



## Philosophical Transactions

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I. *An Account of Animals and Shells sent from Carolina to Mr James Petiver, F. R. S.*

SECT. I. *The Crustaceous Animals are,*

1. **T**He Thorny-edged CAROLINA Crab.  
Cancer CAROLINIANUS marginibus spinosis. *an Guaja alia species* Marcgr. 182. fig. 183. 1? *an Pagurus Reidjungan* Rumph. Hist. Nat. Amboinæ p. 11. c. 8. Tab. 7. Fig. R?

*Each side of this Crab is arm'd with a strait and strong Thorn, the Edges from thence to its Mouth is beset with many smaller, as are some parts of the Claws, particularly next the Body; its Back is variously ponnct with Sand like Warts, which, with other particulars, will be best understood by its Figure, which I design in my 3d, if not in my 2d Book of Decades. This Crab our Worthy Friend Dr Litter, her Majesty's Physician, was pleas'd to give me.*

2. The red blotted CAROLINA Crab.

Cancer CAROL. lituris eleganter rubris GAZOPHIL. NAT. Tab. Fig. *an Cancer, marinus lævis* Rumph. Hist. N. Amboin. p. 10. c. 7. 1. Tab. 6. Fig. N? *The variable spots on the back of this are more easily known by the Figure I have given of it than can be exprest in words.*

3. Cancer *an* CAROL. ruber, vermiculis quasi, maculisque pallefcenribus. *Its Back is red like a boiled Lobster, and intersperst with small pale spots, and intorted ramifications, resembling our White Falmouth Corall, but much lesser,*  
tho

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tho in some places more branched. I take this to be a Carolina Crab, but are not certain, however in the interim it may be distinguished by the name of the Vermicular Red Crab.

4. The 5 holed CAROLINA Sea-Urchin or Fritter: Echinus compressus CAROL. &c. Musci Nost. 125. Fig.

This is a very singular Animal, having 5 oblong perforations thro the body of the Shell, viz. 4 against as many points of a 5 ray'd Star, lying in the midst of the Shell; the other is placed between two of its beams, as may be plainly seen and understood by my Figure: these are of different magnitudes, having seen them from less than 2 inches to almost 4 diameter, and this last, in the midst, where its thickest exceeds not half an inch, and gradually to its edges, which are thinner than a Shilling.

I am obliged to my very generous Friend Dr Lister for the first of these wonderful Animals, and very lately to Madam Williams, a Gentlewoman whom I am also highly obliged to, for most of the following Shells, viz.

SECT. II. Bivalves, of which kind are Schollops, Cockles, Oysters, Muscles, &c. in mentioning these and other Tribes, I shall follow the accurate Order of Dr Lister's *History of Shells*.

5. Mytulus CAROLIN. latus striis rugosis.

An *Pectunculus strijs planis & dentatis insignitus* Lister Hist. Conchyl. L. 16. 3. Tab. 242. Fig. 79? These vary in bigness; a valve of the largest, which was 2 inches long and three quarters broad, weighed 3lijs. The Nose lies in the midst of its hinge; the Striae are flat and milled, like the edges of a new Shilling: each Valve is flattish at one end, and composed of about 8 furrows. My late kind Friend Mr Robert Ruthertord I am obliged to for the first of these Shells.

6. Mytulus JAMAICENSIS Pectunculi nostri esculenti facientis. Pectunculus dense striatus, margine fere inaequali & sinuosa List. Conch. L. 3. Tab. 229. Fig. 64.

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This is distinguished from the last in being less, having smaller Striae and smooth (much resembling our common Cockle, Mus. No. 835) but particularly in being Ear-nosed, viz. inclining more towards one end of the hinge, whereas the last was in the middle. I take the native colour of this Shell to be Chestnut, but the dead ones change black or white, as they are either dy'd in the Mud, or blancht by the Sun on the Shore.

7. Chama CAROL. levis & lævis.

All of this kind were dead Shells, so that I can say nothing of their Colour; a valve of the largest, tho 2 inches and  $\frac{2}{3}$  long and about an inch and  $\frac{3}{4}$  broad, and  $\frac{1}{2}$  inch high, weigh'd but 3j and  $\frac{1}{4}$  and 6 grains, i. e. in all 8i grains, yet some of the same dimensions weigh'd a few grains heavier.

8. Chama CAROL. parva, fascijs fere lævibus.

This Shell resembles our Nut-Muscle. Mus. no. 831. but is thicker and one end pointed; we have an English Sea Shell like this, which I may in a little time have an occasion to speak of.

9. Chama CAMPEACHEANA alba, fasciata tenuis.

*Pectunculus albus tenuis rhomboides, rarioribus fascijs exasperatus* List. H. C. L. 3. Tab. 308. Fig. 141. The white Campeachy Spoon-Muscle.

This Shell is so thin and brittle, it rarely comes to us whole. The curious Dr Lister gave the first of these, 4 August 19, 1697. and my kind Friend Mr Fifield, Surgeon, has since brought it me from the Island of Tris, and Madam Williams has now sent me one of the largest and fairest I have yet seen, the Valve 3 inches long, 2  $\frac{1}{2}$  broad and 1 deep, yet weigh'd not 3ij and 5ij.

10. Musculus BARBADENSIS exiguus, cardine ferrato.

*Musculus parvus, subluteus, angustus, leviter striatus* List. H. C. L. 3. Tab. 365. Fig. 205. The small Barbadoes Muscle. This is a deep, thin, light, small, finely striated Shell; a pair of the largest was but an inch long,  $\frac{1}{2}$  inch broad, and both valves not  $\frac{1}{2}$  inch deep, weigh'd scarce 6 grains; by these

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these marks and its long notched hinge, it's easily known from most others.

11. *Musculus* CAROLIN. albus, fasciatus.

11

The Figure of Dr Lister's Jamaica *Tellina tenuis* ad umbonem extra maxima rubescente L. H. C. l. 3. Tab. 397. Fig. 236. in bigness, shape, thinness and fasciæ very well resembles this Shell, which is somewhat narrower, and I meet with none of that redness he speaks of; the most lively have a yellowish cast within. A Valve of 3 inches and  $\frac{1}{2}$ , long and near  $1\frac{1}{2}$  broad, weighs but little more than a dram; it's very shallow, viz. about  $\frac{1}{8}$  of an inch deep.

12. *Musculus* albus JAMAICENSIS splendens radiis rubris.

12

*Tellina magna* albida ex rubro late radiata L. H. C. l. 3. Tab. 393. Fig. 240. The red Beam'd Jamaica Muscle.

This elegant Shell Mr Charles Dell sent me once from the Lands-end of Cornwall, after that Major Halstead brought it me from Carolina, and Mrs Rachel Chapman lately from Antegoa. I have a fair little pair, which weighs but 7 grains, and the half of another, viz. one Valve, which weighs 127. This last is near 3 inches and  $\frac{1}{2}$  long, and  $\frac{3}{4}$  broad, and little more than  $\frac{1}{2}$  inch deep: the dead Shells are white and shining, the others have red beams, which shoot from the hinge, and are broader at the edges; these are sometimes more conspicuous within than without; the last red, that decays in this Shell, is the Nose of its Hinge.

13. *Musculus* CAROLIN. angustus. an *Tellina* alia Brasiliiana Bonan. Conchyl. p. 163. Fig. 353?

13

This seems to be very well express'd in Dr Lister's History under the name of *Chama angustior* ex altera parte sinuosa L. H. C. l. 3. Tab. 421. Fig. 275. who had it from Barbadoes. I have not yet seen it from thence, but have this to say of ours, viz. I find it of differing sizes, the common or middling is 3 inches long and above one broad, (I always mean where widest) the depth of a single Valve not  $\frac{1}{2}$ , all of which size weigh more than 3j, some heavier, but none less.

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14. CAROLINA. Dish Cockle, *Mus. Nost.* 383. *Ist.* H. C. l. 3. Tab. 328. Fig. 165.

I have a fair pair of these, near 4 inches between the sides; and  $4\frac{1}{2}$  from head to tip, the Shell 3 inches and  $\frac{1}{2}$  high, yet weigh'd not 6 Ounces. A single Valve of a larger I have which weighs  $\frac{3}{4}$ , and will contain half a pint of Water; it may conveniently be used for a drinking Cup or Porringer, and tho a thin light Shell, yet not easily broken.

15

15. CAROLINA Egg-Cockle. From its shape, smoothness and colour, the largest of these may be somewhat bigger than a Hens Egg, and decline gradually to the smallness of a Nutmeg. They are pretty slick white Shells, and may serve for Dram Cups, &c. Mrs Rachel Chapman brought me this from Antegoa; they are also found on the other Islands, as well as on the Continent, from whence Major Halstead hath obliged me with it. *Mus. Nost.* 840. L. H. C. l. 3. Tab. 249. Fig. 83.

16

16. VIRGINIA Fritter Cockle. *Mus. nost* 842.

Dr Lister in his *Hist. Conchyl.* L. 3. Tab. 288. has given a very exact Figure of this Shell; it's round, flat and fine girdled; the common size is of the following dimensions, viz. from head to the opposite edge 2 inches and  $\frac{1}{2}$ , and from side to side  $2\frac{1}{2}$ . The whole Shell wants of  $\frac{3}{4}$  and  $\frac{1}{4}$ , and is not an inch high.

17

17. *Pectuncellus* BRASILIANUS, albus, undis capillaceis majoribus. *Pectunculus* parvus albus, profundior tenuiter undatus L. H. C. l. 3. Tab. 301. Fig. 142. an *Tellina* *Brasiliana* lactea Bonan. *Hist. Conchyl.* 163. Fig. 349. The white *Brasile* File.

I have not yet seen them so large as Bonanni's Figure represent. Dr Lister's Icon, which is very good, is as big as we generally meet them; this is distinguished from the next in being somewhat a thicker and higher shell, the undulated Striæ much larger and very constant.

18

18. *Pectuncellus* JAMAICA. rufescens, undis capillaceis tenuissimis. *Pectunculus* tenuis tubruber, minutissimis striis

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striis undatis exaratus L. H. C. l. 3. Tab. 339. Fig. 176.  
The fine bluish Jamaica File.

This Shell must be strongly viewed to discover the elegant fineness of its waved striæ, resembling the finest File I ever saw.

19. *Tellina parva radiata* &c. GAZOPHYL. NATUR. Tab. 18. Fig. 4. The *Dominico* Tellen. From the plenty of them on the South part of that Island, where Mr James Penman found them, and it was the only Shell that Shoar abounded with. They rarely exceed an inch in length, and half that in breadth, and such a Valve weighs but ʒʒ. The fair ones of these are pretty Shells, and frequently found in Rock-work.

19

20. *Pholas CAMPECHEANUS angustus, muriculatus, cardine foraminoso nobis.* *Pholas angustus albus, strijs tenuibus exasperatus* L. H. C. l. 3. Tab. 432. Fig. 275. whose Figure represents the right Valve, viz. that, that holding the outer part upwards, has its hinge, as you look on it in that posture, against your Right hand; but what is strange, I have not one Shell on that side the Icon represents it, amongst 20 others, and therefore probably the Dr's Figure may be reversed from one of these. The largest Valve I have yet met with is about 4 inches and  $\frac{1}{2}$  long, and 1 and  $\frac{1}{4}$  where the broadest, viz. cross the hinge, whose external holes in one of this proportion takes up an inch exactly, and they are generally about 12 in most sizes; internally from the midst of this, a thin furrowed lappet exerts itself near  $\frac{1}{4}$  of an inch from the side of the Shell, by reason of which standing out, it's easily broken, and therefore not always met with. This Valve wanted about ʒʒ of 2 drams. They are very thin, and no less brittle.

20

21. *Pholas VIRGINIANA.* List. H. C. l. 3. Tab. 434. fig. 277.

21

This is as thin as the last, tho much larger, viz. One which Mr Parke brought me from Virginia was 5 inches and a half long, and 2 cross the hinge broad, yet weighed not quite ʒʒ. This has the internal cardos hanging like the

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last

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last, but herein it chiefly differs, that it's lunular Murices ar much larger, and in the place where the outer hinge was perforated, this is supplied by one channel.

22

22. *Pholas* CAROLIN. e capite tantum muricatus, caridine ferè bidente. *Nob.* an *Pholas* albus angustus ad dimidium fere dorfi lævis *List* H.C. l. 3. Tab. 431 Fig. 274? *Whose name better agrees with this Shell than the magnitude of its Figure; this has no lappet, as had the two last, but instead thereof a double-toothed hinge, which lies much nearer the end than either of the foregoing, from which part for near one third, the outer Shell is guarded with 6 or 8 more elevated lines than the rest of the Shell, whose other Striæ are thicker yet, and very little; by which, and its smallness, it's from the others easily distinguishable, the largest Valve I have yet met with wants of 2 inches in length, and exceeds not 7 where broadest, and weighs but 15 grains.*

23

23 *Pinna* CAROLIN. maxima lata, muricibus plurimis lunulatis *Dr Lister has given a very exact Figure both for shape and magnitude of this elegant Shell, Tab. 372. Fig. 213. A Valve of which Major Halstead brought me from Carolina; it's very large, viz. 9 inches long, and 5 where broadest, yet weighs but 2 ounces and  $\frac{1}{4}$ , being very thin and brittle, these lunular protuberances hold a sort of circular or fasciated order, and at the same a striated one also, these decay, as most others of this kind do where they approach the tip or hinge; the outer Coat of this is apt to peel off, which under it discovers a dark shining Mother of Pearl, like that within, and only the remains of the exterior pertuberances are to be seen: I have lately received a Mediterranean one from Father Bonanni at Rome, much resembling this, yet in some particulars differing, which I may have occasion suddenly to shew.*

24

24. *Pinna* CAROL. minor prætenuis, tubulis lunulisque majoribus armata. *This is lesser and thinner than the last, it's externally piped towards the Mouth, and above these lunulated, they are thinner set, as the Striæ are; brought me by the same hand with the last.*

25. *Pinna*



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25. *Pinna* CAROL. crassior, fulcata.

25

*This is apt to peel as No 23. especially the dead Shells, what its outward coat may be I am yet to learn. Madam Williams, from whom I received this, will I hope by the next send me them entire, and then I shall be the better able to say more of them.*

Sect. III. The following are single Shells.

26. *Patella lingualis* CAROL. major lævis. an *Patella* 26  
*crassa, maculis exiguis rufis distincta* List. H. C. l. 4. S. 1.  
Tab. 545. fig. 33? *The first and largest of this kind was several years since given me by Mrs Danson, who told me she had it from the West Indies, and I believe from her Father Mr John Archde. my very good Friend, who was then Governour of Carolina, and I am the rather inclined to believe it, because Madam Williams has now sent me several of the same, tho less, from that place.*

*I add Lingualis to this sort of Patella (till others give it a better Epithet) to distinguish it from the common sorts, because this has a Tongue like intersepimentum almost covering half the inside of the shell, resembling the head of a Canow.*

B. N.

27. *Patella lingualis* CAROL. compressa.  
an *Patella alba compressa lævis* L. H. C. l. 4. S. 1. Tab. 545.  
Fig. 37 ?

27

*This is a lesser and much flatter Shell than the last, and the Tongue more elevated; I have observed this with some Ballani, sticking to a large Heterotrophon Shell brought me from the Island of Trinis in the West Indies.*

28. *Cochlea* CAROL. aurita, fasciis catenatis nigricantibus, undis fulcis interpositis. an *C. fusca*, cujus lineas spirales aliquot albicantes interfecant characteres quidam nigri L. H. C. l. 4. S. 5. Tab. 560. Fig. 4. operculo ejus striato? an Rumph. Tab. 19. Fig. 5? *The Welsh-pot Shell. The fairest and largest I ever yet saw, my hearty Friend Mr Edm. Bohun brought me from Carolina, it weigh'd above 5 drams,*  
whereas

28

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whereas the common size weigh not two ; its spots and waves very much resembles the colours on the common Welsh-ware or Pots.

29 29. *Cochlea* CAROL. aure magno, fusco.

This is distinguished from all others I have yet met with, by the largeness of its Ear, viz. a protuberance resembling that part, in the Navel of the Shell, which in all live ones shew that part more or less brown, the biggest I have yet met with weigh'd near 3vi ; the common size about half the weight.

30 30. *Perficoides* CAROL. claviculâ, gyrâ altè incisâ.

The Shell most nearly resembling this in all Dr Lister's History is Figur'd in his 4th Book and 13th Section, No I. were it not that the Clavicula of ours is much flatter and shorter, with a deep indented coyl.

31 31. *Buccinum* CAROLIN. (an *fluviatile*) ovale.

I found this Shell amongst some Fossils, &c. which my curious Friend Mr Job Lord sent me not long since from Carolina ; the same Dr Lister, my worthy Patron, gave me some years since with the proofs of two new Plates to his Appendix ad Histor. Conchyl. in one of which he hath Figured it with this inscription, of his own writing, è Flumine CAROLINÆ.

32 32. *Buccinum* CAROL. ampullaceum, striis castaneis, fasciis muricatis, majus.

Dr Lister has given a Figure, Tab. 83o. which seems very much to represent this, excepting that his Murices are not so large as ours ; perhaps the Shell from whence he took his Figure might have them worn off, yet sometimes in these bigger Shells you may observe them threefold, one distinctly over the other, which casing is also seen on the right lip of the Shell, as the Dr's Figure has very well observed : Whether these be annual protrusions or growths, I dare not yet determine. The largest of this kind I have yet met with, abated but 3j of a pound.

33 33. *Buccinum* CAROL. ampullaceum striis castaneis, fasciis muricatis minus.

In one of the Editions of Dr Lister his curious History of Shells, Lib 4. Sect. 13. he has given an Accurate Figure of this smaller sort, under Cap. 1. De Buccinis ampullaceis ævi-  
bus aut certe minus æperis, and indeed while these are young they may deserve that character; amongst several Mad. Williams sent me of divers magnitudes, the least was the most beautiful Shell, its basis white, the edge of each Coat shaded with brown, having a white girdle cross the middle of the upper orb or round: This weighs but 3ij, and I have traced them to be the same even to the last, which weigh'd near a pound. I observe the largest to be less beautiful, which may proceed from their age and decay.

34. *Buccinum ampullaceum strijs Castaneis, fascijs muricatis majus heterostrophon, ex Insula Criff.* 34

This differs from the next no otherwise than No 32 did from the last, viz. in bigness, for that reason I insert it here, tho I have as yet received it from the Island of Tris only, from whence it was brought me by my Kind Friend Mr Fireild, Surgeon, now living at Rumford in Essex: Dr Lister confirms me also in my opinion, by giving a Figure of this great sort, Tab. 908. N 28. and says it's the same with the last, viz. the next, this weighs one pound and near 3 qrs.

35. *Buccinum CAMPEACHIANUM ampullaceum, strijs Castaneis fascijs muricatis, minus, heterostrophon.* 35  
*Buccinum ampull. striatum muricatum item radiatum ex fusco* List. H. C. l. 4. S. 13. Fig. opt. 27. Tab. 907. To which he adds this comment, *Purpura marina exotica eaq; sola Cochlea è Marinis est, quantum hastenus vidi quæ, deatra sinistrorsum torquetur.* This differs nothing from No 33. but in the rarity of its Mouth's place, this facing the Right hand, whereas all other Shells (a few excepted) incline to the Left. The Reverend Mr Stonestreet first gave me this rare Shell, and now Madam Williams another, it being the only one amongst near half a score of the other-Mouth'd.

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Sect. IV. *The following are Fossils sent me from thence.*

36      36. *Glossopetra* CAROL. maxima nigrescens ponderosa.  
*This is one of the largest I have yet seen, being above three inches from the tip to the hollow or middle of the Root ; this last part is very large and protuberant, the Teeth black, sm. oth on the edges, but in the middle much furrow'd ; the whole very weighty.*

37      37. *Glossopetra* CAROLIN. leviter serrata é nigro rubroque éleganter variegata.

*This is almost a straight Tooth, i. e: very little waving to either side, as most of them more or less do, its edges are rather pounc't than notch'd, from tip to the middle of the Root near an inch and half ; its Toothy part is finely variegated with red and black.*

*For these two, with some Fossil Bones, as Vertebrae, &c. and several other Curiosities, I am oblig'd to our ingenious Friend Mr Job Lord, from whom I have receiv'd several Collections ; and am suddenly (according to advice) in expectation of more, which the Publick shall have an Account of, with the Reptiles, Lizards, Insects, &c. which Mad. Williams hath also lately sent me:*

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II. *The*