

## Additional notes on the systematics and new records of East Atlantic species of the genus *Sorgenfreispira* Moroni, 1979 (Gastropoda Mangeliidae)

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### ABSTRACT

The Recent species currently ascribed to the *Bela brachystoma*-complex, Gastropoda Mangeliidae, (i.e.: *Bela brachystoma* (Philippi, 1844); *Bela africana* Ardovini, 2004; *Bela ardovinii* Mariottini et Oliverio, 2008; *Bela exilis* (Ardovini, 2004) should better be allocated in the genus *Sorgenfreispira* Moroni, 1979. Based on numerous samples, the distribution of the Recent species is summarised. *Sorgenfreispira brachystoma* (Philippi, 1844) comb. nov. ranges from Scandinavia to southern Morocco. *Sorgenfreispira africana* (Ardovini, 2004) comb. nov. is first recorded from Western Sahara, Ivory Coast, Angola and Ghana; *Sorgenfreispira ardovinii* (Mariottini et Oliverio, 2008) comb. nov. is first recorded from Ivory Coast; *S. exilis* (Ardovini, 2004) comb. nov. is first recorded from Mauritania, Western Sahara, Ivory Coast, Angola. Based on the study of the type material, *Bela brachystoma apicalis* Nordsieck, 1977, was actually based on specimens of *B. taprurensis* Pallary, 1904. *Bela taprurensis* is here first recorded from Libya.

### KEY WORDS

Gastropoda; Mangeliidae; *Bela*; *Sorgenfreispira*; Recent; first records; new combinations.

Received 12.11.2014; accepted 19.01.2015; printed 30.03.2015

Proceedings of the Eighth Malacological Pontine Meeting, October 4th- 5th, 2014 - San Felice Circeo, Italy

### INTRODUCTION

After the revision by Mariottini et al. (2008, 2009), four morphologically similar Recent species are included in the *Bela brachystoma*-complex: *Bela brachystoma* (Philippi, 1844), originally described from the Mediterranean Sea, and three eastern Atlantic species, namely *B. africana* Ardovini, 2004, *B. ardovinii* Mariottini et Oliverio, 2008 and *B. exilis* Ardovini, 2004, all described, and so far known only from the type locality in Senegal. The species of this complex have been so far conservatively included in the genus *Bela* Gray, 1847, despite their very

peculiar sculpture of both protoconch and teleoconch as compared to the other species traditionally ascribed to *Bela* [e.g. *Bela zonata* (Locard, 1892) or *B. menkhorsti* van Aartsen, 1988; see Scarponi et al., 2014]. However, they certainly belong to a morphologically very homogeneous group, to which also several fossil species belong. Among them the Miocene *Cythara (Mangelia) moronii* Venzo et Pelosio, 1964, is the type species of the genus *Sorgenfreispira* Moroni, 1979, which was proposed to allocate those fossils, and is very similar to *B. exilis*. Therefore, we propose hereby to include *Pleurotoma brachystomum* Philippi, 1844 and the three eastern

Atlantic species of the complex in *Sorgenfreispira*. We have examined numerous samples of this complex from the East Atlantic, mostly at the Muséum National d'Histoire Naturelle (Paris, France), and summarized the known geographic ranges of each species, with new records for most species. For detailed morphological comparisons among the species see Mariottini et al. (2008).

ABBREVIATIONS AND ACRONYMS. CS-PM: Carlo Smriglio and Paolo Mariottini collection (Rome, Italy); lv: live collected specimen(s); MCZR: Museo Civico di Zoologia di Roma (Rome, Italy); MMP: Museo Malacologico Piceno (Cupra Marittima, Italy); MNHN: Muséum National d'Histoire Naturelle (Paris, France); MO: Marco Oliverio collection (Rome, Italy); RA: Roberto Ardivini collection (Rome, Italy); Scanning Electron Microscopy (SEM); sh: empty shell(s); SMF: Senckenberg Museum (Frankfurt, Germany); sta: station.

## SYSTEMATICS

### *Sorgenfreispira* Moroni, 1979: 2

Type species: *Cythara (Mangelia) moronii* Venzo et Pelosio, 1964, by original designation

DESCRIPTION. Shell very small for the genus, height 3.4–3.8 mm, width 1.5–1.6 mm, biconical, turriculate elongate, solid. Protoconch multispiral, dome shaped, of 2.6–2.7 convex whorls. Protoconch-I (embryonic shell) of 0.4 whorls, separated by a demarcation from protoconch-II (larval shell). First 1.7–1.8 apical whorls apparently smooth, the nucleus with very fine striae, the remaining with reticulated sculpture of 5–6 granulose spirals (3 major, 1–2 smaller subsutural, 1 smaller suprasutural), crossed by oblique axial riblets. Maximum diameter of protoconch 760–780  $\mu\text{m}$ . Protoconch-teleoconch transition not well marked. Teleoconch of 2.5–3 whorls, rounded, sutural ramp convex, whorl sides gently convex. Last whorl about 3/5 of shell length. Axial sculpture of 8–9 prominent, narrowly rounded axial ribs fading out at the base, regularly spaced, with equally sized interspaces. Spiral sculpture of 17–18 granulose cords, regularly spaces, with larger interspaces. Smaller granulose cordlets in most interspaces. Entire surface covered by microgranules. Aperture narrow, ovate, about 2/5 of the shell height.

Siphonal canal short, broad and open, very slightly deviating on the left. Inner lip with a weak parietal callus. Outer lip not varicose. Anal sinus marked, arcuate on shoulder slope. Colour yellowish with white axial ribs, darker brown band in the middle of teleoconch whorl, base milk white, parietal callus brown.

REMARKS. Moroni (1979) introduced this genus level taxon for a species of the Italian Miocene, comprising also a group of species of the Jutland Miocene, that Sorgenfrei (1958) had ascribed to the genus *Neoguraleus* Powell, 1939 (type species *Drillia sinclairi* Gillies, 882, Recent, New Zealand): *Pleurotoma tenella* Mayer, 1858, *Daphnella calais* Kautsky, 1925, and *Mangelia gürichi* Kautsky, 1925. Although the actual systematics of the three latter species may be debated, *Sorgenfreispira moronii* is undoubtedly related to *B. exilis*. Therefore, we propose hereby the transfer of *B. brachystoma*, *B. africana*, *B. ardivinii* and *B. exilis* to the genus *Sorgenfreispira* (for the distribution of this species see Fig. 1).

### *Sorgenfreispira africana* (Ardivini, 2004) comb. nov. (Figs. 1, 2–5)

*Bela brachystoma africana* Ardivini, 2004: 7, Fig. unnumbered.

Type locality. South of Dakar, Senegal. Type Material. Holotype (MMP) and 1 paratype (RA).

EXAMINED MATERIAL. Western Sahara: sta. 12385-3, 22°33.9'N 16°54'E, 54–58 m 8 sh (MNHN); sta. 12[3]88-3, 22°30.5'N 16°53.8'E, 56–57 m 3 sh (MNHN); sta. 12381-1, 22°32.2'N 17°04'E, 58 m 42 sh (MNHN).

Mauritania. R/V N'Diogo sta. 204, 17°30'N 16°24'W, 88 m 1 sh (MNHN); sta. 218, 17°36'N 16°26'W, 99 m 2 sh (MNHN); sta. 244, 17°54'N 16°32'W, 200 m 1 sh (MNHN); sta. 245, 17°54'N 16°29'W, 145 m 1 sh (MNHN); sta. 289, 18°54'N 16°32'W, 60 m 1 sh (MNHN); 365, 19°30'N 16°55'W, 78 m 1 sh (MNHN); Miss. P. Etienne 1965 sta. 19, 20°20'N 16°22'W, 10 m 5 sh (MNHN).

Senegal. Region of Dakar: Goreé, 95 m 4 sh (MNHN), 95–110 m 1 sh (MNHN), 100 m 9 sh (MNHN); 14°51'N 17°30'W, 180–165 m 2 sh (MNHN); 14°32'N 17°25'W, 50 m 11 sh (MNHN); off Saloum, 50 m 9 sh (MNHN); 30 miles South of Dakar, Senegal, 45 m, 12 lv in the gut content of *Astropecten* cfr. *auranciacus* (CS-PM coll).

Ivory Coast, unknown locality, plateau continental [no further data], 107 sh (MNHN).

Ghana. R/V Calypso1953 sta. 25, 4°36.5'N 1°31'W, 4 sh (MNHN).

Angola. Corimba, Luanda, 10-20 m, 3 sh (MNHN).

DISTRIBUTION. Western Sahara, Mauritania, Senegal, Ivory Coast, Ghana, Angola (Fig. 1).

REMARKS. The valid introduction of this taxon is by Ardovini (2004), although subsequently (Ardovini, 2008) its author redescribed it as a new species, having realised that it was worth of species rank. *Sorgenfreispira africana* is not uncommon in East Africa, and it is here first recorded from Western Sahara, Mauritania, Ivory Coast, Ghana and Angola.

*Sorgenfreispira ardovinii* (Mariottini et Oliverio, 2008) comb. nov. (Figs. 1, 6–9)

*Bela ardovinii* Mariottini et Oliverio, 2008: 8, Figs. 97–99, 102, 119–126, 149–150, 166

Type locality. South of Dakar, Senegal. Type material.

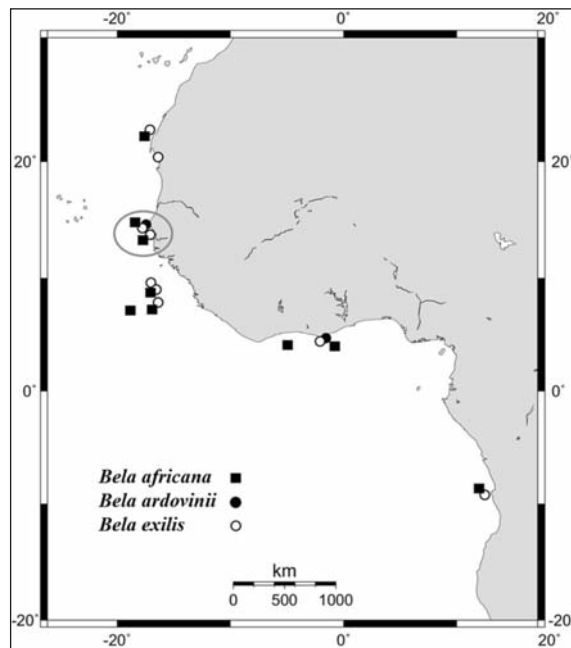


Figure 1. Map of the records of *Sorgenfreispira africana*, *S. ardovinii* and *S. exilis*. The area of their type locality and of records in Mariottini et al. (2008), off Senegal, is enclosed in the grey circle.

Holotype (MNHN 21321) and paratype K (MNHN 21322); paratypes A–F (RA); paratypes G–J, L (CS–PM); paratypes M–N (MO).

EXAMINED MATERIAL. The type material, all from 30 miles South of Dakar, -45 m: Ivory Coast: unknown locality, plateau continental [no further data], 8 sh (MNHN).

DESCRIPTION. Shell very small for the genus, height 3.7 mm, width 1.4 mm, biconical, turriculate elongate, solid. Protoconch multispiral, dome shaped, of 3.2–3.3 convex whorls. Protoconch-I (embryonic shell) of 0.8 whorls, separated by a demarcation from protoconch-II (larval shell). First 1.0–1.1 apical whorls densely covered by microgranules, next 0.7–0.8 whorl apparently smooth, the remaining with reticulated sculpture of 5 spiral series of tubercles (3 major, 1 smaller subsutural, 1 smaller suprasutural), crossed by weak opisthocline axial riblets, more evident subsuturally. Spiral cords corresponding to each spiral series of tubercles gradually appearing on the last protoconch whorl. Maximum diameter of protoconch 690–710  $\mu$ m. Protoconch-teleoconch transition not well marked. Teleoconch of 2.5–2.7 whorls, rounded, sutural ramp convex, whorl sides very gently convex. Last whorl about 3/5 of shell length. Axial sculpture of 8–10 rounded axial ribs fading at base, regularly spaced, with narrower interspaces. Spiral sculpture of one major granulose cord, and 20–28 granulose cordlets, irregularly spaced. Smaller granulose threads in most interspaces. Entire surface covered by microgranules. Aperture narrow, ovate, about 2/5 of shell height. Siphonal canal short, broad and open, slightly deviating to the left. Inner lip with a weak parietal callus. Outer lip not varicose. Anal sinus marked, arcuate on shoulder slope. Colour uniformly reddish-brown.

DISTRIBUTION. Senegal, Ivory Coast (Fig. 1).

REMARKS. *Sorgenfreispira ardovinii* remains the least common among the species of this complex. The 8 shells from Ivory Coast represent a remarkable range extension for the species, which was found there syntopic with *S. exilis* and *S. africana*.

*Sorgenfreispira exilis* (Ardovini, 2004) comb. nov. (Figs. 1, 10–13)

*Bela exilis* Ardovini, 2004: 8, Figs. unnumbered

Type locality. South of Dakar, Senegal. Type material. Holotype (MMP); paratypes 1–3 (RA).

EXAMINED MATERIAL. Western Sahara: sta. 12[3]88-3, 22°30.5'N 16°53.8'E, 56–57 m 1 sh (MNHN); sta. 12381-1, 22°32.2'N 17°04'E, 58 m 2 sh (MNHN).

Mauritania. R/V N'Diogo sta. 229, 17°42'N 16°131'W, 40 m 1 sh (MNHN); sta. 309, 19°06'N 16°31'W, 24 m 1 sh (MNHN).

Senegal. Region of Dakar: 30 miles South of Dakar, 45 m, (in the gut content of *Astropecten* cfr. *auranciacus*) 18 lv; Goreé, 95 m 9 sh (MNHN); off Saloum, 50 m 5 sh (MNHN).

Ivory Coast. Unknown locality, plateau continental [no further data], 38 sh (MNHN).

Angola. Corimba, Luanda, 10–20 m 15 sh (MNHN).

DESCRIPTION. Shell very small for the genus, height 3.4–3.6 mm, width 1.3–1.5 mm, biconical, turriculate elongate, solid. Protoconch multispiral, dome shaped, of 2.8–2.9 convex whorls. Protoconch-I (embryonic shell) of 0.7–0.8 whorls, separated by a demarcation from protoconch-II (larval shell). First 1.6–1.7 apical whorls apparently smooth, covered with microgranules, the remaining with reticulated sculpture of 4 granulose spirals (3 major, 1 smaller subsutural), crossed by oblique axial riblets. Maximum diameter of protoconch 710–720  $\mu$ m. Protoconch-teleoconch transition not well marked. Teleoconch of 2.5–3 whorls, rounded, sutural ramp convex, whorl sides gently convex. Last whorl about 3/5 of shell length. Axial sculpture of 10–11 prominent, flexuous and narrowly rounded axial ribs, regularly spaced, with broader interspaces. Spiral sculpture of 2 major granulose cords, with 25–36 irregularly alternating smaller granulose cordlets and interspaces of variable size. Each cordlet actually consisting of a rows of densely packed rounded granules. Aperture narrow, ovate, about 2/5 of the shell height. Siphonal canal moderately long, broad and open, deviating on the left. Inner lip with a moderately developed parietal callus. Outer lip not varicose. Anal sinus marked, arcuate on shoulder slope. Colour yellowish-brownish with two dark brown bands, one subsutural and the second on the middle of the last whorl; parietal callus brownish with siphonal canal white.

DISTRIBUTION. Western Sahara, Mauritania, Senegal, Ivory Coast, Angola (Fig. 1).

REMARKS. Present records represent a remarkable range extension for the species, which was so far known only from the type locality (Senegal). It is here first recorded for Western Sahara, Mauritania, Ivory Coast and Angola.

*Sorgenfreispira brachystoma* (Philippi, 1844) comb. nov. (Figs. 14–17)

*Pleurotoma brachystomum* Philippi, 1844: 169, 176, pl. XXVI, Fig. 10

Type locality. *P. brachystomum*, Naples, Central Tyrrhenian Sea, Italy. Type material. Type material of *Pleurotoma brachystomum* is probably housed in the National Museum of Natural History (Santiago del Chile).

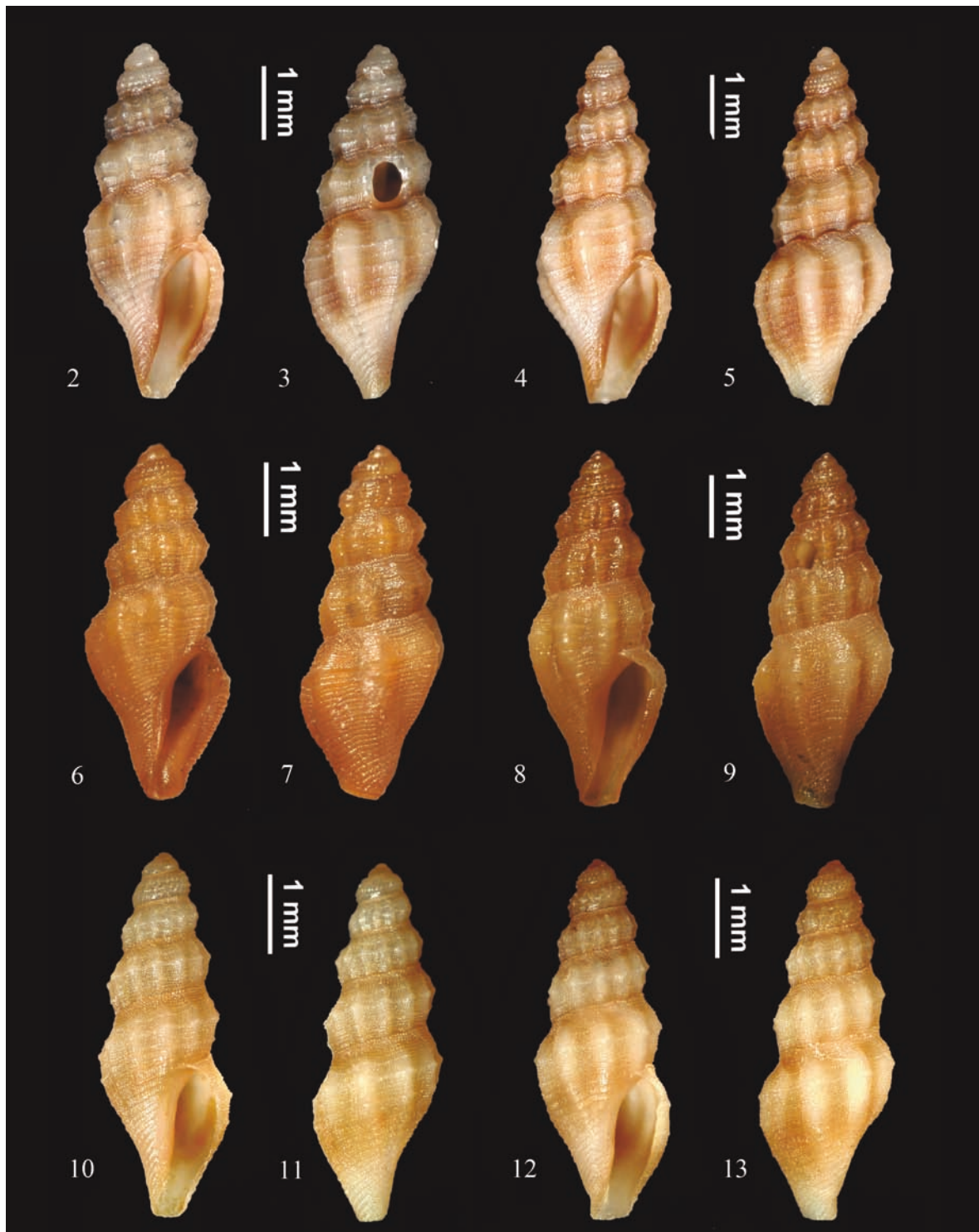
EXAMINED MATERIAL. Recent. [Atlantic] France: Gulf of Gascogne, CAPBRETON 88 sta. DE-01, 43°39.99'N 1°48.11'W, -134 m, 25 sh (MNHN); idem, sta. DR-29, 43°46.51'N 2°00.58'W, -165 m, 3 sh (MNHN); idem, DR-11, 43°22.77'N 1°59.18'W, -94 m, 16 sh (MNHN); idem, sta. DE-05, 43°57.42'N 2°05.16'W, -164 m, 8 sh (MNHN); Arcachon, [no further data], 3 sh (MNHN), 9 sh (Locard coll., MNHN); Brest, [no further data] 5 sh (Locard coll., MNHN); Capbreton, [no further data], 3 sh (Locard coll., MNHN).

Morocco. Agadir, R/V Vanneau 1923-1929 sta. 10, 29°54'N 9°58'W, -110 m, 16 sh (MNHN); idem, sta. 32, 34°01'N 7°32'W, -145 m, 3 sh (MNHN); idem, sta. 101, 30°39'N 10°03'W, 129 m, 3 sh (MNHN); sta. 39, 33°44'N 7°45'W, -85 m 1 sh (MNHN); idem, sta. 9, 30°05'N 09°50'W, -110 m 2 sh (MNHN); idem, sta. 30, 33°55'N 7°34'W, -75 m 17 sh (MNHN); Tangier, 5-10 m, 1 sh (MNHN). Mauritanie - R/V N.Diogo sta. 239, 17°48'N 16°21'W, -79 m., 1 lv (MNHN); Mission Gruvel 25.03.08 sac 406, 13 sh (MNHN).

Sweden. [no further data], 1 sh (coll. Jousseume, MNHN).

England. [no further data], 3 sh (coll. Jousseume, MNHN).

[Mediterranean] France. Gulf of Lion, IFREMER/DEPRO 96 (R/V Europe) sta. chalut-10, 42°24.6'N 3°16.2'E, -100/151 m, 40 sh (MNHN); idem, sta. chalut-11, 42°09.4'N 3°22.5'E, -350 m, 5 sh (MNHN). Cap Béar, ECOMARGE 1984 sta. A61, 42°29.30'N 3°10.30'E, -42 m, 5 sh (MNHN); off Rhône delta, -50/100 m, 2 sh (MNHN). St Raphael,



Figures 2, 3. *Sorgenfreispira africana*. 6 x 1.7 mm, Corimba, Luanda, Angola, West Africa, 10-20 m (MNHN). Figures 4, 5. *S. africana*. 5.7 x 1.9 mm, Corimba, Luanda, Angola, West Africa, 10-20 m (MNHN). Figures 6, 7. *S. ardovinii*. 4.6 x 1.7 mm, Corimba, Luanda, Angola, West Africa, 20 m (MNHN). Figures 8, 9. *S. ardovinii*. 5.5 x 1.6 mm, Corimba, Luanda, Angola, West Africa, 20 m (MNHN). Figures 10, 11. *S. exilis*. 4.4 x 1.3 mm, Corimba, Luanda, Angola, West Africa, 10-20 m (MNHN). Figures 12, 13. *S. exilis*. 4.5 x 1.4 mm, Corimba, Luanda, Angola, West Africa, 10-20 m (MNHN).

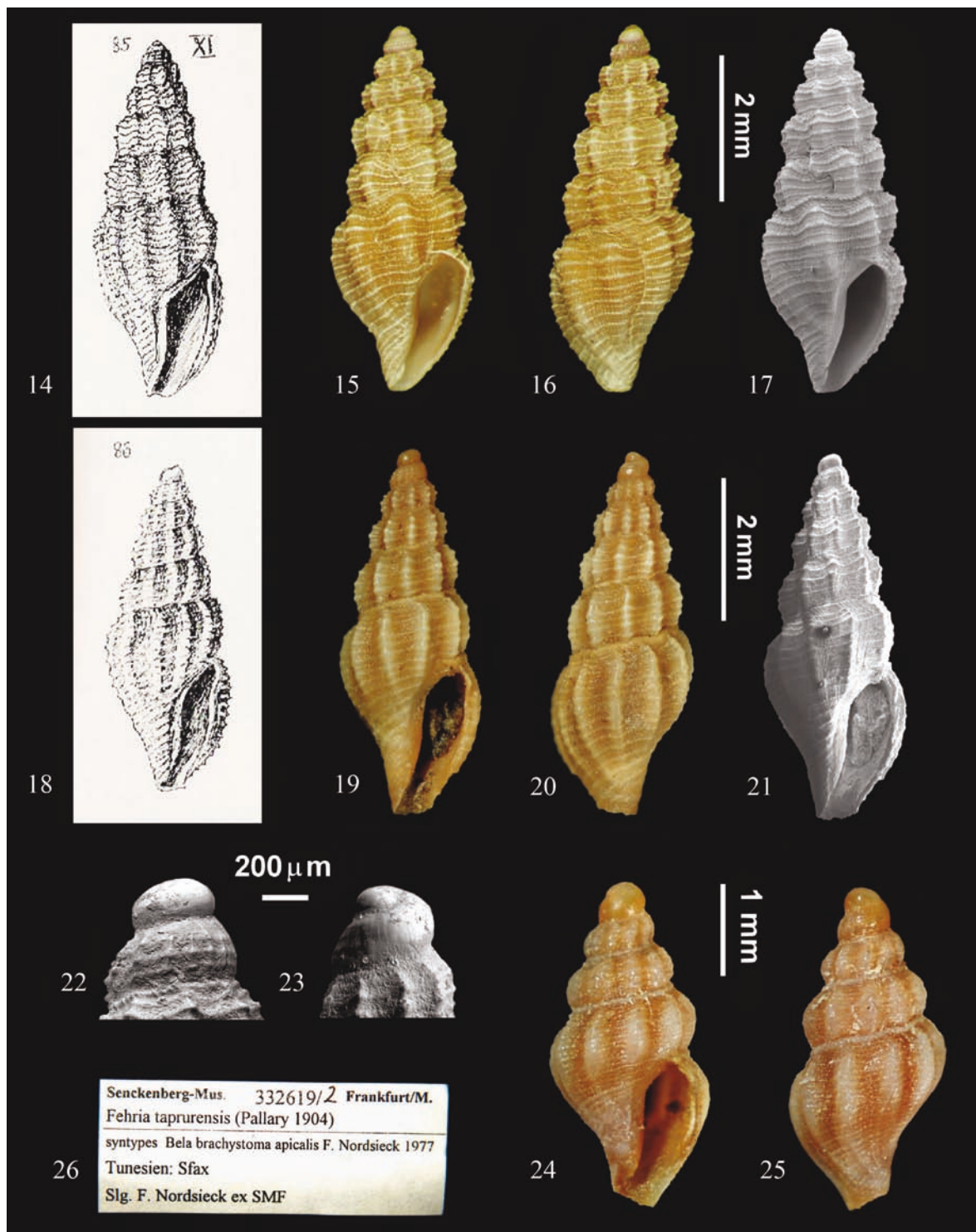
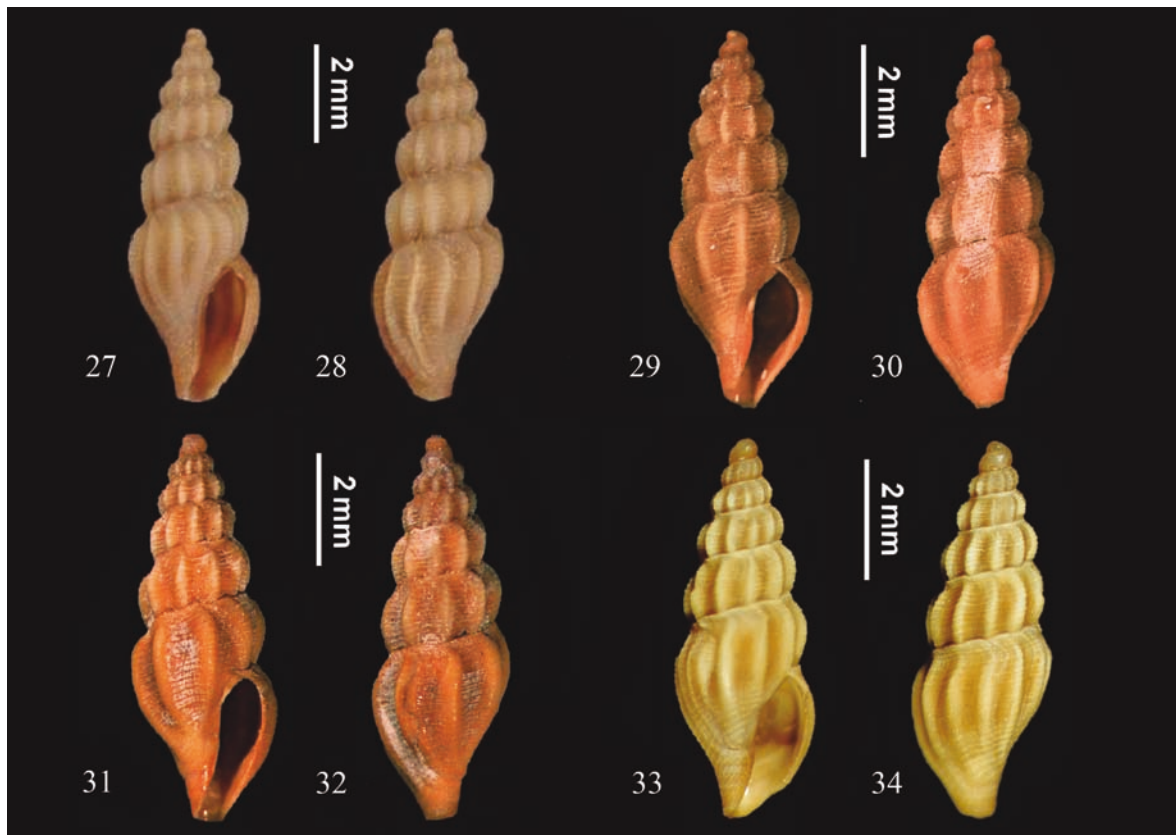


Figure 14. Drawing of “*Bela brachystoma brachystoma*” by Nordsieck (1977: pl. XI, fig. 85). Figs. 15–17. *Sorgenfreispira brachystoma*. 5.2 x 1.8 mm, San Vincenzo, Leghorn, Italy, 43°05’N 10°24’E, 34 m (CS-PM) (Fig. 17 SEM photograph). Fig. 18. Drawing of *B. brachystoma apicalis* by Nordsieck (1977: pl. XI, fig. 86). Figs. 19–21. *B. brachystoma apicalis*. Syntype A, SMF33269/2. 5.2 x 1.9 mm, Sfax, Tunisia, 34°47’N 10°53’E, 15 m (SMF) (Fig. 21 SEM photograph). Figs. 22, 23. Details of the protoconch of Syntype A, SMF33269/2, SEM photographs. Figs. 24, 25. *B. brachystoma apicalis*. Syntype B, SMF33269/2. 5.2 x 1.9 mm, Sfax, Tunisia, 34°47’N 10°53’E, 15 m (SMF). Fig. 26. SMF label of *B. brachystoma apicalis* syntypes.



Figures 27, 28. *Ginannia taprurensis*. Lectotype (MNHN-IM-2000-32699), 7.3 mm, Sfax, Tunisia (MNHN). Figures 29, 30. *G. taprurensis*. 6.6 x 2.2 mm, Sfax, Tunisia (MCZR). Figures 31, 32. *G. taprurensis*. 6.6 x 2.3 mm, Sfax, Tunisia (MCZR). Figures 33, 34. *G. taprurensis*. 6.1 x 2.3 mm, Al Khums, Libya, 15 m (CS-PM).

[no further data], 3 sh (Couturier coll., MNHN), 4 sh (Locard coll., MNHN). Marseille, [no further data], 5 sh (Locard coll., MNHN).

Spain. Estepona, 36°25'N 5°09'W, -150 m, 2 sh (SR); Baleares, [no further data], 1 sh (MNHN); Alboran, BALGIM sta. 143, 35°57'N 3°07'W, -252 m 1 sh (MNHN); Malaga, beach nourishment [from -20/40 m] 1 sh (MNHN).

Italy. Off San Vincenzo, 43°05'N 10°24'E, -34 m, 78 sh (CS-PM); off S. Marinella, -150/200 m, sediment in an old Roman dolium, 41°54.00'N, 011°47.66'E, 1 sh (MO); off Fiumicino, 41°43'N 12°06'W, -80 m, 38 sh (CS-PM); off Fiumicino, 41°38'N 12°11'W, -140 m, 27 sh (CS-PM); off Fiumicino, [no further data] (in the gut content of *Astropecten irregularis*), 16 juveniles (MO); 5 nm South of Fiumicino, -25 m (in mud), 2 lv (MO); Tor Paterno shoal, -150 m, 5 lv, 1sh (MO); Ponza Is., 40°51'N 12°55'W, -40 m, 24 sh (CS-PM); off Civitanova Marche, 43°18'N 13°46'E, -45 m, 11 sh (CS-PM); off Pescara, 42°31'N 14°12'E, -50 m, 24

sh (CS-PM); Sicily, [no further data], 2 sh (coll. Letellier, MNHN).

Croatia. Brac Island, 43°24'N 16°30'E, -50 m, 5 sh (CS-PM).

Libya. Unknown locality, -110/150 m, 19 sh (CS-PM).

Fossil. Italy: Guidonia, 42°00'N 12°43'E (Pliocene), 2 sh (CS-PM); Gallina, 38°05'N 15°41'E (Pliocene), 3 sh (CS-PM); Ficarazzi, 38°04'N 13°29'E (Upper Pliocene-Lower Pleistocene), 125 sh labelled "*P. granuliferum* var. *parva*" (coll. Monterosato, ex coll. Brugnone, MCZR); Monte Pellegrino, 38°04'N 13°29'E (Upper Pliocene-Lower Pleistocene), 48 sh labelled "*var. striiselevatoribus*" (coll. Monterosato, ex coll. Brugnone, MCZR).

DESCRIPTION. Shell small for the genus, height 4.5–7 mm, width 1.7–2.5 mm, biconical, turriculate elongate, solid. Protoconch multispiral, dome shaped, of 2.3–2.4 convex whorls. First 1.6–1.9 apical whorls smooth, the remaining with reticu-

lated sculpture of 4-5 granulate spirals (3 major spirals in the middle of whorl, 1 smaller subsutural and 1 smaller above the teleoconch suture) crossed by oblique axial riblets. Maximum diameter of protoconch 510-650  $\mu\text{m}$ . Protoconch-teleoconch transition not well marked. Teleoconch of 5-6 whorls, rounded, sutural ramp straight or very slightly convex, whorl sides gently convex. Last whorl about 2/5 of shell length. Axial sculpture of 8-9 prominent, slightly opisthocline, flexuous and narrowly rounded axial ribs, regularly spaced, with broader interspaces. Spiral sculpture of 9-15 major cordlets, with irregularly alternating smaller cordlets and interspaces of variable size. Each cordlet consists of a row of densely packed rounded granules. Aperture narrow, ovate, about 1/3 of the shell height. Siphonal canal short, narrow and open, deviating on the left. Inner lip with a moderately developed parietal callus. Outer lip varicose. Anal sinus marked, arcuate on shoulder slope. Animal with short head and two short tentacles. Black eyes on the external, thickened basal part of the tentacles, located on the distal third of their total height. Foot broad and long, slightly lobate anteriorly, tapering posteriorly. Background colour of the head-foot pinkish, semi-transparent, with light yellow spots, and light yellow speckles on the proximal part of the tentacles. Siphon pinkish, semi-transparent, with light yellow spots bordered by orange.

**DISTRIBUTION.** *Sorgenfreispira brachystoma* is known from the northeastern Atlantic and from the entire Mediterranean Sea. Based on literature data and on the material we have examined, it ranges from Norway (Høisæter, 2009), Sweden (Dyntaxa, 2013), United Kingdom and British Isles (Hayward & Ryland, 1990), to southern Morocco (Lat 34° N), and the entire Mediterranean Sea. Fossil shells are known from several Plio-Pleistocene European outcrops (England, France, Spain, Italy: see Chirli & Richard, 2008).

**REMARKS.** *Sorgenfreispira brachystoma* is a continental shelf species, easily distinguishable from all other members of the group by its very distinct shell sculpture (Mariottini et al., 2008). It has a multispiral protoconch with characteristic densely granulated spiral ribs. *Bela brachystoma apicalis* Nordsieck, 1977 is a synonym of *B. taprurensis* (Pallary, 1904) (see below).

*Bela* Gray, 1847: 270

Type species: *Murex nebula* Montagu, 1803, by subsequent designation (Gray, 1847).

=*Fehria* van Aartsen, 1988 (type species: *Ginnania taprurensis* Pallary, 1904, by original designation)

*Bela taprurensis* (Pallary, 1904) (Figs. 18-46)

*Ginnania taprurensis* Pallary, 1904: 218, pl. VII, Fig. 1

*Bela brachystoma apicalis* Nordsieck, 1977: 44, pl. 11, Fig. 86

Type locality. *Ginnania taprurensis* Pallary: Sfax, Tunisia, Mediterranean Sea. *Bela brachystoma apicalis* Nordsieck: Sfax, Tunisia, Mediterranean Sea. Type material. *Ginnania taprurensis* Pallary: Lectotype (MNHN-IM-2000-3269).

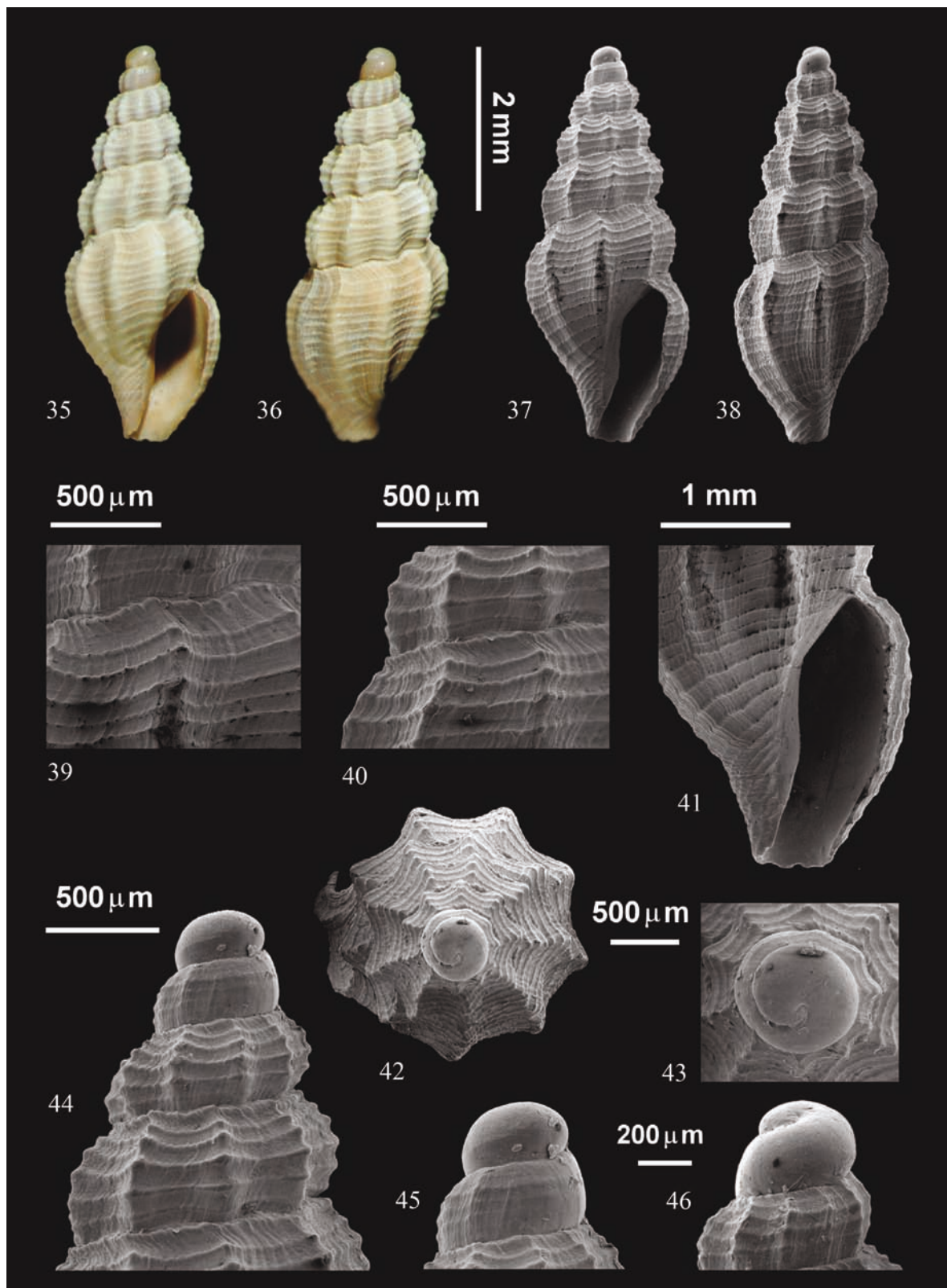
*Bela brachystoma apicalis* Nordsieck: 2 syntypes (SMF33269/2)

**EXAMINED MATERIAL.** The type material and: Tunisia: Sfax, 34°47'N 10°53'E, 15 m, 25 sh (CS-PM), 2 sh (coll. Monterosato, MCZR).

Libya: Al Khums, 32°43'N 14°18'E, 15 m, 4 sh (CS-PM).

**DISTRIBUTION.** Southern Mediterranean Sea, Gulf of Gabès (Pallary, 1904) and Libya; Aegean Sea (Manousis, 2012: 169) and Levant Sea (Bogi et al., 1989).

**REMARKS.** Nordsieck (1977: 45, pl. XII, fig. 90) redescribed *Ginnania taprurensis* Pallary and depicted a shell from Karpathos (Greece). Protoconch (2 convex whorls, rather blunt) and teleoconch description match the species as represented by the lectotype (Figs. 27, 28) and the two specimens in coll. Monterosato, presumably ex Pallary (Figs. 29-32). Nordsieck (1977) also described *B. brachystoma apicalis*, differing from the nominal species mainly for its paucispiral "protoconch [of] 11/2 very inflated whorls, which leads to the conclusion of a quite other life of larvae" (Nordsieck, 1977: 44, pl. 11, Fig. 86). The examination of two syntypes (Figs. 19-23) of *B. brachystoma apicalis* revealed that this taxon was actually based on shells of *B. taprurensis* (Pallary, 1904) (Figs. 27-46). Present sample from Libya (Figs. 33, 34) is the first record for the waters of that country.



Figures 35–38. *Bela tapruensis*. 4.8 x 1.8 mm, Sfax, Tunisia, 34°47'N 10°53'E, 15 m (CS-PM) (Figs. 37, 38 SEM photographs). Figures 39–46. Details of the shell of figs. 35–38 (SEM photographs).

## ACKNOWLEDGMENTS

We would like to express our gratitude to Virginie Héros and Philippe Maestrati (MNHN), Ronald Janssen (SMF) and Massimo Appolloni (MCZR) for the help in the study of the materials under their care, and Cesare Tabanelli with Cesare Bogi for the bibliographic assistance.

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