermost figure.

The shell figured by Favanne (1780: pl. LXXIX, fig. C) in what he calls a supplement of two plates (Favanne, 1780: 443) and to which he refers as “*le très rare bouclier d'émeraude, de la nouvelle Zélande*” on plate LXXIX of *Lépas sans trous*, described on p. 495, clearly does not apply to the lowermost figures C discussed here.

The Favanne figures (1780) cited by Lamarck are in the lower half of cited Plate LXXIX: two figures numbered “C C” (not the Roman notation for 200). They were drawn by Favanne junior.

Although this edition was intended to have five *tomes* (Ebert, 1821: 90; Quérard, 1828: 550), only two *tomes* and a volume of 80 plates were published (Kämmerer 1786: ix); the work was “not completed in consequence of the troubles in France” (Humphrey, 1797: iii). De Bure (1783: 480) mentions: “2 vol. in 4. G. P. en feuilles. Avec 84 figs. coloriées d'après nature avec la

plus grande précision.”

The descriptions of the figured species end at plate XIX. Of Tome 3, only 72 pages were printed but never sold; a set of this unfinished volume is said to be kept (Mu 1299) in the *Bibliothèque centrale du museum national d'Histoire naturelle* in Paris according to Pinault-Sørensen (1998: 131). This was not found on a visit on 18-iv-2012; Mu 1299 is merely a bound set of all plates (I-LXXX), similar volumes are also present in other libraries. There is no text for plates XX-LXXX; most probably that text was planned for the tomes that have never been published. So, there is no information regarding the shells figured in the lower part of plate LXXIX, although a few species figured in the upper series of that plate are mentioned, of which C is identified as *Bouclier d'émeraude* and described (Favanne 1780: 443, 463, 495).

The Favanne drawings (1780: pl. 79, lowermost figs. C) are not very refined: details in the apical area are not well-indicated and they show the shell in two rather unusual positions (Figs. 17-18), not allowing a direct comparison with the figures given by Kiener (1841: pl. 1 fig. 1). Therefore, there is no proof that the same shell is figured by both authors.

Good photographs of the MHNG 1095/34 shell (Figs. 15-16), in the positions as drawn by Favanne, were supplied by Y. Finet (MHNG). Differences are: the very pronounced siphonal fasciole, the strength and high number of axial ribs and corresponding shoulder coronations and the inclination of the about third teleoconch whorl, which is out of line with the other whorls in the drawings, as compared to the photos. Comparison of these photos and the Favanne drawings does not allow us to conclude that they represent the same shell. This agrees with the idea of Mermod, written down on a filing card in MHNG (Finet, in lit.).

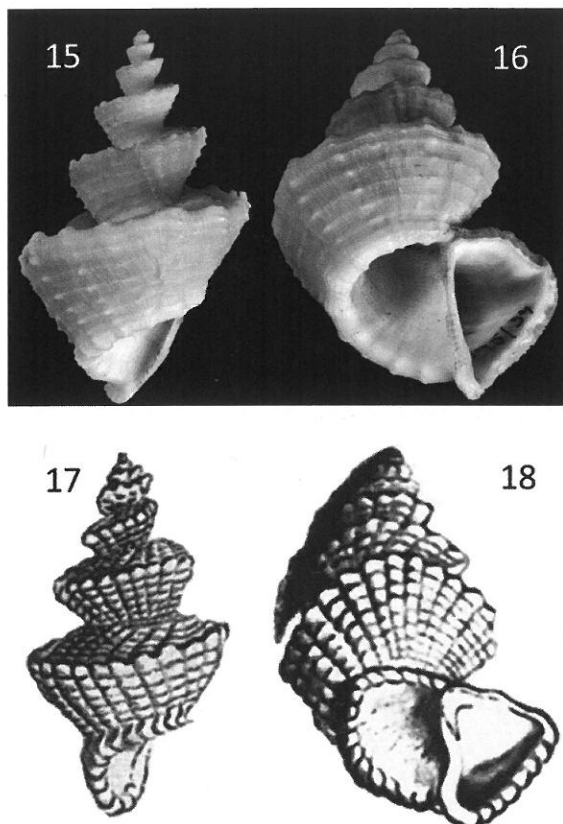
Lamarck based his new species *Delphinula trigonostoma* on the two Favanne figures C he had already mentioned in 1804, and on the shell(s) he in 1822 stated to have seen, but did not possess. He gave no indication as to where or when he saw this shell; it is not impossible he saw the one used by Favanne for his figures C.

Favanne figured several shells from the collection of Mme de Bandeville († 1787) (Thiéry, 1787: 500) (26 refs. to that collection in Favanne 1780 part 2); but no *bordestrap* is mentioned by Favanne (1780, I: 214) in his description of the Bandeville collection.

Lamarck must also have seen the Bandeville collection: he described at least two bivalves from it (Dance 1966: 90). It is not known what exactly happened to the shell collection after the death of Mme de Bandeville, but Abbé Gruel [the usual buyer from Mme de Bandeville



during her lifetime (Michel, 2007: 265)] obtained (at least part of) her shell collection in 1792 (Dance 1966: 90; Dietz, 2006: 379). Métivier (1982: 16) seems to imply that he obtained all of it. The Gruel collection was later obtained by Masséna and then by Delessert in 1840. But there is no indication that Mme de Bandeville had a shell of the *Bordestrap* in her collection.



**Figs. 15-16:** Shell MHNG 1095/34 photographed in the same positions as the shell in the Favanne drawings (Photos Y. Finet, MHNG).

**Figs. 17-18:** The Favanne drawings (1780: pl. 79, lowermost figs. C), here turned upside down.

De Calonne helped defray the costs of Favanne's edition of d'Argenville (Fischer, 1862: 277; Dance, 1966: 91; Pinault-Sørensen, 1998:131), therefore it is not excluded that Favanne may have figured shells from de Calonne's collection, but the latter's name or his collection are not mentioned in the book. The sales catalogue (Humphrey, 1797) of that collection does not mention a *bordestrap*. Yet, the collection of the Earl of Tankerville, who had obtained a large part of de Calonne's material (Dance, 1966: 142), contained a *Delphinula trigonostoma* (Sowerby I, 1825: 50, n° 1250).

We can be quite certain the shell figured by the Favannes (1780: pl. 79, fig. C C) was not in their own collection when the manuscripts for tomes I and II were prepared, since it is not mentioned in their description of that collection (1780 I: 267-270), nor among the special shells listed from that collection by Thiéry (1787: 344). The species is not listed under the name *bordestrappe* (or one of its corrupt forms used by French and English authors) in the published parts of Favanne (1780) (pdf

file searched digitally). There is ample evidence of close contacts between French authors and Dutch collections, and auctioneers in both countries in that period; and French authors figured shells only present in Dutch collections [e.g. the Lyonet shell of *Conus cedonulli* (Dance 1966: 77)]. Therefore it is not impossible that Favanne figured a shell in a collection outside France. Hence we do not know in which collection the figured shell was housed in 1780.

It must be concluded that the actual whereabouts of the shell figured by the Favannes is unknown.

**History of the shell MHNG 1095/34:** MHNG keeps shell 1095/34, measuring 36.9 x 25.9 mm (Finet, pers. comm.) in the Delessert collection, so 37 x 26 is acceptable as correct measurement. It was figured by Mermod & Binder (1963: 170-171, fig. 234) as "type" of *Delphinula trigonostoma* Lamarck.

The first clear mention of a shell of *Cancellaria trigonostoma* (Lamarck) in a French collection is by Deshayes (1830: 180) who saw "the" shell in the collection Masséna and recognised it as a cancellariid. Yet, later on Deshayes (1835, Avertissement, p. IV) declared he had no access to the Lamarck shells in the "magnifique cabinet du possesseur actuel de la collection Lamarck" (Masséna). This might have to do with a personal problem between Deshayes and the keeper of the Masséna collection (Kiener?).

Deshayes (1843: 410) also mentioned the dimensions of the shell then in the Delessert collection and figured by Kiener (1841: pl. 1, fig. 1): 40 x 25 mm (not very precise!), and refers to this shell as "one of the most beautiful specimens known"; Chenu (1847: 274) mentioned "the nicest" shell known; thus implicitly indicating they had seen other shells, or at least figures.

In 1847, only the following figures had been published: the shell sold at the V.D.M sale (1766) figured by Meuschen (1767), the shell in an unknown collection figured by Favanne (1780: pl. 79 figs. C), the one in the collection of Miss Mitford figured by Perry (1811: pl. LI, figs 1-2), the shell figured by Sowerby (1832a: fig. 44) and the shell from the Masséna/Delessert collection figured by Kiener (1841: pl. 1, fig. 1) and by Chenu (1847: pl. 5, fig. 2) (Fig. 19). Reeve (1856: species 51, pl. XI) figured a shell then in the Cuming collection, it is now in NHMUK; according to a label, Cuming had three specimens.

The fact that the shell now in MHNG is "doubtlessly the one described by Deshayes (1830, 1843)", a correct statement by Mermod & Binder (1963: 170), and that the dimensions of Kiener's figure representing the shell in the Delessert

collection (1841: 42, pl. 1 fig 1) (37 x 26 mm) are “exactly the same” as those of the MHNG shell (37 x 26 mm, fide Mermod), constitutes no proof that this is the shell seen by Lamarck before 1822.



**Fig. 19:** “Cancellaire trigonostome, nommée aussi *Bordstrap*”, figured by Chenu 1847: 274, pl. 5 fig. 2.

In short: Favanne (1780) did not specify the whereabouts of the figured shell; his figure C is not a copy of the only earlier figure of that species (Meuschen, 1767). Favanne made drawings of shells belonging to Mme de Bandeville, but there is no proof that this *Bordstrap* shell was one of them. There is even no proof that the Bandeville collection contained a *Bordstrap* shell, nor that all of this shell collection ended up in the collection Delessert. At least part of the Bandeville collection was acquired by Abbé Gruel, whose collection was obtained by Delessert in 1840. Hence, shell MHNG 1095/34 must have reached the Delessert collection (started about 1804) from another source.

Lamarck had shells originating from Mme de Bandeville in his collection, but there is no proof that this also applies to the shell studied in the present article. Lamarck visited, among others, Holland in 1781-82, where chances are not few that he was shown this famous species: hence (unspecified) Dutch specimens may well be syntypes (ICZN 72.4.1.1.)

The fact that there was only one shell in Paris in 1841 is no real proof that this was also the case in 1804 and in 1822 (Lamarck refers to it as the *bordstraps des Hollandais*; and prior to Favanne it had only been figured in one Dutch publication). The Favanne figures cannot be identified with certainty as the specimen now in MHNG. Hence, the theoretical possibility that the MHNG shell is the one figured by Favanne would only be based on the rarity of shells belonging to this species in collections in Paris in 1841.

Yet, the whereabouts of that MHNG shell before 1830 - when it was reported in the Masséna collection by Deshayes - is unknown, therefore we do not know if this was really the shell seen by Lamarck. Consequently, its status as a type as assumed by some authors (Mermod & Binder, 1963: 170, fig. 234) or as a holotype (Verhecken 1986: 60; Petit & Harasewych, 1987: 79; Hemmen 2007: 276, 277 fig. d) is not evident.

After Lamarck's death (1829), his collection was obtained by Victor Masséna in 1829. It is theoretically possible that Lamarck had obtained a shell of this species between 1822 and 1829, but this is very improbable in view of his continuous precarious financial situation (Mongin, 1977: 9; Packard, 1901). Moreover, Lamarck had no shell of this species in his own collection, as written down by his daughter in his personal copy of the *HnAsV*, now kept in MHNG (cfr. Dietz, 2006: 380). Therefore we must accept that the shell was already in the Masséna collection before 1829; but there is no proof it was there in 1822. So, the shell was in the collection Masséna in 1830 (Deshayes, 1830: 180) and was obtained, together with that collection, from which it was figured (Kiener, 1841: 42) by Benjamin Delessert in 1841: “*un seul individu se trouve à Paris, c'est celui qui fait partie de la magnifique collection appartenant maintenant à M. Benjamin Delessert*”. The Delessert collection was inherited by his brother François Marie in 1847, whose legates donated it to the town of Genève in 1869.

In his “Spécies general etc.”, Kiener (started 1834, fide Dance 1966: 178) described material in the collections of the MNHN Paris, the “Lamarck colln”, and that of Prince Masséna (“now belonging to M. le Baron Benjamin Delessert”), and indicated in which collection the specimen was. For *C. trigonostoma*, the shell in the Delessert collection is figured (Kiener, 1841: 42). He also noted that there was only one shell of this species in Paris (in 1841). Chenu (1847: 274, pl. V, fig. 2) mentioned and figured this species, stating that (transl.) “the nicest shell known is part of the collection of M. Benjamin Delessert”: his figure measures 38.5 x 27 mm. The whereabouts of this shell before 1830 has hitherto been unknown; it is now studied hereafter.

**The collection of prof. Claude-Louis Richard (1754-1821):** It is now shown that the cited shell was in the collection of ‘general Paris’ before 1801-1809 or 1804-

1814, and later in the collection of prof. Richard.

The botanist Claude-Louis Richard (6 June 1754 - 1821) was sent to central America and Brazil in 1781, and returned from the Caribbean in 1789 (Cuvier, 1825: 360); he donated shells from Cayenne to the *Museum royal d'Histoire naturelle* in Paris (Deleuze, 1823: 616). He had a collection of shells, said to be one of the richest and most praised ones (Kunth, 1824: 207). He enriched his collection with the *Conus* types of Hwass, and the collections of de l'Étang and "général Paris"; this most probably occurred after he had been named professor at the medical school in Paris (1795), his financial situation having been rather difficult before. After his death part of his collection went to the *cabinet du Roi* (Cuvier, 1825: 363); and (the rest?) was purchased by Masséna in 1821 (Kohn, 1993: 62).

The Hwass collection was purchased by Sollier de la Touche in 1804 (Dance 1966: 202; Kohn 1993: 62); in 1819 it was in the Richard collection, which was purchased by François Victor Masséna at Richard's death in 1821 [obviously not his father André Masséna (as stated in Kohn, 1993) who died in 1817].

**The sales catalogue:** An anonymous sales catalogue of a collection containing the *Conus* types of Hwass and the collections of de l'Étang and "général Paris", is dated 9 November 1819. The title on the cover is: « *Notice d'une nombreuse et magnifique collection de coquilles s'élevant à plus de 5,500 individus, tous de la plus parfaite conservation, et le plus grand nombre d'espèces inédites ou très-précieuses. A VENDRE PRESEMENT* ». There is also another title, at the top of p. 3: « *NOTICE d'une magnifique collection de coquilles, composée d'environ 2,000 espèces et de plus de 5,500 individus; classée d'après le système des Animaux sans Vertèbres, de M. DE LAMARCK, 1 vol. in-8.; Paris; 1801.* » The collection is claimed to be (transl.) 'the most precious, not only of all the collections in France, but also of all those in Europe' (Anon., 1819: 3).

This catalogue is very rare in scientific libraries. Lamy (1915) obtained a copy from J. Künckel d'Herculeis, and published a note on it; but that catalogue is not in libraries in Paris now (Bolze, pers. inf.). The only copy now found is in the *Biblioteca Nazionale Universitaria* in Torino.

The text mentions that (transl.): "its first owner did not avoid any expense and did not miss any occasion to obtain the rarest species. It [the collection] already had a high reputation when the cabinets of MM. Paris, Hwass, and de l'Étang were added to it." The identity of the first owner (from whom Richard purchased the collection) is unknown, but of little importance in the present context.

The catalogue mentions (p. 9) « *le Bord de trappe ou le Bord d'escalier, coquille unique du plus grand prix, qui avait coûté 100 louis au général Paris* ». *Bord de trappe* is clearly one of the many corrupt spellings of the name *Bordestrap*: it was here presented under a new generic name not mentioned by d'Orbigny (1843), nor by Neave (1939-1996); but which is useless to be revived here.

Based on the history of the unique specimen of *Spondylus regius*, Lamy (1915: 103) concluded that this collection offered for sale had belonged to prof. C. L. Richard (1755-1821), and he surmised ("très probablement") that Richard also wrote the sales catalogue. It is not clear what this opinion was based upon, since the catalogue has no direct or indirect indication as to its author, except for the fact that the author must have been well acquainted with the collection.

Lamy (1915) also gave a list of 17 French collections consulted by Lamarck and cited in his *HnAsV*: if the *Bordestrape* shell was in one of them, Lamarck could have seen it; and the Richard collection is listed, indeed. Lamarck (1819: 190) mentioned having seen a *Spondylus regius* in the cabinet of M. Richard. Dance (1966: 133) gives a "none too credible anecdote" on how this shell was obtained by Richard. Delessert (1841: pl. 20, fig. 1) stated that this shell (transl.) "belonged to the collection Richard, purchased at the death of this Professor by M. Masséna". Moreover, Lamarck (1822, vii: 572, 576) cited (transl.) "the cabinet of the late M. Richard" for two gastropod species. Hence, Lamarck knew that collection and his 1822 statement to have seen a shell of *D. trigonostoma* to all evidence applied to the unique *Bord de trappe* shell when it was in the collection Richard (thus before 1821, or even before Lamarck's complete blindness in 1819).

In the cited sales catalogue, a 'général Paris' is mentioned (Anon., 1819: 18, n° 288; Lamy 1915: 102) to have purchased (when ?) a *Bord de trappe* shell for 100 louis [d'or]. In that period, there were two French generals by that name: (a) Marie-Auguste Pâris (1771-1814), who was sent to Guadeloupe as a lieutenant (1794) and returned to France in 1801 as *général de division*. He retired in 1804, but was reactivated in 1809, was active in Flanders and in Spain and died as *général de division* in 1814. (<http://www.napoleonic-society.com/french/miglioparis.htm>, accessed 24-11-2014). (b) Antoine Marie Paris d'Illins (1746-1809), *général de brigade* in 1792, retired 1801; reactivated 1804, killed in action in Spain in 1809 (Wikipedia, accessed 7-8-2015).

The fact that both generals were retired and reactivated later must be related to the revolutionary troubles of the period and Napoleon's military campaigns in great parts of Europe. Supposing that the relevant general Paris



built up a shell collection during his retirement period (having been occupied by military duties all over Europe before and after it), this would have been in the period 1801-1804 or 1804-1809 for these two respective candidates. Thus, if the collection was sold after the general's death, then it is acceptable that prof. Richard obtained the *Bord de trappe* shell between 1809 and 1814. Obviously it is that *bordestrap* shell that was obtained by Masséna, at the sale of the (rest of the) Richard collection (if that sale really took place) after November 1819; or in 1821 after Richard's death, as stated by Delessert (1841: legend to pl. 20, fig. 1).

Mermod & Binder (1963: 170), citing Lamarck's 1822 text, state that the *D. trigonostoma* shell in the Delessert collection, "étant donné la rareté de l'espèce, est sans doute celui qui a passé sous les yeux de Lamarck, lorsqu'il faisait partie de la collection Masséna". Yet, it is clear that Lamarck, being completely blind by early 1819, as he reported himself in June 1819 (Lamarck, 1819), cannot have seen the shell in the Masséna collection in which it was entered only after the sale of the Richard collection in November 1819 (if that sale took place), or in 1821, as mentioned by Kohn (1993: 62). Still, Lamarck may very well have seen that same shell in the Richard collection between about 1809 and his complete blindness (1819), although for some unknown reason and against his habits, he did not specify in which collection he had seen it. If Lamarck really saw it indeed, then his mention of that specimen under the vernacular name *Bord de trappe* does not as such constitute an indication (ICZN 12.3). Yet, since his description also refers to the Favanne figures, it is acceptable that this shell is part of the type series (ICZN 72.4.1.1.). It is in fact the only syntype that has been traced.

The presence of a specimen of the *bordestrap* in a collection in Paris or even in France in the period before 1801-1809 had not yet been demonstrated. It is unknown where and when general Paris purchased his specimen. One probable possibility is that he bought it from a Dutch collection. Another possible way a *Bordestrap* shell might have reached France is with confiscated Dutch art and curiosities collections taken to Paris when the French revolutionaries militarily occupied the Low Countries. A special entity, the *Agence de commerce et approvisionnement pour l'extraction en pays conquis des objets de science, arts et agriculture*, had been created to follow the army in occupied countries; Faujas [de St. Fond] (geologist) and Thouin (botanist) were sent to Belgium and Holland to collect *tous les objets utiles à l'instruction*. The collection of the General Stadtholder (*stadhouder* in Dutch) of the United Low Countries, Willem V, was confiscated in 1794 (Winkler Prins 2004: 295). The *Stadhouder* material was returned incompletely after the second Treaty of Paris in 1815 (Brongersma 1978: 43); Deleuze (1823: 616) still mentioned the *cabinet du*

*stadhouder* in the collections of the *Muséum royal d'Histoire naturelle* in Paris. Yet, that kind of material was officially confiscated and would normally not have ended up in a private collection.

#### Nomenclatural importance of the sales catalogue:

Anonymous publications of names before 1951 do not prevent availability (ICZN 14). In this catalogue two new genus names were introduced, indicated by "Nob." (Anon., 1819: 18, xc, xci); one of them is based on the "*Bord de trappe, ou le Bord d'escalier*". Yet, this name is neither available nor can it be unambiguously assigned to a nominal species group taxon, as shown above in the present paper. The second genus has no indication of a species, other than "1 espèce, 6 individus, genre curieux". Therefore none of these generic names agree with ICZN 12.2.5; hence, these names are unavailable. None of them is listed by d'Orbigny (1843), nor by Neave (1939-1996) and apparently they have never been used; so they give no clue to the author of the catalogue. For the stability in nomenclature it is judged best not to revive or cite these names here.

The author of the catalogue is of no particular importance in the present context. Yet, in this catalogue, a *Cancellaria acuminata* is mentioned (Anon., 1819: 9, n° 99), a name senior to *C. acuminata* Sowerby (I), 1832. The only extra information given is: "*extrêmement rare*". Therefore, independent of its anonymous authorship, *C. acuminata* (Anon., 1819) is a *nomen nudum* and not an available name (ICZN 12.1).

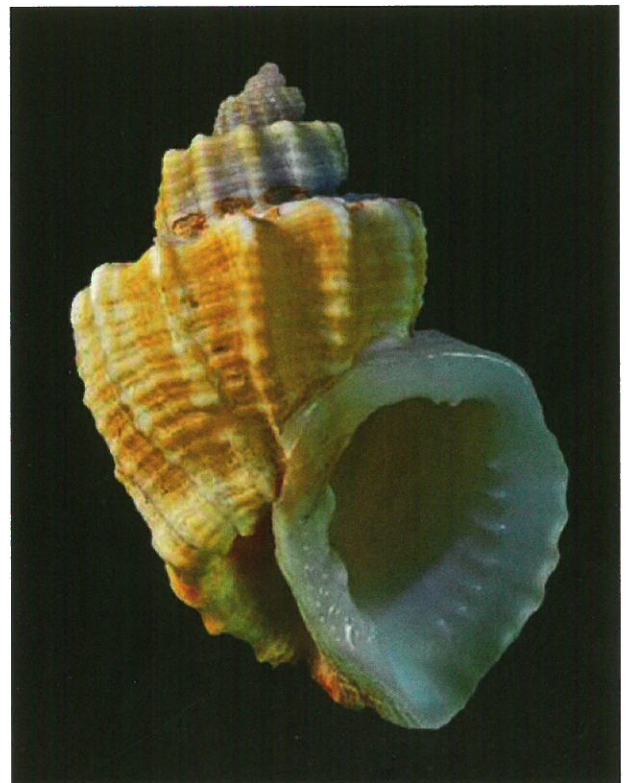


Fig. 20: *Trigonostoma scala* (Gmelin, 1791), N'Gor village, Dakar, Senegal (AV0137/1)



**Conclusion:** The very confusing use of the Dutch vernacular name *Bordestrap* has been traced. No proof could be found that the unnamed shell figured by Favanne (1780: pl. 79, fig. CC) is the same as the MHNG 1095/34 shell that has been considered to be the type of *Delphinula trigonostoma* Lamarck. The history of cited MHNG shell had been traced back to 1830; this has now been extended to about 1810. It can be accepted with high probability that the cited MHNG shell is indeed this species' other syntype that was "seen but not possessed" by Lamarck.

Non-exhaustive overview of literature references:

The species now known as *Trigonostoma scalare* (Gmelin, 1791), occurring in the Indian and West-Pacific ocean:

- 1766 Meuschen p. 8, N° 156
- 1767 Meuschen, fig. b.
- 1780 Favanne pl. 79, lowermost figs. C.
- 1791 *Buccinum scalare* Gmelin p. 3495
- 1804 Lamarck p. 109
- 1811 *Trigona pellucida* Perry, pl. LI, n°1-2
- 1822 *Delphinula trigonostoma* Lamarck p.231, n° 3
- 1827 *Trigonostoma trigonostoma* - Blainville p. 652
- 1830 *Cancellaria trigonostoma* - Deshayes p. 180
- 1841 *Cancellaria trigonostoma* - Kiener pl. 1, fig. 1
- 1847 *Cancellaria trigonostoma* - Chenu 274 pl. V, fig. 2
- 1849 *Cancellaria trigonostoma* - Sowerby [II] pl. xciv, figs. 45-46
- 1856 *Cancellaria trigonostoma* - Reeve, species 51, pl. xi, figs. 51a,b
- 1984 *Trigonostoma scalare* - Petit p. 58
- 2011 *Trigonostoma scalare* - Verhecken, p. 35, pl. 9, figs.1-3.

Publications referring to *Trigonostoma scala* (Gmelin, 1791), occurring off NW Africa (here Fig. 20):

- 1780 Chemnitz 4, Vignette 37 (non Martini 1777: 383, second Vignette 136; non 303, first Vignette 136)
- 1832 *Cancellaria rigida* Sowerby p. 53
- 1833 *Cancellaria costata* Sowerby fig. 42
- 1976 *Trigonaphera withrowi* Petit p.39, pl. 2, fig. 3
- 1984 *Scalptia scala* - Petit p. 58
- 2007 *Trigonostoma scala* - Verhecken, p. 339, figs. 51 A-F.

References to non-trigonostomid species :

- 1741 Rumphius pl. XLIX, fig. A for the *Wenteltrap*
- 1757 D'Argenville *Coquilles univalves* [sic] très rares. Première planche, fig. F. 3.
- 1764 Petiver Opera Tom. I tab. 101, fig. 14
- 1772 Knorr Part 3, pl.7, fig. 2. Reference given by Bruguière for *Buccin cabestan*.
- 1774 Pallas 33, tab. 3, figs. 7, 8
- 1777 Martini, 411, pl. 118, figs. 1089a, b; described and figured under the names *ächte Vortreppe*, *Freytreppe*, *Schifswinde aus Mariland*, and *Bordes-trapje*.

1780 Chemnitz, 1780: pl. 122, fig. 1130, the figure referred to as *Missgeburt*.

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- Anon., 1819. *Notice d'une nombreuse et magnifique collection de coquilles s'élevant à plus de 5,500 individus, tous de la plus parfaite conservation, et le plus grand nombre d'espèces inédites ou très-précieuses. A VENDRE PRESEMENT.* Bailleul, Paris.
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