Comparison of some interesting molluscs, trawled by the Belgian fishery in the Bay of Biscay, with similar representatives from adjacent waters: part III

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Abstract: In the third part of the report on the molluscs collected by the Belgian fishery in the Bay of Biscay during the last decade, the remaining gastropods and a first series of bivalves are briefly described, figured and compared with similar specimens from North Atlantic waters, the Mediterranean Sea or West Africa.

Abbreviations:
FN: private collection of Frank Nolf.
H.: height.
JPK: private collection of Jean-Paul Kreps.
JV: private collection of Johan Verstraeten.
L.: length.
LV: left valve.
PEMARCO: Pêche Maritime du Congo.
RBINS: Royal Belgian Institute for Natural Sciences, Brussels, Belgium.
RV: right valve.

Description of species:

BUCCINIDAE

***Colus gracilis* (da Costa, 1778)**
Plate XLIV, Figs 243-248; Plate XLV, Figs 249-254; Plate XLVI, Figs 255-261; Plate L, Fig. 285

= *Buccinum gracile* da Costa, 1778
= *Fusus listeri* Jonas, 1846
= *Tritonium islandicum* var. *striata* Middendorff, 1849
= *Neptunia nicolloni* Locard, 1891
= *Fusus consimilis* Marshall, 1911
= *Sipho togatus* var. *frielei* Harmer, 1914
= *Sipho turgidulus* var. *minor* Thorson, 1944

Range: From the Murmansk area, Norway (Pl. XLIV, Fig. 246) and Iceland (Pl. XLIV, Fig. 245) extending into the Kattegat, the British Isles (Pl. XLIV, Fig. 248; Pl. XLV, Figs 249-254), the North Sea (Pl. XLVI, Figs 255-257) and the English Channel south to the Bay of Biscay (Pl. XLIV, Figs 243-244) and Portugal (Pl. XLVI, Figs 260-261).
Specimens reported from the Mediterranean are erroneous identifications and have to be attributed to *Colus jeffreysianus* (P. Fischer, 1868). The species lives on muddy and sandy bottoms, usually from 30 to 800 m deep. It is less common and lives deeper in the south of its range.
This is a rather variable species with respect to its shell, especially in relation to the breadth/height ratio, the size of the aperture and the length of the siphonal canal. This is probably due to its occurrence in several different geographical and bathymetrical areas. Bouchet & Warén (1985) regard *Sipho glaber* Verkrüzen in Kobelt, 1876 (not figured) as a smooth form with flatter whorls and proportionally greater breadth than typical *C. gracilis*. This supposedly northern form reaches the White Sea, the Faroes (Pl. XLIV, Fig. 247), the Shetlands and Iceland (Pl. XLIV, Fig. 245) and has a very thin dark brown periostracum. Both authors state that transitional forms between *Colus gracilis* and *Colus glaber* occur in the Faroes and the North Sea. However, we have never seen intermediate specimens collected by Belgian fishermen. Bouchet & Warén (1985) state that when *C. gracilis* enters deeper water (the Faroes, Iceland, W and NW of the British Isles), the periostracum becomes less distinct, the shell smoother, larger and less heavy, while the siphonal canal tends to be more curved. Nevertheless we obtained both *Colus gracilis* and *Colus glaber* from the same northern areas in the past. In the Bay of Biscay the deep-water form is not collected by Belgian fishermen from Zeebrugge as it probably only occurs between 700 and 1300 m in this area. As both forms are very distinct, Bouchet & Warén (1985) suppose they may eventually prove to be of a subspecific rank.

Further study of the radula, egg capsules and protoconch is needed to conclude that specimens of *C. gracilis* and *C. glaber* belong to the same species or have to be regarded as separate species or subspecies.

***Colus jeffreysianus* (P. Fischer, 1868)**
Plate XLVII, Figs 262-267; Plate XLVIII, Figs 268-273; Plate XLIX, Figs 274-279; Plate L, Figs 280-284 & 286

= *Fusus jeffreysianus* P. Fischer, 1868
= *Fusus propinquus* Alder, 1848
= *Tritonium turritum* M. Sars, 1859
= *Fusus propinquus* var. *turrita* Jeffreys, 1867 [non *F. turritus* Schafhäutl, 1863]
= *Fusus buccinatus* Jeffreys, 1867 [non Lamarck, 1822]
= *Fusus attenuatus* Jeffreys, 1877
= *Fusus pupula* P. Fischer, 1882
= *Neptunia pupoidea* Locard, 1897
= *Neptunia torra* Locard, 1897
= *Fusus consimilis* Marshall, 1902
= *Fusus propinquus* var. *howsei* Marshall, 1902
= *Fusus propinquus* var. *laevis* Marshall, 1902
= *Neptunia pertenuis* Sykes, 1911
= *Fusus marshalli* Iredale, 1918
= *Buccinum gracile* Auct. [non da Costa, 1778]

Range: *Colus jeffreysianus* lives in deep water from 400 to 2100 m from South Iceland and Norway (Pl. XLVIII, Figs 270-271), the Shetland Islands (Pl. XLVIII, Figs 268-269) and the Faroes, the Kattegat and SW Skagerrak (Pl. XLIX, Figs 274-275), and off the British Isles (Pl. XLVIII, Figs 272-273). Further southwards it is found on the continental shelf of the Bay of Biscay (Pl. XLVII, Figs 262-267), the Iberian Peninsula (Pl. XLIX, Fig. 277; Pl. L, Figs 280-281) to Morocco (Pl. L, Figs 282-283 & 284) and the western Mediterranean Sea (Pl. XLIX, Figs 278-279) (Bouchet & Warén, 1985). It is not common anywhere, but less common in the east English Channel and southern North Sea than elsewhere.
The extreme variability of this species has created a lot of synonyms and much confusion in literature. In South Scandinavia and North Great Britain the predominant form is small and solid with a rather thicker, often hairier periostracum on the slightly more tumid whorls (= *Fusus propinquus* Alder, 1848; = *Fusus propinquus* var. *howsei* Marshall, 1902). Shells are broad with pronounced primary spiral cords and a deep suture. The typical *C. jeffreysianus* is found at a depth of 100-200 m off West Great Britain and Ireland and southerly in the English Channel (Pl. XLVIII, Figs 272-273) and the Bay of Biscay (Pl. XLVII, Figs 262-267), possesses a larger and higher shell with flatter whorls and a thinner periostracum. In the North of Spain (Pl. XLIX, Fig. 277) the animals live deeper and the shells become smaller. The '*attenuatus*'-form (*Fusus attenuatus* Jeffreys, 1877) is slenderer, more cylindrical and has a thinner periostracum when it is found in deeper water (Pl. XLIX, Figs 278-279; Pl. L, Figs 280-284). The shells have a fine spiral sculpture and a finer suture. In the Bay of Biscay as well as in the North of Great Britain continuous forms to the typical elongated '*attenuatus*'-form from deeper water (at about 1000 m) are present among the stouter '*torra*' and '*pupoidea*'-forms (in depths from 200-1000 m). In spite of the high variability between different populations (ecophenotypes) single populations show a low degree of polymorphism.

Specimens of *Colus jeffreysianus* (P. Fischer) and *Colus gracilis* (da Costa, 1788) are often quite difficult to separate. *C. jeffreysianus* has 7-8 tumid whorls separated by a deeper suture. The apex is blunt and the delicate spiral sculpture is usually less pronounced and more flattened. The periostracum is generally thinner. The general ornament is the same as in *C. gracilis*: 24-34 spiral ridges on the last whorl, 7-10 on the penultimate whorl, 6-9 on the following, and 5-7 on the upper whorls of the spire. Often its siphonal canal is shorter and slightly curved. The protoconch of *C. jeffreysianus* has 2-3 whorls, which slowly increase in size and are gently whorled. They form a short, sunken spiral with the same axis of coiling as the rest of the shell. They are rather submerged and already clearly possess the spiral structure of the adult shell. *Colus gracilis* has the same number of smooth protoconch whorls, it does not show any spiral structure and the first whorl slightly deviates from the coiling axis. The larger protoconch usually has slightly inflated whorls. It has a lower number of whorls compared to the shell size. The shell is slender and the last whorl is not as tumid as in typical *C. jeffreysianus*.

CONIDAE

Only a small number of turrids were collected by Belgian fishermen from Zeebrugge, using beam trawl nets with a square mesh size of 70 mm at a depth of 120-180 m in the Bay of Biscay. In this way it is very difficult to collect small shells such as Eulimidae, Rissoidae, Conidae, Turridae or Pyramidellidae for instance, from sand or grit samples. Fishermen from Zeebrugge neither obtained the starfish *Asterias irregularis* Pennant, 1777 and only very rarely *Scaphander lignarius* (Linnaeus, 1758) whose stomach is often the source of that kind of micro species (Vanwalleghem, R. *et al*., 2007).

Below we mention a small number of turrids occasionally recovered by these fishermen in the Bay of Biscay.

***Bela costulata* (Risso, 1826)**
Plate LI, Figs 287-293

= *Mangelia costulata* Risso, 1826
= *Pleurotoma smithii* Forbes, 1840
= *Pleurotoma farrani* W. Thompson, 1845
= *Smithia striolata* Monterosato, 1884
= *Raphitoma rissoi* Locard, 1886 [non Bellardi, 1877]
= *Raphitoma ornata* Locard, 1892
= *Bela costulata scacchii* Nordsieck, 1972
= *Mangelia wareni* Piani, 1980

Range: From the Mediterranean (Pl. LI, Figs 291-293) north to the west coasts of the British Isles and Irish localities. Also found in Madeira and the Canary Islands (Pl. LI, Fig. 290).

According to Fretter & Graham (1981) it lives in sand at depths of 20-50 m, but the Belgian fishery found specimens in the Bay of Biscay (Pl. LI, Fig. 287) at depths of 80-130 m.

***Bela nebula* (Montagu, 1803)**
Plate LII, Figs 294-301; Plate LIII, Figs 302-308

= *Murex nebula* Montagu, 1803
= *Mangelia ginnania* Risso, 1826
= *Pleurotoma nigra* Potiez & Michaud, 1838
= *Ichnusa setuba* Jeffreys, 1847
= *Pleurotoma nebula* var. *abbreviata* Jeffreys, 1867
= *Pleurotoma nebula* var. *elongata* Jeffreys, 1867
= *Pleurotoma nebula* var. *lactea* Jeffreys, 1867
= *Pleurotoma nebula* var. *minor* Jeffreys, 1867
= *Raphitoma powisiana* Dautzenberg, 1887
= *Raphitoma nebula* var. *powisiana* Recluz ms. in Dautzenberg, 1887
= *Raphitoma affine* Locard, 1892
= *Bela mingoranceae* Martín Pérez & Vera Peláez, 2007

Range: From Norway, the Bay of Biscay (Pl. LII, Figs 294-295) to the south of the Iberian Peninsula (Pl. LIII, Fig. 308), the Canary Islands (Pl. LIII, Figs 303-305) extending into the Mediterranean Sea (Pl. LIII, Figs 306-307) but rarely present in the eastern English Channel and the North Sea.
Usually sublittoral on sandy bottoms, from 5 to 100 m deep.

The impressive variability of this species has resulted in the creation of different names of species and forms in literature. However, as so many intergrades exist between the several specimens, we provisionally prefer to regard all of them as only one species. The name *Raphitoma powisiana* used by Recluz in manuscript refers to larger and more elongated specimens, with wider spaced ribs which are less developed (Pl. LII, Figs 296-297). These shells have a constant yellowish cream colour with light brown longitudinal flecks between the parallel costae. Although Jeffreys (1867) already described them as *Pleurotoma nebula* var. *elongata*, Dautzenberg (1887) preferred to use the name *Raphitoma powisiana*. Only after his description of *Raphitoma powisiana*, Dautzenberg (1887) came into possession of intergrading forms and later on *R. powisiana* was downgraded to the rank of form (Dautzenberg & Durouchoux, 1913), namely as *R. nebula* var. *powisiana* (pl. I, figs 11-13). We have illustrated the form *B. nebula* var. *septenvillei* attributed to Monterosato (in manuscript) by Dautzenberg & Durouchoux (1913) in PL. LIII, Fig. 308. Recently, Urra & Gofas (2009) published new records of '*Bela powisiana*' in southern Europe. Unfortunately, it concerns specimens of *Bela nebula*. Both authors were apparently unaware of the existence of the paper by Dautzenberg & Durouchoux (1913) as they probably followed the CLEMAM-listing, which in addition neglects this reference illustrating different forms of the puzzling and troubling *B. nebula*. On the other hand *B. powisiana* was described by Dautzenberg (1887) without figures and no type was designated.
We suppose that the specimens from Calahonda (Spain) illustrated by Urra & Gofas as figs 2, a-g & k are all forms of the same species, *B. nebula*. We also refer to the different specimens from the Chausey Archipelago (Normandy, France) which belong to the same sample. They are figured in this paper on Pl. III, Figs 299-301 and show the same variability. *B. nebula* is a well-known turrid from all parts of the Mediterranean Sea and the record from Málaga (Spain) is no more than a confirmation of this statement.

It can be assumed that most of the shells from the Mediterranean Sea, described as *Bela nebula*, belong to *Bela laevigata* Philippi, 1836. This is a primary homonym of *Pleurotoma laevigata* Sowerby, 1823 and of *Pleurotoma laevigatum* Eichwald, 1830. Urra & Gofas (2009) suggest that *Bela zonata* (Locard, 1891) should be the next available name for the shell originally described by Locard as *Raphitoma zonata* from the Mediterranean coast of France (Pl. LIII, Fig. 309). Further thorough study is needed to solve the problem of the real status of *B. nebula*, *B. powisiana*, *B. laevigata* (Philippi, 1836) and *B. zonata*.

***Comarmondia gracilis* (Montagu, 1803)**
Plate LIV, Figs 310-316

= *Murex gracilis* Montagu, 1803
= *Murex emarginatus* Donovan, 1804
= *Murex oblongus* Brocchi, 1814
= *Defrancia suturalis* Millet, 1828
= *Pleurotoma comarmondi* Michaud, 1829
= *Pleurotoma propinqua* Bivona Ant. in Bivona And., 1838

Range: From Iceland south to the Azores, Madeira, the Canary Islands, the Cape Verde Islands and into the Mediterranean (Pl. LIV, Figs 313-316).
It occurs in the western part of the English Channel (Pl. LIV, Figs 312), on Irish and on western British coasts (Pl. LIV, Fig. 311) as northerly as Moray Firth, but seems to be absent from the rest of the North Sea and Scandinavia.

On gravel bottoms between 7 and 150 m. In the Bay of Biscay (Pl. LIV, Fig. 310) specimens were found by Belgian fishermen on a muddy bottom at a depth of 90 m.

***Mangelia coarctata* (Forbes, 1840)**
Plate LV, Figs 317-322

= *Pleurotoma coarctata* Forbes, 1840
= *Murex costatus* Donovan, 1804 [non Pennant, 1777]
= *Mangelia balteata* Reeve, 1846
= *Mangilia patula* Locard, 1892
= *Mangilia atlantica* Pallary, 1920
= *Mangilia atlantica* var. *elongata* Pallary, 1920

Range: From Norway, the Skagerrak and Kattegat, the English Channel (Pl. LV, Figs 317-320), the Bay of Biscay (Pl. LV, Fig. 321), south to the Iberian Peninsula and into the Mediterranean Sea (Pl. LV, Fig. 322).

It lives in sandy bottoms from 10 to 250 m deep.

***Raphitoma purpurea* (Montagu, 1803)**
Plate LVI, Figs 323-331
= *Murex purpureus* Montagu, 1803
= *Pleurotoma bicolor* Risso, 1826
= *Pleurotoma laviae* Philippi, 1844
= *Clathurella bourguignati* Locard, 1892
= *Raphitoma lineolata fuscata* Nordsieck, 1977

Range: From northern Norway, the British Isles (Pl. LVI, Fig. 324), the eastern part of the English Channel (Pl. LVI, Fig. 325-322) and the southern part of the North Sea, the Bay of Biscay (Pl. LVI, Fig. 323) into the Mediterranean (Pl. LVI, Fig. 329), Madeira, the Canary Islands (Pl. LVI, Fig. 330), the Cape Verde Islands and along the West African coasts as far south as Angola (Pl. LVI, Fig. 331).
This species lives on sandy, gravely and stony bottoms at a depth of 10-100 m.

***Teretia teres* (Reeve, 1844)**
Plate LVII, Figs 332-336

= *Pleurotoma teres* Reeve, 1844
= *Fusus laviae* Calcara, 1845
= *Pleurotoma borealis* Lovén, 1846
= *Pleurotoma minuta* var. *polyzonata* Brugnone, 1862
= *Pleurotoma anceps* Auct. [non Eichwald, 1830]

Range: The lower shelf and upper bathyal of the NE Atlantic, Norway and Sweden, the Skagerrak and Kattegat, the Celtic Sea (Pl. LVII, Fig. 333), the Bay of Biscay (Pl. LVII, Fig. 332), the Mediterranean, the Canary Islands (Pl. LVII, Fig. 334) and the West African coast (Pl. LVII, Fig. 335) to southerly Angola (Pl. LVII, Fig. 336). It has been found off nearly all British and Irish coasts but is absent from the eastern half of the English Channel and the southern North Sea.

It lives on sandy bottoms between 30 and 900 m.

ARCHITECTONICIDAE

***Heliacus fallaciosus* (Tiberi, 1872)**
Plate LVIII, Figs 340-342

= *Solarium fallaciosum* Tiberi, 1872
= *Solarium subvariegatum* d'Orbigny, 1852
= *Solarium stramineum* var. *mediterranea* Philippi, 1853
= *Heliacus stramineus* Auct. [non Gmelin, 1791]

The figured specimen (Pl. LVIII, Figs 340-342) was collected by Belgian fishermen at a depth of 180 m south of La Rochelle in the Bay of Biscay. This is probably the most northerly record of this species, though it is also known from off Vigo (Spain) and the Canary Islands in the NE Atlantic. It has also been reported from the Mediterranean where it lives in deep water.

PYRAMIDELLIDAE

Ondina sp.
Plate LVII, Figs 338-339

Occasionally some specimens of parasitic pyramidellids are found with the sipunculid *Phascolion strombi* (Montagu, 1804) (Pl. LVII, Fig. 337) and thus in places where old shells of *Aporrhais pespelecani* (Linnaeus, 1758) and *Turritella communis* Risso, 1826 are liable to occur.

The relationship between specimens of the genus *Ondina* and the sipunculid may be qualified as parasitism since the pyramidellids are obligatory ectoparasites of the sipunculid (Troncoso, N., Moreira, J. & Troncoso, J.S., 2000). These authors mention the presence of *Ondina diaphana* (Jeffreys, 1848) = *Odontostomia perezi* Dautzenberg & H. Fischer, 1925) in the northwest of the Iberian Peninsula. However, we were unable to clearly identify the pyramidellids. Further material and intensive study will be needed to clarify this problem.
None of our specimens completely match figures and descriptions in literature.

Specimens are rarely found in host shells and if so almost only one specimen for a sipunculid. In the Bay of Biscay (Pl. LVII, Figs 338-339) specimens were only obtained by Belgian fishermen from *Aporrhais pespelecani* var. *bilobatus* Clément, 1875. The individuals ranged from 1.5 to 2.5 mm and their position was close to the shelter inhabited by the sipunculid. They live on soft bottoms from 20 to 90 m deep, on fine sand and only occasionally on coarse sand.

CYLICHNIDAE

***Roxania utriculus* (Brocchi, 1814)**
Plate LVIII, Figs 343-344

= *Bulla utriculus* Brocchi, 1814
= *Bulla cranchii* Fleming, 1828
= *Bulla utriculata* Locard, 1886

This species is found from the Shetlands south to Madeira, the Canaries and into the Mediterranean. It is sublittoral but reports are known from 1500 m. This is a rare shell in the Bay of Biscay (Pl. LVIII, Figs 343-344).
This species differs from the closely related *Roxania monterosatoi* Dautzenberg & H. Fischer, 1896 by its slenderer form and by the presence of an umbilicus at the upper extremity, which is closed in the more globular *R. monterosatoi*.
The surface of the last whorl is provided with a series of grooved lines, which are rather serrated in the central area and more spaced below and above the central zone, in contrast with the ornamentation of *R. monterosatoi*. *R. utriculus* has a larger shell (12-14 mm) compared to the latter species (6-8 mm) and its outer lip is far more extending above the shell.

ADDENDUM

ADDISONIIDAE

***Addisonia excentrica* (Tiberi, 1855)**
Plate LIX, Figs 345-349

= *Gadinia excentrica* Tiberi, 1855
= *Addisonia paradoxa* Dall, 1882
= *Addisonia eccentros* Jeffreys, 1883
= *Gadinia lateralis* Réquien, 1848
We refer to Dantart & Luque (1994) for an extensive discussion on the synonymy of this species.

Range: From the Azores, E Atlantic (Bay of Biscay (Pl. LIX, Figs 345-347), Galicia, Portugal, Morocco and Guinea-Bissau) into the western Mediterranean (Spain) (Pl. LIX, Figs 348-349). Rarely found in the Bay of Biscay. One specimen was obtained by fishermen from Zeebrugge south of La Rochelle at a depth of 130 m. Reported as *A. paradoxa* Dall, 1882 from Grand Banks (Nova Scotia) to Kingston (Jamaica).

It lives on coralline bottoms at a depth from 100 to 1800 m and feeds on the inside of egg cases of sharks, skates or dogfish.

BIVALVIA

NUCULIDAE

***Nucula hanleyi* Winckworth, 1931**
Plate LX, Figs 350-356

= *Nucula radiata* Forbes & Hanley, 1849

Range: The British Isles (Irish Sea, the English Channel) (PL. LX, Fig. 353, 354-355), the Bay of Biscay (Pl. LX, Figs 350-352), south to the Iberian Peninsula and into the Mediterranean Sea (Pl. LX, Fig. 356).

N. hanleyi lives in fine gravel and shelly gravel down to about 40 m.

Shell: Triangular in outline. When the posterior line is vertical the anterior dorsal margin is curved above the horizontal line. The periostracum is semi-glossy to glossy, olive or grey in colour sometimes with reddish brown or greyish brown radiating lines of varying width from the umbos. The lunule is poorly defined. The margins are crenulated.

This species is nearly completely similar to *Nucula nucleus* (L., 1758). Differences remarked by some authors include its more triangular and oblique shape, less convex outline, the smaller number of posterior teeth, the dull outer surface, the usually darker colour and the presence of brown radiating lines on a yellow-olive background. However, these characteristics are not constantly present. Bucquoy et al. (1891) state that shells described as *N. hanleyi* are only a form of *N. nucleus*.

As a consequence of the poor original description and type material in the Linnaean collection in London, shells identified as *N. hanleyi* most probably belong to *N. nucleus*.
In describing *Nucula radiata*, Hanley thought his species was represented by the Linnaean shells, but this species has now to be called *Nucula hanleyi* Winckworth, 1931.

However, examination of many specimens by Schenck (1934) shows that both *N. hanleyi* and *N. nucleus* are very close to one another. The ratio of height/length appeared too variable to be relevant, though there is a slight difference in outline of what are traditionally regarded as two separate species. The main distinctions seem to be the dark-coloured radiating lines from the umbos to the ventral margins on well-preserved specimens of *N. hanleyi* and its more elongated profile. These 'typical' characteristics are rarely found in the same shell, but the specimen collected by Belgian fishermen in the Bay of Biscay is a good representative (Pl. LX, Figs 350-352).

There are so many intergrades between glossy and dull surfaces, presence or absence of reddish brown or greyish brown bands or lines, oblique or oval outline that no clear separation between the so called different species is possible. So we suggest *Nucula hanleyi* should only be regarded as a form of *N. nucleus*.
Attempts were made by Allen (1954) to prove that *N. hanleyi* is a separate species different from *N. nucleus*. His study is based upon samples from only two localities: the Clyde Sea Area in Scotland (UK) (*N. nucleus* in coarse muddy gravel) and Port Erin, Isle of Man, Irish Sea, UK (*N. hanleyi* in fine gravel). Different bottom and feeding conditions could have influenced the growth of the shells resulting in different forms. This investigation would have obtained more scientific value if research had been made in habitats where the two 'species' live together.

Allen (1954) shows that the variation in colour cannot be used as a diagnostic characteristic and this depreciates an important argument used by several authors. Comparison of the overall measurements of height and length showed that there was little difference between the several species of *Nucula* living in Scottish waters.
It is amazing to see that so many authors avoid elucidating the ambiguity of the real status of the taxons of *N. hanleyi* and *N. nucleus*. It is most unfortunate that Salas (1996) in her excellent report of the Balgim and Fauna 1 expeditions neither figures nor describes specimens of *N.hanleyi*. Even though she doubts about the real presence of *N. nucleus* in southern Europe, that species is illustrated.

***Nucula nitidosa* Winckworth, 1930**
Plate LXI, Figs 357-362; Plate LXII, Figs 363-368

= *Nucula nitida* G.B. Sowerby I, 1833 [non *Arca nitida* Brocchi, 1814]
= *Nucula nitida* var. *turgida* Leckenby & Marshall, 1875 [non *Nucula turgida* Gould, 1846]
= *Nucula moorei* Winckworth, 1931

Range: This species is distributed from Norway, the British Isles (Pl. LXI, Figs 359-362; Pl. LXII, Figs 363-364), the Bay of Biscay (Pl. LXI, Figs 357-358; Pl. LXII, Fig. 367), south to the Iberian Peninsula, in the Mediterranean Sea (Pl. LXII, Fig. 368) and along the East Atlantic coast probably south to Angola.

It lives on bottoms of fine sand, sandy mud or silt at a depth of 10-250 m.

Shell: The triangular outline is a constant feature among all specimens. When the posterior margin is vertical the anterior dorsal line is curved along the horizontal margin. This species is less variable than its related neighbours in European and West African waters. It is the smallest representative of the genus *Nucula* in the Bay of Biscay.
The periostracum is rather glossy, mostly olive-yellow in colour. Occasionally specimens may be found with purplish grey radiating lines from the umbo to the lower margin. The lunule (= a depressed area situated in front of the beaks, generally standing out from the rest of the shell by a change in sculpture or colour) is lanceolate and poorly defined. The escutcheon (= a depressed area behind the beaks in the dorsal line generally standing out from the rest of the shell by a change in sculpture or colour), is broadly elliptical and pouting. The sculpture consists of fine radiating ribs and a few concentric lines. This species is easily differentiated from the glossier *Ennucula tenuis* (Montagu, 1808) by its crenulated margin.

***Nucula nucleus* (Linnaeus, 1758)**
Plate LXIII, Figs 369-374; Plate LXIV, Figs 375-379

= *Arca nucleus* Linnaeus, 1758
= *Glycimeris argentea* da Costa, 1778
= *Arca margaritacea* Bruguière, 1792
= *Nucula nucleata* Locard, 1886

Range: Widely distributed from the coasts of Norway, Iceland (Pl. LXIV, Fig. 375), the British Isles (Pl. LXIV, Fig. 377), the English Channel (Pl. LXIII, Fig. 374), the Bay of Biscay (Pl. LXIII, Figs 370-373), south to the Iberian Peninsula (Pl. LXIII, Fig. 369), and into the Mediterranean Sea (Pl. LXIV, Figs 378-379), down the west coast of Africa to the Cape of Good Hope and again north along the South-African coast to KwaZulu-Natal in the Indian Ocean.

Nucula nucleus lives in coarse sand and muddy gravel from offshore depths to about 150 m.

Shell: Triangular in outline but with the anterior dorsal line well curved above the horizontal line when the posterior margin is vertical. The periostracum is dull, yellowish green, grey or greenish brown in colour, sometimes provided with grey radiating lines. The lunule is heart-shaped and ill-defined. The margins are crenulated.

The problem is that no type specimen of *Arca nucleus* Linnaeus, 1758 has ever been designated, yet this species is the type of the genus *Nucula* and, in turn, it is also the type of the family NUCULIDAE. Hanley (1855) believed – but naturally could not prove – that the specimens in the Linnaean Society are not Linné's originals of *Arca nucleus* and he thought they had been introduced after the arrival of the collection in England. The type material consists of a few worn, bleached and uncoated (without periostracum) single valves of a *Nucula* accompanied by a label not written by Linnaeus. However, these specimens agree with the meagre original description, but this can usually be expected in older collections and corresponding literature. Therefore Schenck (1934) designated these shells as neotypes, a point of view supported by Winckworth. The valves all belong to the same species. They have wide radial ribs separated by narrow interspaces and crenulated ventral margins. The ribs do not cross the escutcheonal area. On the anterior side there is an arcuate anterior (long) row of teeth and a straight posterior (short) one. There are two subequal muscle scars and additional impressions.
Nucula nucleus is a very variable species in all aspects: the nature (colour and brilliance) of the periostracum, the presence or absence and the colour of radiating lines from the umbos to the ventral margins and the general outline (oval, oblique or triangular). Many of the differences are certainly due to the kind of bottom where specimens live and the kind of food the animals consume.

However, even at the same locality and at the same depth spectacular differences can be observed among specimens of the same sample. There is no need to believe in the existence of two separate species and a thorough study may prove *N. nucleus* and *N. hanleyi* are in fact the same species. Specimens referred to as *N. nucleus* from the Bay of Biscay and the Atlantic coasts of N Spain are rather large and possess a glossy brown periostracum. In this area *N. hanleyi* is less bulbous and more elongated. In anticipation of a definitive point of view we prefer to separate the specimens of *N. hanleyi* (Pl. LX) and *N. nucleus* (Pl. LXIII; Pl. LXIV) according to conservative agreements among conchologists, though we suppose it should be better to regard them as belonging to only one species. This opinion is in accordance with Bucquoy *et al*. (1891), Schenck (1934) and Moore (1931) but in contrast with authors such as Allen (1954), Giannuzzi-Savelli et al. (2001), Tebble (1976) and many others.

***Nucula sulcata* Bronn, 1831**
Plate LXV, Figs 380-385; Plate LXVI, Figs 386-390

= *Nucula decussata* G.B. Sowerby I, 1833
= *Nucula compta* Gould, 1834
= *Nucula polii* Philippi, 1836
= *Nucula rugosa* Ponzi, 1872
= *Nucula triquetra* Ponzi, 1872

Range: This species lives from the Lofoten Islands, south to the British Isles (Pl. LXV, Figs 384-385), the Bay of Biscay (Pl. LXV, Figs 380-381), the Iberian Peninsula, in the Mediterranean (Pl. LXVI, Figs 386-389) and along the Atlantic coast of Morocco and Mauritania (Pl. LXVI, Fig. 390). Specimens of the Gulf of Guinea and Angola, reported in literature as *N. sulcata*, are most probably *Nucula mariae* Nolf, 2005. Nicklès (1955) confused both species after studying dredged material from the Danish "*Atlantide*" Expedition off the coasts of tropical West Africa (1945-46) and he compared the large specimens of *N. mariae* with '*N. sulcata* var. *major* from Dalmatia' (Croatia) in the Dautzenberg-collection (RBINS). Since the conclusion of Nicklès, the large *Nucula*-species from Angola was always treated as a large representative of the European and northwestern African species (Nolf, 2005) by different authors during the last century. Rolán & Ryall (1999) mentioned this species in a checklist of molluscs from Angola, with citation from different sources, however not accompanied by any other information. In fact specimens of *N. sulcata* from south of Mauritania are unknown.

Animals of *N. sulcata* prefer a clayish, muddy or muddy sand bottom between 10 and 360 m.

Shell: Typical are the radiating and rather irregular concentric lines creating a rather decussate appearance of the outer surface, the corrugated escutcheon, the lunule provided with a ridge extending beyond the posterior outline, always covered with corrugated ribs and the dull olive-yellow periostracum in young specimens, which is dark brownish green in fully adult ones. The general outline is triangular but important differences among specimens from the same area can be noted, as illustrated on Pl. LXV, Figs 380-383 (shells from the Bay of Biscay) and Pl. LXV, Figs 384-385 (shells from Scotland, UK). The margins are crenulated.

***Ennucula tenuis* (Montagu, 1808)**
Plate XLVII, Figs 391-396

= *Arca tenuis* Montagu, 1808

Range: From Greenland, E Canada (Pl. LXVII, Fig. 393), Iceland (Pl. LXVII, Figs 394-395), the Barents Sea, the British Isles (Pl. LXVII, Fig. 396), the Bay of Biscay (Pl. XLVII, Figs 391-392) and the Atlantic coast of the Iberian Peninsula south to Morocco and into the Mediterranean Sea. The species also lives in Florida and in the Pacific from the Alaskan Arctic Sea and Siberia south to California and Japan.
It prefers sandy mud bottoms or mud and muddy gravel offshore to a depth of 300 m.

Shell: This species can easily be differentiated from other European representatives of the NUCULIDAE by its smooth margins, the thin and fragile shell, the oval outline and the glossy periostracum which is yellow, greenish, greyish yellow or even dark brown in older specimens.

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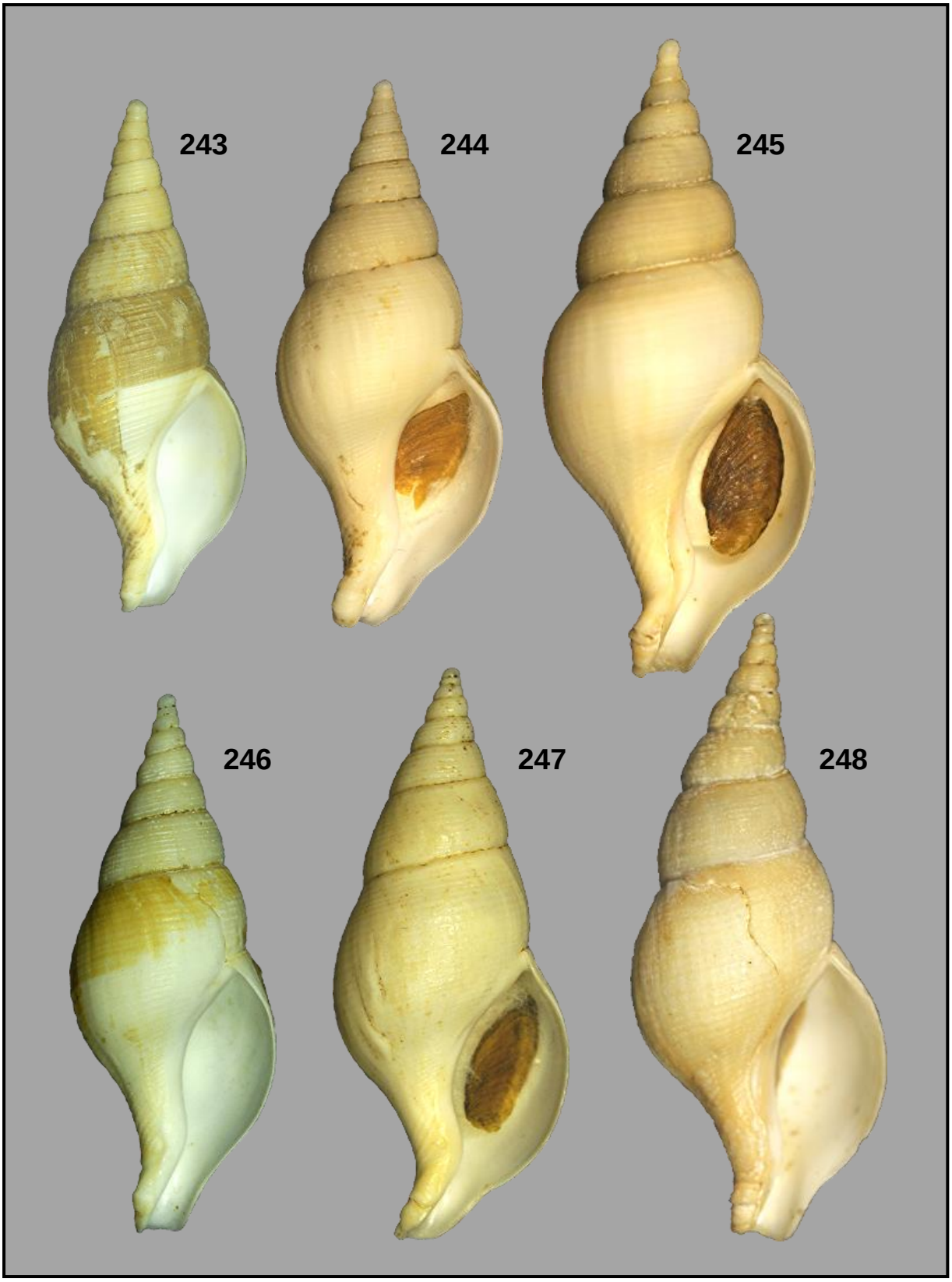

Plate XLIV. Figs 243-248: *Colus gracilis* (da Costa, 1778). FN; 243-244: South of La Rochelle, Bay of Biscay, W France. Trawled by Belgian fishermen at a depth of 100-160 m. August 2002; 243: 61.82 mm; 244: 69.72 mm; 245: Trawled by Belgian fishermen off South Iceland. August 1971. 83.34 mm; 246: Trawled by Belgian fishermen at a depth of 300 m off NW Norway. 1974. 64.30 mm; 247: Trawled by Belgian fishermen off the Faroe Islands, NE Atlantic. 1970. 72.86 mm; 248: Bay of Liverpool, Irish Sea, UK. Trawled by Belgian fishermen at -36 m. 84.18 mm.

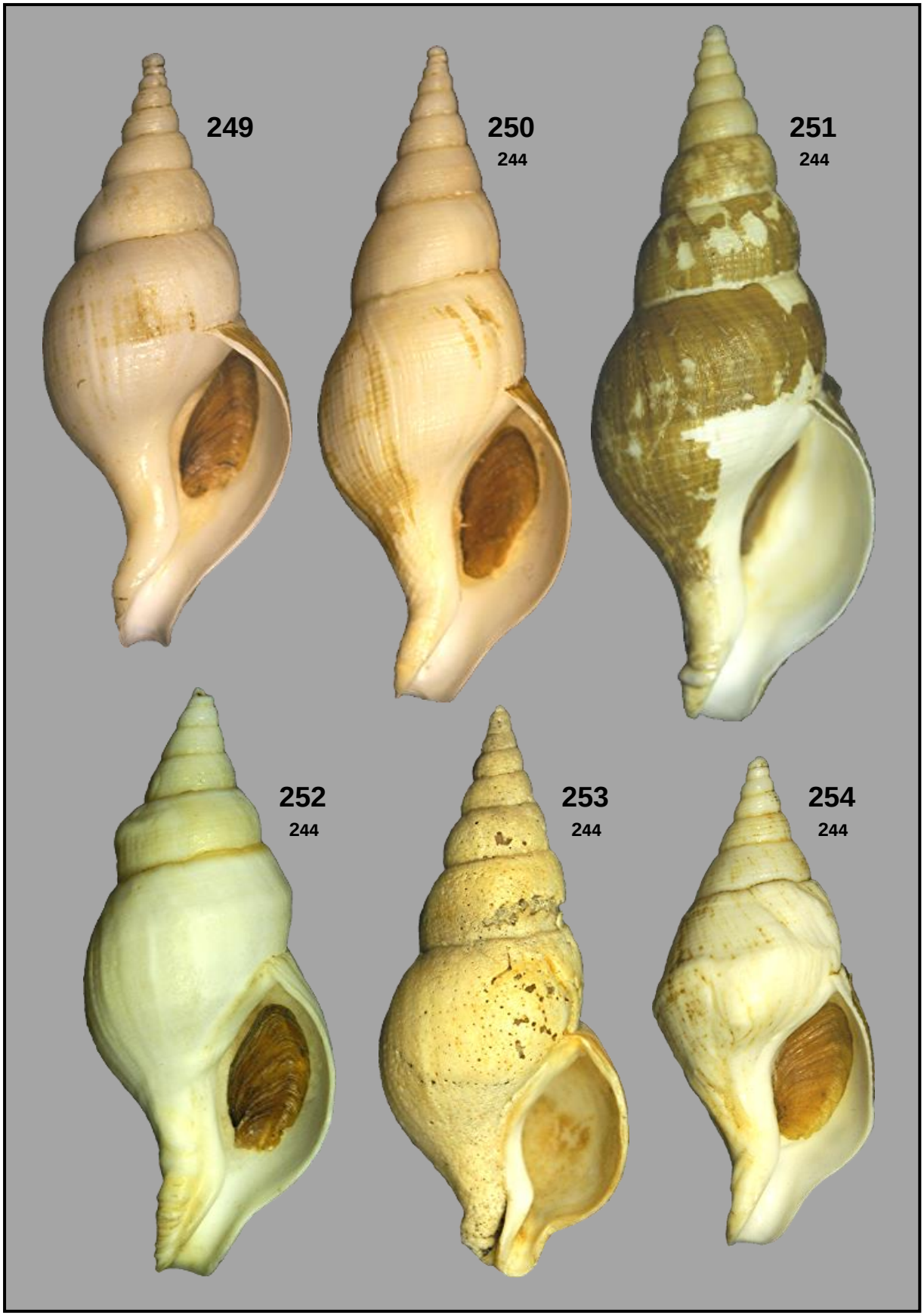

Plate XLV. Figs 249-254: *Colus gracilis* (da Costa, 1778). Bay of Liverpool, Irish Sea, UK. Trawled by Belgian fishermen at a depth of 36 m. 1971. FN; 249: 69.99 mm; 250: 87.19 mm; 251: 93.28 mm; 252-254: freak specimens; 252: 72.63 mm; 253: 68.32 mm; 254: 55.41 mm.

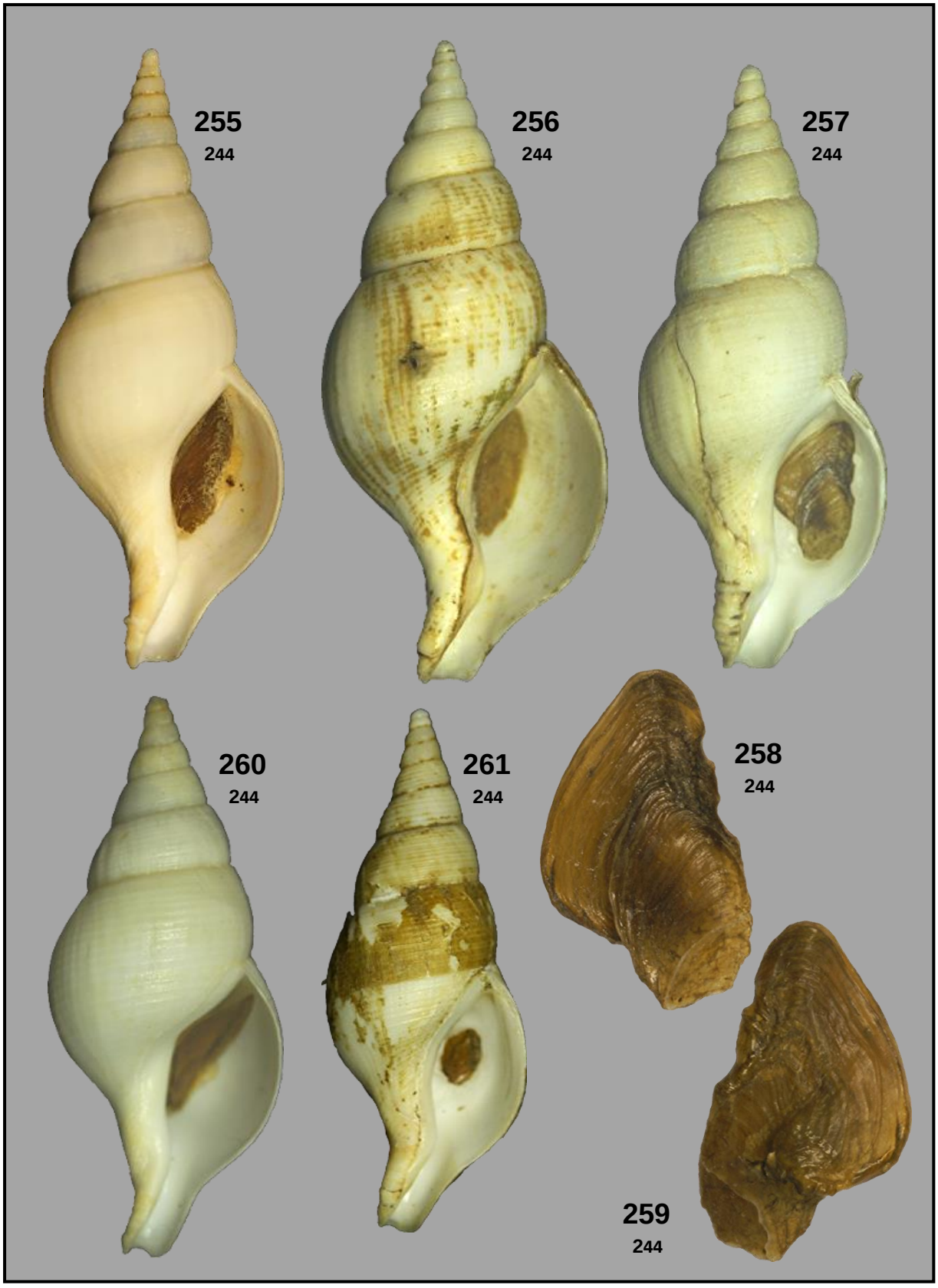

Plate XLVI. Figs 255-261: *Colus gracilis* (da Costa, 1778). FN; 255-257: Dogger Bank, North Sea. Trawled by Belgian fishermen at a depth of 50 m. 1976; 255: 82.90 mm; 256: 89.66 mm; 257: specimen with two operculums knit together. 79.86 mm; 258: front side of the fasciated operculums; 259: back side of this pair; 260-261: off Algarve, South Portugal. Trawled by fishermen. July 1967; 260: 68.70 mm; 261: 65.13 mm.

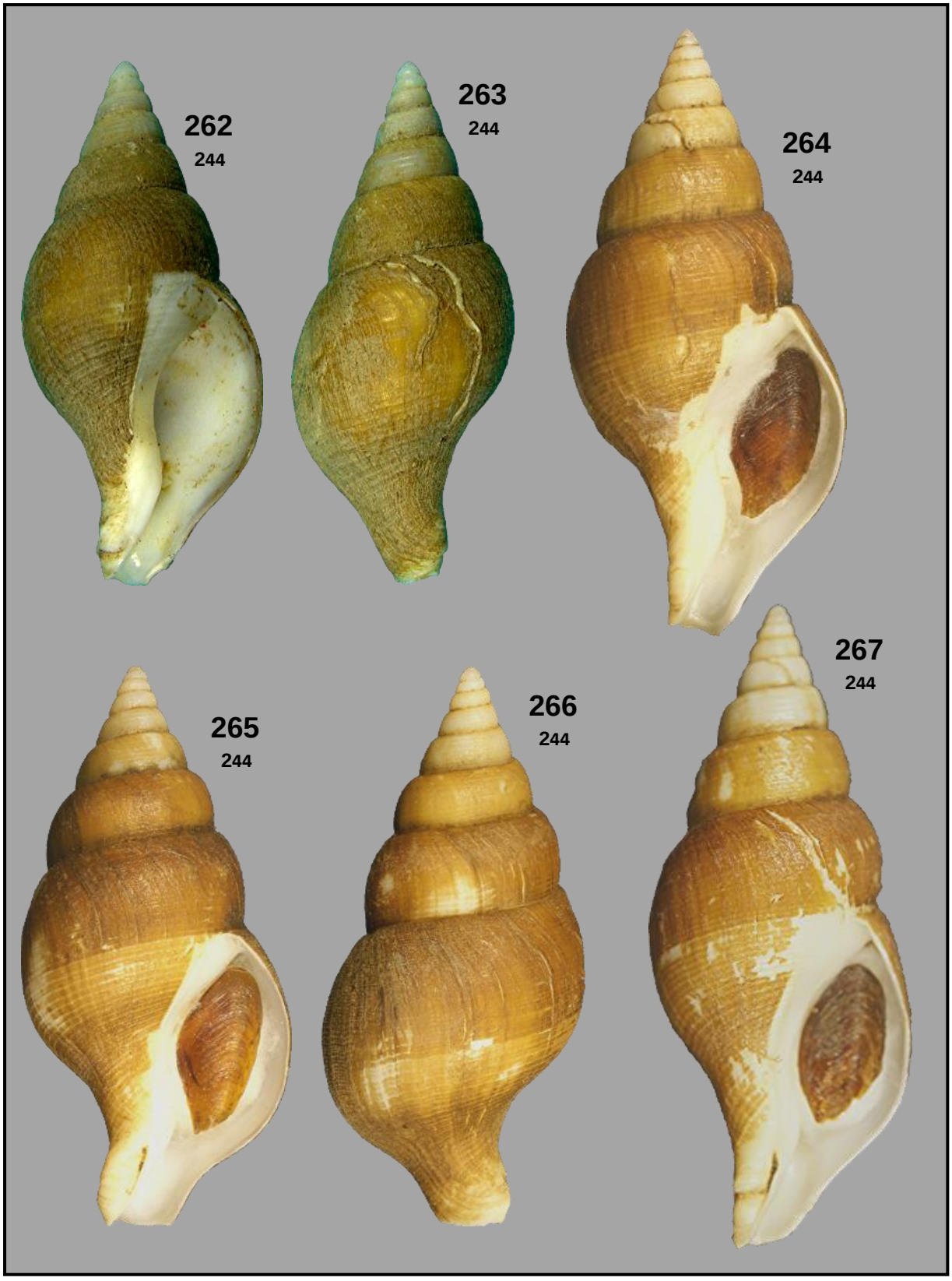

Plate XLVII. Figs 262-267: *Colus jeffreysianus* (P. Fischer, 1868). South of La Rochelle, Bay of Biscay, W France. Trawled by Belgian fishermen at a depth of 130 m. August 2008. JPK; 262-263: 51 mm; 264: 64.04 mm; 265-266: 54.16 mm; 267: 71.81 mm.

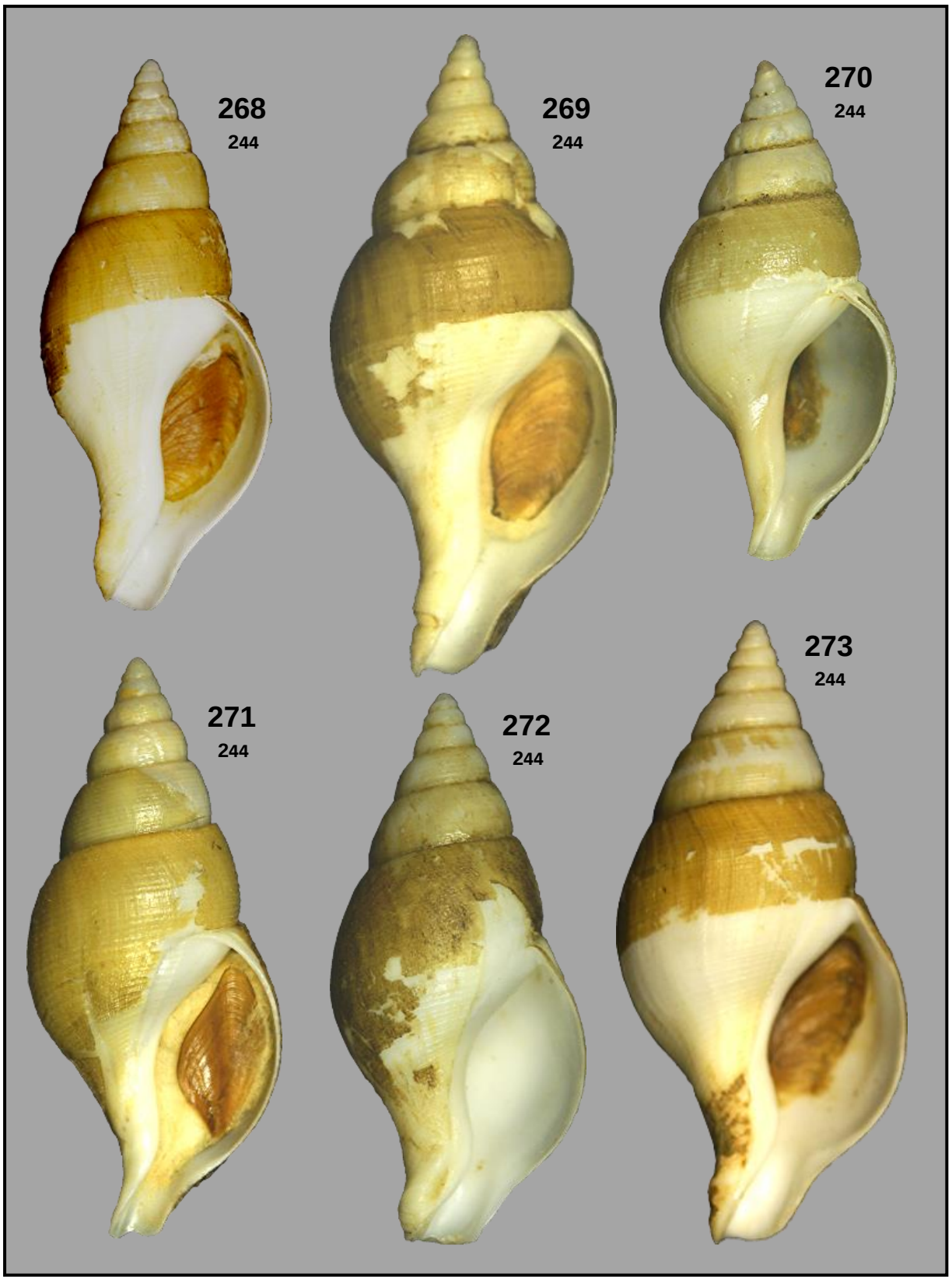

Plate XLVIII. Figs 268-273: *Colus jeffreysianus* (P. Fischer, 1868). JPK; 268-269: Trawled by Belgian fishermen at a depth of 153 m off Bressay East Ground, Shetland Islands, NE Atlantic, 60° 10' N./ 01° E.,; 268: 56.76 mm; 269: 66.86 mm; 270-271: English Klondyke, S Norway. 57° 30' N/ 04° E. Trawled by Belgian fishermen at -55 m. July 2002; 270: 51.54 mm; 271: 57.02 mm; 272-273: Off Tenby, Pembroke, Wales, UK. Dredged by fishermen. 1982; 272: 52.57 mm; 273: 65.11 mm.

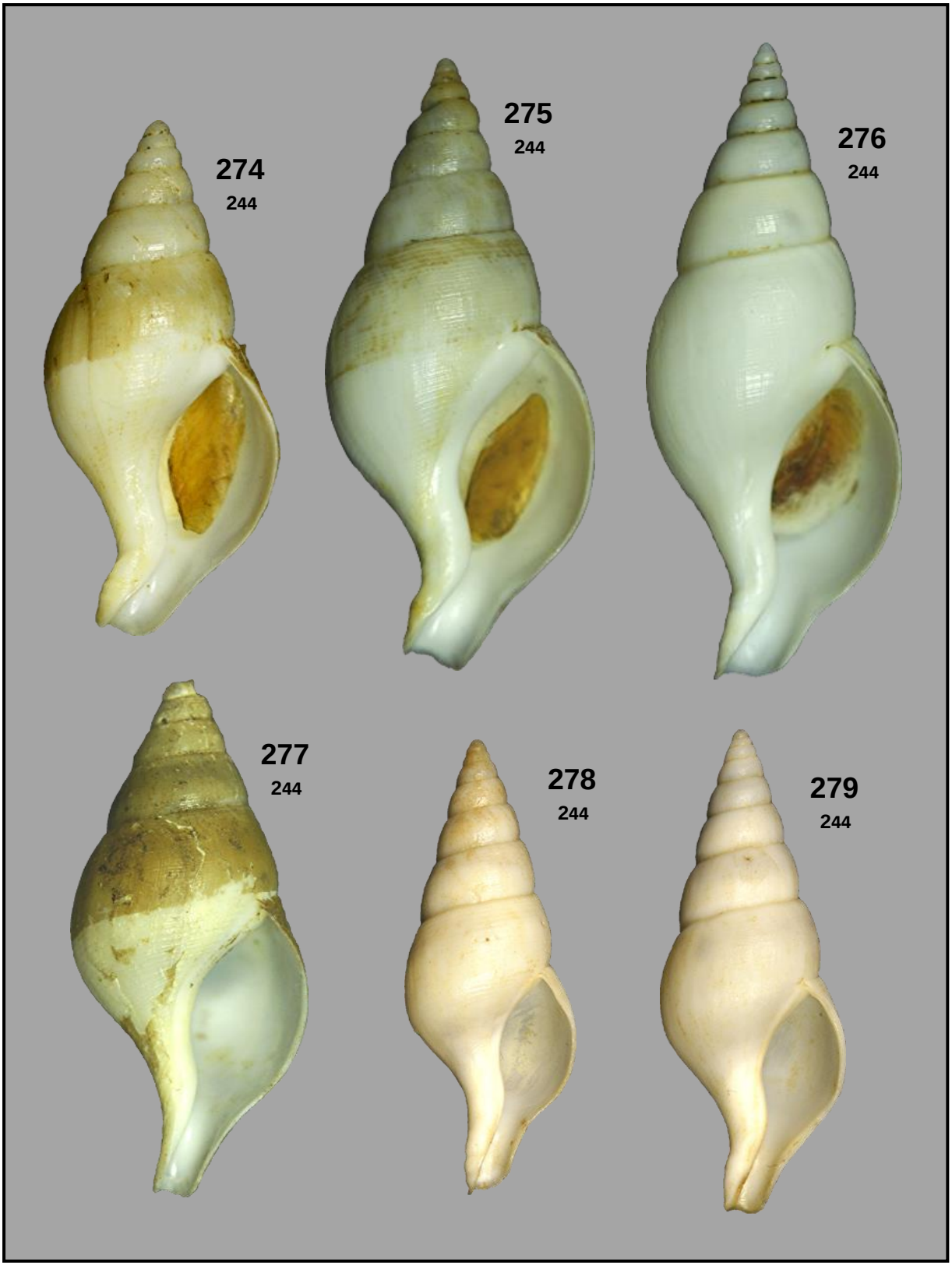

Plate XLIX. Figs 274-279: *Colus jeffreysianus* (P. Fischer, 1868). FN; 274-275: German Bight, Germany. Trawled by Belgian fishermen. 31 May 1976; 274: 42.35 mm; 275: 62.09 mm; 276: 64.78 mm; 277: Cantábrico, Galicia, Spain. Trawled by local fishermen. 51.48 mm;
Figs 278-279: *Colus jeffreysianus* var. *attenuatus* Jeffreys, 1877. Dredged by local fishermen off San Carlos De La Rapita, Spain. 1994. FN; 278: 48.86 mm; 279: 50.63 mm.

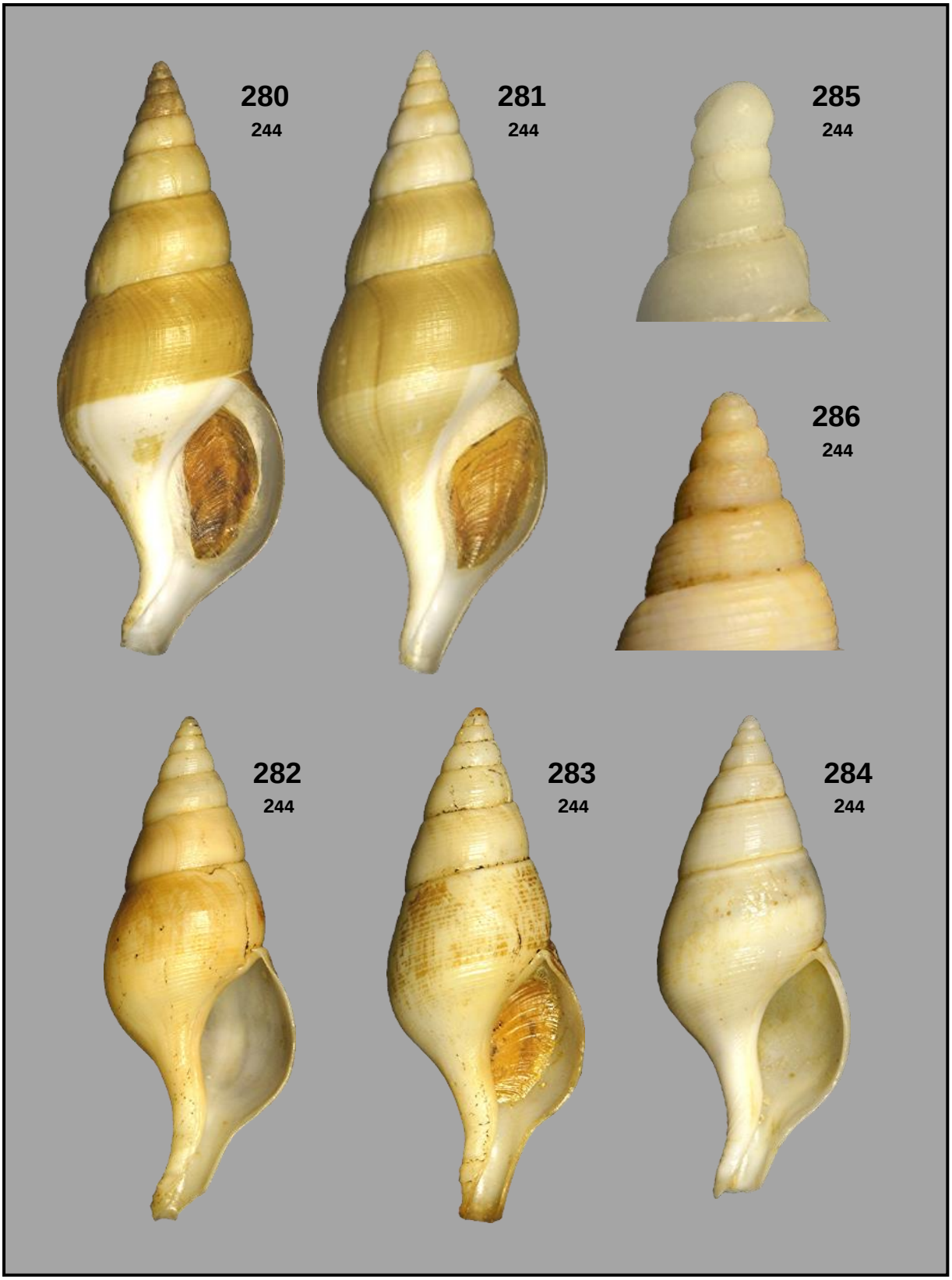

Plate L. Figs 280-284: *Colus jeffreysianus* var. *attenuatus* Jeffreys, 1877. FN; 280-281: Trawled at a depth of 330 m off Peniche, Cabo Carvoeiro, Portugal. July 2006; 280: 67.31 mm; 281: 71.75 mm; 282-283: Dredged by Spanish fishermen off Mauritania, NW Africa. 1962; 282: 55.68 mm; 283: 55.87 mm; 284: Larache, Morocco, NW Africa. Trawled by fishermen in deep water. 49.23 mm;
Fig. 285: Protoconch of *Colus gracilis* (da Costa, 1778); Fig. 286: Protoconch of *Colus jeffreysianus* (P. Fischer, 1868)

Plate LI. Figs 287-293: *Bela costulata* (Risso, 1826). FN; 287: South of La Rochelle, Bay of Biscay, W France. Trawled by Belgian fishermen at -105 m. June 2003. 5.77 m; 288: Ile de Sein, Finistère, Brittany, NW France. Trawled by Belgian fishermen at -80 m. June 2008. 13.02 mm; 289: Plage Goas Trez, Brittany, France. In sand at upcoming tide. March 2002. 12.60 mm; 290: Santa Cruz de la Palma, La Palma, Canary Islands. Dredged at a depth of 60 m. 1976. 7.50 mm; 291: Gulf of Arzachena, N Sardinia, Italy. September 1969. 12.86 mm; 292: Chioggia, Italy. 6.52 mm; 293: Gnejna Bay, Malta. Among shell grit at a depth of 60 m. August 1987. 7.02 mm.

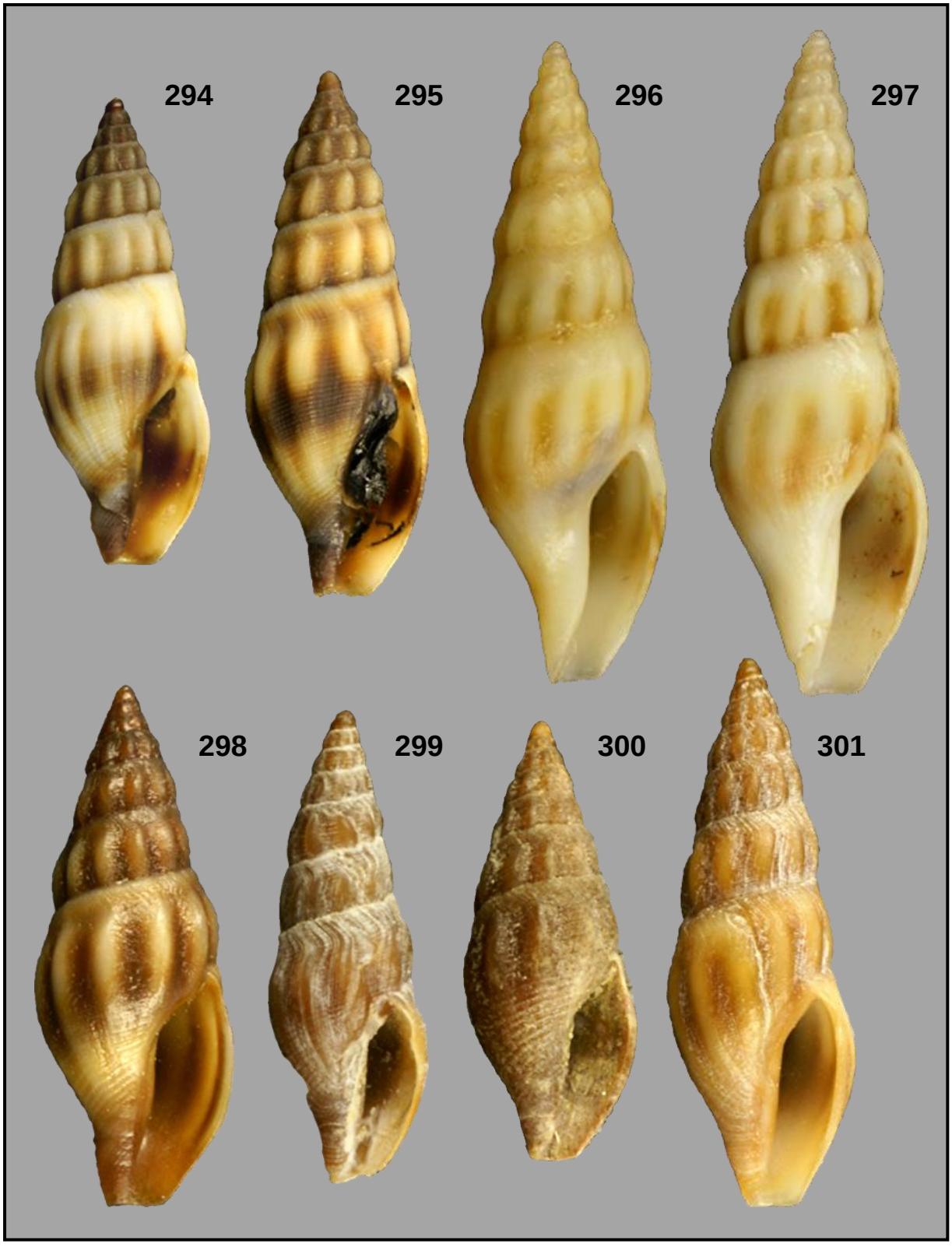

Plate LII. Figs 294-301: *Bela nebula* (Montagu, 1803). FN; 294-295: South of La Rochelle, Bay of Biscay, W France. Trawled by Belgian fishermen at a depth of 80 m. June 2008; 294: 10.25 mm; 295: 12.09 mm; 296-297: Bay of Liverpool, Irish Sea, UK. Trawled by Belgian fishermen. In stomach of plaice. 1973; 296: 16.19 mm; 297: 16.71 mm; 298: Plage Goas Trez, Trébeurden, Brittany, France. In sand at upcoming tide. March 2002. 11.55 mm; 299-301: The Chausey Archipelago, off Normandy, France. In sand at upcoming tide. March 2001; 299: 9.17 mm; 300: 8.80 mm; 301: 12.83 mm.

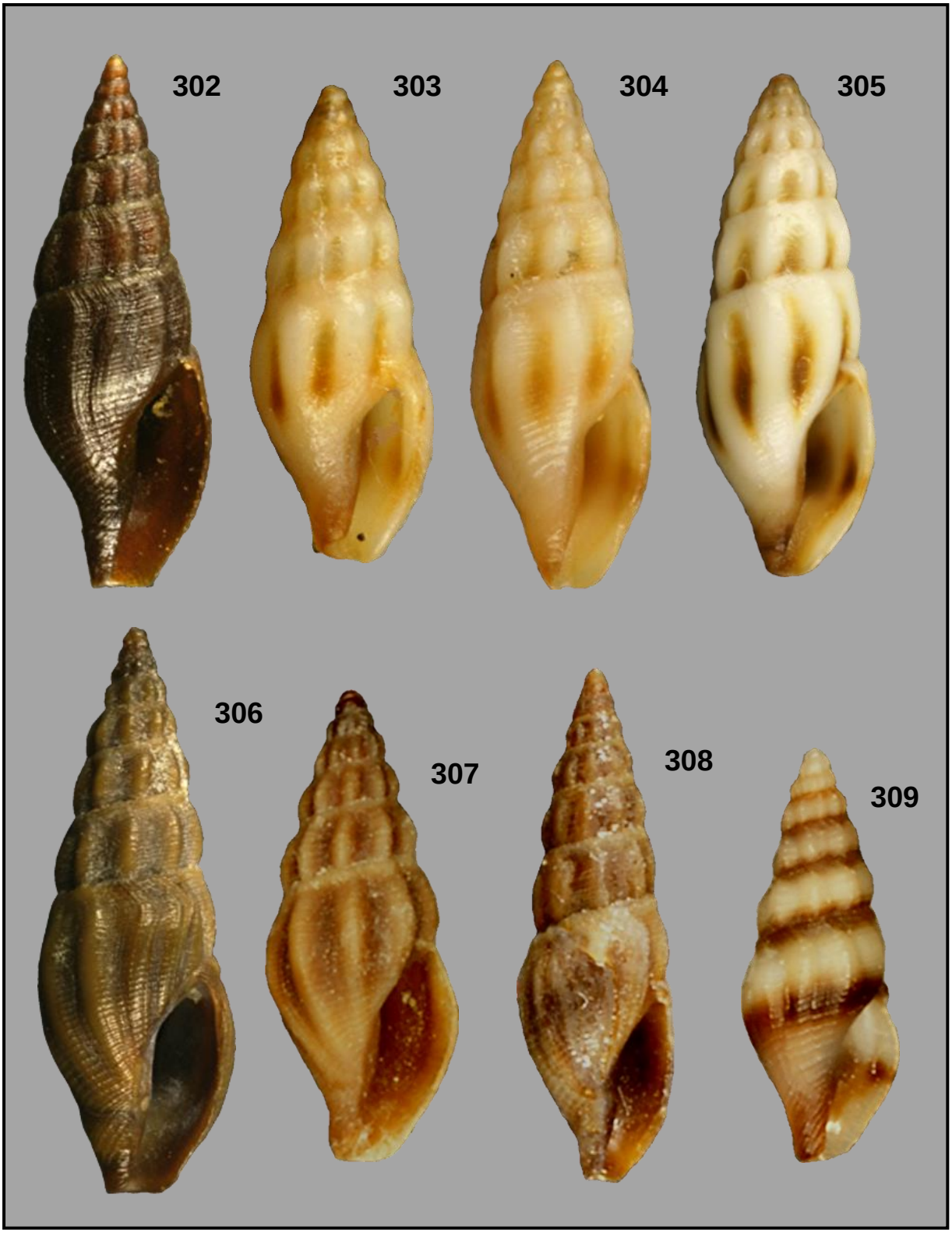

Plate LIII. Figs 302-308: *Bela nebula* (Montagu, 1803). FN; 302: Carnac, Morbihan, Brittany, W France. In sand under rock at extreme low tide. 13 August 2006; 303-305: Pointe Lima, Lanzarote, Canary Islands. October 1977; 303: 8.72 mm; 304: 10.61 mm; 305: 10.46 mm; 306: Porto Ferro, W Sardinia, Italy. Among shell grit. September 1971. 10.97 mm; 307: Punta Ala, Italy. August 1974. 8.14 mm; 308: Ilha de Faro, Algarve, Portugal. Partially buried in fine sandy mud near *Zostera* beds at extreme low tide. 2008; 309: *Bela zonata* (Locard, 1891). Santa Margherita, Italy. Among shell grit. 1989. 6.51 mm.

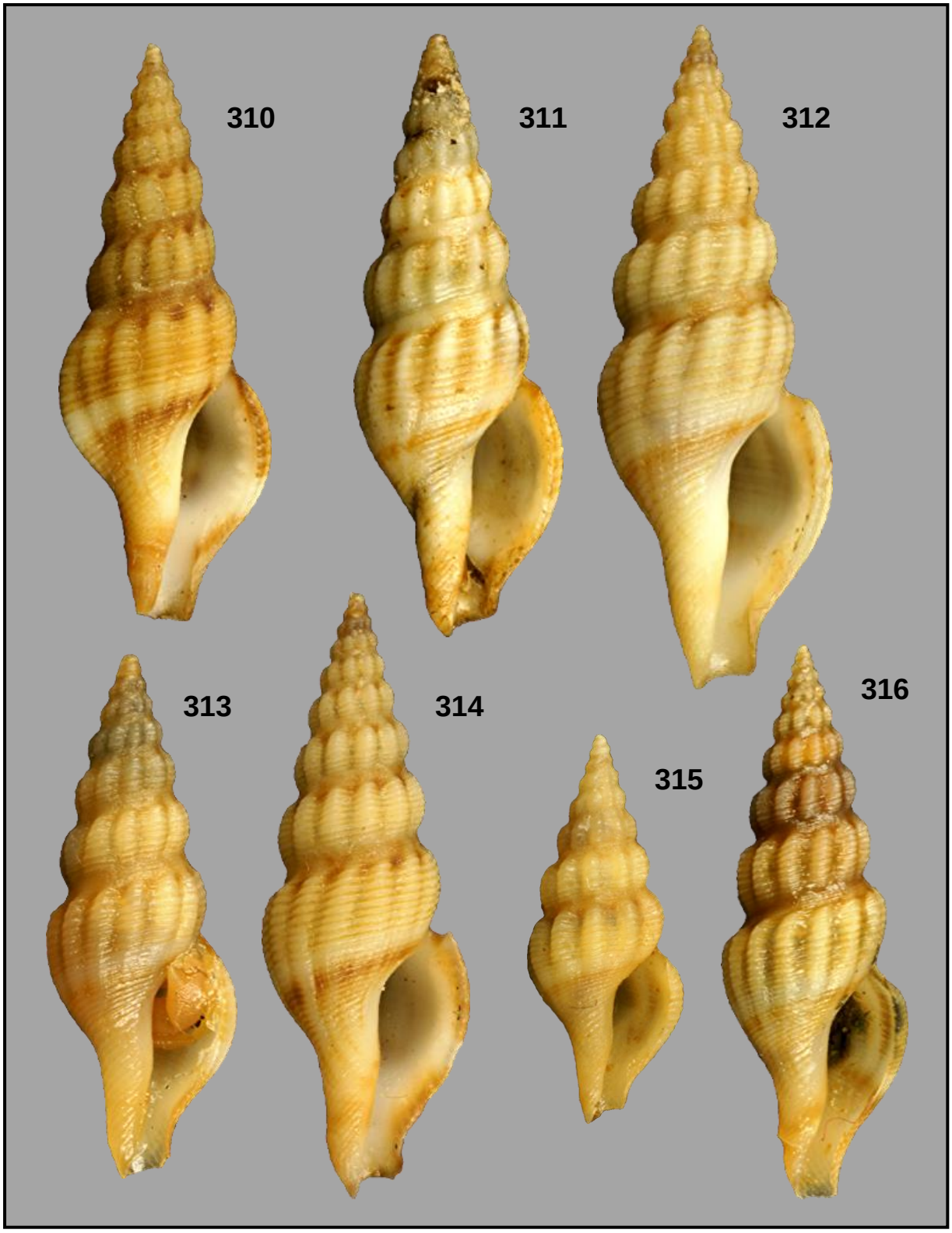

Plate LIV. Figs 310-316: *Comarmondia gracilis* (Montagu, 1803). FN; 310: South of La Rochelle, Bay of Biscay, W France. On muddy bottom. Trawled by Belgian fishermen at a depth of 90 m. June 2004. 20.24 mm; 311: Bay of Liverpool, Irish Sea, UK. Trawled by Belgian fishermen. In stomach of plaice. 1968. 20.80 mm; 312: Trébeurden, Brittany, France. From fishermen, in harbour. 1972. 23.61 mm; 313-314: Málaga, Spain. In sand. Dredged at a depth of 30 m; 313: 15.04 mm; 314: 22.48 mm; 315: Sant Pol de Mar, Barcelona, Spain. In stomach of star fish. May 1976. 11.43 mm; 316: Qammieh, Malta. Among shell grit. Dredged at a depth of 60 m. June 1987. 17.29 mm.

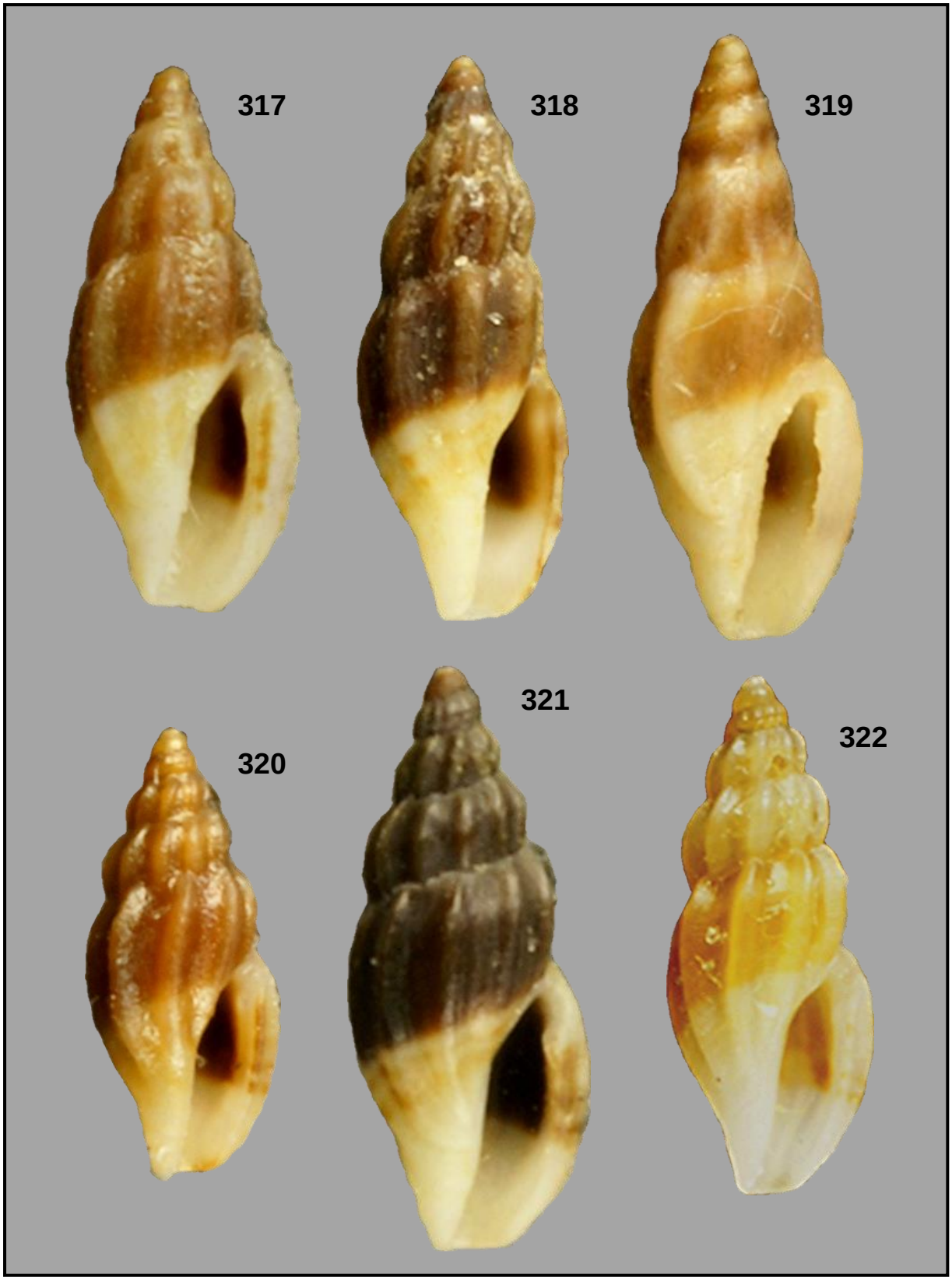

Plate LV. Figs 317-322: *Mangelia coarctata* (Forbes, 1840). FN; 317-319: St. Lunaire, Brittany, France. In sand, among shell grit. 20 June 1970; 317: 6.33 mm; 318: 6.66 mm; 319: 7.46 mm; 320: Le Verdelet, Le Val-André, Brittany, France. Alive on seaweed, at extreme low tide. 28 March 1971. 4.51 mm; 321: South of La Rochelle, Bay of Biscay, W France. Trawled by Belgian fishermen. June 2008. 5.58 mm; 322: Málaga, Spain. Trawled by fishermen at a depth of 35 m. 1997. 5.07 mm.

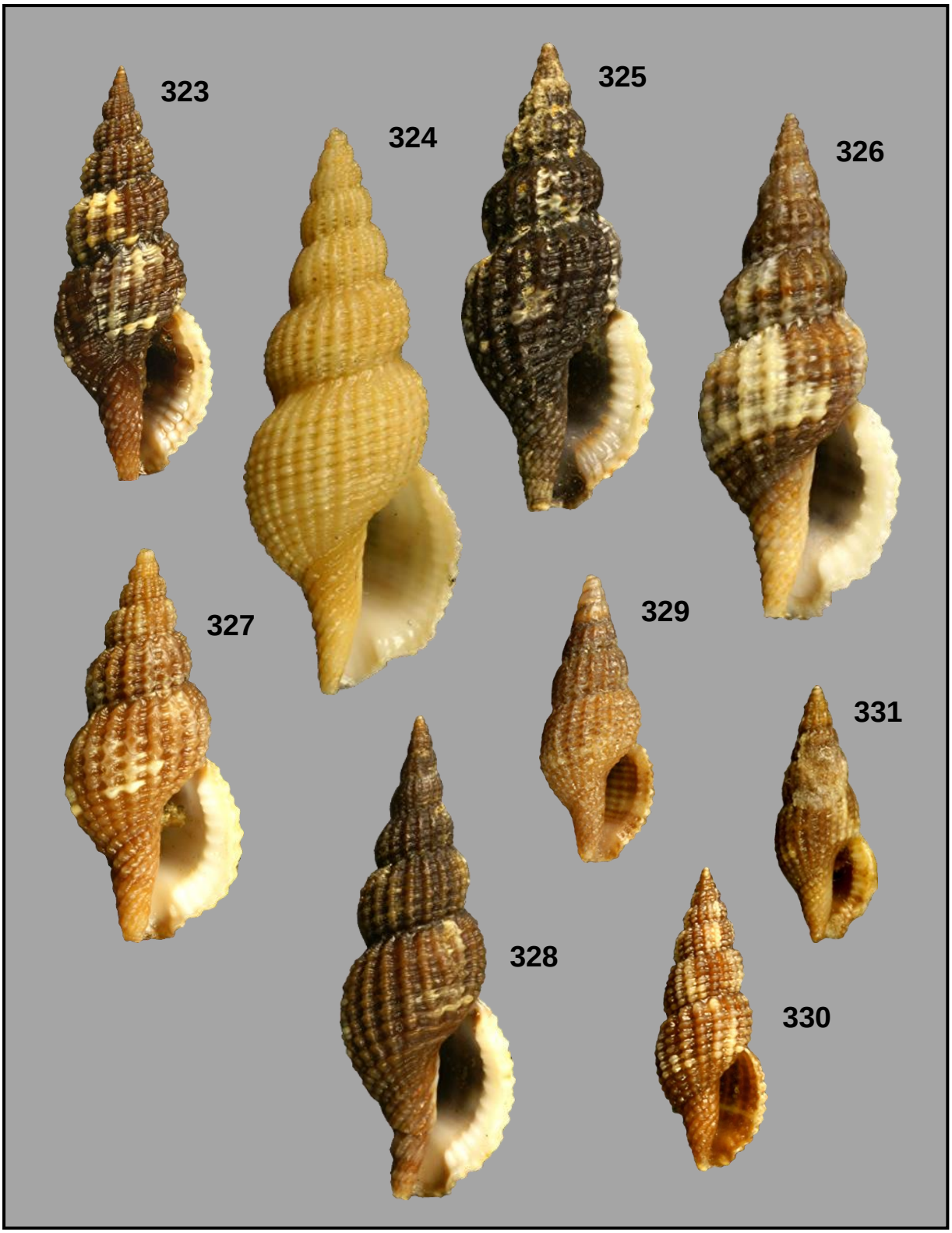

Plate LVI. Figs 323-331: *Raphitoma purpurea* (Montagu, 1803); 323: South of La Rochelle, Bay of Biscay, W France. Trawled by Belgian fishermen at a depth of 80 m. June 2008. 16.41 mm. JPK; 324: Bay of Liverpool, Irish Sea, UK. Trawled by Belgian fishermen. 1973. 23.44 mm. FN; 325-326: St.-Jean-de-la-Rivière, Normandy, France. Under stones in tidal pool. 20 September 2005. FN; 325: 19.40 mm; 326: 21.32 mm; 327-328: Locquémeau, Brittany, France. Under rock at extreme low tide. 24 April 2002. JPK; 327: 14.53 mm; 328: 20.41 mm; 329: Sant Pol de Mar, Barcelona, Spain. Trawled by fishermen. In stomach of star fish. 10.12 mm. FN; 330: Arrecife, Lanzarote, Canary Islands. Alive in seaweed, washed ashore on Isla del Amor. 20 May 1971. 10.71 mm. FN; 331: Barra do Dande, Bengo, Angola. In mud at a depth of 1 m. 1975. 8.15 mm. FN.

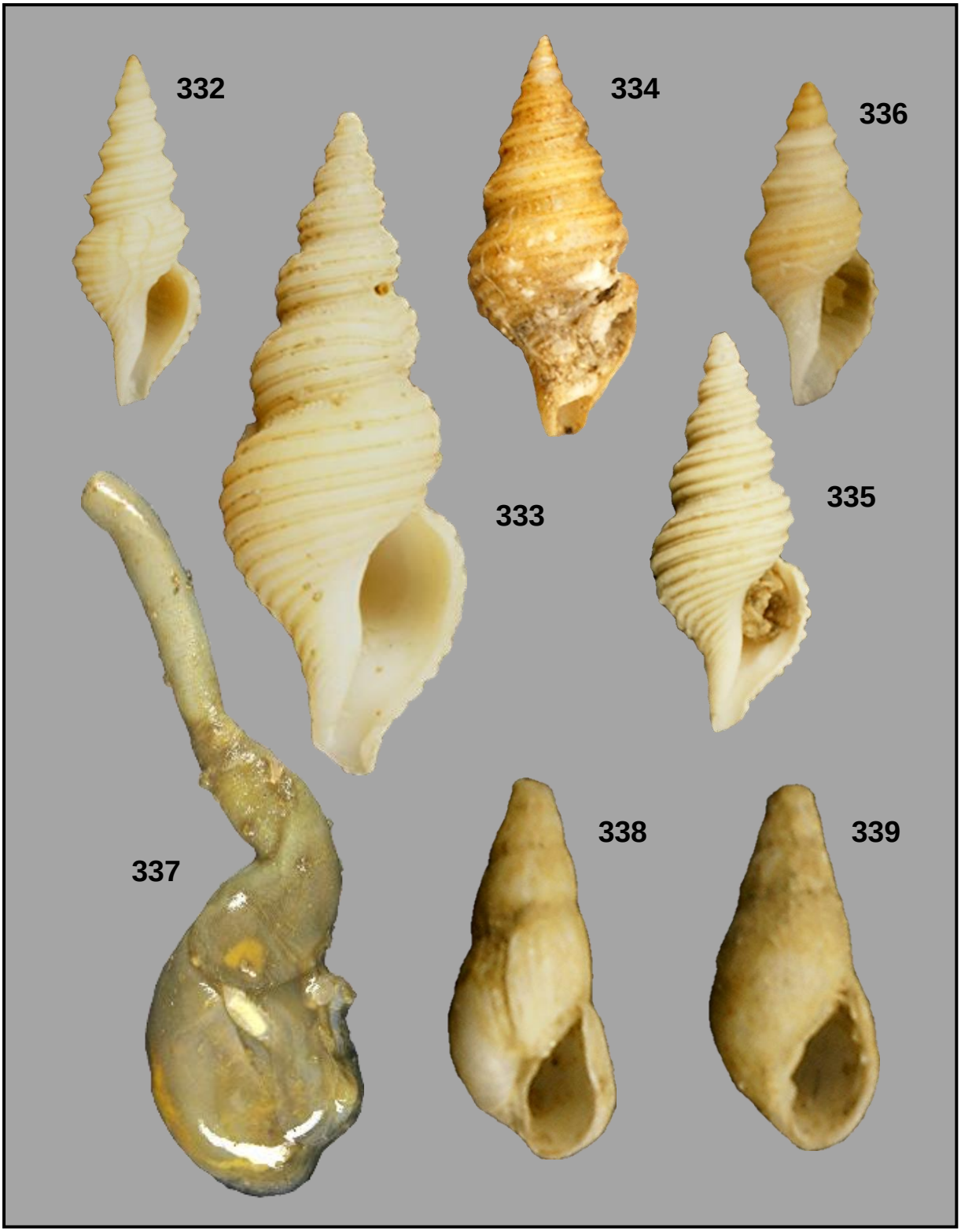

Plate LVII. Figs 332-336: *Teretia teres* (Forbes, 1844). FN; 332: South of La Rochelle, Bay of Biscay, W France. Trawled by Belgian fishermen at a depth of 180 m. July 2008. 5.66 mm; 333: Celtic Sea, SW England, UK. Dredged at 105 m. 1975. 13.06 mm; 334: Santa Cruz de la Palma, La Palma, Canary Islands. Dredged at a depth of 120 m. January 2001. 6.11 mm; 335: Off Morocco. 33° 59' N./ 07° 50' W. Dredged among shell grit at -155 m. 6.21 mm; 336: Off Mussulo, Angola. Dredged at a depth of 60 m. 1984. 4.37 mm; 337: Sipunculid *Phascolion strombi* (Montagu, 1804); 338-339: *Ondina sp.* South of La Rochelle, Bay of Biscay, W France. In old shells of *Aporrhais pespelecani* var. *bilobatus* Clement, 1875. Trawled by Belgian fishermen at a depth of 100-120 m. FN; 338: 3.49 mm; 339: 3.34 mm.

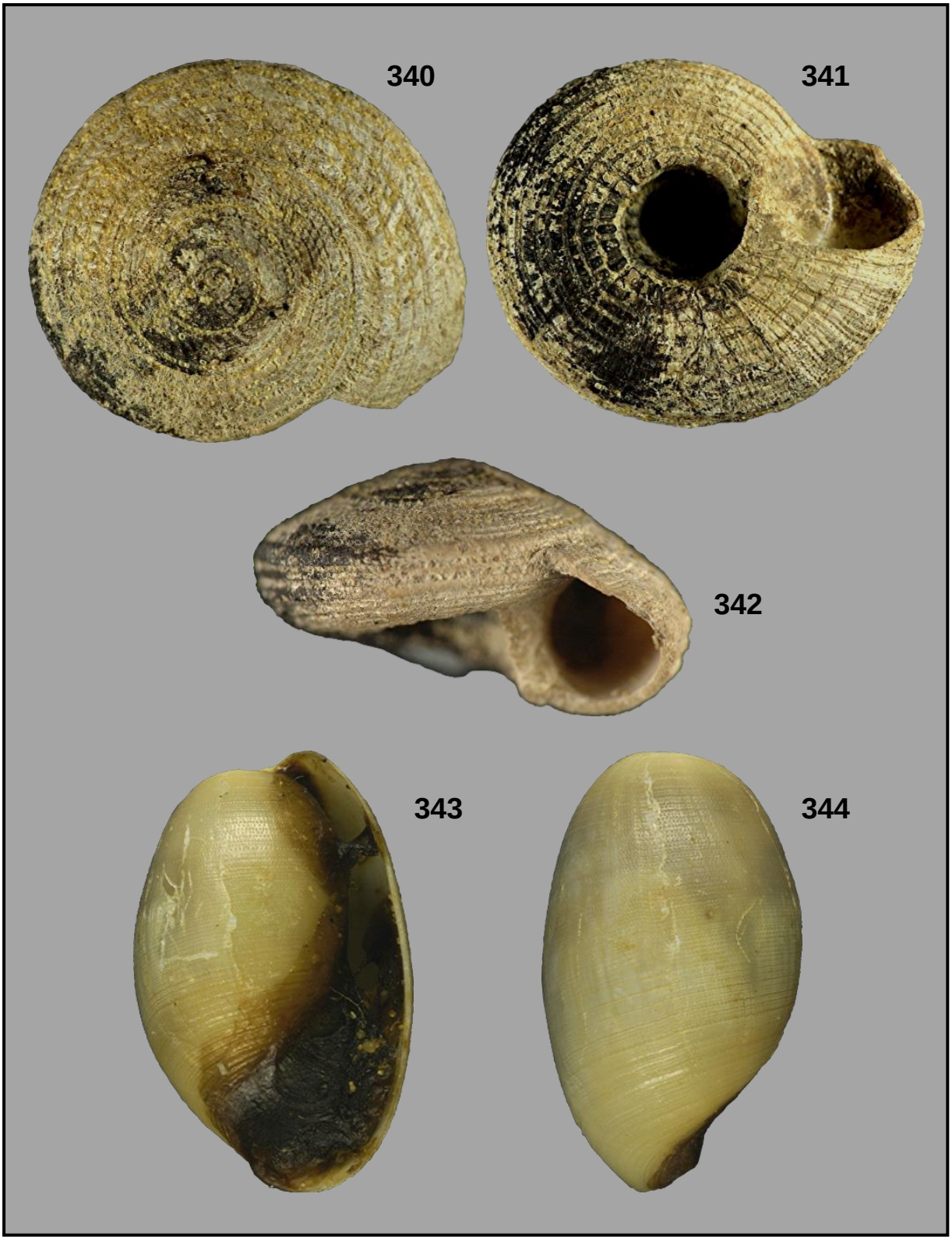

Plate LVIII. Figs 340-342: *Heliacus fallaciosus* (Tiberi, 1872). Trawled by Belgian fishermen south of La Rochelle, Bay of Biscay, W France. Depth: 180 m. August 2006. H. 9.2 mm L. 16.3 mm. JPK;
Figs 343-344: *Roxania utriculus* (Brocchi, 1814). South of La Rochelle, Bay of Biscay, W France. Trawled by Belgian fishermen at a depth of 130 m. July 2008. 15.65 mm. JPK.

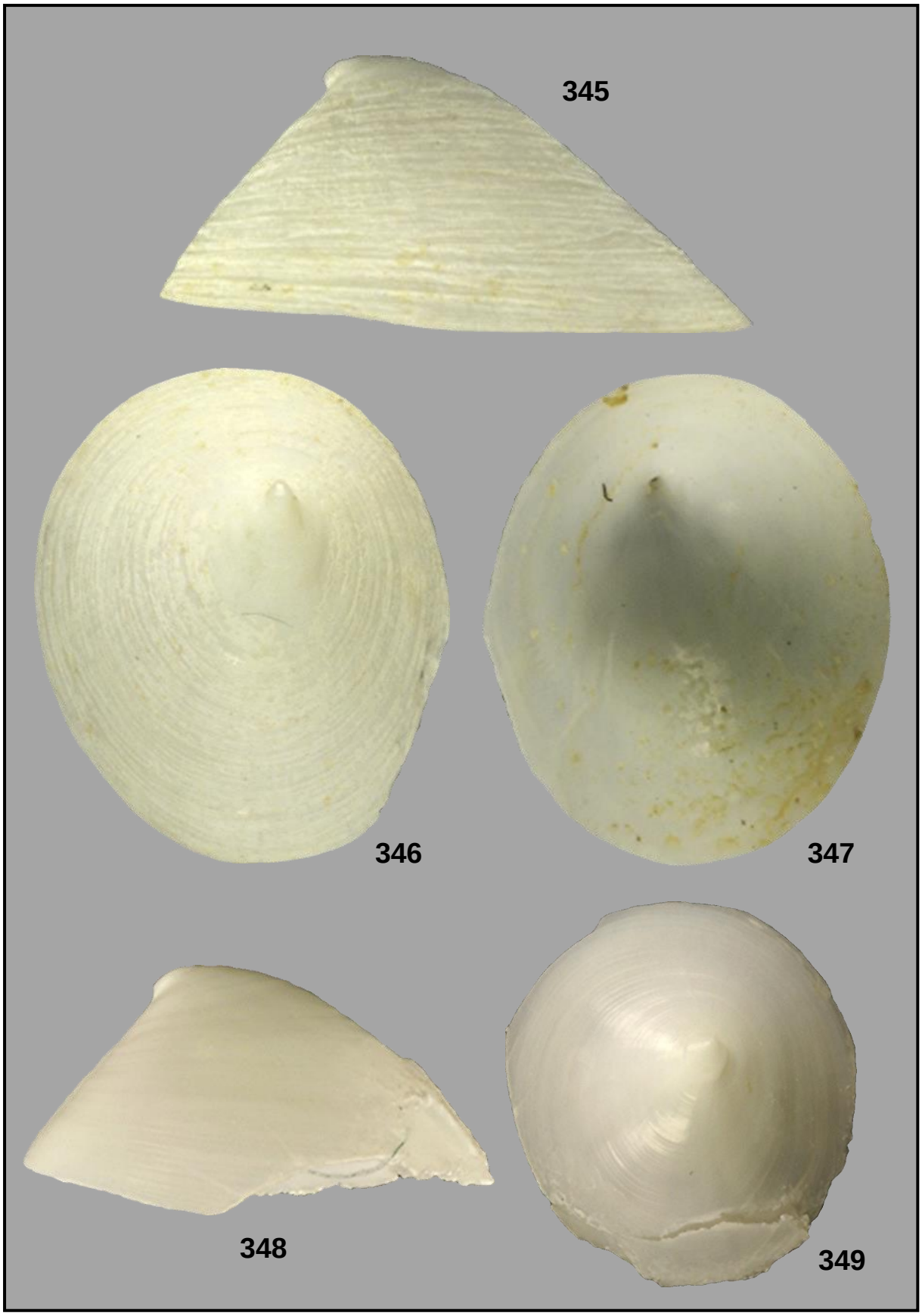

Plate LIX. Figs 345-349: *Addisonia excentrica* (Tiberi, 1855); 345-347: Trawled by Belgian fishermen south of La Rochelle, Bay of Biscay, W France. Depth: 130 m. July 2008. H. 5.91 mm L. 11.15 mm. JPK; 348-349: Málaga, Spain. On coral. Trawled at a depth of 30 m. H. 4.04 mm L. 8.74 mm. FN.

Plate LX. Figs 350-356: *Nucula hanleyi* Winckworth, 1931; Figs 350-352: Off La Rochelle, Bay of Biscay, W France. Trawled by Belgian fishermen at 100 m. JPK; 350-351. H. 11.2 mm. L. 13.8 mm; 350: LV; 351; RV; 352: LV. H. 11.13 mm L. 12.98 mm; 353: Bay of Liverpool, Irish Sea, UK. In gravel. Dredged at -45 m. 1987. LV. H. 11.36 mm L. 13.11 mm. FN; 354-355. Erquy, Brittany, France. Among shell grit, in harbour. FN; 354: LV. H. 9.81 mm L. 11.85 mm; 355: LV. 10.85 mm L. 13.21 mm; 356: Barcelona, Spain In stomach of starfish. February 1976. LV. H. 8.8 mm L. 10.82 mm. FN.

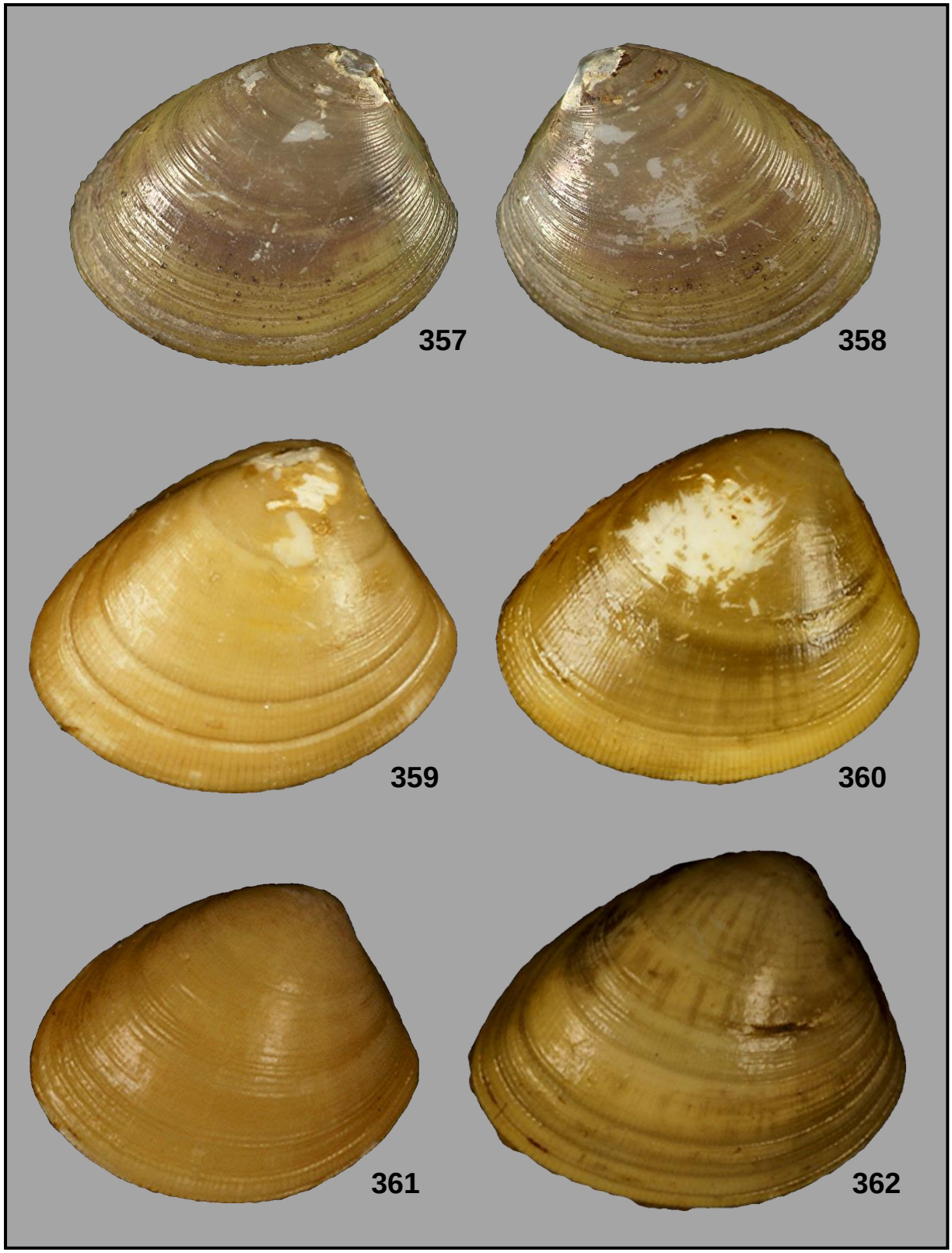

Plate LXI. Figs 357-362: *Nucula nitidosa* Winckworth, 1930; 357-358: Off La Rochelle, Bay of Biscay, W France. Trawled by Belgian fishermen at -100 m. H. 7.18 mm L. 8.35 mm. JPK; 357: LV; 358: RV; 359: Fairlie Channel, W Scotland, UK. Trawled by local fishermen. 1996. LV. H. 9.58 mm L. 11.85 mm. FN; 360: Dogger Bank, North Sea. Trawled by Belgian fishermen. LV. H. 9.89 mm L. 11.80 mm. FN; 361-362: Irish Sea, UK. Trawled by Belgian fishermen. FN; 361: LV. H. 8.76 mm L. 9.16 mm; 362: LV. H. 9.39 mm L. 11.19 mm.

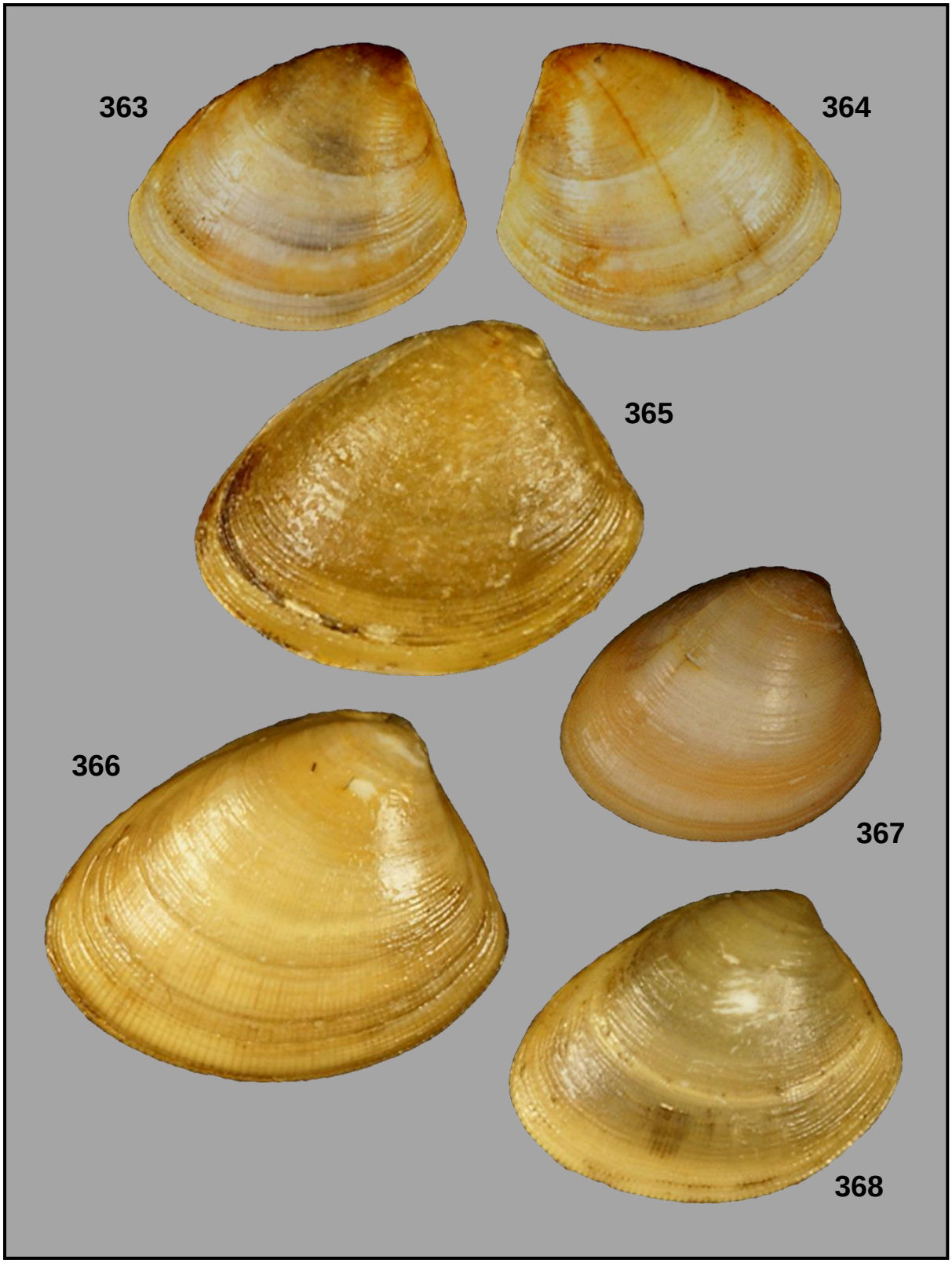

Plate LXII. Figs 363-368: *Nucula nitidosa* Winckworth, 1930. FN; 363-364: Sandwich, Kent, UK. Among sand and boulders. July 1974. H. 6.86 mm L. 8.37 mm; 363: LV; 364: RV; 365: Spuikom, Oostende, Belgium. Among oysters, imported from the Mediterranean Sea. LV. H. 7.91 mm L. 10.07 mm; 366: Locmariaquer, Morbihan, W France. In oyster farm. 5 April 2004. LV. H. 9.42 mm L. 11.55 mm; 367: Sables d'Olonne, W France. Among shell grit on beach. LV. H. 6.72 mm L. 7.92 mm; 368: Chioggia, Italy. LV. H. 7.05 mm L. 8.83 mm.

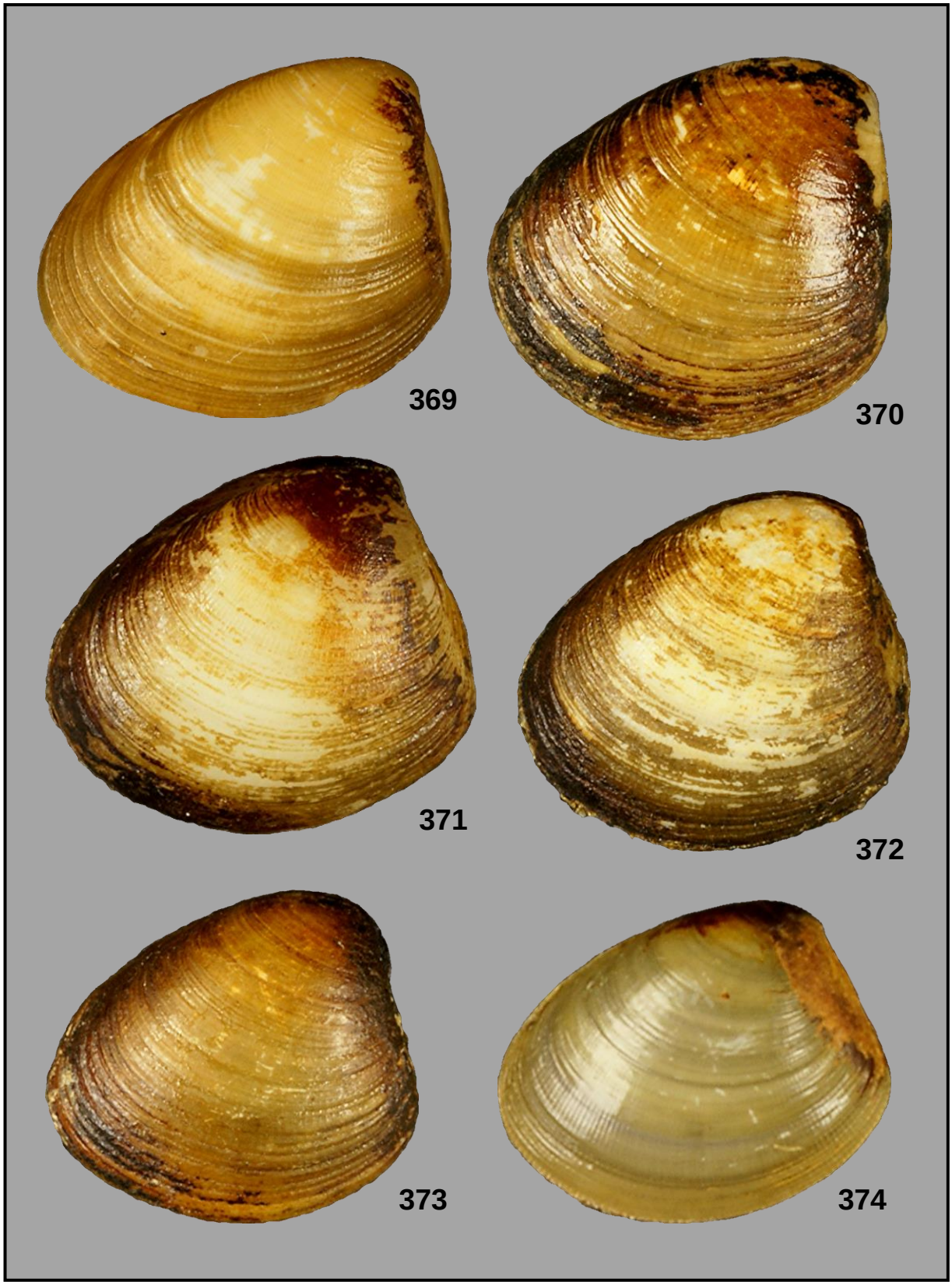

Plate LXIII. Figs 369-374: *Nucula nucleus* (Linnaeus 1758). FN; 369: Vigo, N Spain. Trawled by fishermen. LV. 11.67 mm L. 13.42 mm. FN; 370: Off La Rochelle, Bay of Biscay, W France. Trawled by Belgian fishermen at -80 m. LV. H. 13.49 mm L. 13.45 mm; 371-373: le Pô, Plouharnel, Morbihan, Brittany, W France. In oyster farm. 5 April 1977; 371: LV. H. 12.63 mm L. 13.91 mm; 372: LV. H. 12.03 mm L. 12.62 mm; 373: LV. H. 10.25 mm L. 11.12 mm; 374: Pirou Plage, Normandy, France. LV. 8.09 mm L. 9.36 mm.

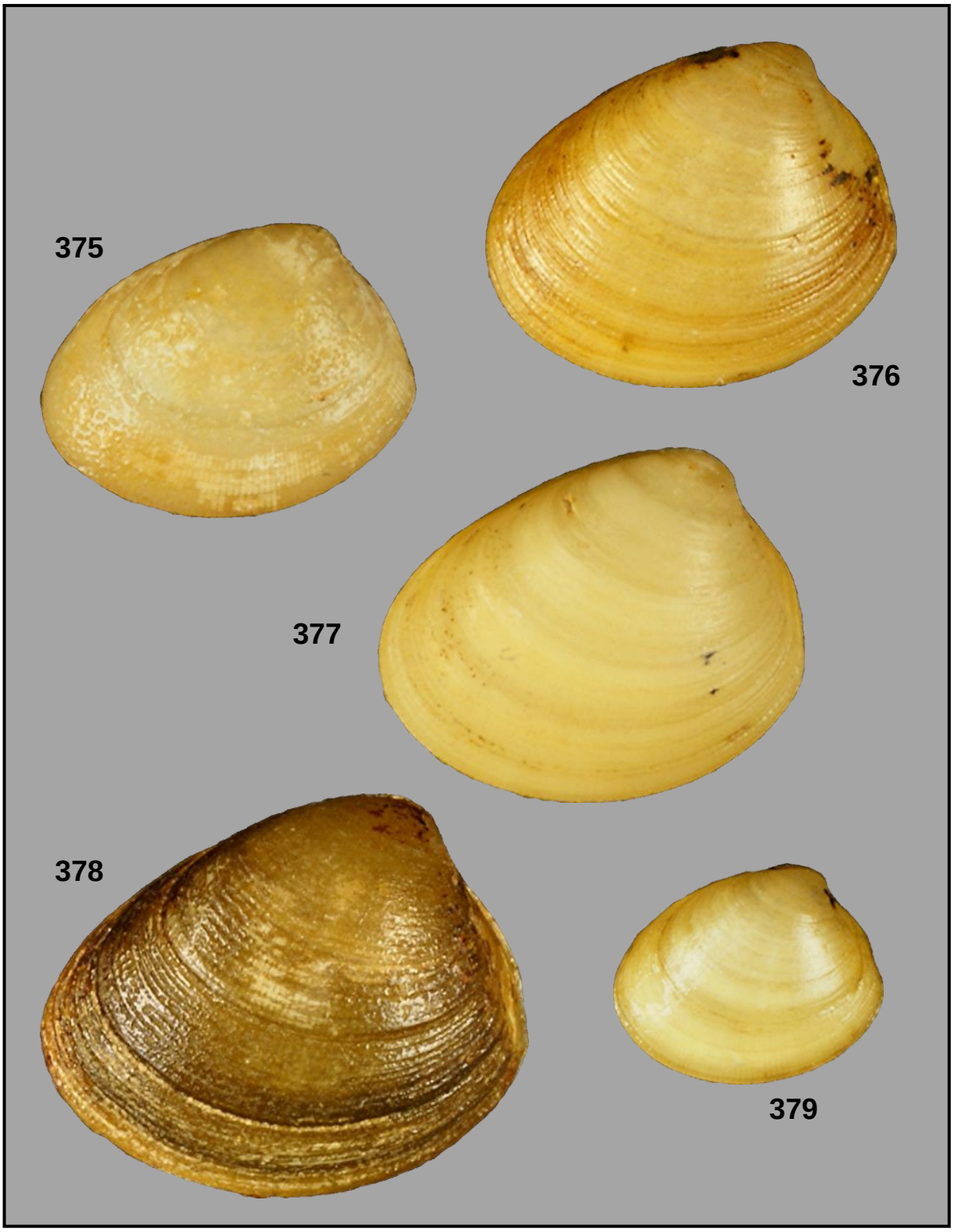

Plate LXIV. Figs 375-379: *Nucula nucleus* (Linnaeus 1758). FN; 375: Denmarkstrait, Iceland. Trawled by Belgian fishermen. On *Gorgonia*. 5 January 1971. LV: H. 6.78 mm L. 8.68 mm; 376: “Tiefe Rinne”, Helgoland, Germany. Trawled at a depth of 55 m. 26 September 1970. LV. H. 8.75 mm L. 9.26 mm; 377: Bay of Liverpool, Irish Sea, UK. Trawled by Belgian fishermen. LV. H. 8.09 mm L. 9.36 mm; 378: Siracusa, Sicily, Italy. LV. 11.04 mm L. 13.35 mm; 379: Chioggia, Italy. Trawled by fishermen. LV. H. 5.29 mm L. 6.85 mm.

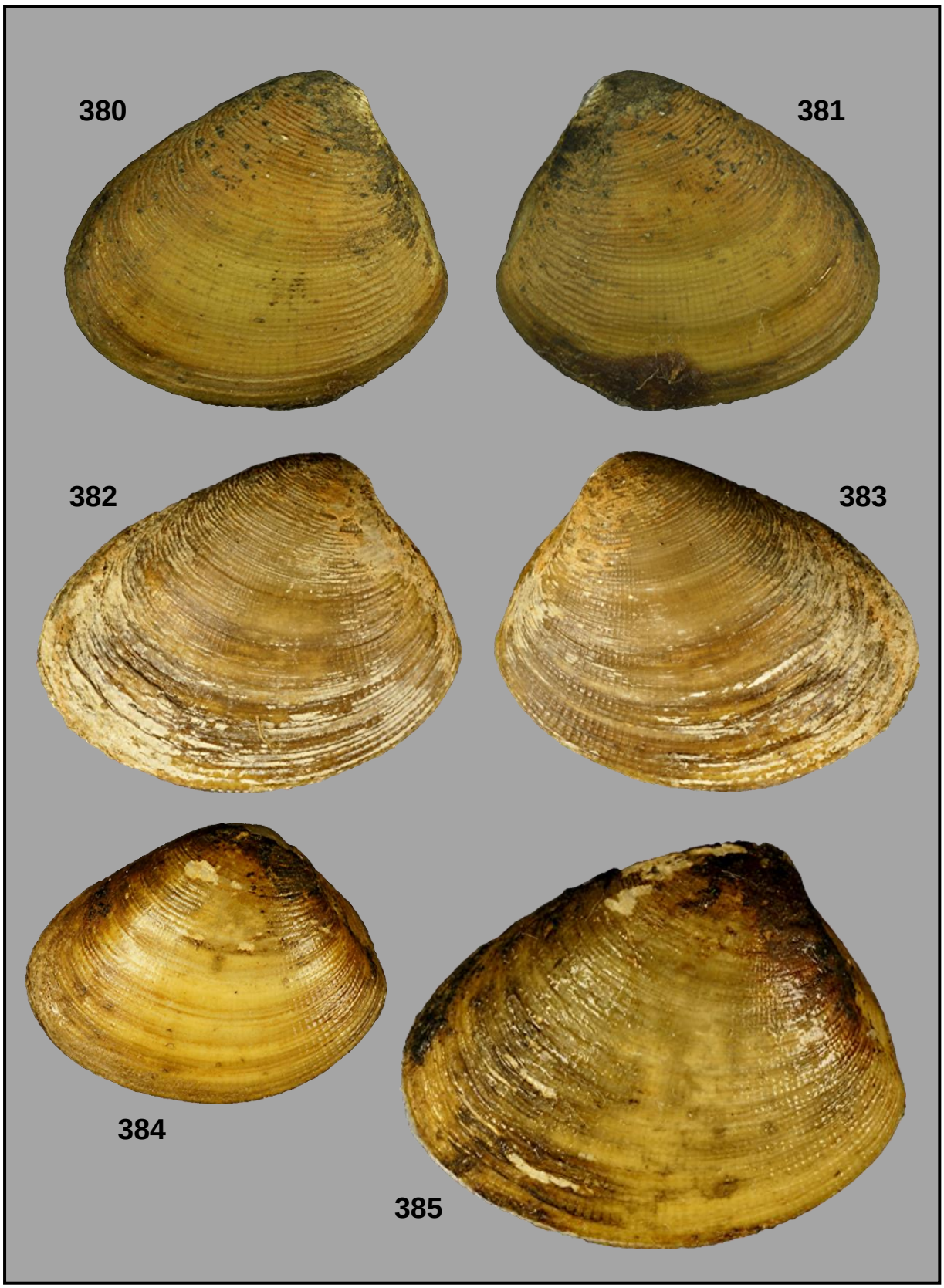

Plate LXV. Figs 380-385: *Nucula sulcata* Bronn, 1831; 380-383: South of La Rochelle, Bay of Biscay, W France. Trawled by Belgian fishermen at a depth of 130 m. On sand. July 2008. H. 11.54 mm L. 13.12 mm. JPK; 380: LV; 381: RV; 382-383: H. 14.12 mm L. 17.94 mm. JPK; 382: LV; 383: RV; 384-385: Loch Fyne, Scotland, UK. Trawled by local fishermen. 1997. LV. FN; 384: H. 12.75 mm L. 16.10 mm; 385: H. 15.95 mm L. 19.38 mm.

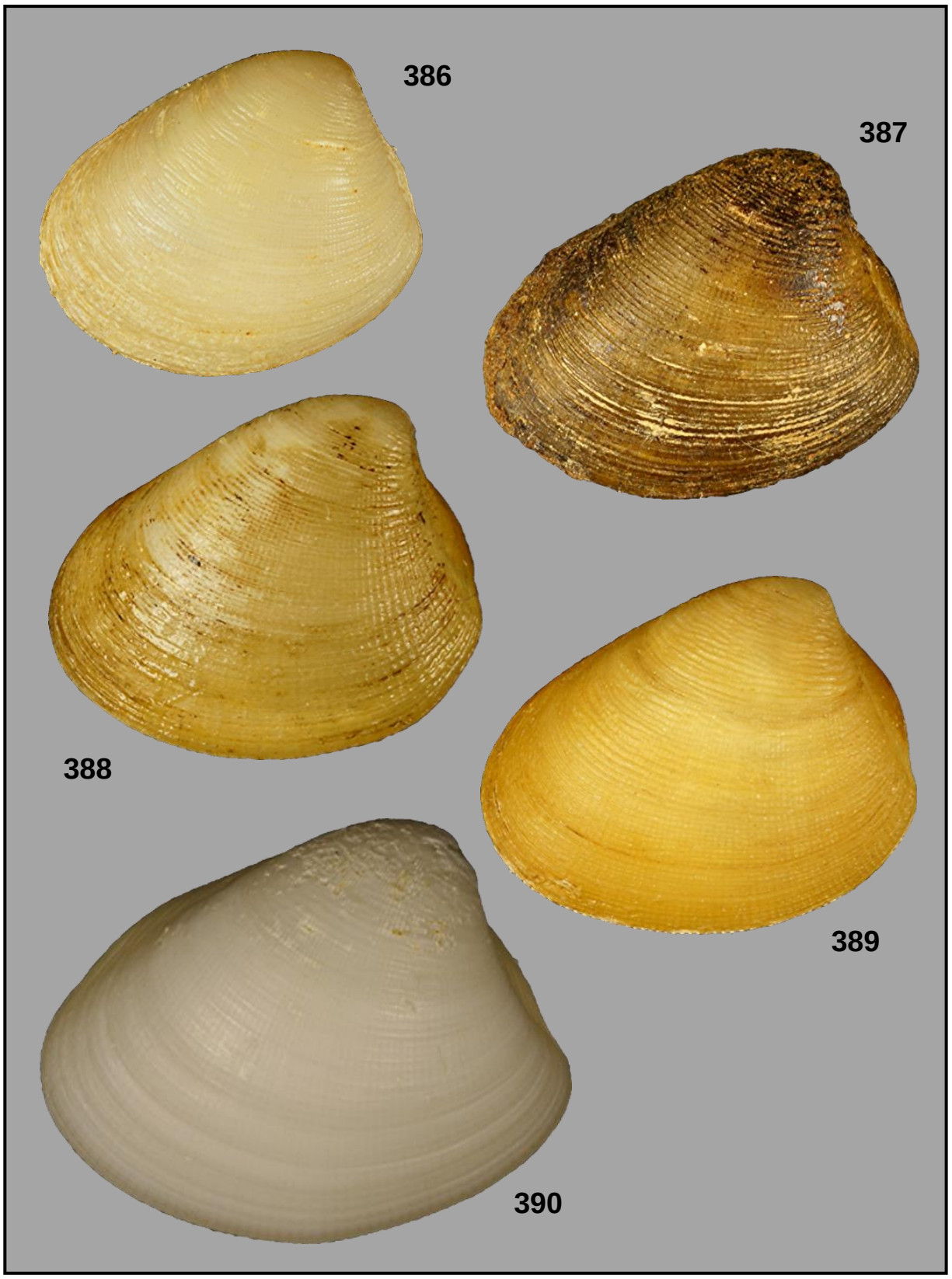

Plate LXVI. Figs 386-390: *Nucula sulcata* Bronn, 1831; 386: Melilla, Spain, N Africa. Trawled by local fishermen. LV. H. 12.22 mm L. 13.98 mm. FN; 387: Barcelona, Spain. Trawled by fishermen. August 1970. LV. H. 14.97 mm L. 18.53 mm. FN; 388: Siracusa, Sicily, Italy. LV. H. 13.24 mm L. 14.65 mm. FN; 389: Ancona, Italy. Trawled by fishermen at a depth of 60 m. 5 June 1993. LV. H. 13.06 mm L. 15.52 mm. FN; 390: Off Mauritania, NW Africa. Dredged at -450 m. April 1994. LV. H. 15.64 mm L. 19.44 mm. JV.

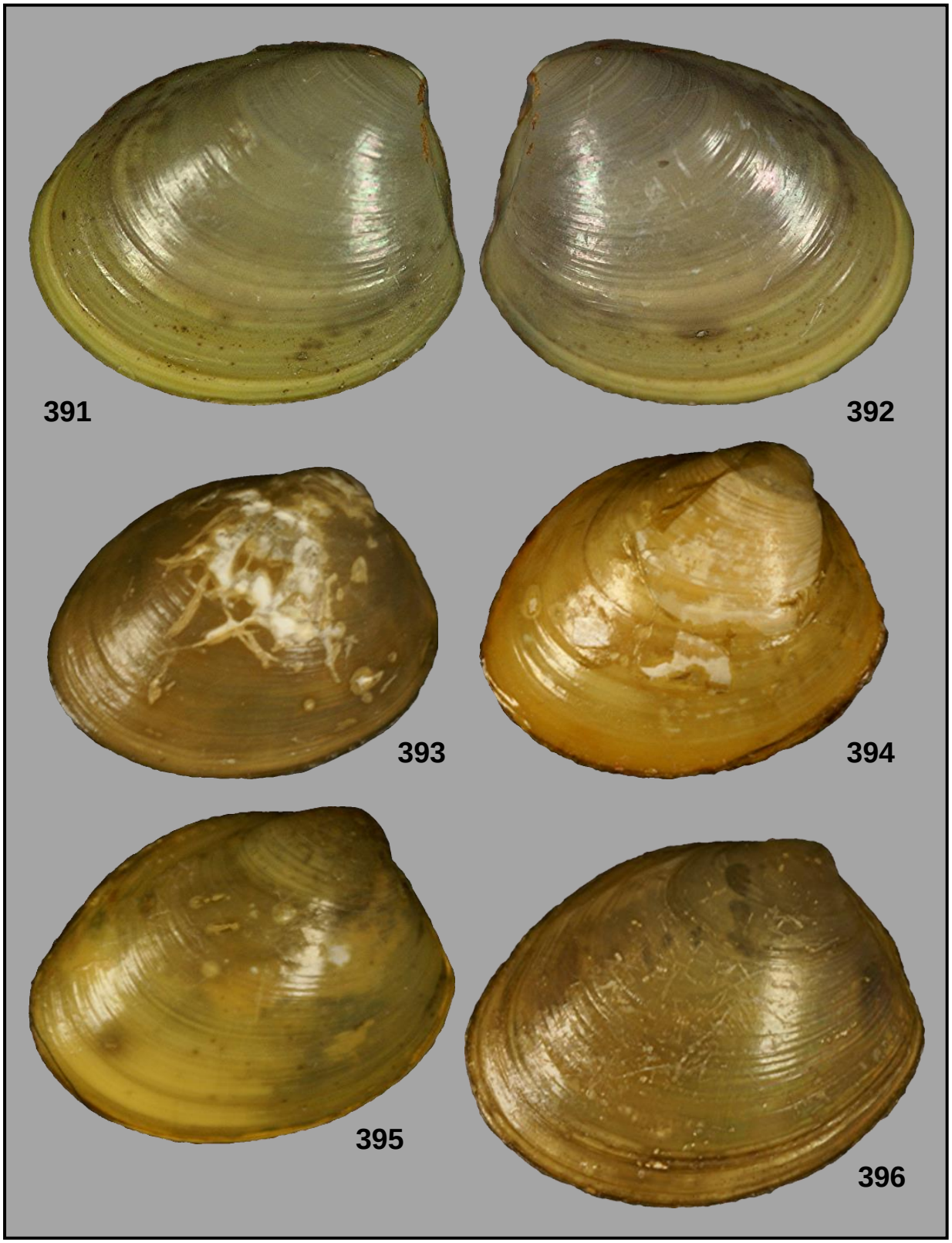

Plate LXVII. Figs 391-396: *Ennucula tenuis* (Montagu, 1808); 391-392: South of La Rochelle, Bay of Biscay, W France. Trawled by Belgian fishermen at a depth of 130 m. July 2008. H. 7.24 mm L. 8.33 mm. JPK; 391: LV; 392: RV; 393: Banquero Banks, NNW of Sable Island, E Canada. In muddy sand. Dredged at a depth of 125 m. H. 6.15 mm L. 7.57 mm. FN; 394-395: Isafjord, Iceland. Trawled at a depth of 183 m. FN; 394: H. 5.81 mm L. 7.15 mm; 395: H. 7.16 mm L. 9.03 mm; 396: off Lerwick, Shetlands, Scotland, UK. Trawled by local fishermen. H. 7.33 mm L. 9.21 mm. FN.