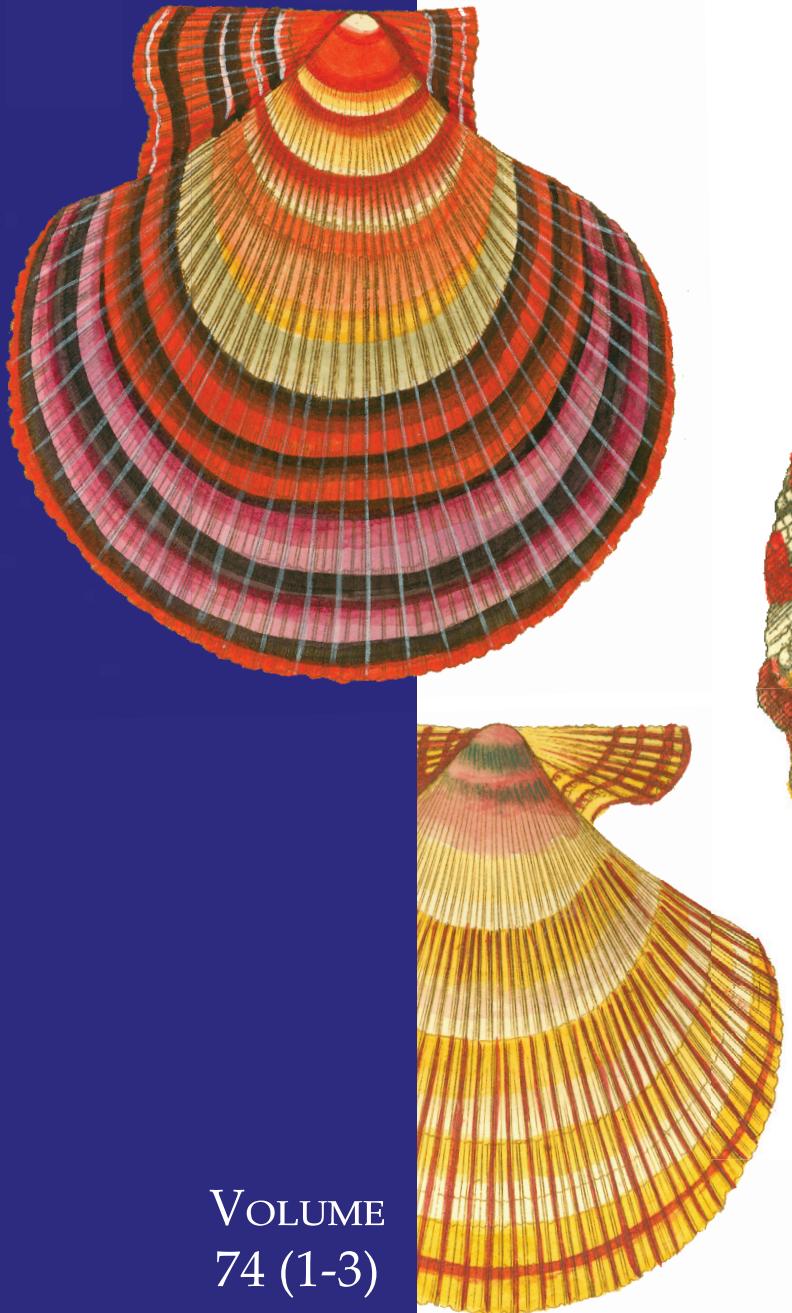
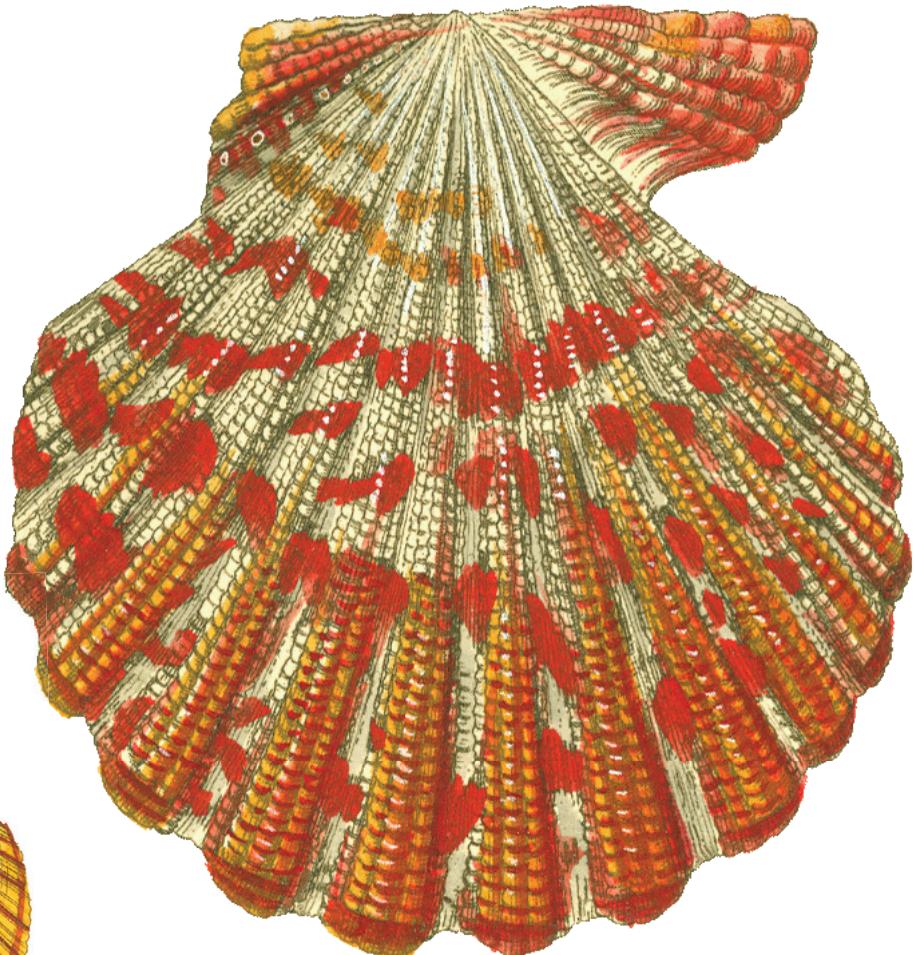


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Annotations to the described and figured scallops (Mollusca, Bivalvia, Pectinidae) in the German, French and Dutch editions of Georg Wolfgang Knorr's "Vergnügen" (1757-1775)

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This paper deals with the described and figured Pectinidae of the three editions of Knorr's "Vergnügen". Plates are compared and treated taxonomically. Three new junior synonyms are recognized and ten figures are type figures of nominal taxa.

Key words: Knorr, *Vergnügen* (1757-1773), *Les Delices* (1760-1773),
Verlustiging (1770-1775), Bivalvia, Pectinidae, synonyms, type figures.

INTRODUCTION

Several outstanding malacological works were published in the 18th century. Prominent among them are works by Rumphius (1705), Seba (1734-1765), Dezalier d'Argenville (1742), Gualtieri (1742), Knorr (1757-1773), Martini & Chemnitz (1769-1795), and Martyn (1784-1787). Their books were illustrated with magnificent aesthetically pleasing hand-coloured engraved plates. In the middle of that century Carolus Linnaeus (1758) wrote the 10th edition of his *Systema Naturae*, which has been formally accepted as the starting point for zoological nomenclature. Later on in the 18th century only a few works devoted solely to molluscs were bi-

nominal (Regenfuss, 1758; Schröter, 1783-1786; Born, 1780; Poli, 1791-1795) and were accepted as such by the ICZN (1999). Unfortunately the names in Knorr are rejected by the ICZN, as his work is not entirely binomial. Some binomial works on molluscs were not illustrated in that century, especially Linnaeus (1758, 1767), Born (1778), Gmelin (1791), and Röding (1798). These authors named species with reference to figures in non-binomial works such as those mentioned above, including Knorr. Therefore these old works are still important, not only for comparative historical malacological research, but also because they contain figures which may represent one or more specimens of the type series of a species.

One of Knorr's highlights are the three editions of *Vergnügen der Augen und des Gemüths* (1757-1775). It is his work best known to malacologists and a reference to "Knorr" usually needs no further explanation. Herein I will pay special attention to the described and figured scallops.

GEORG WOLFGANG KNORR

Georg Wolfgang Knorr was born on December 30th, 1705, in Nuremberg, and died on September 17th in 1761 in that city. He was a child of Georg Jacob Knorr and Magdalena

Messerschmidt. He spent his whole life in Nuremberg and was initially apprenticed to his father's trade of wood turning, but at the age of 18, he learned engraving and became a copperplate engraver for Johann Leonhard Blanc, working under Martin Tyroff on the illustrations for Johann Jacob Scheuchzer's "Copper-Bible" *Physica sacra* (1731-1735), through which he became interested in the natural sciences. Through his own studies, Knorr gained a wide base of knowledge in art history and the natural sciences. Around 1730 he started a publishing firm, which was continued after his death by his heirs until 1765. During his lifetime from 1726 until 1760, he engraved portraits, landscapes, geological formations, and animal studies after Dürer and the Kiliian family. He was a palaeontologist, as well as a painter, draftsman, engraver, collector, publisher and art dealer. In the second half of the 18th century Nuremberg overtook Augsburg as the centre of production for fine natural history books in Germany, due to the stimulus of J. Trew, a wealthy physician at Nuremberg, who assembled a number of artists and scientists around him. There, Knorr also published other scientific works distinguished by their beautiful hand-coloured plates.

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KNORR'S DESCRIBED AND FIGURED PECTINIDAE

Pecten islandicus Müller, 1776 (Figs 1, 3, 47)

Seba, 1734-1765: pl. 87 fig. 7.

Knorr, 1757-1773 [German edition]: part 1, 5, pl. 4 fig. 1; 7, pl. 5 fig. 2; part 5, 24, pl. 15 fig. 1.

Knorr, 1760-1773 [French edition]: part 1, 10-11, pl. 4 fig. 1; 13, pl. 5 fig. 2; part 5, 25-26, pl. 15 fig. 1.

Knorr, 1770-1775 [Dutch edition]: part 1, 6, pl. 4 fig. 1; 8, pl. 5 fig. 2; part 5, 47, pl. 15 fig. 1.

Pecten islandicus Müller, 1776: 248, nr. 2990.

Ostrea cinnabrina Born, 1778: 87; 1780: 103.

Ostrea islandica (Müller); Gmelin, 1791: 3325, nr. 55; Schreibers, 1793: 229.

Chlamys islandica (Müller); Raines & Poppe, 2006: 184, pl. 130 figs 1-5, pl. 131 figs 1-5, pl. 132 figs 1-3.

Remarks. — Knorr named these specimens "Sonnenzeiger"

("Sun-dial") after its variety of colour streaks. Houttuyn (in Knorr's Dutch edition) attributed figure 1 to the "Konings-Mantels" ("King or Royal Scallops") and figure 2 to "De Zonnewyzer". However, in the systematic list of the Dutch edition the "Konings Mantel" is similar to *Ostrea oblitterata* Linnaeus, 1758, a different species from the tropical Indo-West Pacific. A nice figure of this species can be found also in Seba (1734-65: pl. 87 fig. 7). Gmelin (1791: 3326, nr. 55) correctly referred to the three present figures in Knorr's "Vergnügen" and also to Knorr's "Deliciae" (1766, Band 2: figs 3, 4).

The adult left valve on plate 15 of Houttuyn's collection is also a typical *P. islandicus*. Knorr named it "Bandirte Mantel", in the Dutch edition "Gebandeerde Mantel" and in the French "Mantel bandé d'Orange". It is referred to *O. oblitterata* in the systematic list. Born (1778) introduced a new name for Knorr's figure 1 of plate 15 of part 5, overlooking Müller's *P. islandicus*. Gmelin (1791) correctly determined this specimen as *P. islandicus*. The shape, radial sculpture and coloured circular bands of the figured specimens are typical for this species.

Knorr's figured specimens most closely resemble the Iceland Scallop, *Pecten islandicus* Müller, 1776, known from the Arctic and boreal Atlantic. The current name is *Chlamys islandica* (Müller, 1776).

Ostrea maxima Linnaeus, 1758 (Figs 2, 6, 7, 17, 18, 23)

Ostrea maxima Linnaeus, 1758: 696, nr. 154; Born, 1778: 81; 1780: 98;

Schröter, 1786: 298; Gmelin, 1791: 3315, nr. 1; Schreibers, 1793: 207;

Röding, 1798: 165 (in part); Dijkstra, 1999: 389, fig. 1A-B.

Knorr, 1757-73 [German edition]: part 1, 5, pl. 4 fig. 2; 20, pl. 14 figs 1, 2; part 2, 28, pl. 14 fig. 1; 31-34, pl. 17 figs 1, 3.

Knorr, 1760-73 [French edition]: part 1, 11, pl. 4 fig. 2; 28, pl. 14 figs 1, 2; part 2, 28, pl. 14 fig. 1; 31-34, pl. 17 figs 1, 3.

Knorr, 1770-75 [Dutch edition]: part 1, 6, pl. 4 fig. 2; 20, pl. 14 figs 1, 2; part 2, 62, pl. 14 fig. 1; 66, pl. 17 figs 1, 3.

Pecten maximus (Linnaeus); Raines & Poppe, 2006: 152, pl. 101 figs 1-5, pl. 102 figs 1-3, pl. 103 figs 1-6, pl. 292 fig. 4, pl. 295 fig. 1.

Remarks. — Knorr named this scallop "Jacobiter Muschel" (Saint James' Scallop), in the Dutch edition "St. Jakobs-Dou-

blet”, “St. Jacobs-Schulp” or “Bonte St. Jakobs-Schulpen”, referring to *Ostrea maxima* Linnaeus, 1758 in his systematic listing (Table 1), which is correct.

The figured left valve (pl. 4 fig. 2) strongly resembles a young specimen of *Ostrea maxima* Linnaeus, 1758. This figure is also published in Knorr’s “Deliciae” (B II, fig. 2). The brown colouration is somewhat too dark. Figure 1 (right valve) and figure 2 (left valve) on plate 14 clearly represents adult specimens and figure 1 of pl. 14 of part 2 also clearly shows an adult right valve. Figures 1 (left valve) and 3 (right valve) of plate 17 are half-grown specimens.

This species occurs in the temperate waters of the eastern Atlantic Ocean. Its correct name is *Pecten maximus* (Linnaeus, 1758).

Ostrea nodosa Linnaeus, 1758 (Figs 4, 27, 28, 32)

- Ostrea nodosa* Linnaeus, 1758: 697, nr. 164; Born, 1778: 102; 1780: 86; Schröter, 1786: 308; Gmelin, 1791: 3322-3, nr. 43; Schreibers, 1793: 223; Röding, 1798: 163 [in part]; Dijkstra, 1999: 407, fig. 8E.
Knorr, 1757-73 [German edition]: part 1, 6, pl. 5 fig. 1; part 3, 43, pl. 24 fig. 1; 44-45, pl. 25 fig. 1; part 4, 24, pl. 13 fig. 5.
Knorr, 1760-73 [French edition]: part 1, 13, pl. 5 fig. 1; part 3, 44-45, pl. 24 fig. 1; 46, pl. 25 fig. 1; part 4, 16, pl. 13 fig. 5.
Knorr, 1770-75 [Dutch edition]: part 1, 7, pl. 5 fig. 1; part 3, 113, pl. 24 fig. 1; 114, pl. 25 fig. 1; part 4, 12, pl. 13 fig. 5.
Nodipecten nodosus (Linnaeus); Raines & Poppe, 2006: 218, pl. 161 fig. 2, pl. 162 figs 1-3, pl. 163 fig. 2, pl. 164 figs 1-5, pl. 165 figs. 1-6.

Remarks. — Knorr named this specimen “Corallen-Doublét” (“Coral Scallop”, now Lion’s Paw) probably after Rondelet’s “Concha corallina” and Argenville’s “Pecten corallinus”, and based it upon its habitat amongst corals. He referred to *Ostrea nodosa* Linnaeus, 1758 in the systematic listing (see Table 1), which is correct. Gmelin (1791) also referred to several pre-Linnaean works, but also to Knorr’s “Deliciae” and “Vergnügen” with a question mark to two varieties.

The figured right valve of plate 5 is lacking the anterior auricle, but otherwise clearly recognizable as a semi-adult specimen of *O. nodosa*. This figure is also published in Knorr’s “Deliciae” (B II, fig. 5).

The figured right valve of plate 24 also clearly belongs to *O. nodosa*. Shape and noduliferous radial ribs are characteristic for this species, although the whitish colour is somewhat atypical. Houttuyn mentioned this specimen “Witte Koraal-Doublét”. Figure 1 of plate 25 shows the inside of this specimen. The figured young right valve of plate 13 also completely agrees with *O. nodosa*.

The present species is known from the tropical western Atlantic. Its correct name is *Nodipecten nodosus* (Linnaeus, 1758).

Ostrea glabra Linnaeus, 1758 (Figs 5, 20, 36)

- Ostrea glabra* Linnaeus, 1758: 698, nr. 170; Born, 1778: 105; 1780: 90; Schröter, 1786: 316; Gmelin, 1791: 3324, nr. 50; Schreibers, 1793: 227; Dijkstra, 1999: 419, figs 10A, B.
Knorr, 1757-73 [German edition]: part 1, 13, pl. 8 fig. 5; part 2, 35, pl. 18 fig. 5; 37, pl. 19 fig. 4.
Knorr, 1760-73 [French edition]: part 1, 20, pl. 8 fig. 5; part 2, 35, pl. 18 fig. 5; 37, pl. 19 fig. 4.
Knorr, 1770-75 [Dutch edition]: part 1, 14, pl. 8 fig. 5; part 2, 68, pl. 18 fig. 5; 69, pl. 19 fig. 4.
Ostrea maculata Born, 1778: 90; 1780: 105.
Ostrea subrotundata Gmelin, 1791: 3318, nr. 13 (new junior synonym).
Flexopecten glaber (Linnaeus); Raines & Poppe, 2006: 114, pl. 60 figs 1-7, pl. 61 figs 1-6, pl. 62 figs 1-8, pl. 63 figs 1-8, pl. 64 figs 1-7, pl. 65 figs 1-8, pl. 66 figs 1-8.

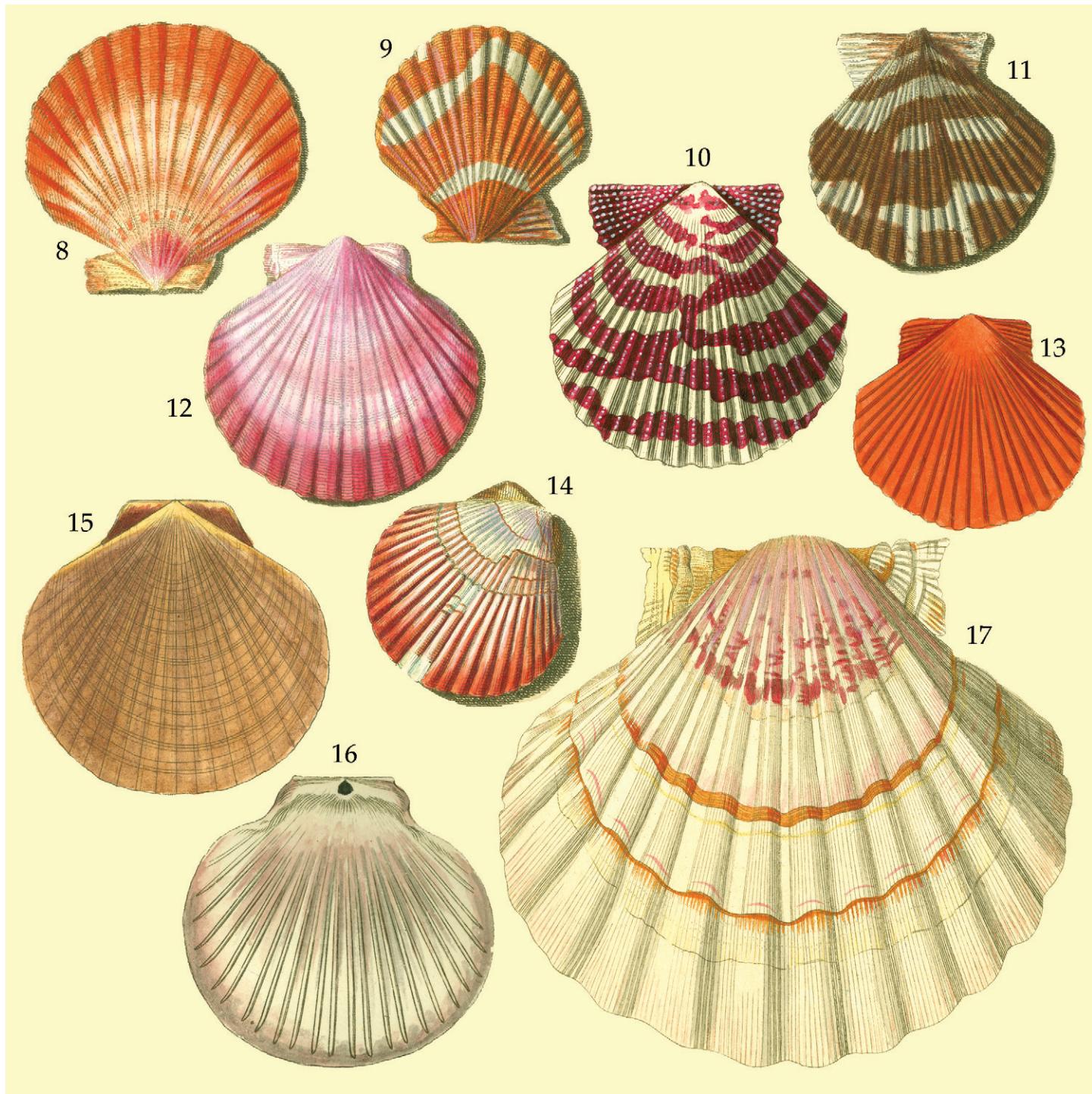
Remarks. — Knorr referred to these specimens as “kleine Bunte Mantel” (“small variegated scallop”), a more general name. However, Houttuyn determined it as a “Jaagers-Mantel” (“hunter’s jacket”) for figure 5 on plate 8, incorrectly re-

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- Figs 1-7. 1, *Chlamys islandica* (Müller, 1776), 73 × 72 mm, rv, exterior; 2, *Pecten maximus* (Linnaeus, 1758), 82 × 95 mm, lv, exterior; 3, *Chlamys islandica* (Müller, 1776), 69 × 68 mm, lv, exterior; 4, *Nodipecten nodosus* (Linnaeus, 1758), 64 × 69 mm, rv, exterior; 5, *Flexopecten glaber* (Linnaeus, 1758), 43 × 43 mm, lv, exterior; 6, *Pecten maximus* (Linnaeus, 1758), 59 × 65 mm, lv, exterior; 7, *Pecten maximus* (Linnaeus, 1758), 82 × 91 mm, rv, exterior.



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ferring to *Ostrea plica* Linnaeus, 1758, in the systematic list of the Dutch edition. The specimen figured on plate 18 was named "Dikbuikige Mantel", a specimen of the Schadeloock collection from the Gulf of Venice (northern Adriatic Sea). Gmelin (1791) correctly referred to both of Knorr's figures. Figure 4 of plate 19 could belong to *O. glabra* according to the number of radial ribs, but the red maculated colour pattern is rather atypical. Gmelin (1791) introduced a new name for Knorr's figured specimen, which should be treated as a syntype according to the ICBN (1999, art. 72.4.1) for *Ostrea subrotundata* Gmelin, 1791. This specimen is named in the Dutch edition "Gevlamde Mantel".

This species occurs in the Mediterranean Sea. Its correct name is *Flexopecten glaber* (Linnaeus, 1758).

Ostrea flabellum Gmelin, 1791 (Figs 13, 14, 24, 46)

Ostrea gibba Linnaeus, 1758; Born, 1778: 107; 1780: 93; Schröter, 1786: 318; Gmelin, 1791: 3325, nr. 52; Schreibers, 1793: 228. (In part not of Linnaeus).

Knorr, 1757-73 [German edition]: part 1, 25, pl. 18 fig. 2; part 2, 16, pl. 5 fig. 4; 33, pl. 17 fig. 2; part 5, 22, pl. 13 fig. 9.

Knorr, 1760-73 [French edition]: part 1, 34, pl. 18 fig. 2; part 2, 16, pl. 5 fig. 4; 33, pl. 17 fig. 2; part 5, 23, pl. 13 fig. 9.

Knorr, 1770-75 [Dutch edition]: part 1, 26, pl. 18 fig. 2; part 2, 52, pl. 5 fig. 4; 66, pl. 17 fig. 2; part 5, 46 (not described), pl. 13 fig. 9.

Ostrea flabellum Gmelin, 1791: 3321, nr. 34.

Aequipecten flabellum (Gmelin); Raines & Poppe, 2006: 296, pl. 247 figs 1-7, pl. 248 figs 1-7, pl. 249 figs 1-7.

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Figs 8-17. 8, *Aequipecten opercularis* (Linnaeus, 1758), 47 × 48 mm, rv, exterior; 9, *Volachlamys tranquebaria* (Gmelin, 1791), 38 × 37 mm, lv, exterior; 10, *Gloripallium pallium* (Linnaeus, 1758), 50 × 52 mm, lv, exterior; 11, *Volachlamys tranquebaria* (Gmelin, 1791), 42 × 42 mm, lv, exterior; 12, *Aequipecten opercularis* (Linnaeus, 1758), 47 × 48 mm, lv, exterior; 13, *Aequipecten flabellum* (Gmelin, 1791), 38 × 41 mm, lv, exterior; 14, *Aequipecten flabellum* (Gmelin, 1791), 38 × 38 mm, rv, exterior; 15, *Amusium pleuronectes* (Linnaeus, 1758), 52 × 53 mm, lv, exterior; 16, *Amusium pleuronectes* (Linnaeus, 1758), 52 × 54 mm, rv, interior; 17, *Pecten maximus* (Linnaeus, 1758), 93 × 100 mm, rv, exterior.

Remarks. — Knorr referred to the specimens of pl. 18 fig. 2 and pl. 5 fig. 4 as "kleine Bunte Mantel" ("small variegated scallop"), a more general name. Houttuyn named figure 2 a "Rood Manteltje" ("red small scallop") after its colour. Houttuyn named pl. 5 fig. 4 and pl. 17 fig. 2 both "Adama-Doublet", referring to *Ostrea gibba* Linnaeus, 1758, in the index of the Dutch edition. Both are from the collection of Schadeloock. Gmelin (1791) determined these specimens also *O. gibba*.

The specimen of plate 13 of part 5 of Houttuyn's collection is also a typical *O. flabellum*, named by Knorr an "Adama Doublet", in the Dutch edition "Adama-Doublet" and in the French "Petoncle d'Adama". It is referred to *O. sanguinea* in the systematic list. There is no description of this specimen on page 46 of the Dutch edition. Gmelin (1791) determined it as *O. gibba*. The uniformly red is a rare colour for *O. gibba*, which is usually more brightly maculated. It is a common colour for *O. flabellum*.

This species occurs along the African coasts of Senegal to Angola. Its current name is *Aequipecten flabellum* (Gmelin, 1791).

Ostrea pallium Linnaeus, 1758 (Figs 10, 37, 38, 39, 42)

Ostrea pallium Linnaeus, 1758: 696, nr. 163; Born, 1778: 102; 1780: 85; Schröter, 1786: 307; Gmelin, 1791: 3322, nr. 40; Schreibers, 1793: 221; Dijkstra, 1999: 405, figs 2E, F, 3A, B.

Knorr, 1757-73 [German edition]: part 1, 26, pl. 19 fig. 2; part 2, 37, pl. 19 fig. 5; 39, pl. 21 figs 1, 2; part 5, 43, pl. 27 fig. 2.

Knorr, 1760-73 [French edition]: part 1, 35, pl. 19 fig. 2; part 2, 37, pl. 19 fig. 5; 39, pl. 21 figs 1, 2; part 5, 44, pl. 27 fig. 2.

Knorr, 1770-75 [Dutch edition]: part 1, 28, pl. 19 fig. 2; part 2, 69, pl. 19 fig. 5; 71, pl. 21 figs 1, 2; part 5, 60, pl. 27 fig. 2.

Ostrea maculosa Gmelin, 1791: 3322, nr. 42 (not Forskål, 1775) (a new junior synonym).

Ostrea palliata Gmelin, 1791: 3331, nr. 87 (a new junior synonym). *Gloripallium pallium* (Linnaeus); Raines & Poppe, 2006: 118, pl. 70 figs 1-6, pl. 71 figs 1-6, pl. 72 figs 1-5, pl. 294 figs 1-5.

Remarks. — Knorr referred to this specimen as "Bunte Mantel" ("variegated scallop"), a more general name for a large group of scallops. Houttuyn also named it "Bonte

Mantel" in the description, but "Konings Mantel" in the systematic listing, referring to *Ostrea pallium* Linnaeus, 1758. Gmelin (1791) also referred to Knorr's figure as a variation of *O. pallium*.

The shape, colour pattern and lamellae on the radial ribs of figure 5 (left valve) on plate 19 of the second part closely resemble young specimens of *O. pallium*. Gmelin (1791) introduced a new name for this figured specimen, which should be treated as a syntype according to the ICZN (1999, art. 72.4.1) for *Ostrea maculosa* Gmelin, 1791. This specimen is named in the Dutch edition "Gevlamde Mantel".

The shape, sculpture and colour pattern of figure 1 of plate 21 (outside of a right adult valve) point to *O. pallium*. Figure 2 shows the inside of this specimen from the Schadeloock collection.

The specimen (left valve) on plate 27 without any doubt is also *O. pallium*. Knorr called it an "Orange Koningsmantel", in the Dutch edition an "Oranje Konings-Mantel" and in the French edition a "Manteau Ducal Orangé" (named after its orange radial ribs).

The present species is living in the (sub)tropical waters of the Indo-Pacific. Its current name is *Gloripallium pallium* (Linnaeus, 1758).

Ostrea pleuronectes Linnaeus, 1758 (Figs 15, 16)

Ostrea pleuronectes Linnaeus, 1758: 696, nr. 159; Born, 1778: 100; 1780: 83; Schröter, 1786: 303; Gmelin, 1791: 3317, nr. 6; Schreibers, 1793: 210;

Röding, 1798: 165; Dijkstra, 1999: 399, figs 1C–F.

Knorr, 1757-73 [German edition]: part 1, 27-28, pl. 20 figs 3, 4.

Knorr, 1760-73 [French edition]: part 1, 37, pl. 20 figs 3, 4.

Knorr, 1770-75 [Dutch edition]: part 1, 30, pl. 20 figs 3, 4.

Amusium pleuronectes (Linnaeus); Raines & Poppe, 2006: 138, pl. 87 figs 1-5.

Remarks. — Knorr referred to these specimens as "Compass-Doublet" after the radial blue rays on the disc of the left valve. In the systematic list he correctly referred to it as *Ostrea pleuronectes* Linnaeus, 1758. In French it is named "La Sole" or "l'Eventail", in Dutch "Kompas-Doublet" or "Maan-Doublet" (Moon Scallop) and in Latin "Amusium" (from *amussis* = ruler) (Rumphius, 1705: 144). In English the

current name is Asian Moon Scallop (Abbott & Dance, 1982: 303). Gmelin (1791) correctly referred to both figures of Knorr and to a variation (part 5, pl. 21 fig. 6).

The figures 3 (external left valve) and 4 (internal right valve) are unmistakeably *Ostrea pleuronectes* Linnaeus, 1758. This species occurs in the (sub)tropical Indo-West Pacific. Its current name is *Amusium pleuronectes* (Linnaeus, 1758).

Ostrea opercularis Linnaeus, 1758 (Figs 8, 12, 50)

Ostrea opercularis Linnaeus; Born, 1778: 107; 1780: 92; Schröter, 1786: 317 (with question-mark); Gmelin, 1791: 3325, nr. 51; Schreibers, 1793: 228 (with question-mark).

Knorr, 1757-73 [German edition]: part 2, 13, pl. 3 figs 2, 3; part 5, 44, pl. 28 fig. 4.

Knorr, 1760-73 [French edition]: part 2, 13, pl. 3 figs 2, 3; part 5, 45-46, pl. 28 fig. 4.

Knorr, 1770-75 [Dutch edition]: part 2, 49, pl. 3 figs 2, 3; part 5, 60, pl. 28 fig. 4.

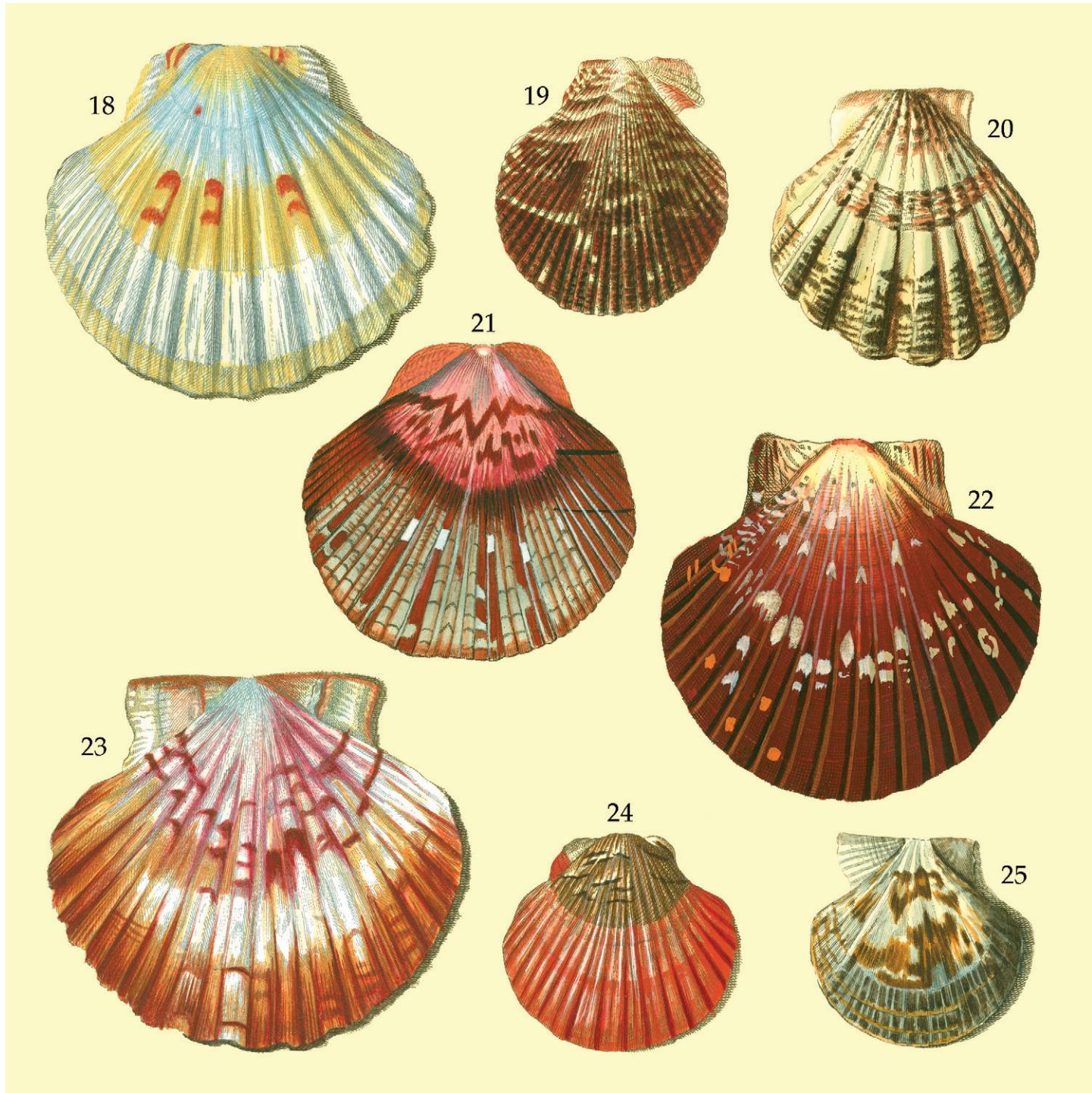
Aequipecten opercularis (Linnaeus); Raines & Poppe, 2006: 300, pl. 252 figs 1-6, pl. 253 figs 1-6, pl. 254 figs 1-6, pl. 255 figs 1-7, pl. 256 figs 1-6, pl. 257 figs 1-7, pl. 292 fig. 1.

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Remarks. — Knorr did not refer to the index in the German edition, but in the Dutch edition both specimens are referred to as *Ostrea sanguinea* Linnaeus, 1758, and named in the text "Roode Mantel" en "Paarsche Mantel". Gmelin (1791) determined both specimens as *Ostrea opercularis* Linnaeus, 1758, however, with a question mark. The circular shape of the disc and the number of radial ribs are similar to those of *O. opercularis*. *Ostrea sanguinea* is less rounded and has many

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Figs 18-25. **18**, *Pecten maximus* (Linnaeus, 1758), 62 × 68 mm, rv, exterior; **19**, *Mimachlamys varia* (Linnaeus, 1758), 45 × 40 mm, rv, exterior; **20**, *Flexopecten glaber* (Linnaeus, 1758), 49 × 46 mm, lv, exterior; **21**, *Euvola ziczac* (Linnaeus, 1758), 56 × 58 mm, lv, exterior; **22**, *Euvola ziczac* (Linnaeus, 1758), 64 × 66 mm, rv, exterior; **23**, *Pecten maximus* (Linnaeus, 1758), 65 × 73 mm, lv, exterior; **24**, *Aequipecten flabellum* (Gmelin, 1791), 38 × 41 mm, lv, exterior; **25**, *Flexopecten flexuosus* (Poli, 1795), 37 × 37 mm, lv, exterior.



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more ribs. Moreover, *O. sanguinea* is more inflated than *O. opercularis*. In the text of the Dutch edition mention is made of the “platheid” (flattening) of the shell. The reddish (right valve) and purplish (left valve) colours of the figures are common colour variations of *O. opercularis*.

The specimen of plate 28 is named by Knorr “Orange Mantel”, in the Dutch edition “Oranje Mantel” and in the French edition “Manteau d’Orange”. It is attributed to *O. opercularis* in the systematic list and Gmelin (1791) also correctly referred to Knorr’s figure. Although it is described as an orange scallop, the figured right valve is yellow. This species occurs in the temperate to subtropical eastern Atlantic. The correct name is *Aequipecten opercularis* (Linnaeus, 1758).

Ostrea undata Born, 1778 (Figs 9, 11)

- Knorr, 1757-73 [German edition]: part 2, 15, pl. 4 figs 2, 3.
 Knorr, 1760-73 [French edition]: part 2, 15, pl. 4 figs 2, 3.
 Knorr, 1770-75 [Dutch edition]: part 2, 51, pl. 4 figs 2, 3.
Ostrea undata Born, 1778: 108; 1780: 94 (a senior synonym).
Ostrea tranquebaria Gmelin, 1791: 3328, nr. 67; Schreibers, 1793: 234 (as
Ostrea tranquebarica).
Volachlamys tranquebarica [sic] (Gmelin); Raines & Poppe, 2006: 330, pl.
 290 figs 1-7, pl. 291 figs 1-7.

(previous page)

- Figs 26-40. 26, *Pecten jacobaeus* (Linnaeus, 1758), 53 × 56 mm, rv, exterior;
 27, *Nodipecten nodosus* (Linnaeus, 1758), 38 × 39 mm, rv, exterior; 28, *Nodipecten nodosus* (Linnaeus, 1758), 37 × 37 mm, rv, interior; 29, *Mimachlamys sanguinea* (Linnaeus, 1758), 23 × 20 mm, rv, exterior; 30,
Excellichlamys histrionica (Gmelin, 1791), 24 × 23 mm, lv, exterior; 31,
Flexopecten flexuosus (Poli, 1795), 31 × 31 mm, lv, exterior; 32, *Nodipecten nodosus* (Linnaeus, 1758), 39 × 39 mm, rv, exterior; 33, *Flexopecten flexuosus* (Poli, 1795), 33 × 34 mm, lv, exterior; 34, *Flexopecten flexuosus* (Poli, 1795), 32 × 32 mm, lv, exterior; 35, *Laevichlamys squamosa* (Gmelin, 1791), 36 × 34 mm, rv, exterior; 36, *Flexopecten glaber* (Linnaeus, 1758), 44 × 47 mm, lv, exterior; 37, *Gloripallium pallium* (Linnaeus, 1758), 31 × 30 mm, lv, exterior; 38, *Gloripallium pallium* (Linnaeus, 1758), 62 × 58 mm, rv, exterior; 39, *Gloripallium pallium* (Linnaeus, 1758), 59 × 53 mm, rv, interior;
 40, *Decatopecten radula* (Linnaeus, 1758), 62 × 56 mm, lv, exterior.

Remarks. — Knorr did not refer in the index to figure 2 and mentioned figure 3 as a “Jacobiter”. In the Dutch edition these are called “Bonte Mantels”, erroneously referred to the figures 3 and 4 in the text and correctly on the marginal side. Born (1778) introduced a new name for Knorr’s figures (Dijkstra, 2009: 114). Gmelin (1791) determined both figures (syntypes) as *Ostrea tranquebaria* from Tranquebar (Tharangambadi, E India). Colour pattern, shape and ribbing of both shells (left valves) unmistakably refer to Gmelin’s species.

This species occurs in the Bay of Bengal. Its correct name is *Volachlamys tranquebaria* (Gmelin, 1791).

Ostrea flexuosa Poli, 1795 (Figs 25, 31, 33, 34)

- Ostrea plica* Linnaeus, 1758; Born, 1778: 101; 1780: 84 (not of Linnaeus).
Ostrea glabra Linnaeus, 1758; Gmelin, 1791: 3324, nr. 50 (not of Linnaeus).
 Knorr, 1757-73 [German edition]: part 2, 23, pl. 10 fig. 2; part 5, 23, pl. 9 fig. 2; 17, pl. 10 figs 5, 6.
 Knorr, 1760-73 [French edition]: part 2, 23, pl. 10 fig. 2; part 5, 15, pl. 9 fig. 2; 18, pl. 10 figs 5, 6.
 Knorr, 1770-75 [Dutch edition]: part 2, 58, pl. 10 fig. 2; part 5, 41, pl. 9 fig. 2; 42, pl. 10 figs 5, 6.
Ostrea flexuosa Poli, 1795: 161, pl. 28 fig. 11.
Ostrea coarctata Born, 1778: 106; 1780: 91 (a senior synonym).
Flexopecten flexuosus (Poli); Raines & Poppe, 2006: 112, pl. 57 figs 1-9, pl. 58 figs 1-9, pl. 59 figs 1-9.

Remarks. — Knorr gives this specimen of plate 10, figure 2, a more general name “kleine Bunte Mantel” and Houttuyn “Bruin bont Manteltje” in the Dutch edition. Both did not refer to Linnaeus in the systematic index. Born (1778, 1780) and Gmelin (1791) erroneously referred to *Ostrea plica* Linnaeus, 1758, and *Ostrea glabra* Linnaeus, 1758, for this specimen respectively. Shape, smooth disc and colour pattern of the figure unmistakably refer to *Ostrea flexuosa* Poli, 1795. The figured left valve of plate 9 is named “Der gelbe Jägermantel” by Knorr and “Geele Jagers Mantel” in the Dutch edition and “Gibeciere jaune” in the French edition. In the systematic list it is referred to as *O. plica* Linnaeus, 1758, and Gmelin (1791) determined it as *O. glabra* Linnaeus, 1758.

However, this nearly smooth adult specimen is closest to *O. flexuosa*.

The figured adult left valves of plate 10 are unmistakably the present species. Knorr named these specimens "Bunte Jagermantel", in Dutch "Bruin bonte Jaagers-Mantels" and in French "Gibecière barioles de brun". Both specimens are referred to *O. plica* in the systematic list and Gmelin (1791) also determined these as *O. glabra*. However, shape and colour are typical for *O. flexuosa*.

Although *O. coarctata* Born is a senior subjective synonym of *O. flexuosa* Poli, the latter name is generally used in the literature. According to ICZN Art. 23.2 and Art. 23.9.1 *O. coarctata* Born has to be considered a nomen oblitum and *O. flexuosa* Poli a nomen protectum (Dijkstra, 2009: 111).

This species occurs in the Mediterranean Sea and adjacent parts of the eastern Atlantic Ocean. Its current name is *Flexopecten flexuosus* (Poli, 1795).

Ostrea varia Linnaeus, 1758 (Figs 19, 41, 51)

Ostrea varia Linnaeus; Born, 1778: 104; 1780: 89; Schröter, 1786: 313; Gmelin, 1791: 3324, nr. 48; Schreibers, 1793: 226; Dijkstra, 1999: 415, figs 5A-D.

Knorr, 1757-73 [German edition]: part 2, 35, pl. 18 fig. 3; part 5, 21, pl. 13 fig. 2; part 6, 18, pl. 9 fig. 4.

Knorr, 1760-73 [French edition]: part 2, 35, pl. 18 fig. 3; part 5, 22, pl. 13 fig. 2; part 6, 18, pl. 9 fig. 4.

Knorr, 1770-75 [Dutch edition]: part 2, 67, pl. 18 fig. 3; part 5, 45, pl. 13 fig. 2; part 6, 73, pl. 9 fig. 4.

Ostrea seminuda Gmelin, 1791: 3331, nr. 88 (a new junior synonym).

Mimachlamys varia (Linnaeus); Raines & Poppe, 2006: 276, pl. 229 figs 1-6, pl. 230 figs 1-7, pl. 231 figs 1-3, 5, pl. 292 fig. 3.

Remarks. — The specimen of plate 18 is also named by Knorr a "kleine Bunte Mantel" and by Houttuyn a "Paarsch-bonte Mantel" in the Dutch edition. In the systematic list it is referred to *Ostrea varia* Linnaeus, 1758. The shape, colour pattern and number of radial ribs of the figure (a right valve) of plate 18 are indeed corresponding with this species. This specimen belongs to the collection of Schade-loock.

The adult left valve of plate 13 of Houttuyn's collection is

named by Knorr "Bunter Orange-Mantel", in the Dutch edition "Bonte Oranje-Mantel" and in the French edition "Manteau d'Orange tacheté". It is referred to a different species, *Ostrea pellucens* Linnaeus, 1758, in the systematic list. Gmelin (1791) incorrectly determined this specimen as *O. pusio*. Shape, sculpture and colour pattern are closest to the present species.

The adult left valve of plate 9 also of Houttuyn's collection is named by Knorr "Pomeranzenfarbige Mantelmuschel", in the Dutch edition "Oranje-Manteltje" and in the French edition "Peigne orangé". It is not mentioned in the systematic listing. Gmelin (1791) introduced a new name for this specimen, i.e. *Ostrea seminuda* Gmelin, 1791, and only referring to Knorr's figure (a syntype). Shape, sculpture (spines on the radial ribs) and colour are closest to specimens of *O. varia*.

This species occurs in the temperate to subtropical eastern Atlantic Ocean, including the Mediterranean Sea. Its current name is *Mimachlamys varia* (Linnaeus, 1758).

Ostrea ziczac Linnaeus, 1758 (Figs 21, 22)

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Ostrea ziczac Linnaeus; Born, 1778: 99; 1780: 82; Schröter, 1786: 300; Gmelin, 1791: 3316, nr. 3; Schreibers, 1793: 208.

Knorr, 1757-73 [German edition]: part 2, 36-37, pl. 19 fig. 3; 37, pl. 20 fig. 1.

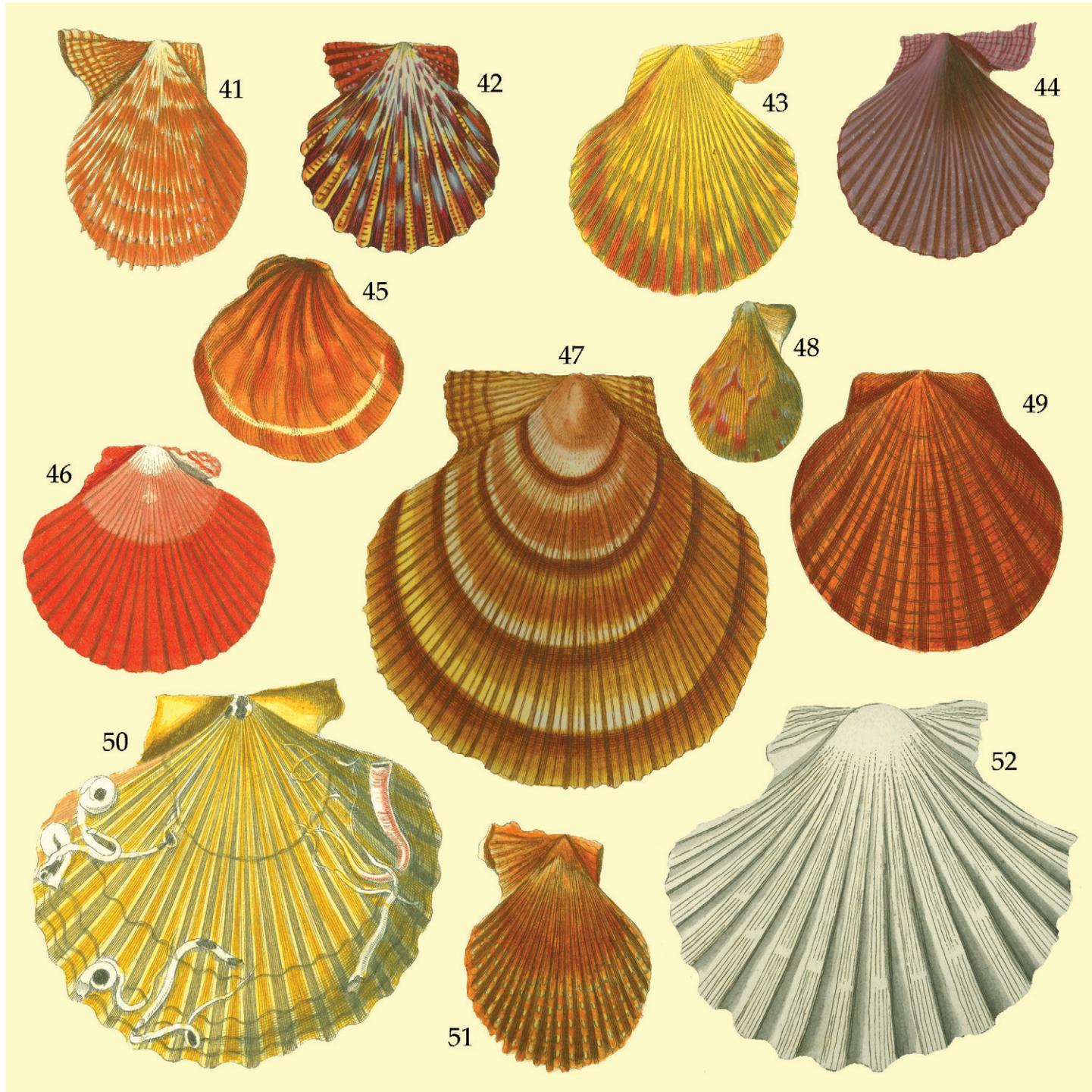
Knorr, 1760-73 [French edition]: part 2, 36-37, pl. 19 fig. 3; 37-38, pl. 20 fig. 1.

Knorr, 1770-75 [Dutch edition]: part 2, 68, pl. 19 fig. 3; 69, pl. 20 fig. 1.

Euvola ziczac (Linnaeus); Raines & Poppe, 2006: 170, pl. 118 figs 1-3, pl. 119 figs 1-5.

Remarks. — Knorr named this specimen "Neptunus-Dosen", in French "le Benitier" or "la Tabatiere de Neptune" and in Dutch "Joppe-Doublet" and referred to it as *Ostrea ziczac* Linnaeus, 1758, in the systematic list. The left valve (pl. 19 fig. 3) is from "Westindien" (West Indies). The specimen on plate 20 (fig. 1) is a right valve. Shape, colour pattern and radial grooves on the disc of both valves correspond clearly to this species.

This species occurs in the (sub)tropical western Atlantic. Its correct name is *Euvola ziczac* (Linnaeus, 1758).



Ostrea plica Linnaeus, 1758 (Fig. 45)

Ostrea plica Linnaeus, 1758: 697, nr. 162.

Knorr, 1757-73 [German edition]: part 2, 40, pl. 21 fig. 5.

Knorr, 1760-73 [French edition]: part 2, 40, pl. 21 fig. 5.

Knorr, 1770-75 [Dutch edition]: part 2, 71, pl. 21 fig. 5.

Decatopecten plica (Linnaeus); Raines & Poppe, 2006: 106, pl. 47 figs 1-5, 7-8, pl. 48 figs 1, 3-6, pl. 49 figs 1-7.

Remarks. — Knorr named this specimen “Corallen-Doublét” and Houttuyn “Roode Weitas” in the Dutch edition. It is not mentioned in the systematic list. Born (1778) introduced a new name for Knorr’s figure, which in fact is a junior synonym of *O. plica*. Gmelin (1791) did not refer to Knorr’s figure. The figured adult left valve corresponds to the present species.

This species occurs in the (sub)tropical Indo-West Pacific. Its current name is *Decatopecten plica* (Linnaeus, 1758).

Ostrea jacobaea Linnaeus, 1758 (Figs 26, 52)

Ostrea jacobaea Linnaeus; Born, 1778: 99; 1780: 82; Schröter, 1786: 299; Gmelin, 1791: 3316, nr. 2; Schreibers, 1793: 208.

Knorr, 1757-73 [German edition]: part 2, 40, pl. 22 fig. 3; part 6, 73, pl. 38 fig. 1.

Knorr, 1760-73 [French edition]: part 2, 40, pl. 22 fig. 3; part 6, 73, pl. 38 fig. 1.

Knorr, 1770-75 [Dutch edition]: part 2, 72, pl. 22 fig. 3; part 6, 115, pl. 38

Figs 41-52. **41**, *Mimachlamys varia* (Linnaeus, 1758), 41 × 32 mm, lv, exterior; **42**, *Gloripallium pallium* (Linnaeus, 1758), 38 × 35 mm, lv, exterior; **43**, *Mimachlamys sanguinea* (Linnaeus, 1758), 44 × 40 mm, rv, exterior; **44**, *Mimachlamys sanguinea* (Linnaeus, 1758), 40 × 38 mm, rv, exterior; **45**, *Decatopecten plica* (Linnaeus, 1758), 36 × 37 mm, lv, exterior; **46**, *Aequipecten flabellum* (Gmelin, 1791), 40 × 44 mm, rv, exterior; **47**, *Chlamys islandica* (Müller, 1776), 74 × 71 mm, lv, exterior; **48**, *Talochlamys multistriata* (Poli, 1795), 28 × 20 mm, rv, exterior; **49**, *Dentamussium oblitteratum* (Linnaeus, 1758), 49 × 48 mm, lv, exterior; **50**, *Aequipecten opercularis* (Linnaeus, 1758), 66 × 71 mm, rv, exterior; **51**, *Mimachlamys varia* (Linnaeus, 1758), 42 × 33 mm, lv, exterior; **52**, *Pecten jacobaeus* (Linnaeus, 1758), 65 × 71 mm, rv, exterior.

fig. 1. [Dutch edition]

Pecten jacobaeus (Linnaeus); Raines & Poppe, 2006: 150, pl. 96 figs 1-3, pl. 97 figs 1-3, pl. 98 figs 1-3, pl. 292 fig. 2.

Remarks. — The specimen of plate 22 is named by Knorr “Jacobiter Muschel” and by Houttuyn “Spaansche St. Jakops-Doublet”, differentiating it from the “St. Jakops-Doublet” (= *O. maxima*) in the Dutch edition. It is referred to as *O. jacobaea* in the systematic list. The figured right valve corresponds to the present species.

The specimen (a white right valve) of plate 38 is named by Knorr “Spanische Jacobiter Muschel”, in the Dutch edition “Spaansche St. Jacobs Doublet”, and in the French edition “Coquille de St. Jaques d’Espagne”. It is also attributed to *O. jacobaea* in the systematic list. Gmelin (1791) correctly determined Knorr’s figure as a specimen of *O. jacobaea*. The crenulated ribs of the figure justified Born’s and Gmelin’s determinations.

This species occurs in the Mediterranean Sea. Its current name is *Pecten jacobaeus* (Linnaeus, 1758).

Ostrea sanguinea Linnaeus, 1758 (Figs 29, 43, 44)

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Ostrea sanguinea Linnaeus, 1758: 698, nr. 167; Dijkstra, 1999: 413, figs 4A, B.

Knorr, 1757-73 [German edition]: part 4, 22, pl. 12 fig. 2; part 5, 20, pl. 12 fig. 5; part 6, 30, pl. 16 fig. 2.

Knorr, 1760-73 [French edition]: part 4, 24, pl. 12 fig. 2; part 5, 21, pl. 12 fig. 5; part 6, 30, pl. 16 fig. 2.

Knorr, 1770-75 [Dutch edition]: part 4, 10, pl. 12 fig. 2; part 5, 45, pl. 12 fig. 5; part 6, 83, pl. 16 fig. 2.

Mimachlamys sanguinea (Linnaeus, 1758); Raines & Poppe, 2006: 274, pl. 221 figs 1-5, pl. 222 figs 1-5, pl. 223 figs 1-5, pl. 224 figs 1-8.

Remarks. — This small pectinid of the collection of Müller is named by Knorr “Kleine kammuschel oder Mantel von allerhand Farben und Zeichnung” and by Houttuyn “Bont Manteltje”, an “Ostindisch Manteltje” in the Dutch edition, and referred to *Ostrea pusio* Linnaeus, 1758, in the systematic list, as Gmelin (1791) did, which is incorrect. The uniformly red right valve is closest to a young specimen of *O. sanguinea*. Shells of *O. pusio* of that size are usually dis-

torted and the ribs more irregularly placed.

The right valve of plate 12 of part 5 of Houttuyn's treatise is named by Knorr "Der Purpurmantel", in the Dutch edition "Paarsche Mantel" and in the French edition "Manteau de pourpre". It is not mentioned in the systematic list. Gmelin (1791) incorrectly determined this specimen as *O. varia*. This uniformly bright purplish specimen is closest to the present species.

The right valve of plate 16 of part 6 is named by Knorr "Gelbe bunte Mantel", in the Dutch edition "Geele Bonte Mantel" and in the French edition "Manteau jaune". It is attributed to *O. sanguinea* in the systematic list. Gmelin (1791) determined this figure as a specimen of *O. varia*. According to Houttuyn it is from the East Indies and the shape and colour pattern are indeed closest to that of the present species.

Ostrea sanguinea occurs in the tropical Indo-West Pacific. Its current name is *Mimachlamys sanguinea* (Linnaeus, 1758).

Ostrea histrionica Gmelin, 1791 (Fig. 30)

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- Knorr, 1757-73 [German edition]: part 4, 22, pl. 12 fig. 3.
Knorr, 1760-73 [French edition]: part 4, 24, pl. 12 fig. 3.
Knorr, 1770-75 [Dutch edition]: part 4, 10 , pl. 12 fig. 3.
Ostrea histrionica Gmelin, 1791: 3326, nr. 54.
Excellichlamys histrionica (Gmelin); Raines & Poppe, 2006:
108, pl. 53 figs 1-10.

Remarks. — This small pectinid of Müller's collection is named by both Knorr and Houttuyn as *O. sanguinea* and is not referred to in the systematic list. Gmelin (1791) introduced a new name for this species and referred to Knorr's figure, together with references to Bonanni (1681), Kirchner (1709), Born (1780) and Chemnitz, in Martini (1784). Knorr's figure represents a syntype. The shape, setting of ribs and colour pattern of the figured left valve clearly correspond to those of *O. histrionica*.

This species occurs in the (sub)tropical Indo-West Pacific. Its current name is *Excellichlamys histrionica* (Gmelin, 1791).

Ostrea radula Linnaeus, 1758 (Fig. 40)

- Ostrea radula* Linnaeus, 1758: 697, nr. 161; Born, 1778: 100; 1780: 83;
Schröter, 1786: 304; Gmelin, 1791: 3318, nr. 11; Schreibers, 1793: 212;
Dijkstra, 1999: 402, fig. 8A.
Knorr, 1757-73 [German edition]: part 5, 15, pl. 9 fig. 4.
Knorr, 1760-73 [French edition]: part 5, 16, pl. 9 fig. 4.
Knorr, 1770-75 [Dutch edition]: part 5, 41 , pl. 9 fig. 4.
Decatoplecten radula radula (Linnaeus); Raines & Poppe, 2006: 106, pl. 50
figs 1-7, pl. 51 figs 1-3, 5-6, pl. 295 fig. 2.

Remarks. — The figured specimen of plate 9 is named by Knorr "Die Jagertasche", in the Dutch edition "Jaagers Weytasch" and in the French edition "Gibesciére en Manteau". Houttuyn also mentioned the Malay names "Bia Sissing" or "Bia Terbang" used by Rumphius (1705) in the Dutch edition. It is referred to *O. radula* in the systematic list. Gmelin (1791) also correctly referred to Knorr's figure. Shape, sculpture and colour pattern of this figured left valve is unmistakable a specimen of *O. radula*.

This species occurs in the tropical western and south-western Pacific. Its current name is *Decatoplecten radula radula* (Linnaeus, 1758).

Ostrea squamosa Gmelin, 1791 (Fig. 35)

- Knorr, 1757-73 [German edition]: part 5, 18, pl. 11 fig. 3.
Knorr, 1760-73 [French edition]: part 5, 19, pl. 11 fig. 3.
Knorr, 1770-75 [Dutch edition]: part 5, 43 , pl. 11 fig. 3.
Ostrea varia Linnaeus, 1758; Born, 1778: 104; 1780: 89 refers to Knorr
(1757-73) (not of Linnaeus).
Ostrea squamosa Gmelin, 1791: 3319, nr. 17.
Ostrea varia Gmelin, 1791: 3324, nr. 48 refers to Knorr (1757-73) (not of
Linnaeus).
Luevichlamys squamosa (Gmelin); Raines & Poppe, 2006: 208, pl. 151 figs
1-3, 5-6, pl. 152 figs 1-7, pl. 296 fig. 2.

Remarks. — The figured specimen of plate 11 is named by Knorr "Punctirte Mentelmuschel", in the Dutch edition "Gestippelde Mantel" and in the French edition "Mantel pointillé". It is referred to *O. varia* in the systematic list and also Born (1778, 1780) and Gmelin (1791) determined

Knorr's figure as a specimen of *O. varia*. However, the nearly smooth surface of the right valve and the brown-yellow graining are typical characters for the present species.

This species occurs in the tropical Indo-West Pacific. Its current name is *Laevichlamys squamosa* (Gmelin, 1791).

Ostrea obliterata Linnaeus, 1758 (Fig. 49)

Knorr, 1757-73 [German edition]: part 5, 33, pl. 21 fig. 6.

Knorr, 1760-73 [French edition]: part 5, 35, pl. 21 fig. 6.

Knorr, 1770-75 [Dutch edition]: part 5, 53, pl. 21 fig. 6.

Ostrea obliterata Linnaeus, 1758: 697, nr. 160; Dijkstra, 1999: 400, figs 9A,

B.

Dentamussium obliteratum (Linnaeus); Raines & Poppe, 2006: 140, pl. 88
figs 1-5.

Remarks. — The specimen on plate 21 is named by Knorr "Rothstrahlche Compasmuschel", in the Dutch edition "Rood Gestraalde Kompas-Schulp" and in the French edition "Eventail à rayes rouges". It is referred to *Ostrea pleuronectes* Linnaeus, 1758. Gmelin (1791) also determined this specimen as *O. pleuronectes*. However, the red radial bands on the left valve are typical for the present species and lacking in *O. pleuronectes*.

This species occurs in the tropical western and southwestern Pacific. Its current name is *Dentamussium obliteratum* (Linnaeus, 1758).

Ostrea multistriata Poli, 1795 (Fig. 48)

Knorr, 1757-73 [German edition]: part 5, 44, pl. 28 fig. 3.

Knorr, 1760-73 [French edition]: part 5, 45, pl. 28 fig. 3.

Knorr, 1770-75 [Dutch edition]: part 5, 60, pl. 28 fig. 3.

Ostrea multistriata Poli, 1795: 164, pl. 28 fig. 14.

Talochlamys multistriata (Poli); Raines & Poppe, 2006: 288, pl. 238 figs 1-7.

Remarks. — The specimen of plate 28 is named by Knorr "Der gefleckte Mantel", in the Dutch edition "Gevlakt Manteltje" and in the French edition "Manteau tacheté". It is attributed to *O. pusio* Linnaeus, 1758, in Knorr's systematic list and also Gmelin (1791) determined Knorr's figure as a specimen of *O. pusio*.

The figured right valve (ca. 28 mm in height) is too large for a regularly grown specimen of *O. pusio*. Specimens of that size are cemented to hard substrates (after ca. 15 mm in height) and irregular in shape. The posterior auricle is nearly absent in *O. multistriata* as shown on the figure. It is closest to the present species.

This species occurs in the Mediterranean Sea southwards to South Africa. Its current name is *Talochlamys multistriata* (Poli, 1795).

DISCUSSION

In each of the three editions of the "Vergnügen" 49 pectinid specimens are described and figured on 34 plates (part 1: 7 plates, part 2: 11 plates, part 3: 2 plates, part 4: 2 plates, part 5: 9 plates, part 6: 3 plates). The arrangement of the specimens is random and the description more or less in the style of Rumphius (1705). The described and figured pectinids represent 20 species (13 described by Linnaeus, 1 by Müller, 4 by Gmelin, and 2 by Poli): *Ostrea glabra* Linnaeus, 1758; *O. jacobaea* Linnaeus, 1758; *O. maxima* Linnaeus, 1758; *Ostrea nodosa* Linnaeus, 1758; *Ostrea obliterata* Linnaeus, 1758; *Ostrea opercularis* Linnaeus, 1758; *Ostrea pallium* Linnaeus, 1758; *Ostrea pleuronectes* Linnaeus, 1758; *Ostrea plica* Linnaeus, 1758; *Ostrea radula* Linnaeus, 1758; *Ostrea sanguinea* Linnaeus, 1758; *Ostrea varia* Linnaeus, 1758; *Ostrea ziczac* Linnaeus, 1758; *Pecten islandicus* Müller, 1776; *Ostrea flabellum* Gmelin, 1791; *Ostrea histrionica* Gmelin, 1791; *Ostrea squamosa* Gmelin, 1791; *Ostrea tranquebaria* Gmelin, 1791; *Ostrea flexuosa* Poli, 1795; *Ostrea multistriata* Poli, 1795.

Seven species figured by Knorr were validly described afterwards, viz. *Pecten islandicus* Müller, 1776; *Ostrea undata* Born, 1778; *Ostrea flabellum* Gmelin, 1791; *Ostrea histrionica* Gmelin, 1791; *Ostrea squamosa* Gmelin, 1791; *Ostrea flexuosa* Poli, 1795; *Ostrea multistriata* Poli, 1795.

The following illustrations in Knorr's "Vergnügen" illustrate specimens of the type series: *Ostrea cinnabrina* Born, 1778 - Knorr: part 5, pl. 15 fig. 1; *O. maculata* Born, 1778 - Knorr: part 2, pl. 18 fig. 5; *Ostrea coarctata* Born, 1778 - Knorr: part 2, pl. 21 fig. 5; *Ostrea undata* Born, 1778 - Knorr: part 2, pl. 4 figs 2, 3; *Ostrea subrotunda* Gmelin, 1791 - Knorr: part 2, pl. 19 fig. 4; *Ostrea maculosa* Gmelin, 1791 - Knorr: part 2, pl.

19 fig. 5; *Ostrea histrionica* Gmelin, 1791 - Knorr: part 4, pl. 12 fig. 3; *Ostrea tranquebaria* Gmelin, 1791 - Knorr: part 2, pl. 4 figs 2, 3; *Ostrea palliata* Gmelin, 1791 - Knorr: part 1, pl. 19 fig. 2; *Ostrea seminuda* Gmelin, 1791 - Knorr: part 6, pl. 9 fig. 4.

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REFERENCES

- ABBOTT, R.T. & S.P. DANCE, 1982. Compendium of seashells: i-ix, 1-411. New York.
- BONANNI, P., 1681. Ricreazione dell' occhio e della mente nell' osservazione delle chiocciole, proposta a' curiosi delle opere della natura, [...]: [1-14], 1-384, [1-15]. Romae [Rome].
- BONANNI, P., 1709. Musaeum Kircherianum, sive Musæum a P. Athanasio Kirchero in Collegio Romano Societatis Jesu jam pridem incopertum, nuper restitutum, auctum, descriptum, & iconibus illustratum. Plachi: [1-10], 1-522. Romae [Rome].
- BORN, I. VON, 1778. Index rerum naturalium Musei Caesarei Vindobonensis. Pars I. Testacea. Kraus: [i-xlii], 1-458, [1-82]. Vindobonae [Vienna].
- BORN, I. VON, 1780. Testacea Musei Caesarei Vindobonensis, quae jussu Mariae Theresiae disposita et descripta. Kraus: i-xxxvi, 1-442, [1-17]. Vindobonae [Vienna].
- CHEMNITZ, J. H., 1780-1795. Neues systematisches Conchylien Cabinet, vol. 4 (1780): [1-24], 1-344; vol. 5 (1780): [1-20], 1-324; vol. 6 (1781): [1-12], 1-375; vol. 7 (1782): [1-12], 1-356; vol. 8 (1784): [1-16], 1-372; vol. 9(1) (1785): [1-12], 1-151; vol. 9(2) (1786): i-xxvi, 1-194; vol. 10 (1786): [1-20], 1-376; vol. 11 (1788): [1-20], 1-310. Nürnberg. Also, see F.H.W. Martini.
- DEZALIER D'ARGENVILLE, A.J., 1742. L'Histoire naturelle éclaircie dans deuxde ses parties principales, la Lithologie et la Conchyliologie dont l'une traite des Pierres et l'autre des Coquillages: [1-8], 1-491, [1-28]. Paris.
- DIJKSTRA, H.H., 1999. Type specimens of Pectinidae (Mollusca: Bivalvia) described by Linnaeus (1758-1771). – Zoological Journal of the Linnean Society 125: 383-443.
- DIJKSTRA, H.H., 2009. Type specimens of Pectinidae (Mollusca: Bivalvia) described by Ignaz von Born (1778 - 1780). – Basteria 73: 99-116.
- FORSKÅL, P., 1775. Descriptiones animalium avium, amphibiorum, pis- cium, insectorum, vermium; quae in itinere orientali observavit Petrus Forskål. Prof. Haun. Post mortem auctoris edidit Carsten Niebuhr: i-xxxiv, 1-140. Copenhagen. [Preface by Niebuhr, 19 pp.].
- GMELIN, J.F., 1791. Caroli a Linnaeus Systema Naturae per regna tria nat- urae. Editio decima tertia, vol.1, pt. 6 (Vermes): 3021-3910. Lipsiae [Leipzig].
- GUALTIERI, N., 1742. Index Testarum Conchyliorum quae adservantur in Museo Nicolai Gualtieri [...] et methodice distributae exhibentur tabulis CX: 1-23. Florentiae [Florence].
- HOUTTUYN, F., 1771. Natuurlyke historie of uitvoerige beschryving der dieren, planten en mineraalen, volgens het samenstel van den heer Linnaeus, eerste deels, vyftiende stuk, de schulpdieren: [i-iv], [1]-458. Amsterdam.
- ICZN, 1999 (4th ed.). International Code of Zoological Nomenclature: i- xxix, 1-306. London.
- KNORR, G.W., 1754-1766. Deliciae naturae selectae, oder auserlesenes Naturalien-Cabinet, welches aus den drey Reichen der Natur zeiget, was von curiösen Liebhabern aufbehalten und gesammlet zu werden verdienet [...] beschr. von Phil. Ludw. Statius Müller, und in das Franz. übers. von Mathias Verdier de la Blaquièrre, vol. 1: [1-26], [i]-viii, [1]-132; vol. 2: [1-4], [i]-xix, [1], [1]-144. Norimberga [Neuemberg].
- KNORR, G.W., 1757-1773. Vergnügen der Augen und des Gemüths, in

- Vorstellung einer allgemeinen Sammlung von (Schnecken und) Muscheln und andern Geschöpfen, welche im Meer gefunden werden. (Beschrieben von Ph. L. St. Müller und 4–6: M. Houttuyn), part 1 (1757 title, 1756 preface): [1–2], 1–39, 1–7; part 2 (1764): 1–56, [1–16]; part 3 (1768): 1–52; part 4 (1769): 1–48, [1–14], 1–23; part 5 (1771): 1–46; part 6 (1772 title page, preface, 1773 frontis): 1–76, 1–18, 1–11. Nürnberg.
- KNORR, G.W., 1757–1773. Vergnügen der Augen und des Gemüths, in Vorstellung einer allgemeinen Sammlung von (Schnecken und) Muscheln und andern Geschöpfen, welche im Meer gefunden werden, part 1 (1757 title, 1756 preface): [1–7], 1–39, 1–7; part 2 (1764): 1–56, [1–16]; part 3 (1768): 1–52; part 4 (1769): 1–48, [1–16]; part 5 (1771): 1–46, 1–23; part 6 (1772 title page, preface, 1773 frontis): 1–76, 1–18, 1–11, 1–100. Nürnberg. [Fascimile reprint of *Fines Mundi*, Saarbrücken].
- KNORR, G.W., 1760–1773. Les délices des yeux et de l'esprit, ou collection générale des différentes espèces de coquillages que la mer renferme, [...], part 1: [3–4], [5]–52; part 2: [3–4], [5]–65; part 3: [3–4], [5]–55; part 4: [3–4], [5]–54, [i–xiv], [1]–4, [5]–24; part 5: [3–4], [1]–11, [1]–18, [5]–48; part 6: [3–4], [5]–76. Nuremberg.
- KNORR, G.W., 1770–1775. Verlustiging der oogen en van den geest, of verzameling van allerley bekende Hooren en Schulpen, die in haar eigen kleuren afgebeeld zyn. Thans nagezien, verbeterd, vervolgd, en met een geheel nieuwe nederduitsche beschryving uitgegeven, part 1 (1770): Voorrede [3–6], Berigt [7–10], [1]–44; part 2 (1771): 45–82; part 3 (1772): 83–118; part 4 (1773): [1]–34; part 5 (1774): 35–62; part 6 (1775): 63–[118]; Syst. Bladwyzer [1–14]; Bladwyzer [1–10]. Amsterdam.
- KNORR, G.W., 1771. Deliciae naturae selectae, of uitgeleezen kabinet van natuurlyke zeldzaamheden; welke drie ryken der natuur aangebieden, om door keurige liefhebberen verzameld te worden, [...] in het nederduitsch overgezet en met aanmerkingen vermeerderd door Philip Ludwig Statius Müller, [...], vol. 1: [1–6], [I]–XXXII, [1]–67, [1]; vol. 2: [1–2], [I]–XXXIV, [1]–70. Dordrecht.
- KNORR, G.W., 1779. Délices de la nature, ou choix de tout ce que les trois règnes de la nature renferment de plus digne de recherches d'un curieux pour en former un Cabinet, [...] avec les descriptions et remarques de Philippe Louis Statius Müller. Revu, corrigé et augmenté d'une préface par Mr. Jean Ernest Emanuel Walch. Traduit de l'Allemand par Jaques Frederic Isenflamm [...], vol. 1: i–xiv, 1–96; vol. 2: i–xx, 1–108, [1–4]. Nuremberg.
- LINNAEUS, C., 1758. Systema Naturae per regna tria naturae. Editio decima, reformata, vol. 1, Regnum animale: 1–824. Holmiae [Stockholm].
- LINNAEUS, C., 1767. Systema Naturae per regna tria naturae. Editio duodecima reformata, vol. 1(2), Regnum animale: 533–1327. Holmiae [Stockholm].
- MARTINI, F.H.W., 1769–77. Neues systematisches Conchylien Cabinet, vol. 1 (1769): [1–18], i–xxviii, 1–408; vol. 2: [1–6], i–xvi, 1–362; vol. 3 (1777): [1–6], i–vi, 1–434. [continued by J.H. Chemnitz, q.v.]. Nürnberg.
- MARTYN, T., 1784–87. The universal conchologist, vols 1, 2 (1784): 1–39, pls 1–80; vol. 3 (1786): pls 81–120; vol. 4 (1787): pls 121–160. London.
- MÜLLER, O.F., 1776. Zoologiae Danicae Prodromus, seu Animalium Daniae et Norvegiae Indigenarum, characteres, nomina, et synonyma imprimis popularium. Hallageris: i–xxxii, 1–282. Havniae [Copenhagen].
- POLI, G.S., 1791–1795. Testacea utriusque Siciliae eorumque historia et anatome, vol. 1 (1791): i–iv, i–x, 1–90, 1–50, 1–74, i–lxxxiii; vol. 2 (1795): 75–264, lxxvi. Parmae [Parma].
- RAINES, B.K. & G.T. POPPE, 2006. A conchological iconography. The family Pectinidae: 1–402. Hackenheim.
- RÖDING, P.F., 1798. Museum Boltenianum sive catalogus cimeliorum e tribus regnis naturae quae olim collegerat Joa. Fried. Bolten [...] Pars secunda continens conchylia sive testacea univalvia, bivalvia + multivalvia: i–viii, 1–199. Hamburg.
- RONDELETIUS, G., 1558. C. Gesneri [...] Historiae Animalium [...] Liber IIII [...] Continentur in hoc volumine G. Rondeletii [...] & Bellonii [...] de Aquatilium singulis scripta: [1–4], 1–1297. Tiguri [Zurich].
- RUMPHIUS, G.E., 1705. D'Amboinsche Rariteitkamer, Behelzende eene Beschryvinge van allerhande zoo weeke als harde Schaalvisschen, te weeten raare Krabben, Kreeften, en diergelyke Zeedieren, als mede allerhande Hoornjes en Schulpen, die men in d'Amboinsche Zee vindt: Daar beneven zommige Mineraalen, Gesteenten, en soorten van Aarde, die in d'Amboinsche, en zommige omleggende Eilanden gevonden worden: [1–28], 1–340, [1–43]. Amsterdam.
- SCHEUCHZER, J.J., 1731–1735. Kupfer-Bibel, in welcher die Physica Sacra, oder geheilige Natur-Wissenschaft derer in heil. Schrifft vorkommenden natürlichen sachen, deutlich erklart und bewahrt [...]: pls 1–760. Augsburg.
- SCHREIBERS, K., 1793. Versuch einer vollständigen Conchylienkenntniss nach Linnes System, Zweyter Band: 1–317. Wien [Vienna].
- SCHRÖTER, J.S., 1783–1786. Einleitung in die Conchylien-Kenntniss nach Linné, vol. 1: i–xxxii, 1–860, [1–2]; vol. 2: i–viii, 1–726; vol. 3: i–xvi, 1–

595. Halle.

SEBA, A., 1734-1765. Locupletissimi rerum naturalium thesauri accurata
descriptio et iconibus artificiosissimis expressio, [...]. Naukeurige

Beschrijving van het schatrijke Kabinet der voornaamste Seldza-
mheden der Natuur [...]: pls 1-449. Amstelaedami [Amsterdam].