Title: Report on the Radiolaria Collected by H.M.S. Challenger During the Years 1873-1876, Plates

Author: Ernst Haeckel

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REPORT

ON THE

SCIENTIFIC RESULTS

OF THE

VOYAGE OF H.M.S. CHALLENGER

DURING THE YEARS 1873-76

UNDER THE COMMAND OF

CAPTAIN GEORGE S. NARES, R.N., F.R.S

AND THE LATE

CAPTAIN FRANK TOURLE THOMSON, R.N

PREPARED UNDER THE SUPERINTENDENCE OF

THE LATE

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DIRECTOR OF THE CIVILIAN SCIENTIFIC STAFF ON BOARD

AND NOW OF

JOHN MURRAY

ONE OF THE NATURALISTS OF THE EXPEDITION

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PLATES

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By ERNST HAECKEL, M.D., Ph.D., Professor of Zoology in the University of Jena.

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Legion SPUMELLARIA.

Order COLLOIDEA.

Family THALASSICOLLIDA.

PLATE 1.

THALASSICOLLIDA.

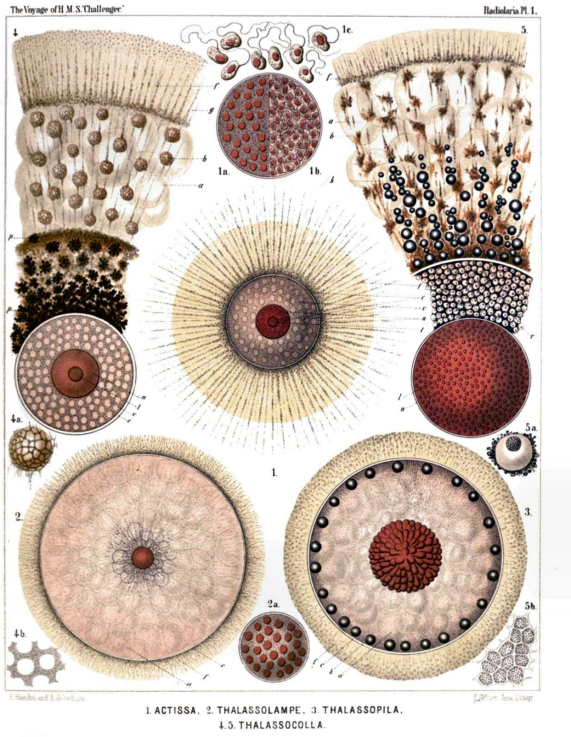

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Fig. 1. *Actissa princeps*, n. sp.,	× 300	13
The entire living Spumellarium. *c*, The spherical central capsule containing finely granulated protoplasm, which is radially striated in the cortical zone; *v*, spherical vacuoles enclosed by the protoplasm; *n*, the spherical nucleus in the centre; *l*, the concentric nucleolus; *f*, the radial pseudopodia which pierce the calymma or the (yellowish) jelly-envelope of the central capsule and arise from the granular sarcomatrix.		
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The entire living Spumellarium. *c*, The big spherical central capsule; *a*, the large alveoles filling the central capsule and surrounding a central nucleus; *f*, the pseudopodia piercing the extracapsular calymma.		
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Fig. 5*b*. A piece of the central capsule,	× 600	

PLATE **2**.

Legion SPUMELLARIA.

Order BELOIDEA.

Family THALASSOSPHÆRIDA.

PLATE 2.

Diam. Page.

Fig. 1. *Lampoxanthium pandora*, n. sp., × 120 38

The central capsule exhibits distinct pore-canals in its membrane, and a clear interval between this and the coagulated and vacuolated protoplasm. The central nucleus contains numerous dark nucleoli. The spicula are scattered throughout the alveolate calymma.

Fig. 2. *Thalassoplancta brevispicula*, n. sp. (vel *Lampoxanthium brevispiculum*), × 120 36

The central capsule contains numerous clear vacuoles, and in the cortical zone a layer of large oil-globules. The central nucleus includes numerous dark nucleoli. The calymma is alveolate. The spicula lie only in the cortical zone.

Fig. 3. *Thalassoxanthium cervicorne*, n. sp., × 300 33

The central capsule is filled up by clear vacuoles and contains a large central nucleus, with a single nucleolus. The spicula surround the thin calymma.

Fig. 4. *Thalassoxanthium cervicorne*, n. sp., × 600 33

A single spiculum.

Fig. 5. *Thalassoxanthium medusinum*, n. sp., × 120 32

The central capsule is filled up by clear vacuoles and contains on its cortical zone a layer of large oil-globules. The central nucleus contains numerous dark nucleoli. The calymma is radially striped, contains numerous small xanthellæ, and is surrounded by the spicula.

Fig. 6. *Thalassoxanthium octoceras*, n. sp., × 400 34

Three isolated spicula.

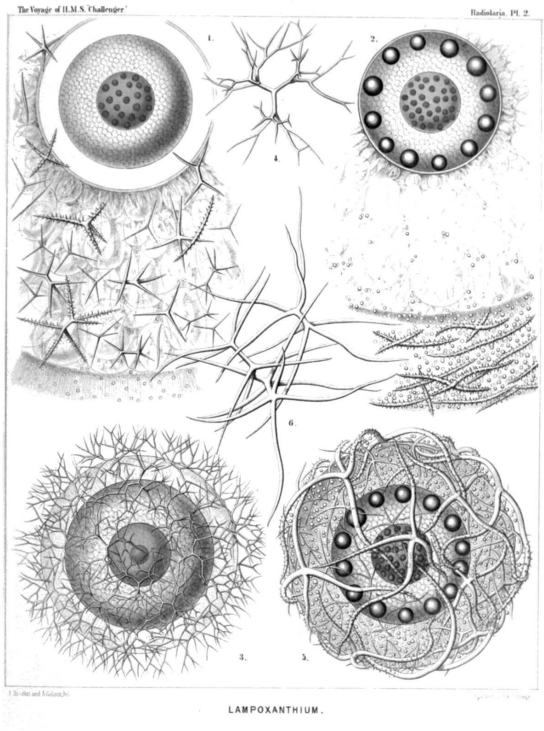

PLATE **3**.

Legion SPUMELLARIA.

Order COLLOIDEA.

Family COLLOZOIDA.

PLATE 3.

COLLOZOIDA.

Diam. Page.

Fig. 1. *Collozoum serpentinum*, n sp (vel *Collophidium serpentinum*, Hkl), × 10 26

A living cœnobium, with expanded pseudopodia. The spherical calymma (or the common jelly-mass of the colony) is alveolate and contains numerous cylindrical, serpentine, central capsules. Numerous yellow cells or xanthellæ are scattered between the radial pseudopodia in the periphery.

Fig. 2. *Collozoum serpentinum*, n. sp., × 50 26

An isolated, cylindrical, worm-shaped, central capsule, with an axial series of oil-globules; the red points are nuclei.

Fig. 3. *Collozoum serpentinum*, n. sp., × 150 26

An isolated, cylindrical, serpentine, central capsule. *k*, Oil-globules forming an axial series; *n*, densely placed, red-coloured nuclei;, *c*, the capsule membrane under which are scattered small black pigment spots in the colourless cortical zone of the endoplasm; *a*, extracapsular alveoles; *x*, xanthellæ or "yellow cells."

Fig. 4. *Collozoum amœboides*, n. sp., × 100 28

A spherical cœnobium or jelly-colony. Each amœboid central capsule contains an oil-globule; the small red points are nuclei.

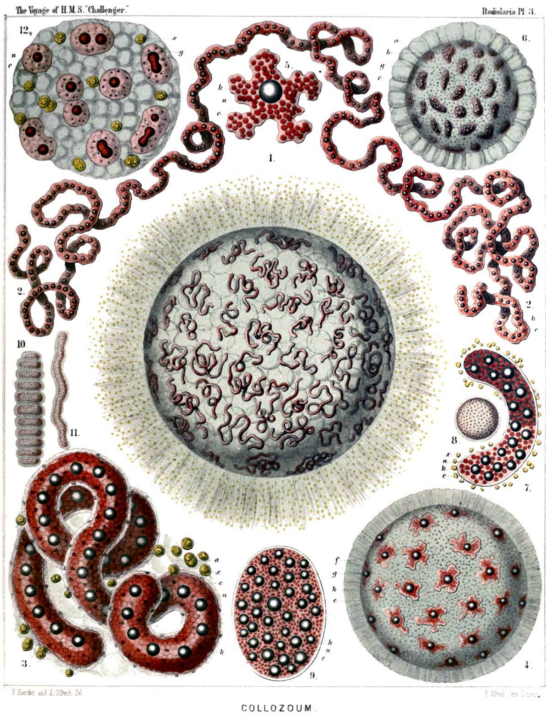

Fig. 5. *Collozoum amœboides*, n. sp., × 400 28

c, A single isolated central capsule; *n*, nuclei; *k*, oil-globule.

Fig. 6. *Collozoum vermiforme*, n. sp., × 30 27

g, A spherical cœnobium or jelly-colony; *a*, large alveoles, forming a cortical zone; *c*, central capsules; *k*, oil-globules.

Fig. 7. *Collozoum vermiforme*, n. sp., × 100 27

c, A single isolated central capsule; *x*, xanthellæ surrounding this central capsule; *k*, oil-globules; *n*, nuclei.

Fig. 8. *Collozoum ellipsoides*, n. sp., × 2 26

A spherical colony; the red points are central capsules.

Fig. 9. *Collozoum ellipsoides*, n. sp., × 150 26

c, A single isolated central capsule; *k*, oil-globules; *n*, nuclei.

Fig. 10. *Collozoum inerme*, Hkl., × 2 25

An old, cylindrical, articulated cœnobium; the red points are centralcapsules.

Fig. 11. *Collozoum inerme*, Hkl., × 2 25

A young cylindrical cœnobium; the red points are central capsules.

Fig. 12. *Collozoum inerme*, Hkl., × 400 25

A piece of a young colony with eight small central capsules, without oil-globules. *n*, The central nucleus in different stages of division. Two capsules are also dividing. *x*, Xanthellæ in the jelly-like calymma (blue), which also contains numerous vacuoles.

PLATE **4**.

Legion SPUMELLARIA.

Orders BELOIDEA.

Families Sphærozoida.

PLATE 4.

Sphærozoida

Diam. Page.

Fig. 1. *Sphærozoum trigeminum*, n. sp., × 50 43

An annular colony. The main mass of the jelly-colony is filled up by large alveoles; the entire surface is densely covered with spicula, and beyond this skeleton-cover lie the spherical central capsules, each with an oil-globule. This species is by mistake not mentioned in the text.

Fig. 2. *Sphærozoum alveolatum*, n. sp., × 50 43

Section through a spherical colony; displaying the inside of a hemisphere. All the central capsules lie in a single stratum on the surface of the jelly-sphere, each being surrounded by a thick-walled alveole. The spicula lie between the alveole and the capsule, which includes a central oil-globule.

Fig. 3. *Sphærozoum alveolatum*, n. sp., × 400 43

A single central capsule, filled up by crystal-spores. Numerous geminato-radiate spicula and spherical xanthellæ lie between the capsule and the including thick-walled alveole. In the jelly-calymma, between the capsule and the alveole, numerous thin ramified pseudopodia are expanded.

Fig. 4. *Sphærozoum geminatum*, n. sp., × 400 45

A single central capsule, with a central oil-globule, surrounded by numerous spicula and spherical xanthellæ. The jelly-substance of the calymma is expanded between the points of the spicula.

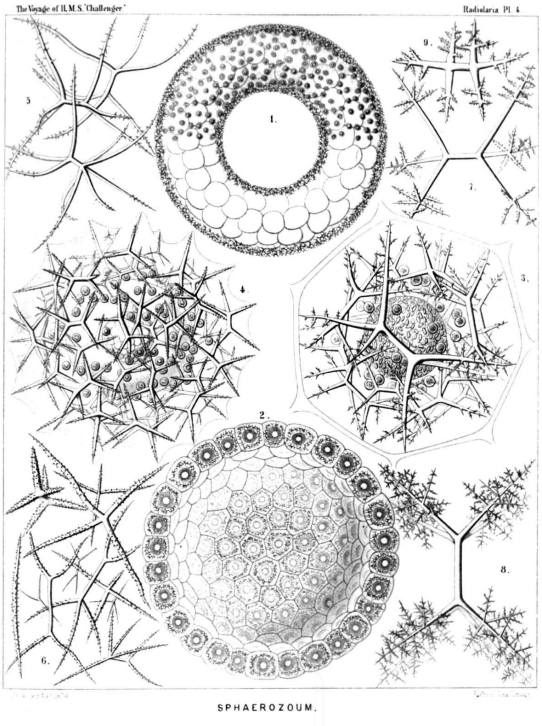

Fig. 5. *Sphærozoum variabile*, n. sp., × 300 45

Three isolated spicula.

Fig. 6. *Sphærozoum pandora*, n. sp. (vel *Rhaphidozoum pandora*), × 300 49

A group of various spicula.

Fig. 7. *Sphærozoum verticillatum*, n. sp., × 300 44

A single spiculum.

Fig. 8. *Sphærozoum arborescens*, n. sp., × 300 44

A single spiculum.

Fig. 9. *Sphærozoum armatum*, n. sp., × 300 43

A single spiculum.

PLATE **5**.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

Family COLLOSPHÆRIDA.

PLATE 5.

COLLOSPHÆRIDA.

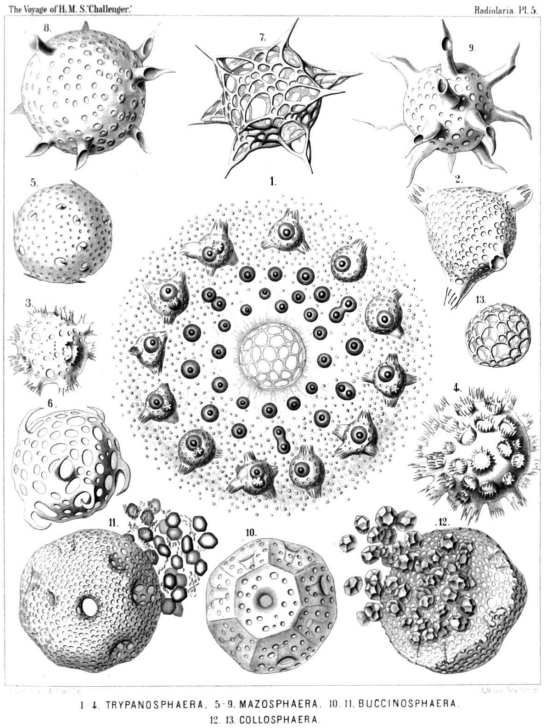

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Fig. 1. *Trypanosphæra transformata*, n. sp., × 150 111

A living colony. The centre of the spherical cœnobium contains a large alveole, surrounded by a net of sarcode. The entire calymma is filled up by smaller, thin-walled alveoles. Its inner part contains numerous small, young, central capsules (each with an oil-globule) without shells; in the cortical zone of the calymma lie larger capsules, each of which is enclosed by a fenestrated shell with from two to four or more dentated tubes. Between the radiant pseudopodia very numerous small yellow cells (xanthellæ), which are scattered everywhere.

Fig. 2. *Trypanosphæra transformata*, n. sp., × 300 111

A single shell.

Fig. 3. *Trypanosphæra coronata*, n. sp., × 300 110

Fig. 4. *Trypanosphæra trepanata*, n. sp., × 300 110

Fig. 5. *Odontosphæra monodon*, n. sp., × 300 102

Fig. 6. *Odontosphæra cyrtodon*, n. sp., × 300 102

Fig. 7. *Acrosphæra inflata*, n. sp., × 300 101

Fig. 8. *Mazosphæra hippotis*, n. sp., × 400 108

Fig. 9. *Mazosphæra lagotis*, n. sp., × 300 108

Fig. 10. *Pharyngosphæra stomodæa*, n. sp., × 400 98

Fig. 11. *Buccinosphæra invaginata*. n. sp., × 500 99

Each shell contains numerous larger and smaller crystals.

Fig. 12. *Tribonosphæra centripetalis*, n. sp., × 500 98

Each shell contains numerous large crystals.

Fig. 13. *Collosphæra polygona*, n. sp., × 200 96

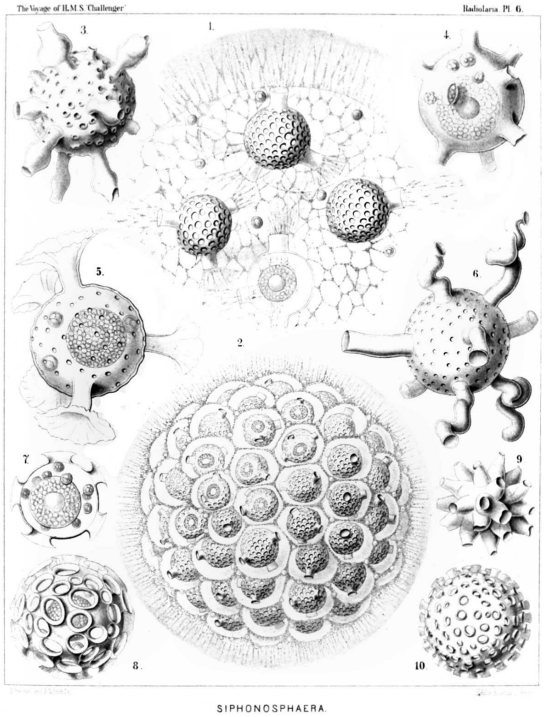
PLATE **6**.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

PLATE 6.

COLLOSPHÆRIDA.



		Diam.	Page.
Fig. 1.	Siphonosphæra socialis, n. sp.,	× 500	106
	A small piece of the surface of a living cœnobium, seen from the surface. Only four individuals are visible, the central capsule of which contains numerous small nuclei and a central oil-globule. The including spherical lattice-shell is provided with a few (one to four) larger apertures, which are prolonged into short cylindrical tubules. Through these latter radiate bundles of fine pseudopodia, branching and anastomosing, and forming a fine sarcode network between the alveoles of the calymma. On the surface of the alveolated jelly-sphere the pseudopodia form a dense radiating zone. Xanthella or yellow cells are everywhere scattered.		
Fig. 2.	*Siphonosphæra socialis*, n. sp.,	× 300	106
	A small cœnobium or colony in the state of alveolation, forming a jelly-sphere, composed of a great number of capsulated individuals, densely aggregated. Each central capsule contains an oil-globule, and is enclosed by a spherical lattice-shell, which bears a few (one to four) short cylindrical tubules. Each shell is again enveloped by a membranous polyhedral alveole and separated from it by structureless jelly. The thick cortical jelly-envelope, which surrounds the whole spherical colony, exhibits a fine radial striation, produced by radiating pseudopodia; many xanthellæ or yellow cells are scattered in the calymma.		
Fig. 3.	*Siphonosphæra pipetta*, n. sp.,	× 300	108
Fig. 4.	*Siphonosphæra tubulosa*, J. Müller,	× 300	105
	The central capsule, enclosed in the cavity of the shell, has a central oil-globule, and is surrounded by a few xanthella.		
Fig. 5.	*Siphonosphæra chonophora*, n. sp.,	× 300	107
Fig. 6.	*Siphonosphæra serpula*, n. sp.,	× 300	107
Fig. 7.	*Siphonosphæra patinaria*, n sp.,	× 300	105
	The central capsule, enclosed in the cavity of the shell, contains a central oil-globule, and is surrounded by a few xanthella.		
Fig. 8.	*Siphonosphæra patinaria*, n. sp.,	× 300	105
Fig. 9.	*Siphonosphæra conifera*, n. sp.,	× 300	106
Fig. 10.	*Siphonosphæra cyathina*, n. sp.,	× 300	105

PLATE 7.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

Family COLLOSPHÆRIDA.

PLATE 7.

COLLOSPHÆRIDA.

		Diam.	Page.
Fig. 1	*Caminosphæra dendrophora*, n. sp.,	× 300	112
Fig. 2.	*Caminosphæra dichotoma*, n. sp.,	× 300	112
Fig. 3.	*Coronosphæra diadema*, n. sp.,	× 300	117
Fig. 4.	*Coronosphæra calycina*, n. sp.,	× 300	117
Fig. 5.	*Otosphæra auriculata*, n. sp.,	× 300	116
Fig. 6.	*Otosphæra polymorpha*, n. sp.,	× 300	116

Fig. 7. *Solenosphæra serpentina*, n. sp., × 300 114

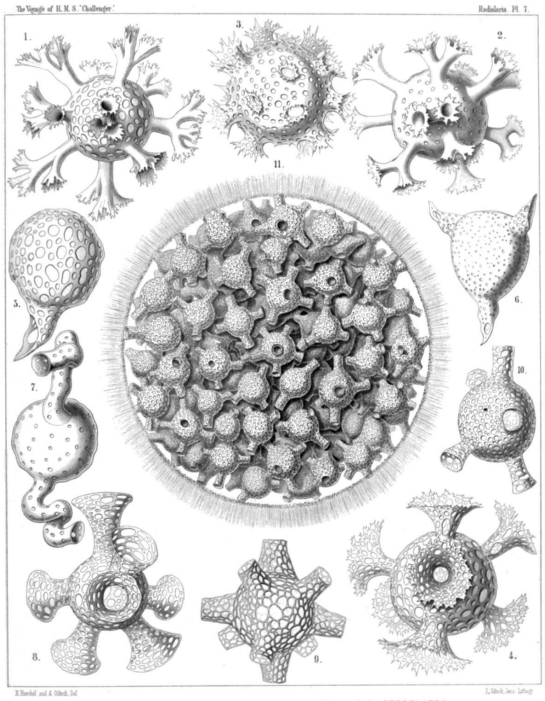
Fig. 8. *Solenosphæra cornucopia*, n. sp., × 300 115

Fig. 9. *Solenosphæra ascensionis*, n. sp., × 300 115

Fig. 10. *Solenosphæra pandora*, n. sp., × 300 113

Fig. 11. *Solenosphæra pandora*, n. sp., × 100 113

An entire spherical cœnobium. The shells of the colony bear a variable number of fenestrated radial tubes and are densely crowded in the jelly-sphere of the calymma, the cortical zone of which is radially striped.



1, 2. CAMINOSPHAERA. 3, 4. CORONOSPHAERA. 5, 6. OTOSPHAERA. 7–11. SOLENOSPHAERA.

PLATE **8**.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

Family COLLOSPHÆRIDA.

PLATE 8.

COLLOSPHÆRIDA.

Diam. Page.

Fig. 1. *Acrosphæra echinoides*, n. sp., × 400 100

Fig. 2. *Acrosphæra collina*, n. sp., × 300 101

Fig. 3. *Chænicosphæra nassiterna*, n. sp., × 400 103

Fig. 4. *Chænicosphæra murrayana*, n. sp., × 300 102

Fig. 5. *Chænicosphæra flammabunda*, n. sp., × 300 103

Fig. 6. *Clathrosphæra circumtexta*, n. sp., × 400 118

Fig. 7. *Clathrosphæra arachnoides*, n. sp., × 300 119

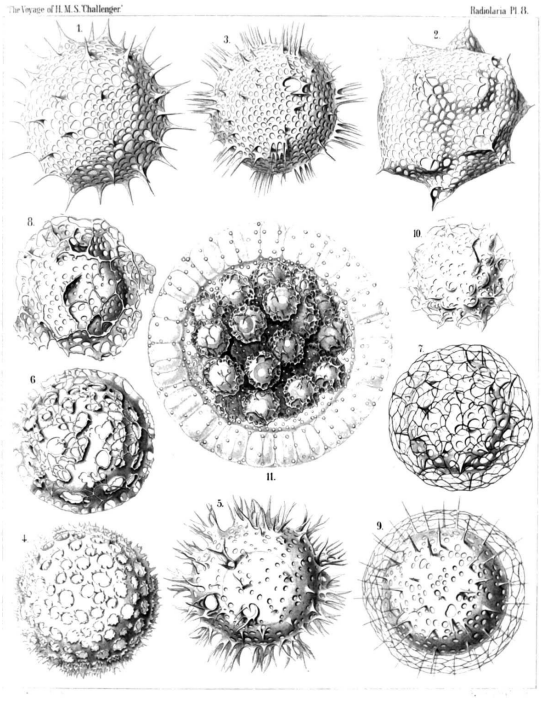
Fig. 8. *Clathrosphæra lamellosa*, n. sp., × 300 119

Fig. 9. *Xanthiosphæra erinacea*, n. sp., × 400 120

Fig. 10. *Xanthiosphæra lappacea*, n. sp., × 300 120

Fig. 11. *Xanthiosphæra lappacea*, n. sp., × 100 120

A complete spherical cœnobium. The associated central capsules (each with a double shell) are densely crowded in the central part of the calymma, whilst its peripheral part is occupied by a layer of large alveoles. Numerous xanthellæ or yellow cells an scattered in the calymma.



1, 2. ACROSPHAERA. 3–5. CHOENICOSPHAERA. 6–8. CLATHROSPHAERA. 9–11. XANTHIOSPHAERA.

PLATE **9**.

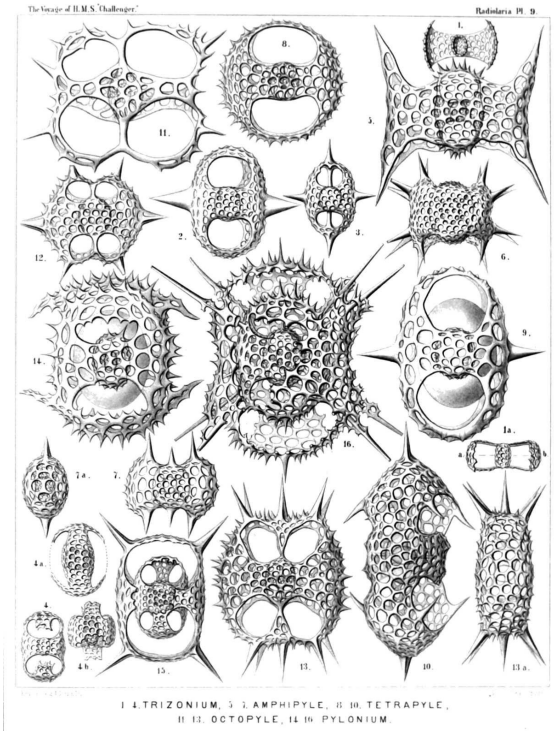
Legion SPUMELLARIA.

Order LARCOIDEA.

Family PYLONIDA.

PLATE 9.

PYLONIDA.



	Diam.	Page.
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Fig. 3. *Dizonium stauracanthum*, n. sp.,	× 300	636
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Fig. 7. *Amphipyle amphiptera*, n. sp., Dorsal view. Fig. 7*a*. Lateral view.	× 300	642
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PLATE **10**.

Legion SPUMELLARIA.

Order LARCOIDEA.

Family THOLONIDA.

PLATE 10.

THOLONIDA.

	Diam.	Page.
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Fig. 5. *Amphitholus acanthometra*, n. sp., × 300 667

Fig. 6. *Amphitholus acanthometra*, n. sp., × 300 667

Frontal section of the shell.

Fig. 7. *Amphitholonium tricolonium*, n. sp., × 300 669

Fig. 8. *Staurotholus tetrastylus*, n. sp., × 300 673

Fig. 9. *Staurotholus dodecastylus*, n. sp., × 400 674

Fig. 10. *Tholoma quadrigeminum*, n. sp., × 200 672

Fig. 11. *Staurotholonium octodoronium*, n. sp., × 300 676

Fig. 12. *Tholocubus tessellatus*, n. sp., × 200 677

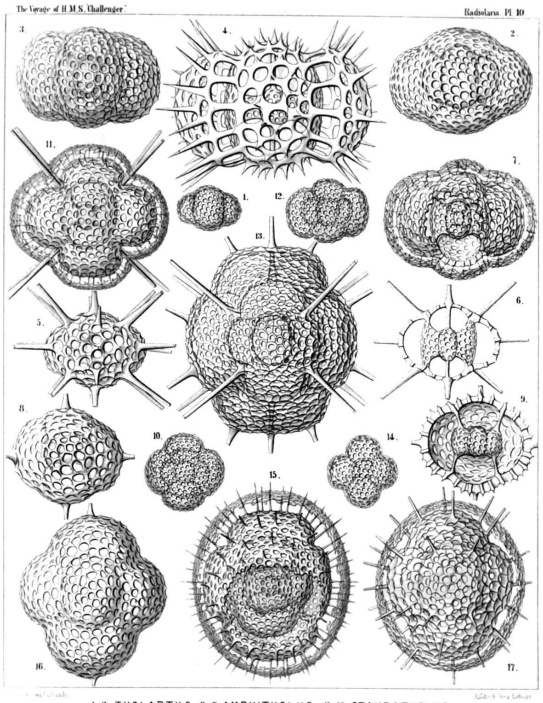
Fig. 13. *Tholoma metallasson*, n. sp., × 300 672

Fig. 14. *Cubotholus regularis*, n. sp., × 200 680

Fig. 15. *Cubotholonium ellipsoides*, n. sp., × 300 682

Fig. 16. *Tholocubus tesseralis*, n. sp., × 400 678

Fig. 17. *Tholonium hexonium*, × 400 679



1. 2. THOLARTUS. 3. 7. AMPHITHOLUS. 8. 10. STAUROTHOLUS. 11. 13. THOLOMA. 14. 15. CUBOTHOLUS. 16. 17. THOLONIUM.

PLATE **11**.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

Family ASTROSPHÆRIDA.

PLATE 11.

ASTROSPHÆRIDA.

Diam. Page.

Fig. 1. *Lychnosphæra regina*, n. sp., × 200 277

The entire shell and the central capsule. Numerous club-shaped radial apophyses or cœcal sacs arise from the pink central capsule and are protruded through the pores of the medullary shell, which is completely hidden by them. The sarcomatrix in the calymma, surrounding the central capsule, exhibits a fine radial striation. Numerous retracted pseudopodia, bearing red granules, arise from the sarcomatrix and pierce the calymma radially. The interval between the two concentric shells is filled up by the hyaline calymma.

Fig. 2. *Lychnosphæra regina*, n. sp., × 400 277

A part of the cortical shell, with a radial spine.

Fig. 3. *Lychnosphæra regina*, n. sp., × 400 277

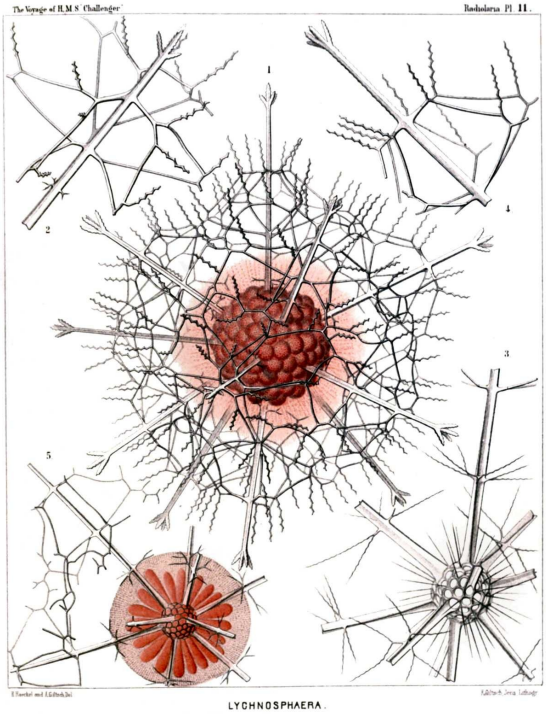
The medullary shell and the basal parts of the radial spines arising from it.

Fig. 4. *Lychnosphæra regina*, n. sp., × 400 277

Distal end of a radial spine.

Fig. 5. *Rhizoplegma lychnosphæra*, n. sp., × 200 276

The central capsule and the enclosed parts of the skeleton. The protoplasm is radially striped. The central nucleus (red) sends out numerous radial apophyses, which are protruded through the pores of the medullary shell.



LYCHNOSPHAERA.

PLATE **12**.

Legion SPUMELLARIA.

Orders PHÆOSPHÆRIA ET SPHÆROIDEA.

Families OROSPHÆRIDA, ASTROSPHÆRIDA et LIOSPHÆRIDA.

PLATE 12.

OROSPHÆRIDA, ASTROSPHÆRIDA et LIOSPHÆRIDA.

	Diam.	Page.
Fig. 1. *Orosphæra huxleyii*, n. sp. (vel *Oroscena huxleyii*),	× 50	1599
Fig. 1*a*. A piece of the network, the bars of which contain partly an axial canal,	× 200	1599
Fig. 2. *Conosphæra orthoconus*, n. sp.,	× 200	221
Fig. 3. *Conosphæra platyconus*, n. sp.,	× 300	221
Fig. 4. *Conosphæra plagioconus*, n. sp.,	× 300	222
Fig. 5. *Ethmosphæra conosiphonia*, n. sp.,	× 400	69
Fig. 5*a*. Vertical section through the wall.		
Fig. 6. *Ethmosphæra polysiphonia*, n. sp.,	× 400	70
Fig. 7. *Cenosphæra compacta*, n. sp.,	× 300	65
Fig. 8. *Cenosphæra elysia*, n. sp.,	× 300	64
Fig. 8*a*. Vertical section through the wall.		
Fig. 9. *Cenosphæra mellifica*, n. sp.,	× 300	62
Fig. 10. *Cenosphæra favosa*, n. sp.,	× 300	62
Fig. 10*a*. Vertical section through the wall.		
Fig. 11. *Cenosphæra vesparia*, n. sp.,	× 300	62
Fig. 11*a*. Vertical section through the wall.		

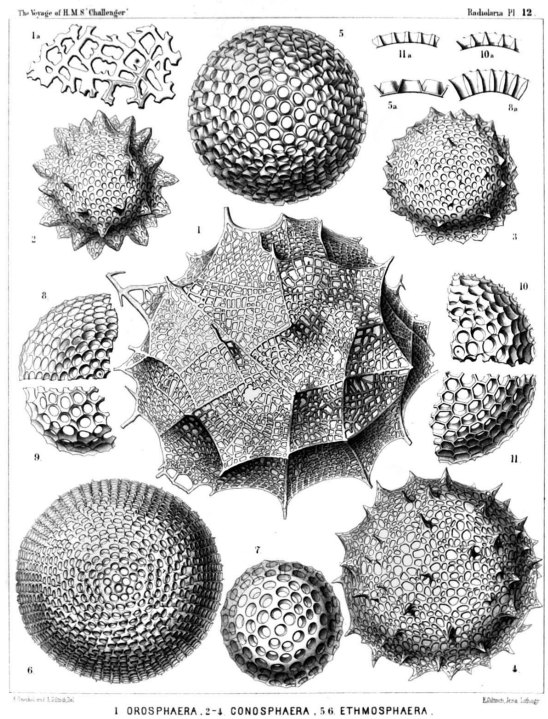


PLATE **13**.

Legion SPUMELLARIA.

Orders SPHÆROIDEA ET PRUNOIDEA.

Families STYLOSPHÆRIDA et ELLIPSIDA.

PLATE 13.

STYLOSPHÆRIDA et ELLIPSIDA.

	Diam.	Page.
Fig. 1. *Ellipsostylus aquila*, n. sp.,	× 300	300
Fig. 2. *Ellipsostylus hirundo*, n. sp.,	× 300	301
Fig. 3. *Ellipsostylus columba*, n. sp.,	× 300	300
Fig. 4. *Xiphostylus alcedo*, n. sp.,	× 400	127
Fig. 5. *Xiphostylus edolius*, n. sp.,	× 400	130
Fig. 6. *Ellipsostylus psittacus*, n. sp.,	× 400	300
Fig. 7. *Stylostaurus caudatus*, n. sp.,	× 400	157
Fig. 8. *Ellipsostylus ciconia*, n. sp.,	× 300	300
Fig. 9. *Xiphostylus phasianus*, n. sp.,	× 400	127
Fig. 10. *Xiphostylus trochilus*, n. sp.,	× 300	129
Fig. 11. *Xiphostylus emberiza*, n. sp.,	× 300	131
Fig. 12. *Saturnalis circoideus*, n. sp.,	× 400	132
Not fully developed.		
Fig. 13. *Xiphostylus alca*, n. sp.,	× 300	130
Fig. 14. *Xiphostylus falco*, n. sp.,	× 300	130
Fig. 15. *Saturnalis rotula*, n. sp.,	× 400	133

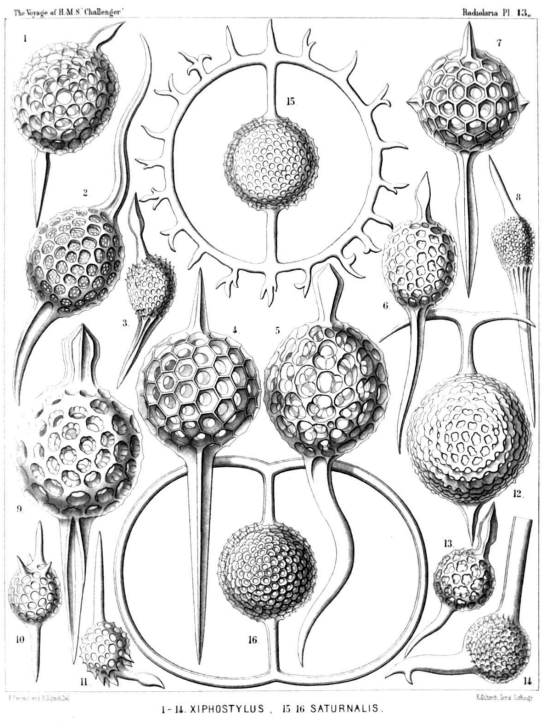


Fig. 16. *Saturnalis annularis*, n. sp., × 400 132

PLATE **14**.

Legion SPUMELLARIA.

Orders SPHÆROIDEA ET PRUNOIDEA.

Families STYLOSPHÆRIDA et ELLIPSIDA.

PLATE 14.

STYLOSPHÆRIDA et ELLIPSIDA.

	Diam.	Page.
Fig. 1. *Ellipsoxiphus atractus*, n. sp.,	× 300	298
Fig. 2. *Xiphosphæra venus*, n. sp.,	× 300	123
Fig. 3. *Ellipsoxiphus claviger*, n. sp.,	× 300	297
Fig. 4. *Xiphosphæra pallas*, n. sp.,	× 400	124
Fig. 5. *Xiphosphæra gæa*, n. sp.,	× 400	123
Fig. 6. *Xiphosphæra vesta*, n. sp.,	× 300	126
Fig. 7. *Ellipsoxiphus elegans*, n. sp., var. *palliatus*,	× 400	296
Fig. 8. *Lithapium halicapsa*, n. sp.,	× 300	303
Fig. 9. *Lithapium pyriforme*, n. sp.,	× 300	303
Fig. 10. *Lithapium monocyrtis*, n. sp.,	× 300	304
Fig. 11. *Ellipsoxiphus bipolaris*, n. sp.,	× 600	297
Fig. 12. *Xiphostylus trogon*, n. sp.,	× 400	129
Fig. 13. *Xiphostylus picus*, n. sp.,	× 300	129
Fig. 14. *Lithomespilus flammabundus*, n. sp.,	× 400	303
Fig. 15. *Xiphostylus alauda*, n. sp.,	× 400	128
Fig. 16. *Lithomespilus phloginus*, n. sp.,	× 600	302
Fig. 17. *Lithomespilus phlogoides*, n. sp.,	× 600	302

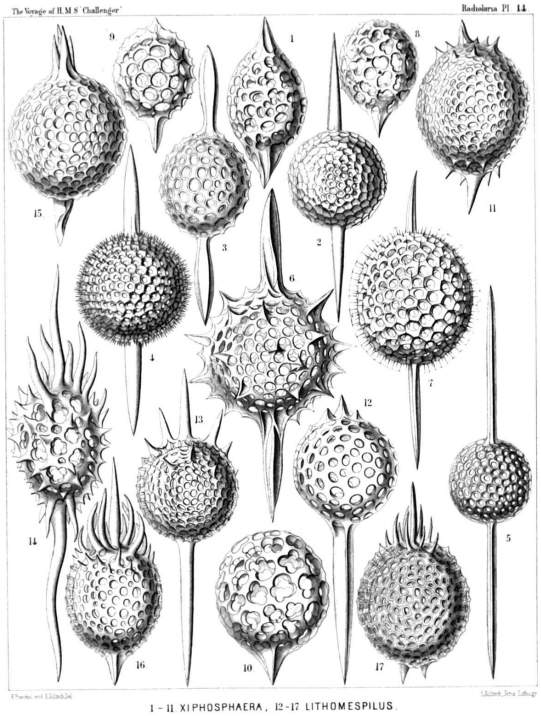


PLATE **15**.

Legion SPUMELLARIA.

Orders SPHÆROIDEA ET PRUNOIDEA.

Families STAUROSPHÆRIDA et DRUPPULIDA.

PLATE 15.

STAUROSPHÆRIDA et DRUPPULIDA.

	Diam.	Page.
Fig. 1. *Cromyatractus tetracelyphus*, n. sp.,	× 300	335
Fig. 1*a*. The two inner medullary shells.		
Fig. 2. *Cromyatractus tetraphractus*, n. sp.,	× 300	335
Fig. 3. *Cromyatractus cepicius*, n. sp.,	× 300	336
The spongy distal part of a polar spine.		
Fig. 4. *Cromyatractus ceparius*, n. sp. (vel *Caryostylus ceparius*),	× 300	336
Fig. 5. *Staurolonche pertusa*, n. sp.,	× 300	159
Fig. 5*a*. Its medullary shell.		

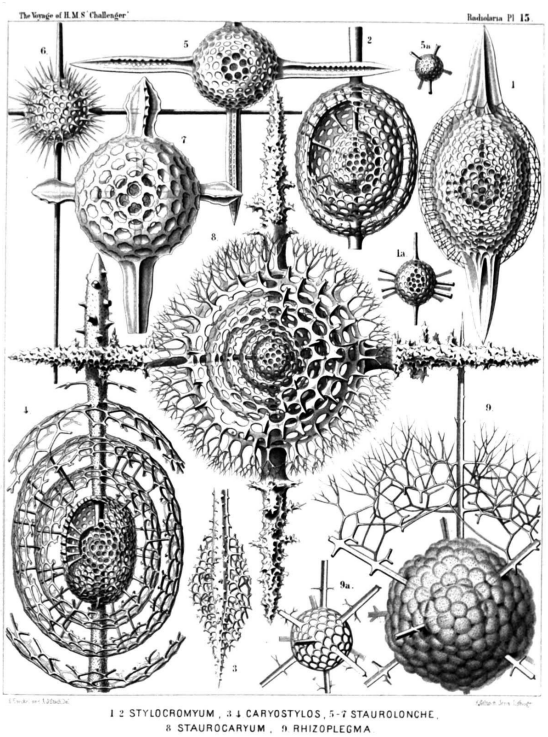
Fig. 6. *Staurosphæra philippi*, n. sp., × 300 154

Fig. 7. *Stauroxiphus gladius*, n. sp., × 400 163

Fig. 8. *Staurocaryum arborescens*, n. sp., × 300 167

Fig. 9. *Rhizoplegma radicatum*, n. sp., × 200 276

Fig. 9*a*. The medullary shell, which is completely hidden in fig. 9 by the numerous club-shaped apophyses of the central capsule.



1 2 STYLOCROMYUM, 3 4 CARYOSTYLOS, 5–7 STAUROLONCHE, 8 STAUROCARYUM, 9 RHIZOPLEGMA

PLATE **16**.

Legion SPUMELLARIA.

Orders SPHÆROIDEA ET PRUNOIDEA.

Families STYLOSPHÆRIDA et DRUPPULIDA.

PLATE 16.

STYLOSPHÆRIDA et DRUPPULIDA.

Diam. Page.

Fig. 1. *Stylosphæra melpomene*, n. sp., × 300 135

Fig. 2. *Lithatractus jugatus*, n. sp., (vel *Stylosphæra jugata*), × 400 323

Fig. 3. *Lithatractus fragilis*, n. sp. (vel *Stylosphæra fragilis*), × 400 319

Fig. 4. *Stylosphæra lithatractus*, n. sp., × 300

The entire shell.

Fig. 5. *Stylosphæra lithatractus*, n. sp., × 300

The greater part of the cortical shell and the two spines taken off.

The description of *Stylosphæra lithatractus* (intermediate between *Stylosphæra jugata* and *Stylosphæra terpsichore*, p. 137) is by mistake not given in the text.

Fig. 6. *Stylosphæra calliope*, n. sp., × 400 134

Fig. 7. *Stylosphæra clio*, n. sp., × 400 134

Fig. 8. *Druppatractus ostracion*, n. sp., × 300 326

The entire shell.

Fig. 9. *Druppatractus ostracion*, n. sp., × 300 326

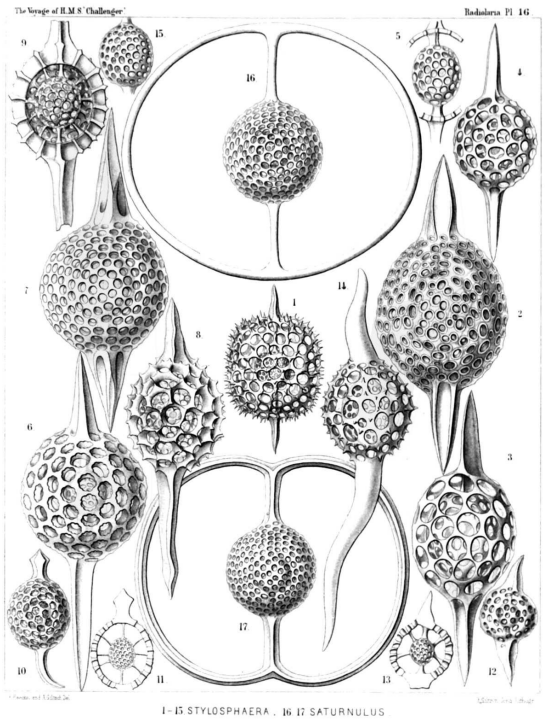
The anterior half of the cortical shell has been removed.

Fig. 10. *Druppatractus hippocampus*, n. sp., × 300 324

The entire shell.

Fig. 11. *Druppatractus hippocampus*, n. sp., × 300 324

The greater part of the cortical shell has been removed.



1–15 STYLOSPHAERA, 16 17 SATURNULUS

Fig. 12. *Stylosphæra nana*, n. sp., × 300 136
The entire shell

Fig. 13. *Stylosphæra nana*, n. sp., × 300 136
The greater part of the cortical shell taken off.

Fig. 14. *Sphærostylus ophidium*, n. sp., × 300 140
The entire shell.

Fig. 15. *Sphærostylus ophidium*, n. sp., × 300 140
The medullary shell alone.

Fig. 16. *Saturnulus ellipticus*, n. sp., × 400 141

Fig. 17. *Saturnulus planetes*, n. sp., × 400 142

PLATE **17**.

Legion SPUMELLARIA.

Orders SPHÆROIDEA ET PRUNOIDEA.

Families STYLOSPHÆRIDA, DRUPPULIDA et SPONGURIDA.

PLATE 17.

STYLOSPHÆRIDA, DRUPPULIDA et SPONGURIDA.

Diam. Page.

Fig. 1. *Stylatractus giganteus*, n. sp. (vel *Amphistylus giganteus*), × 300 329

Fig. 2. *Stylatractus sethoporus*, n. sp., × 400 330
The greater part of the cortical shell taken off.

Fig. 3. *Stylatractus sethoporus*, n. sp., × 400 330
The entire cortical shell.

Fig. 4. *Stylatractus compactus*, n. sp., × 400 329

Fig. 5. *Amphisphæra cronos*, n. sp. (vel *Amphistylus cronos*), × 400 144

Fig. 6. *Stylatractus neptunus*, n. sp. (vel *Amphisphæra neptunus*), × 300 328

Fig. 7. *Amphisphæra pluto*, n. sp., × 300 144
The entire cortical shell.

Fig. 8. *Amphisphæra pluto*, n. sp., × 300 144
Meridional section through the three concentric shells.

Fig. 9. *Xiphatractus glyptodon*, n. sp., × 400 334
The entire cortical shell.

Fig. 10. *Xiphatractus glyptodon*, n. sp., × 400 334
The greater part of the cortical shell taken off.

Fig. 11. *Xiphatractus armadillo*, n. sp., × 400 332

Fig. 12. *Spongoxiphus prunococcus*, n. sp., × 300 354
The spongy cortical shell.

Fig. 13. *Spongoxiphus prunococcus*, n. sp., × 600 354
The two concentric latticed medullary shells.

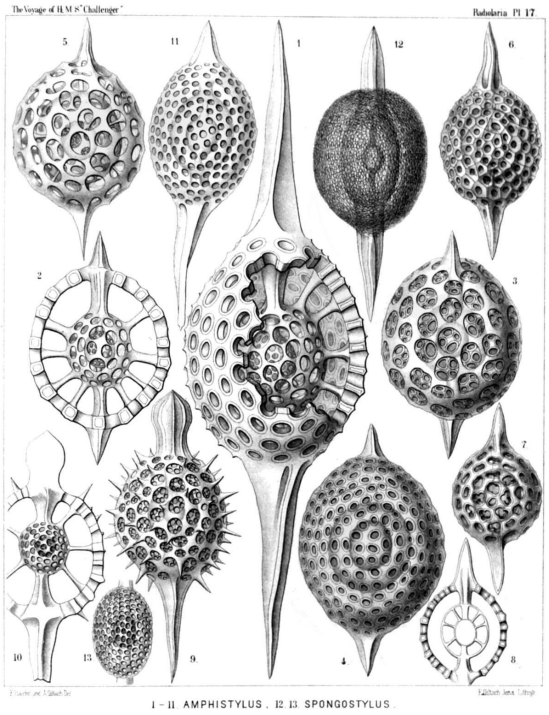


PLATE **18**.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

Families LIOSPHÆRIDA et ASTROSPHÆRIDA.

PLATE 18.

LIOSPHÆRIDA et ASTROSPHÆRIDA.

	Diam.	Page.
Fig. 1. *Centrocubus cladostylus*, n. sp.,	× 100	278
Fig. 2. *Octodendron spathillatum*, n. sp.,	× 300	280
The entire inner shell, but a small part only of the outer shell is represented.		
Fig. 3. *Octodendron cubocentron*, n. sp.,	× 400	279
The central capsule (somewhat irregular by compression?) exhibits a large excentric nucleus (probably dislocated artificially?).		
Fig. 4. *Octodendron spathillatum*, n. sp.,	× 800	280
Free distal end of a radial spine, with the spathillæ on the end of the branches.		
Fig. 5. *Rhizosphæra serrata*, n. sp.,	× 300	284
Fig. 6. *Rhizosphæra serrata*, n. sp.,	× 300	284
Medullary shell.		
Fig. 7. *Rhizosphæra serrata*, n. sp.,	× 600	284
A single radial spine.		
Fig. 8. *Plegmosphæra exodictyon*, n. sp.,	× 200	89
The central shell-cavity encloses the spherical central capsule and the concentric nucleus.		
Fig. 9. *Spongodrymus elaphococcus*, n. sp.,	× 150	272
The entire inner shell, but only a small part of the outer spongy envelope is represented.		

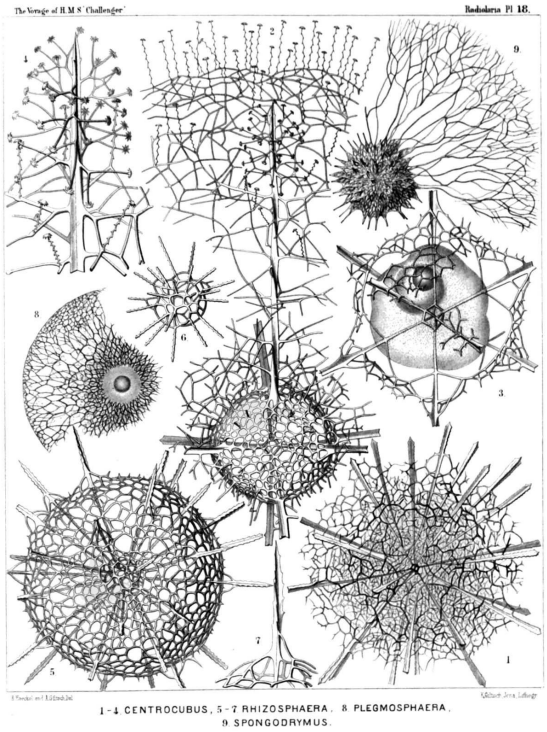


PLATE **19**.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

Family ASTROSPHÆRIDA.

PLATE 19.

ASTROSPHÆRIDA.

	Diam.	Page.
Fig. 1. *Drymosphæra polygonalis*, n. sp.,	× 200	249
Fig. 2. *Leptosphæra hexagonalis*, n. sp.,	× 200	244
Showing the central capsule (forming numerous club-shaped protuberances) and the simple spherical nucleus in its centre. The skeleton is nearly the same as in *Diplosphæra hexagonalis* (fig. 3).		
Fig. 3. *Diplosphæra hexagonalis*, n. sp.,	× 200	246
The spherical central capsule, with radially striped protoplasm, is enclosed in the inner shell, and exhibits in its centre the clear spherical nucleus.		
Fig. 4. *Astrosphæra hexagonalis*, n. sp.,	× 300	250
Fig. 5. *Astrosphæra stellata*, n. sp.,	× 300	251
The central capsule, enclosed in the inner shell, exhibits a distinct radial striation of the protoplasm, and in the centre a clear spherical nucleus.		
Fig. 6. *Haliomma rhodococcus*, n. sp. (vel *Sethosphæra rhodococcus*),	× 400	237
The greater part of the outer shell is removed.		

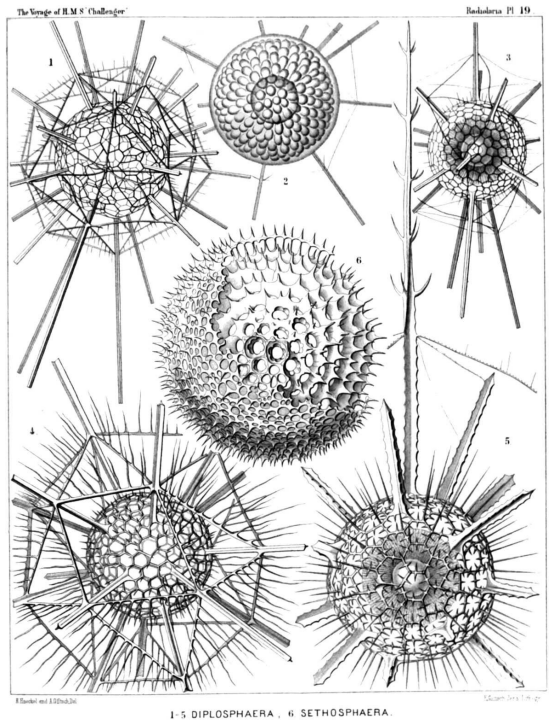


PLATE **20**.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

PLATE 20.

LIOSPHÆRIDA et ASTROSPHÆRIDA.

	Diam.	Page.
Fig. 1. *Drymosphæra dendrophora*, n. sp.,	× 300	249
Fig. 1*a*. Meridional section through the central capsule. In the centre the large spherical nucleus is visible. The protoplasm around it is distinctly radiate. From the central capsule arise numerous club-shaped apophyses or cæcal sacs, which are protruded through the meshes of the inner shell,	× 300	
Fig. 1*b*. Basal part of a single radial spine, and its connection with the network of the two shells,	× 400	
Fig. 2. *Liosphæra polypora*, n. sp.,	× 300	78
The greater part of the outer shell is removed.		
Fig. 3. *Liosphæra hexagonia*, n. sp.,	× 400	76
Fig. 4. *Carposphæra melitomma*, n. sp. (vel *Melitomma melittosphæra*),	× 400	73

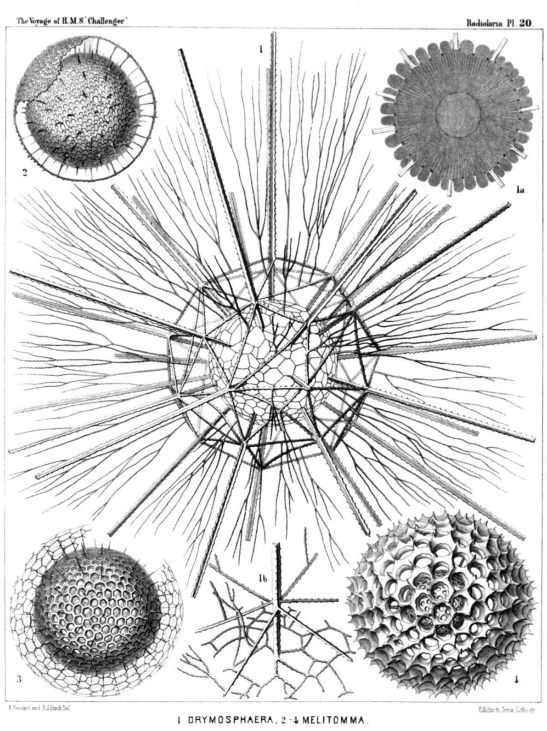


PLATE **21**.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

Family CUBOSPHÆRIDA.

PLATE 21.

CUBOSPHÆRIDA.

	Diam.	Page.
Fig. 1. *Hexastylus cochleatus*, n. sp.,	× 400	174
From the central capsule, enclosed in the shell, numerous delicate radial pseudopodia arise, which are protruded through the pores of the shell.		
Fig. 2. *Hexastylus triaxonius*, n. sp.,	× 400	175
Fig. 3. *Hexastylus phænaxonius*, n. sp.,	× 300	171
Fig. 4. *Hexastylus thaletis*, n. sp.,	× 400	172
Fig. 5. *Hexastylus minimus*, n. sp.,	× 400	172
Fig. 6. *Hexastylus dimensivus*, n. sp.,	× 400	175
Fig. 7. *Hexastylus spiralis*, n. sp.,	× 400	177
Fig. 8. *Hexastylus dictyotus*, n. sp.,	× 400	176
Fig. 9. *Hexastylus dictyotus*, n. sp.,	× 400	176
Central capsule with concentric nucleus and nucleolus; the protoplasm is radially striped.		
Fig. 10. *Hexastylus marginatus*, n. sp.,	× 400	176
Fig. 10*a*. Radial section through the shell-wall.		
Fig. 11. *Hexastylus solonis*, n. sp.,	× 400	173
Fig. 12. *Hexastylus contortus*, n. sp.,	× 300	177

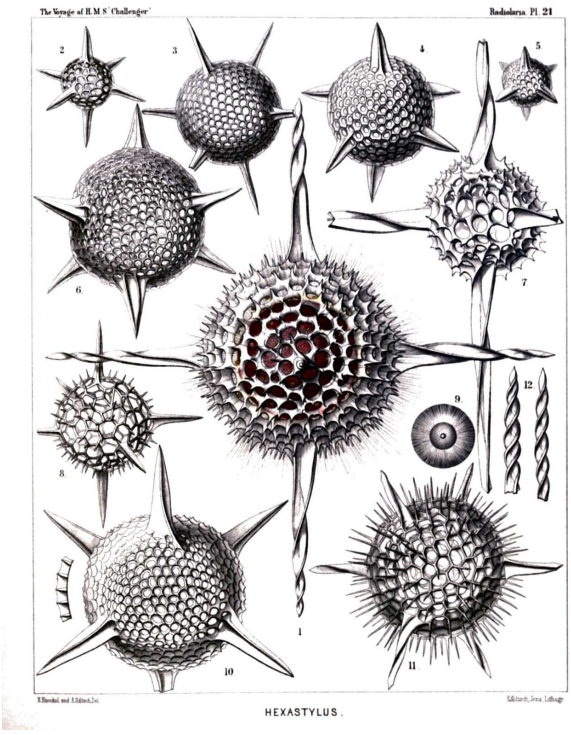


PLATE **22**.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

Family CUBOSPHÆRIDA.

PLATE 22.

CUBOSPHÆRIDA.

	Diam.	Page.
Fig. 1. *Hexalonche pythagoræa*, n. sp.,	× 300	185
Fig. 2. *Hexalonche conicornis*, n. sp.,	× 300	181
Fig. 3. *Hexalonche aristarchi*, n. sp.,	× 400	185
Fig. 4. *Hexalonche philosophica*, n. sp.,	× 400	186
Fig. 5. *Hexalonche anaximandri*, n. sp.,	× 400	182
Fig. 6. *Hexalonche octocolpa*, n. sp.,	× 300	183
Fig. 6*a*. The inner shell alone.		
Fig. 7. *Hexalonche heracliti*, n. sp.,	× 300	187
Fig. 8. *Hexalonche octahedra*, n. sp.,	× 400	181
Fig. 8*a*. The inner shell alone.		
Fig. 9. *Hexancistra tricuspis*, n. sp.,	× 300	188
Fig. 10. *Hexancistra triserrata*, n. sp.,	× 300	188
Fig. 11. *Hexancistra quadricuspis*, n. sp.,	× 300	189

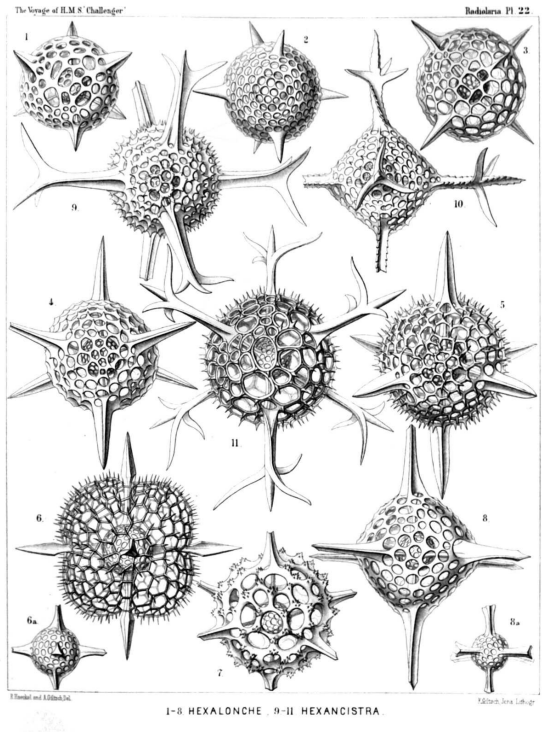


PLATE **23**.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

Family CUBOSPHÆRIDA.

PLATE 23.

CUBOSPHÆRIDA.

	Diam.	Page.
Fig. 1. *Hexadendron bipinnatum*, n. sp.,	× 400	200
Fig. 2. *Hexacromyum octahedrum*, n. sp.,	× 400	202
Fig. 3. *Hexancistra mirabilis*, n. sp. (= *Hexapitys mirabilis*),	× 400	189
The spherical central capsule encloses the concentric spherical inner shell (which is filled up by the nucleus), and is surrounded by the octahedral outer shell. The latter is enveloped by the octahedral calymma, which is radially striated and contains numerous xanthellæ.		
Fig. 4. *Hexacaryum arborescens*, n. sp.,	× 400	203
Fig. 5. *Hexacontium clavigerum*, n. sp.,	× 300	19

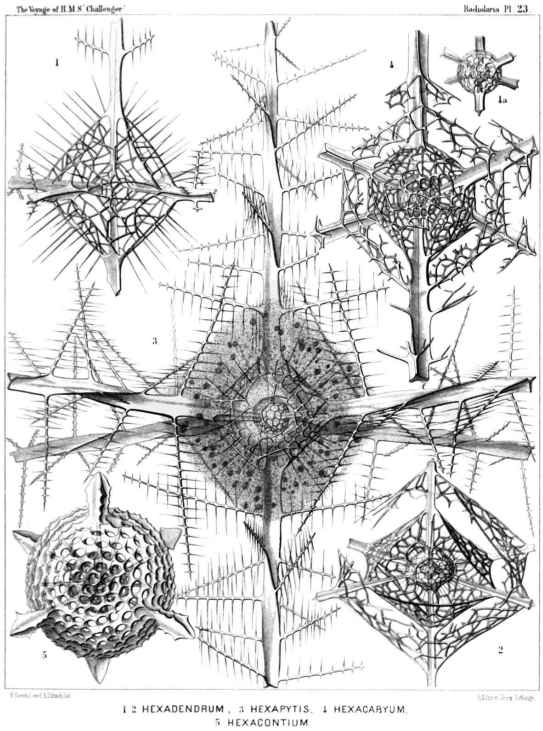


PLATE **24**.

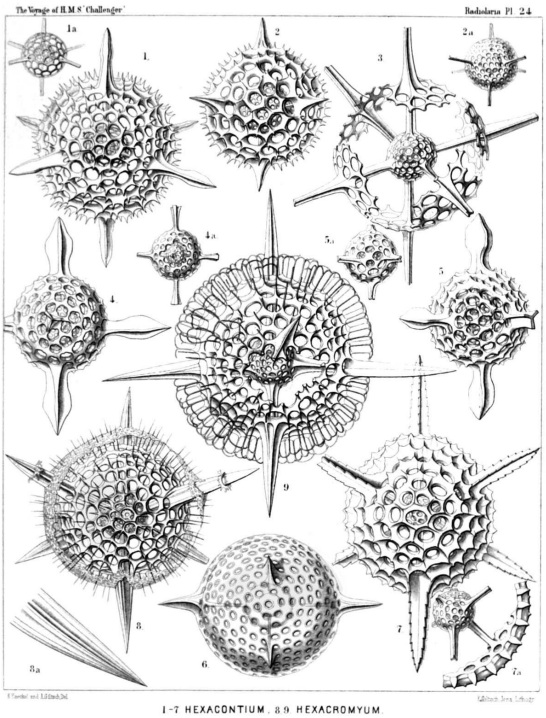
Legion SPUMELLARIA.

Order SPHÆROIDEA.

Family CUBOSPHÆRIDA.

PLATE 24.

CUBOSPHÆRIDA.



1–7 HEXACONTIUM. 8 9 HEXACROMYUM.

	Diam.	Page.
Fig. 1. *Hexacontium sceptrum*, n. sp.,	× 400	194
Fig. 1*a*. The two medullary shells.		
Fig. 2. *Hexacontium favosum*, n. sp.,	× 400	194
Fig. 2*a*. The two medullary shells.		
Fig. 3. *Hexacontium axotrias*, n. sp.,	× 300	192
The six lattice-plates, which form the cortical shell, are not yet fully developed.		
Fig. 4. *Hexacontium floridum*, n. sp.,	× 300	195
Fig. 4*a*. The two medullary shells.		
Fig. 5. *Hexacontium papillosum*, n. sp.,	× 400	197
Fig. 5*a*. The two medullary shells.		
Fig. 6. *Hexacontium lævigatum*, n. sp.,	× 400	193
The contours of the two medullary shells are visible in the centre.		
Fig. 7. *Hexacontium prionacanthum*, n. sp.,	× 400	195
Fig. 7*a*. The two medullary shells, connected with a fragment of the cortical shell.		
Fig. 8. *Cubosphæra cubaxonia*, n. sp.,	× 400	203
Fig. 8*a*. A single radial spine.		
Fig. 9. *Hexacromyum elegans*, n. sp.,	× 400	201
A part of the two cortical shells is broken off.		

PLATE **25**.

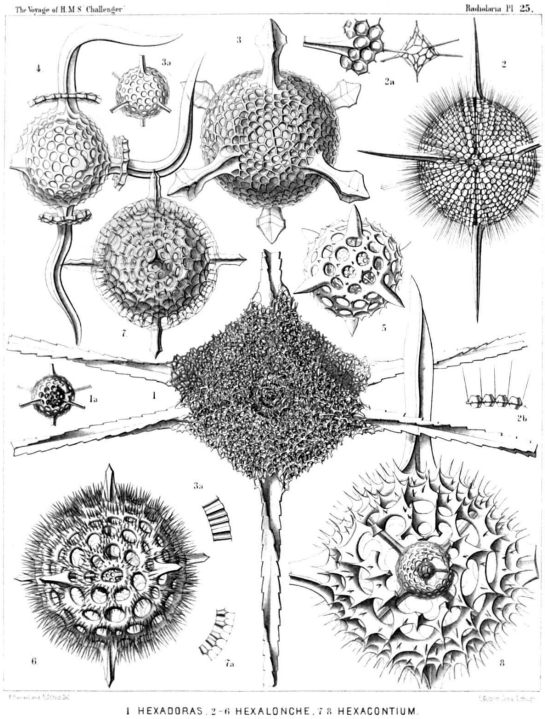
Legion SPUMELLARIA.

Order SPHÆROIDEA.

Family CUBOSPHÆRIDA.

PLATE 25.

CUBOSPHÆRIDA.



1 HEXADORAS. 2–6 HEXALONCHE. 7 8 HEXACONTIUM.

	Diam.	Page.
Fig. 1. *Hexadoridium streptacanthum*, n. sp.,	× 400	206
Fig. 1*a*. The two concentric medullary shells.		
Fig. 2. *Hexalonche amphisiphon*, n. sp.,	× 300	182
Fig. 2*a*. Medullary shell connected with a fragment of the cortical shell.		
Fig. 2*b*. Vertical section through the wall of the cortical shell. (Below the centre of the Plate, also lettered 3*a* by mistake.)		
Fig. 3. *Hexalonche rosetta*, n. sp.,	× 400	180
Fig. *3a*. Medullary shell.		
Fig. *3b*. Vertical section through the wall of the cortical shell.		
Fig. 4. *Hexalonche curvicornis*, n. sp.,	× 300	181
Outer shell not yet complete, or partly broken off (?).		
Fig. 5. *Hexalonche anaximenis*, n. sp.,	× 400	183
Fig. 6. *Hexalonche hystricina*, n. sp.,	× 300	187
Fig. 7. *Hexacontium circumtextum*, n. sp.,	× 400	193
Fig. 7*a*. Vertical section through the double wall of the cortical shell.		

Fig. 8. *Hexacontium gladiatum*, n. sp., × 400 198

A part of the two outer shells and of the radial spines is broken off.

PLATE **26**.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

Families LIOSPHÆRIDA et ASTROSPHÆRIDA.

PLATE 26.

LIOSPHÆRIDA et ASTROSPHÆRIDA.

	Diam.	Page.
Fig. 1. *Coscinomma amphisiphon*, n. sp.,	× 300	222
Fig. 1*a*. A piece of the lattice-shell,	× 600	
Fig. 1*b*. Vertical section through the shell-wall,	× 600	
Fig. 2. *Heliosphæra hexagonaria*, n. sp.,	× 300	217
Fig. 3. *Acanthosphæra castanea*, n. sp.,	× 400	211
Fig. 4. *Acanthosphæra angulata*, n. sp.,	× 300	216
Fig. 5. *Acanthosphæra reticulata*, n. sp.,	× 300	217
Fig. 6. *Heliosphæra coronata*, n. sp.,	× 400	219
Fig. 6*a*. A single pore with its coronal,	× 300	
Fig. 7. *Acanthosphæra mucronata*, n. sp.,	× 400	212
Fig. 8. *Acanthosphæra clavata*, n. sp.,	× 400	212
Fig. 9. *Heliosphæra pectinata*, n. sp.,	× 400	218
Fig. 10. *Cenosphæra perforata*, n. sp.,	× 400	66
Fig. 11. *Cenosphæra coronata*, n. sp.,	× 400	67

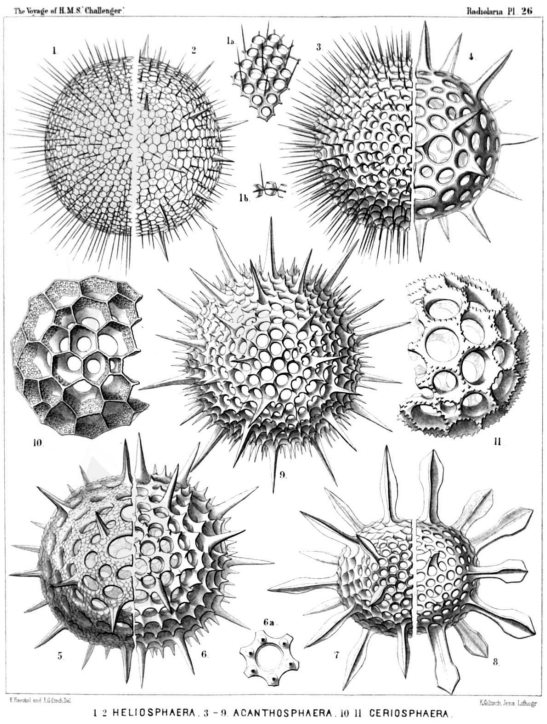


PLATE **27**.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

Family ASTROSPHÆRIDA.

PLATE 27.

ASTROSPHÆRIDA.

	Diam.	Page.
Fig. 1. *Cladococcus pinetum*, n. sp.,	× 300	226
Fig. 2. *Cladococcus scoparius*, n. sp.,	× 300	225
Fig. 3. *Cladococcus abietinus*, n. sp.,	× 300	226
The central capsule, enclosed originally in the shell, sends out numerous club-shaped apophyses through the pores of the lattice-sphere. The central spherical nucleus fills up half the shell-cavity.		
Fig. 4. *Cladococcus stalactites*, n. sp.,	× 300	227
Fig. 5. *Cladococcus dendrites*, n. sp.,	× 200	227

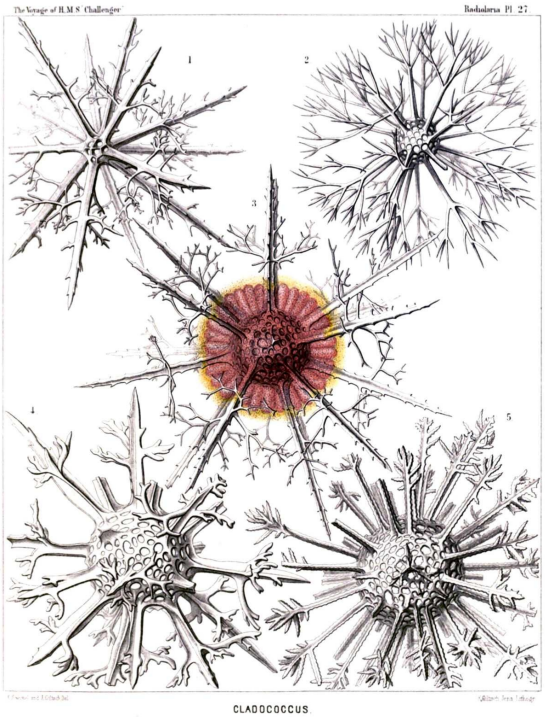


PLATE **28**.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

Families LIOSPHÆRIDA et ASTROSPHÆRIDA.

PLATE 28.

LIOSPHÆRIDA et ASTROSPHÆRIDA.

	Diam.	Page.
Fig. 1. *Haliomma lirianthus*, n. sp.,	× 300	232
Fig. 1*a*. Medullary shell,	× 300	
Fig. *1b*. Three pores of the cortical shell,	× 900	
Fig. 2. *Carposphæra nodosa*, n. sp.,	× 300	76
Fig. 2*a*. The medullary shell is visible, the upper half of the cortical shell being taken off,	× 300	
Fig. 3. *Heliosoma radians*, n. sp.,	× 300	240
Fig. 3*a*. Medullary shell,	× 300	
Fig. 4. *Heliosoma hastatum*, n. sp.,	× 400	241
Fig. 5. *Haliomma compactum*, n. sp.,	× 400	239
Fig. 5*a*. The upper half of the cortical shell is removed,	× 300	
Fig. 6. *Haliomma macrodoras*, n. sp.,	× 400	238
Fig. 7. *Haliomma circumtextum*, n sp.,	× 400	233
Fig. 8. *Elatomma juniperinum*, n. sp.,	× 400	243
Fig. 8*a*. Medullary shell,	× 400	

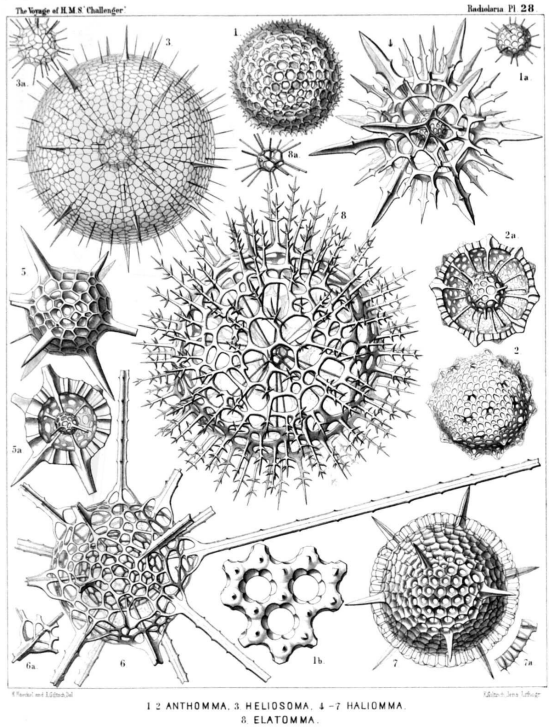


PLATE **29**.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

Family ASTROSPHÆRIDA.

PLATE 29.

ASTROSPHÆRIDA.

	Diam.	Page.
Fig. 1. *Echinomma toxopneustes*, n. sp.,	× 400	259
Fig. 2. *Echinomma sphærechinus*, n. sp.,	× 400	258
Fig. 3. *Actinomma denticulatum*, n. sp.,	× 400	254
Fig. 4. *Actinomma pachyderma*, n. sp., The half of the cortical shell is removed.	× 400	254
Fig. 5. *Actinomma pachyderma*, n. sp.,	× 400	254
Fig. 6. *Actinomma capillaceum*, n. sp.,	× 300	255
Fig. 7. *Actinomma arcadophorum*, n. sp., A part of the two outer shells is removed.	× 400	255
Fig. 8. *Actinomma arcadophorum*, n. sp., Inner medullary shell.	× 400	255
Fig. 9. *Pityomma drymodes*, n. sp., A part of the two outer shells is removed.	× 300	260

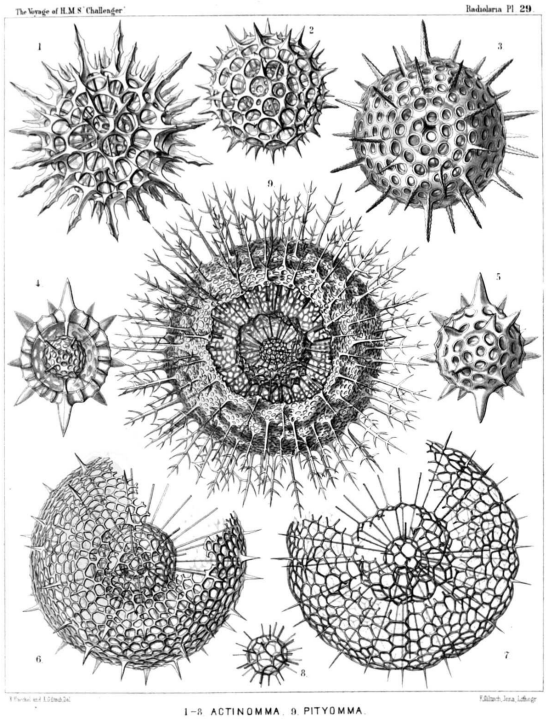


PLATE **30**.

Legion SPUMELLARIA.

Order SPHÆROIDEA.

Families LIOSPHÆRIDA et ASTROSPHÆRIDA.

PLATE 30.

LIOSPHÆRIDA et ASTROSPHÆRIDA.

	Diam.	Page.
Fig. 1. *Cromyechinus icosacanthus*, n. sp.,	× 300	263
Fig. 2. *Cromyomma villosum*, n. sp.,	× 300	261
Fig. 3. *Cromyechinus dodecacanthus*, n. sp., Fig. 3*a*. The innermost shells.	× 400	264
Fig. 4. *Cromyomma circumtextum*, n. sp.,	× 300	262
Fig. 5. *Cromyomma mucronatum*, n. sp., Fig. 5*a*. The innermost shells.	× 200	263
Fig. 6. *Cromyodrymus abietinus*, n. sp.,	× 300	265
Fig. 7. *Cromyodrymus quadricuspis*, n. sp., Fig. 7*a*. The inner concentric shells.	× 400	264
Fig. 8. *Cromyomma perspicuum*, n. sp.,	× 300	262
Fig. 9. *Cromyosphæra quadruplex*, n. sp., Fig. 9*a*. The innermost shells.	× 300	84

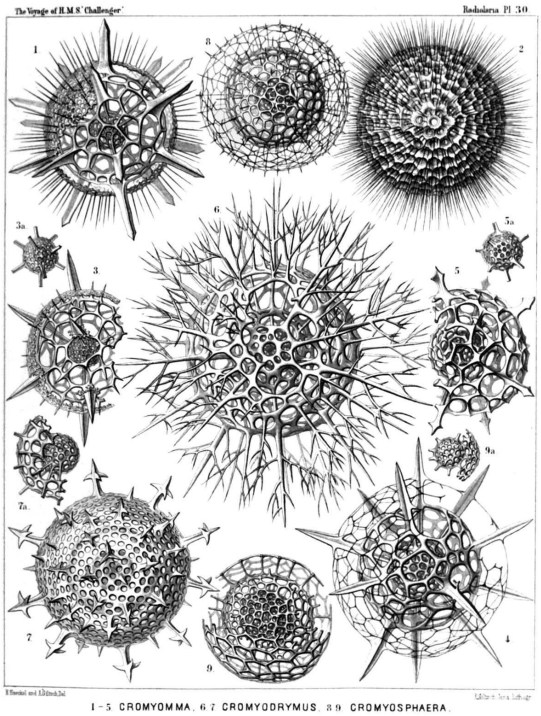


PLATE **31**.

Legion SPUMELLARIA.

Order DISCOIDEA.

Families CENODISCIDA et PHACODISCIDA.

PLATE 31.

CENODISCIDA et PHACODISCIDA.

	Diam.	Page.
Fig. 1. *Sethostaurus orthostaurus*, n. sp.,	× 300	433
Fig. 2. *Sethostaurus orthostaurus*, n. sp., Vertical section through the centrum.	× 300	433
Fig. 3. *Sethostaurus recurvatus*, n. sp., Optical section through the equatorial plane.	× 100	434
Fig. 4. *Sethostaurus rhombostaurus*, n. sp., Optical section through the equatorial plane.	× 100	434
Fig. 5. *Sethostaurus cruciatus*, n. sp. (vel *Heliostaurus cruciatus*),	× 300	434
Fig. 6. *Phacostaurus oceanidum*, n. sp.,	× 300	435
Fig. 7. *Phacostaurus magnificus*, n. sp.,	× 400	436
Fig. 8. *Phacostaurus magnificus*, n. sp., Vertical section through the centrum.	× 200	436
Fig. 9. *Sethostylus distyliscus*, n. sp.,	× 400	428
Fig. 10. *Sethostylus dicylindrus*, n. sp., Marginal view.	× 300	428
Fig. 11. *Stylodiscus endostylus*, n. sp. (vel *Sethostylus endostylus*),	× 300	413
Fig. 12. *Phacostylus amphistylus*, n. sp.,	× 300	430

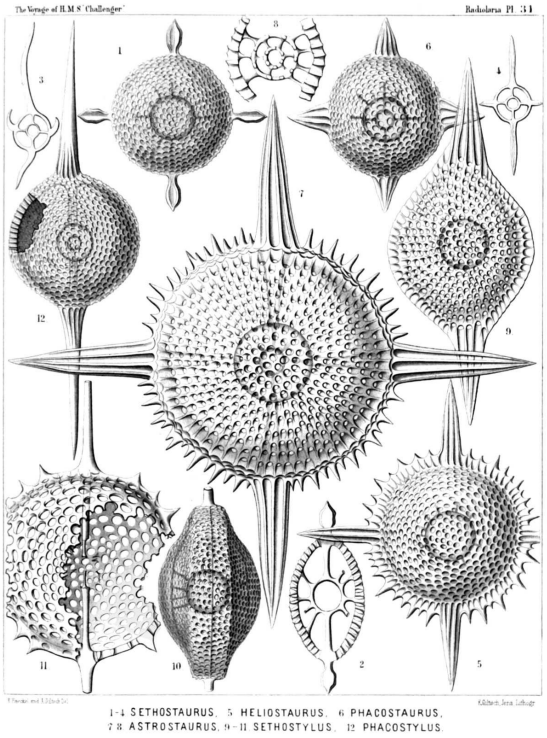


PLATE **32**.

Legion SPUMELLARIA.

Order DISCOIDEA.

Family PHACODISCIDA.

PLATE 32.

PHACODISCIDA.

	Diam.	Page.
Fig. 1. *Astrophacus solaris*, n. sp.,	× 300	453
Fig. 2. *Astrophacus apollinis*, n. sp.,	× 300	455
Fig. 3. *Astrophacus phacodiscus*, n. sp., Vertical section through the centrum.	× 300	454
Fig. 4. *Astrosestrum ephyra*, n. sp.,	× 300	442
Fig. 4*a*. Transverse section through the double medullary shell,	× 300	442
Fig. 5. *Astrosestrum nauphanta*, n. sp.,	× 300	442
Fig. 6. *Phacostylus caudatus*, n. sp. (vel *Astrosestrum caudatum*),	× 200	431
Fig. 7. *Perizona scutella*, n. sp.,	× 400	427
Fig. 8. *Perizona pterygota*, n. sp.,	× 400	427
Fig. 8*a*. Medullary shells and radial beams connecting them with the disk,	× 300	427

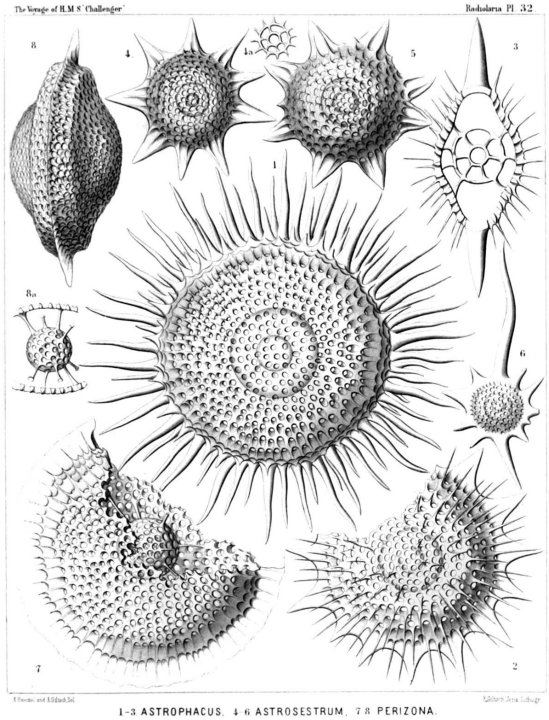


PLATE **33**.

Legion SPUMELLARIA.

Order DISCOIDEA.

Family PHACODISCIDA.

PLATE 33.

PHACODISCIDA.

	Diam.	Page.
Fig. 1. *Sethodiscus lenticula*, n. sp.,	× 300	423
Fig. 2. *Sethodiscus lenticula*, n. sp., Vertical section.	× 300	423
Fig. 3. *Sethodiscus macrococcus*, n. sp., Young shell, not yet closed, seen from the margin.	× 300	423
Fig. 4. *Periphæna cincta*, n. sp.,	× 400	426
Fig. 5. *Triactiscus tricuspis*, n. sp., Marginal view.	× 300	432
Fig. 6. *Triactiscus tripyramis*, n. sp.,	× 400	432
Fig. 7. *Heliodiscus cingillum*, n. sp.,	× 300	448
Fig. 8. *Heliodiscus asteriscus*, n. sp.,	× 300	445
Fig. 9. *Heliodrymus dendrocyclus*, n. sp. (vel *Heliocladus dendrocyclus*),	× 300	451

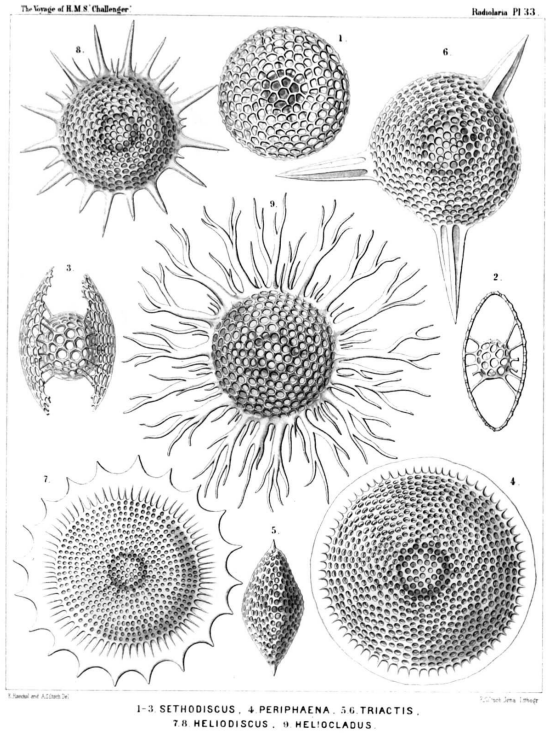


PLATE **34**.

Legion SPUMELLARIA.

Order DISCOIDEA.

Family PHACODISCIDA.

PLATE 34.

PHACODISCIDA.

	Diam.	Page.
Fig. 1. *Sethostylus dentatus*, n. sp. (vel *Heliostylus dentatus*), Upper half of the disk.	× 300	429
Fig. 2. *Sethostylus serratus*, n. sp. (vel *Heliostylus serratus*), Lower half of the disk.	× 300	429
Fig. 3. *Heliosestrum octonum*, n. sp.,	× 300	440
Fig. 4. *Heliodiscus solaster*, n. sp.,	× 300	447
Fig. 5. *Heliodiscus echiniscus*, n. sp.,	× 400	448
Fig. 6. *Heliosestrum medusinum*, n. sp.,	× 300	438
Fig. 7. *Sethostaurus conostaurus*, n. sp., Normal form with four regular spines.	× 100	433
Fig. 8. *Sethostaurus conostaurus*, n. sp., Abnormal form with five spines.	× 100	433
Fig. 9. *Heliodiscus marginatus*, n. sp.,	× 100	449
Fig. 10. *Heliodiscus trochiscus*, n. sp.,	× 100	445
Fig. 11. *Heliodiscus polymorphus*, n. sp.,	× 100	447
Fig. 12. *Heliodiscus polymorphus*, n. sp.,	× 100	447
Fig. 13. *Heliodiscus trochiscus*, n. sp.,	× 100	445
Fig. 14. *Astrophacus trochiscus*, n. sp.,	× 100	453

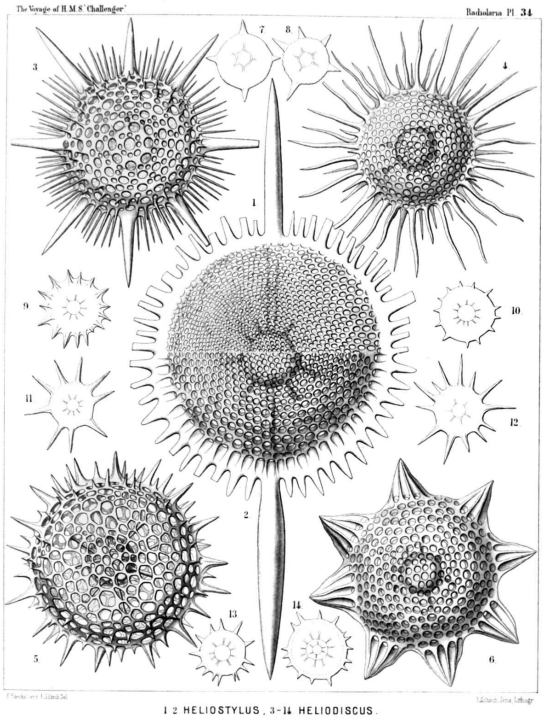


PLATE **35**.

Legion SPUMELLARIA.

Order DISCOIDEA.

Family PHACODISCIDA.

PLATE 35.

PHACODISCIDA.

	Diam.	Page.
Fig. 1. *Heliodiscus pertusus*, n. sp. (vel *Heliosestrum pertusum*),	× 400	448
Irregular form with ten (instead of eight) larger latticed spines.		
Fig. 2. *Heliodiscus glyphodon*, n. sp. (vel *Heliosestrum glyphodon*),	× 300	446
Fig. 3. *Heliodrymus ramosus*, n. sp.,	× 300	452
Fig. 4. *Heliodrymus ramosus*, n. sp.,	× 500	452
Medullary shell and a segment of the disk.		
Fig. 5. *Heliodrymus viminalis*, n. sp.,	× 400	452
Marginal view.		
Fig. 6. *Phacodiscus clypeus*, n. sp.,	× 400	425
Fig. 7. *Phacodiscus rotula*, n. sp.,	× 400	424
Marginal view.		
Fig. 8. *Phacodiscus lentiformis*, n. sp.,	× 400	425
Vertical section nearly through the centre.		
Fig. 9. *Phacodiscus clypeus*, n. sp.,	× 400	425
Vertical section nearly through the centre.		

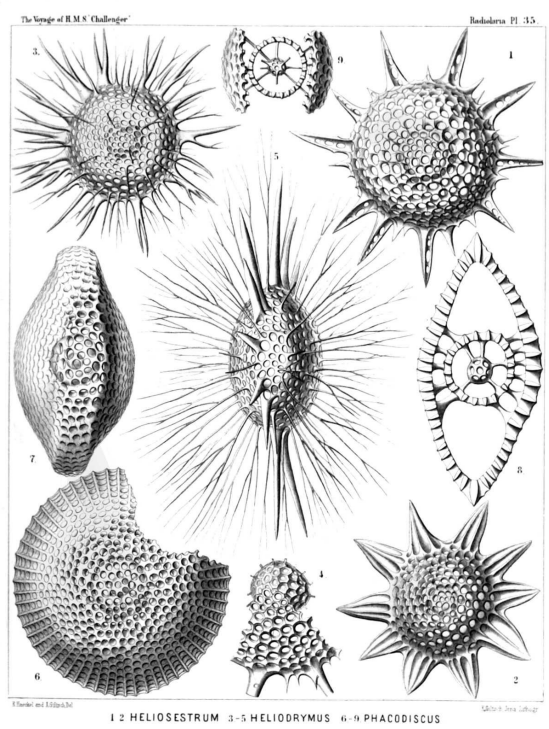


PLATE **36**.

Legion SPUMELLARIA.

Order DISCOIDEA.

Family COCCODISCIDA.

PLATE 36.

COCCODISCIDA.

	Diam.	Page.
Fig. 1. *Coccodiscus lamarckii*, n. sp.,	× 500	459
The left half of the figure represents a horizontal section through the peripheral shell, the right half a view of the surface.		
Fig. 2. *Coccodiscus gœthei*, n. sp.,	× 500	461
Vertical section nearly through the centre.		
Fig. 3. *Lithocyclia lenticula*, n. sp.,	× 400	459
Fig. 4. *Lithocyclia lenticula*, n. sp.,	× 400	459
Vertical section through the centre.		
Fig. 5. *Coccocyclia helianthus*, n. sp.,	× 400	468
Fig. 6. *Coccocyclia helianthus*, n. sp.,	× 500	468
Vertical section through the outer medullary shell, showing the inner.		
Fig. 7. *Astrocyclia solaster*, n. sp.,	× 300	466
Fig. 8. *Astrocyclia heterocycla*, n. sp.,	× 400	468
Horizontal section through the equatorial plane.		

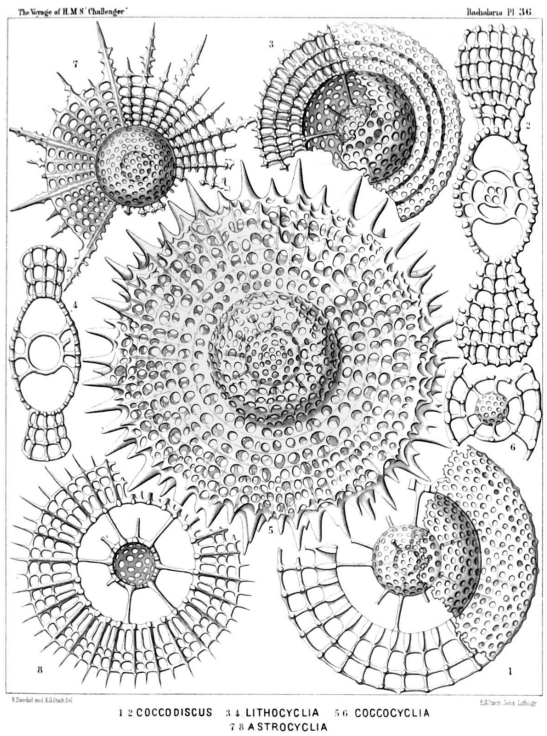


PLATE **37**.

Legion SPUMELLARIA.

Order DISCOIDEA.

Family COCCODISCIDA.

PLATE 37.

COCCODISCIDA.

	Diam.	Page.
Fig. 1. *Staurocyclia cruciata*, n. sp.,	× 400	465
Fig. 2. *Staurocyclia phacostaurus*, n. sp.,	× 300	465
Fig. 3. *Staurocyclia phacostaurus*, n. sp., Vertical section through the centre.	× 300	465
Fig. 4. *Staurocyclia magniducis*, n. sp. (*Coccostaurus magniducis*),	× 300	466
Fig. 5. *Trigonocyclia triangularis*, n. sp.,	× 400	464
Fig. 6. *Stylocyclia prionacantha*, n. sp., A great part of the peripheral shell is removed.	× 500	462
Fig. 7. *Amphicyclia amphistyla*, n. sp., Vertical section through the centre.	× 300	464
Fig. 8. *Stylocyclia excavata*, n. sp., Vertical section through the centre.	× 200	463

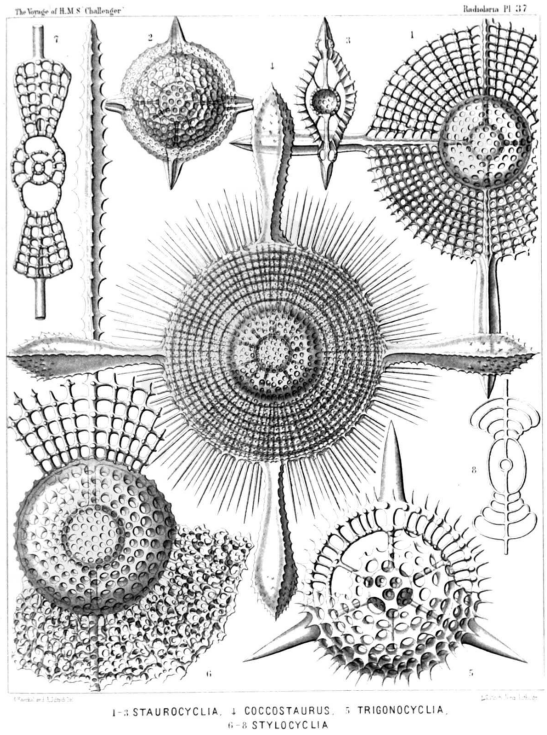


PLATE **38**.

Legion SPUMELLARIA.

Order DISCOIDEA.

Family COCCODISCIDA.

PLATE 38.

COCCODISCIDA.

	Diam.	Page.
Fig. 1. *Amphicyclia chronometra*, n. sp.,	× 400	463
Fig. 2. *Amphicyclia pachydiscus*, n. sp., Vertical section through the centre.	× 500	464
Fig. 3. *Amphiactura amphibrachia*, n. sp.,	× 300	470
Fig. 4. *Amphiactura amphibrachia*, n. sp., Vertical section through the centre.	× 150	470
Fig. 5. *Diplactura diploconus*, n. sp.,	× 300	470
Fig. 6. *Trigonactura triacantha*, n. sp.,	× 200	472
Fig. 7. *Trigonactura triacantha*, n. sp., Vertical section nearly through the centre.	× 400	472
Fig. 8. *Hymenactura archimedis*, n. sp.,	× 300	473
Fig. 9. *Hymenactura copernici*, n. sp.,	× 200	475

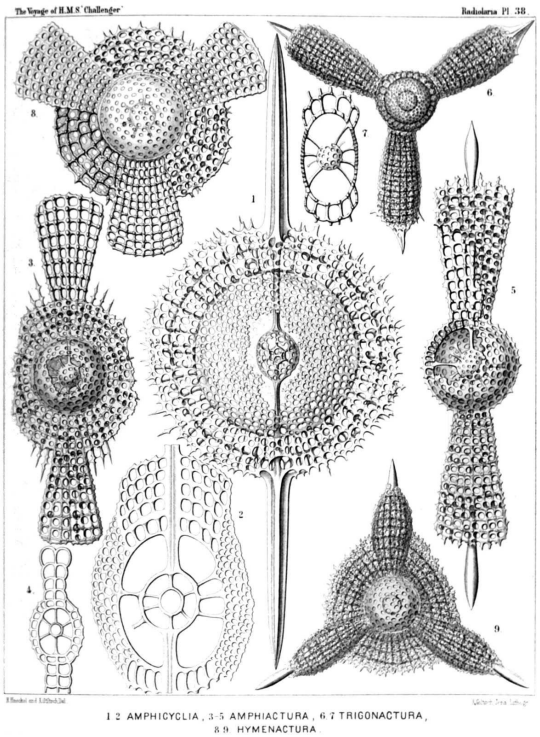


PLATE **39**.

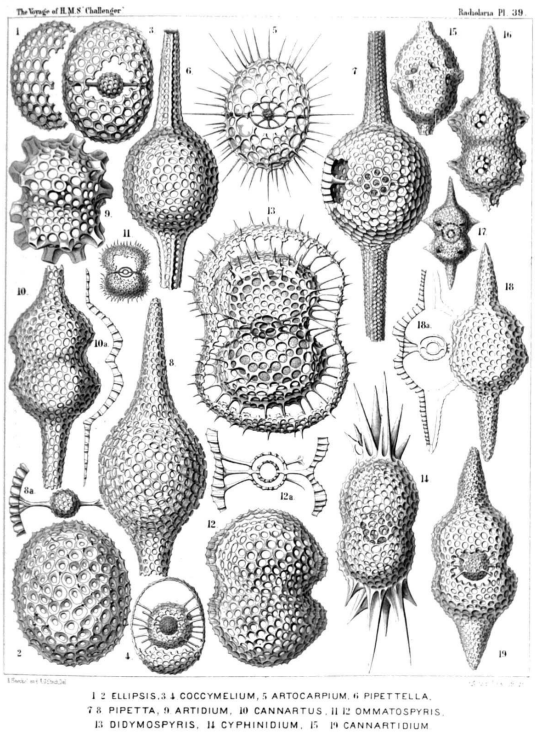
Legion SPUMELLARIA.

Order PRUNOIDEA.

Families ELLIPSIDA, DRUPPULIDA, ARTISCIDA et CYPHINIDA.

PLATE 39.

ELLIPSIDA, DRUPPULIDA, ARTISCIDA et CYPHINIDA.



1 2 ELLIPSIS, 3 4 COCCYMELIUM, 5 ARTOCARPIUM, 6 PIPETTELLA,
7 8 PIPETTA, 9 ARTIDIUM, 10 CANNARTUS, 11 12 OMMATOSPYRIS,
13 DIDYMOSPYRIS, 14 CYPHINIDIUM, 15 19 CANNARTIDIUM.

	Diam.	Page.
Fig. 1. *Cenellipsis faceta*, n. sp. (vel *Ellipsis faceta*),	× 300	291
Fig. 2. *Cenellipsis infundibulum*, n. sp. (vel *Ellipsis infundibulum*),	× 300	292
Fig. 3. *Druppula pandanus*, n. sp. (vel *Coccymelium pandanus*),	× 300	308
Fig. 4. *Prunulum coccymelium*, n. sp. (vel *Coccymelium prunulum*),	× 300	313
Fig. 5. *Prunocarpus artocarpium*, n. sp. (vel *Artocarpium indicum*),	× 300	316
Fig. 6. *Pipettella prismatica*, n. sp.,	× 300	305
Fig. 7. *Pipetta tuba*, n. sp.,	× 300	337
Fig. 8. *Pipetta fusus*, n. sp.,	× 300	337
Fig. 8*a*. The enclosed medullary shell.		
Fig. 9. *Artiscus nodosus*, n. sp. (vel *Artidium nodosum*),	× 400	356
Fig. 10. *Cannartus violina*, n. sp.,	× 300	358
Fig. 11. *Cyphonium cribellum*, n. sp.,	× 200	365
Fig. 12. *Cyphonium virgineum*, n. sp. (vel *Ommatospyris virginea*),	× 400	363
Fig. 12*a*. Vertical section through the double medullary shell.		
Fig. 13. *Cypassis puella*, n. sp. (vel *Didymospyris puella*),	× 400	367
The enclosed central capsule is visible.		
Fig. 14. *Cyphinus amphilophus*, N. sp.,	× 300	370
Fig. 15. *Pipettaria tubaria*, n. sp.,	× 300	339
Fig. 16. *Cannartidium mammiferum*, n. sp.,	× 300	375
Fig. 17. *Cannartidium mastophorum*, n. sp.,	× 150	375
Fig. 18. *Cannartidium bicinctum*, n. sp.,	× 300	374
Fig. 18*a*. Vertical section through the main axis.		
Fig. 19. *Cannartiscus amphiconiscus*, n. sp.,	× 300	372

PLATE **40**.

Legion SPUMELLARIA.

Order PRUNOIDEA.

Families PANARTIDA et ZYGARTIDA.

PLATE 40.

PANARTIDA et ZYGARTIDA.

	Diam.	Page.
Fig. 1. *Panartus diploconus*, n. sp.,	× 300	379

Fig. 2. *Panartus pluteus*, n. sp., × 300 382

Fig. 3. *Panartus tetrathalamus*, n. sp., × 300 378

Fig. 4. *Panicium coronatum*, n. sp. (vel *Panartidium coronatum*), × 300 386

Fig. 5. *Peripanartus amphiconus*, n. sp., × 300 383

Fig. 6. *Peripanartus cylindrus*, n. sp., × 150 384

Fig. 7. *Peripanartus atractus*, n. sp., × 300 384

Fig. 8. *Peripanicium amphicorona*, n. sp., × 300 387

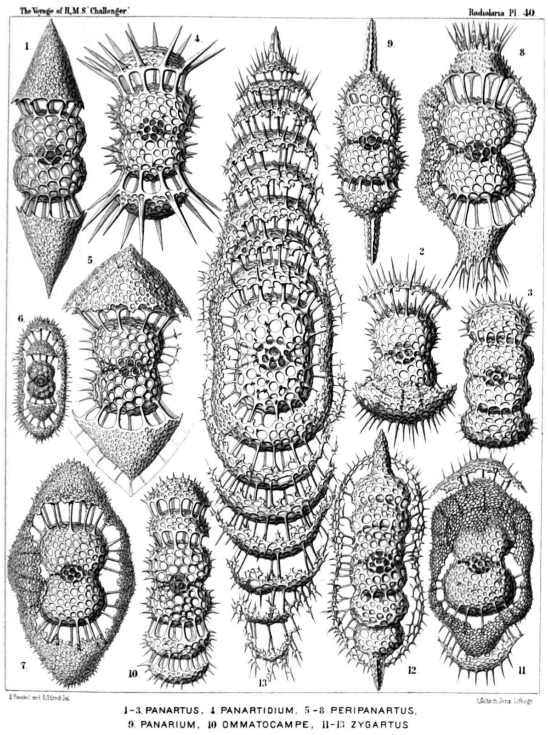
Fig. 9. *Panarium tubularium*, n. sp., × 300 390

Fig. 10. *Ommatocampe nereides*, n. sp., × 300 394

Fig. 11. *Cyphocolpus virginis*, n. sp. (vel *Zygartus virginis*) × 300 369

Fig. 12. *Desmartus larvalis*, n. sp. (vel *Zygartus larvalis*), × 300 398

Fig. 13. *Zygartus chrysalis*, n. sp. (vel *Zygocampe chrysalis*), × 400 401



1–3 PANARTUS, 4 PANARTIDIUM, 5–8 PERIPANARTUS,
9 PANARIUM, 10 OMMATOCAMPE, 11–13 ZYGARTUS

PLATE **41**.

Legion SPUMELLARIA.

Order DISCOIDEA.

Families PORODISCIDA et SPONGODISCIDA.

PLATE 41.

PORODISCIDA et SPONGODISCIDA.

Diam. Page.

Fig. 1. *Porodiscus flustrella*, n. sp., × 300 493

Fig. 2. *Porodiscus perispira*, n. sp., × 200 495
The rings alone (equatorial section).

Fig. 3. *Porodiscus quadrigatus*, n. sp., × 200 494
The rings alone (equatorial section).

Fig. 4. *Porodiscus semispiralis*, n. sp., × 500 497

Fig. 5. *Perichlamydium saturnus*, n. sp., × 300 499

Fig. 6. *Porodiscus centrospira*, n. sp. (vel *Perispongidium centrospira*), × 200 495
The rings alone (equatorial section).

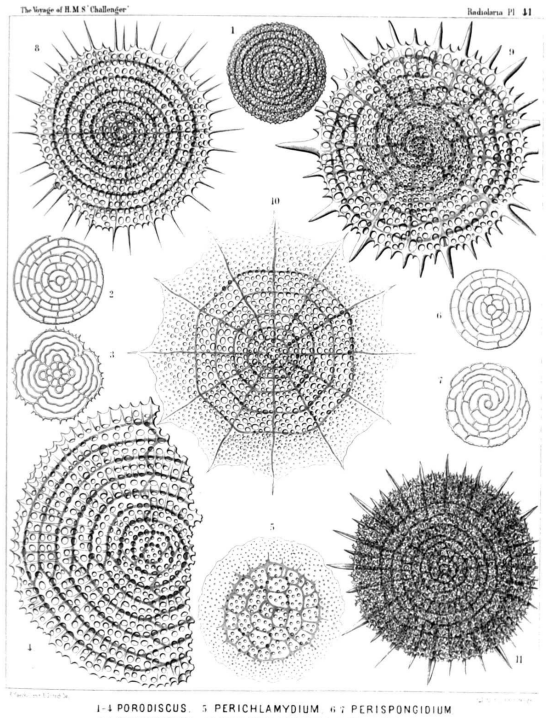
Fig. 7. *Porodiscus irregularis*, n. sp. (vel *Perispongidium irregulare*), × 200 498
The rings alone (equatorial section).

Fig. 8. *Stylodictya heliospira*, n. sp., × 400 512

Fig. 9. *Stylodictya centrospira*, n. sp., × 400 512

Fig. 10. *Stylochlamydium asteriscus*, n. sp., × 400 514

Fig. 11. *Stylotrochus geddesii*, n. sp., × 300 585



1–4 PORODISCUS. 5 PERICHLAMYDIUM. 6, 7 PERISPONGIDIUM.
8, 9 STYLODICTYA. 10 STYLOCHLAMYDIUM. 11 STYLOSPONGIDIUM.

PLATE **42**.

Legion SPUMELLARIA.

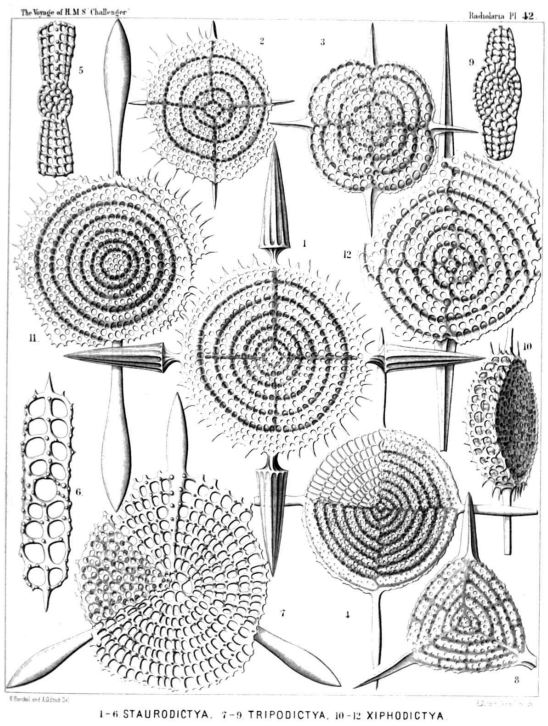
Order DISCOIDEA.

Family PORODISCIDA.

PLATE 42.

PORODISCIDA.

	Diam.	Page.
Fig. 1. *Staurodictya elegans*, n. sp.,	× 500	507
Fig. 2. *Staurodictya ciliata*, n. sp.,	× 400	506
Fig. 3. *Staurodictya medusa*, n. sp.,	× 400	506
Fig. 4. *Staurodictya cruciata*, n. sp.,	× 300	507
Fig. 5. *Staurodictya cruciata*, n. sp., Vertical section through the disk.	× 300	507
Fig. 6. *Staurodictya grandis*, n. sp., Vertical section through the disk.	× 300	508
Fig. 7. *Tripodictya triacantha*, n. sp.,	× 400	505
Fig. 8. *Tripodictya trigonaria*, n. sp.,	× 400	505
Fig. 9. *Tripodictya tribelonia*, n. sp., Vertical section through the disk.	× 400	505
Fig. 10. *Xiphodictya amphibelonia*, n. sp., Marginal view.	× 300	503
Fig. 11. *Xiphodictya amphirrhopalia*, n. sp.,	× 400	504
Fig. 12. *Xiphodictya staurospira*, n. sp.,	× 500	504



1–6 STAURODICTYA. 7–9 TRIPODICTYA. 10–12 XIPHODICTYA

PLATE **43**.

Legion SPUMELLARIA.

Order DISCOIDEA.

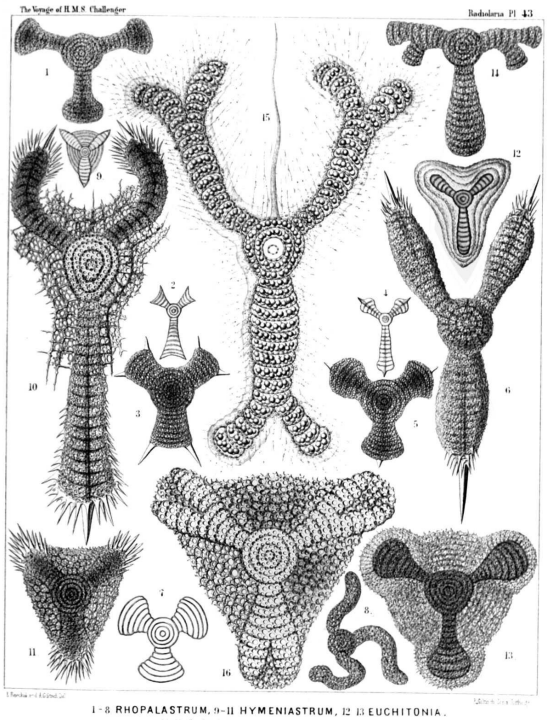
Family PORODISCIDA.

PLATE 43.

PORODISCIDA.

	Diam.	Page.
Fig. 1. *Rhopalastrum malleus*, n. sp.,	× 100	527
Fig. 2. *Rhopalastrum ypsilinum*, n. sp.,	× 50	528
Fig. 3. *Rhopalastrum hexaceros*, n. sp.,	× 100	529
Fig. 4. *Rhopalastrum triceros*, n. sp.,	× 50	529
Fig. 5. *Rhopalastrum trispinosum*, n. sp. (vel *Dictyastrum trispinosum*),	× 150	525
Fig. 6. *Rhopalastrum arcticum*, n. sp.,	× 300	539
Fig. 7. *Rhopalastrum hexagonum*, n. sp. (vel *Dictyastrum hexagonum*),	× 100	525
Fig. 8. *Rhopalastrum irregulare*, n. sp.,	× 100	528
Fig. 9. *Euchitonia lanceolata*, n. sp.,	× 80	534
Fig. 10. *Euchitonia carcinus*, n. sp.,	× 300	535
Fig. 11. *Euchitonia echinata*, n. sp.,	× 120	536
Fig. 12. *Euchitonia stohrii*, n. sp.,	× 100	534
Fig. 13. *Hymeniastrum euclidis*, n. sp.,	× 200	531
Fig. 14. *Chitonastrum jugatum*, n. sp.,	× 200	537
Fig. 15. *Chitonastrum lyra*, n. sp.,	× 500	538

A living specimen observed. The entire shell is enveloped by the calymma and surrounded by radiating pseudopodia (drawn much too short). Between the two paired arms arises a large "sarcode-flagellum." The central



1–8 RHOPALASTRUM, 9–11 HYMENIASTRUM, 12 13 EUCHITONIA.
14 15 DICTYASTRUM, 16 CHITONASTRUM.

chamber and the first enveloping ring are filled by the clear nucleus; the other rings and all the chambers of the arms contain numerous pink oil-globules.

Fig. 16. *Trigonastrum regulare*, n. sp. (vel *Chitonastrum regulare*), × 200 539

PLATE **44**.

Legion SPUMELLARIA.

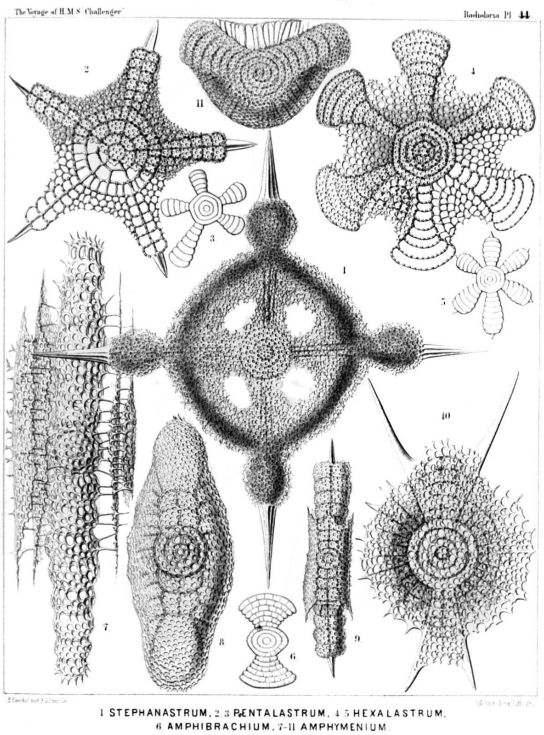
Order DISCOIDEA.

Family PORODISCIDA.

PLATE 44.

PORODISCIDA.

	Diam.	Page.
Fig. 1. *Stephanastrum capitatum*, n. sp.,	× 200	549
Fig. 2. *Pentinastrum asteriscus*, n. sp.,	× 300	557
Fig. 3. *Pentalastrum ophidiaster*, n. sp.,	× 100	557
Fig. 4. *Hexinastrum geryonidum*, n. sp.,	× 300	560
Fig. 5. *Hexalastrum orchidaceum*, n. sp.,	× 50	560
Fig. 6. *Amphibrachium dilatatum*, n. sp.,	× 50	517
Fig. 7. *Amphymenium zygartus*, n. sp.,	× 400	520
Fig. 8. *Amphymenium pupula*, n. sp.,	× 300	519
Fig. 9. *Amphymenium amphistylium*, n. sp.,	× 200	520
Fig. 10. *Amphicraspedum murrayanum*, n. sp.,	× 300	523
Fig. 11. *Amphymenium monstrosum*, n. sp.,	× 300	520



1 STEPHANASTRUM, 2, 3 PENTALASTRUM, 4, 5 HEXALASTRUM,
6 AMPHIBRACHIUM, 7–11 AMPHYMENIUM.

PLATE **45**.

Legion SPUMELLARIA.

Order DISCOIDEA.

Family PORODISCIDA.

PLATE 45.

PORODISCIDA.

	Diam.	Page.
Fig. 1. *Stauralastrum rhopalophorum,* n. sp.,	× 200	541
Fig. 2. *Dicranastrum cornutum*, n. sp.,	× 200	551
Fig. 3. *Hagiastrum mosis*, n. sp.,	× 100	543
Fig. 4. *Hagiastrum mosis*, n. sp.,	× 50	543
Lateral view, from the edge.		
Fig. 5. *Hagiastrum buddhæ*, n. sp.,	× 50	542
Fig. 6. *Stauralastrum cruciforme*, n. sp. (in glycerine),	× 500	540
The central capsule contains a large central nucleus with nucleolus, and is surrounded by the jelly calymma and numerous small zooxanthellæ. The endoplasm is radially striped.		

Fig. 7. *Tesserastrum democriti*, n. sp., × 100 548

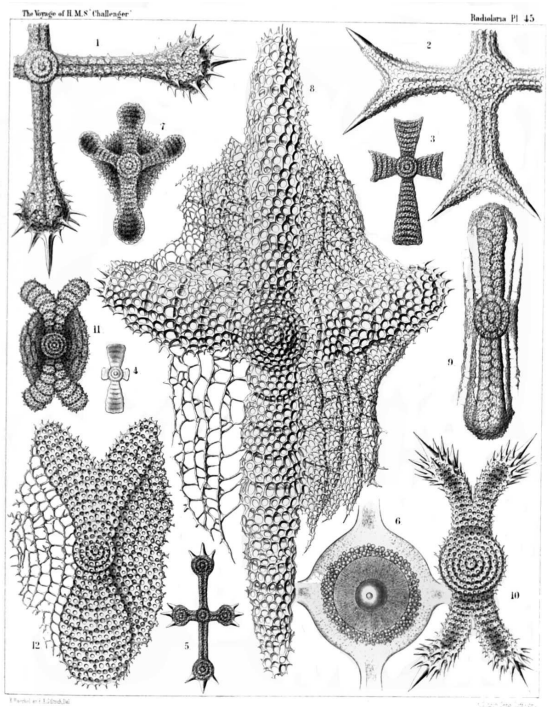
Fig. 8. *Tesserastrum straussii*, n. sp., × 500 547

Fig. 9. *Tesserastrum brunonis*, n. sp., × 200 548
Disk seen from the edge.

Fig. 10. *Amphirhopalum echinatum*, n. sp., × 300 522

Fig. 11. *Amphicraspedum maclaganium*, n. sp., × 100 523

Fig. 12. *Amphicraspedum wyvilleanum*, n. sp., × 300 523



1–6 HAGIASTRUM. 7–9 HISTIASTRUM. 10 AMPHIRHOPALUM.
11. 12 AMPHICRASPEDUM.

PLATE **46**.

Legion SPUMELLARIA.

Order DISCOIDEA.

Family PORODISCIDA.

PLATE 46.

PORODISCIDA.

Diam. Page.

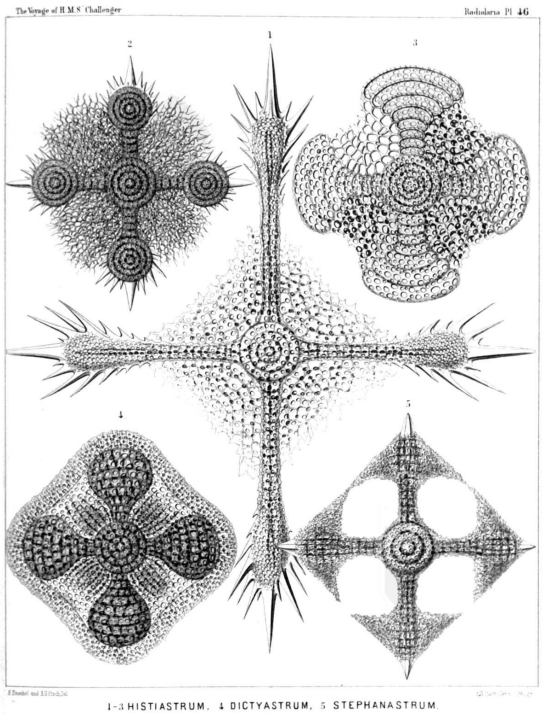
Fig. 1. *Histiastrum boseanum*, n. sp., × 400 546

Fig. 2. *Histiastrum pentadiscus*, n. sp., × 200 546

Fig. 3. *Histiastrum quadrigatum*, n. sp., × 300 544

Fig. 4. *Histiastrum velatum*, n. sp., × 200 545

Fig. 5. *Stephanastrum quadratum*, n. sp., × 200 549



1–3 HISTIASTRUM. 4 DICTYASTRUM. 5 STEPHANASTRUM.

PLATE **47**.

Legion SPUMELLARIA.

Order DISCOIDEA.

Family PORODISCIDA.

PLATE 47.

PORODISCIDA.

	Diam.	Page.
Fig. 1. *Dicranastrum bifurcatum*, n. sp.,	× 200	552
Fig. 1*a*. Central disc of the same,	× 600	
Fig. 2. *Dicranastrum furcatum*, n. sp.,	× 100	550
Fig. 3. *Dicranastrum wyvillei*, n. sp.,	× 100	551
Fig. 4. *Pentophiastrum forcipatum*, n. sp.,	× 50	559
Fig. 5. *Pentophiastrum caudatum*, n. sp.,	× 50	559
Fig. 6. *Myelastrum papilio*, n. sp.,	× 50	554
Fig. 7. *Myelastrum decaceros*, n. sp.,	× 20	554
Fig. 8. *Myelastrum heteropterum*, n. sp.,	× 20	553
Fig. 9. *Myelastrum anomalum*, n. sp.,	× 50	556
Fig. 10. *Myelastrum farfalla*, n. sp.,	× 50	554
Fig. 11. *Myelastrum dodecaceros*, n. sp.,	× 100	554
Fig. 12. *Myelastrum octocorne*, n. sp.,	× 90	553
Fig. 13. *Myelastrum medullare*, n. sp.,	× 50	553

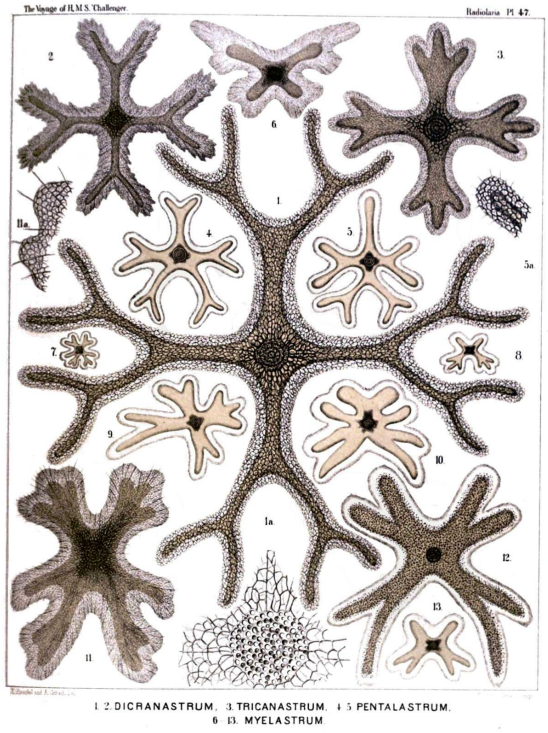


PLATE **48**.

Legion SPUMELLARIA.

Orders PRUNOIDEA ET DISCOIDEA.

Families ELLIPSIDA, ARTISCIDA, SPONGURIDA, CENODISCIDA, PORODISCIDA et PYLODISCIDA.

PLATE 48.

ELLIPSIDA, ARTISCIDA, SPONGURIDA, CENODISCIDA, PORODISCIDA et PYLODISCIDA.

	Diam.	Page.
Fig. 1. *Cenodiscus phacoides*, n. sp.,	× 100	411
Fig. 1*a*. Vertical section.		
Fig. 2. *Crucidiscus endostaurus*, n. sp.,	× 200	416
Equatorial section.		
Fig. 3. *Trochodiscus stellaris*, n. sp.,	× 200	418
Fig. 4. *Axoprunum stauraxonium*, n. sp.,	× 300	298
Equatorial section.		
Fig. 5. *Stylartus bipolaris*, n. sp.,	× 200	357
Vertical section.		
Fig. 6. *Spongocore puella*, n. sp.,	× 300	347
Fig. 7. *Spongoprunum amphilonche*, n. sp.,	× 300	347
Fig. 8. *Stomatodiscus osculatus*, n. sp.,	× 600	503
Fig. 9. *Archidiscus stauroniscus*, n. sp.,	× 400	487
Fig. 9*a*. Marginal view.		
Fig. 10. *Archidiscus hexoniscus*, n. sp.,	× 400	488
Fig. *10a*. Marginal view.		
Fig. 11. *Archidiscus pyloniscus*, n. sp.,	× 400	488
Fig. *11a*. Marginal view.		
Fig. 12. *Triolena primordialis*, n. sp.,	× 800	564
Fig. 13. *Triopyle hexagona*, n. sp.,	× 600	565
Fig. 14. *Triodiscus spinosus*, n. sp.,	× 600	565
Fig. 15. *Pylolena armata*, n. sp.,	× 300	568

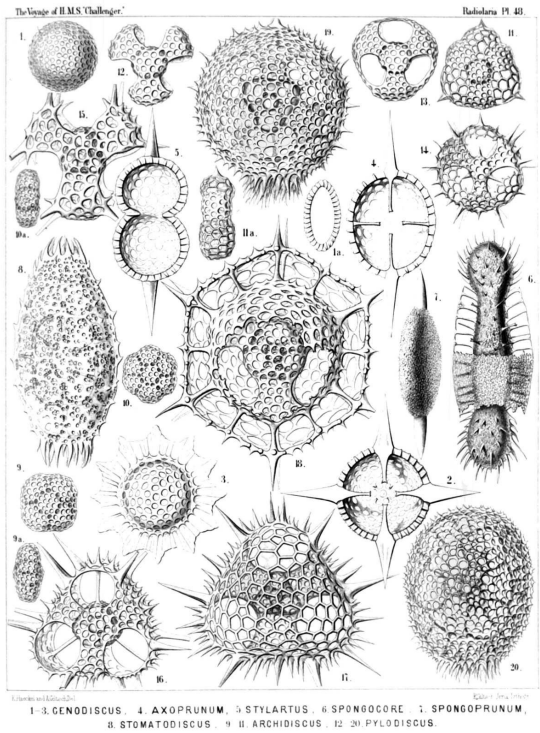


PLATE **49**.

Legion SPUMELLARIA.

Order LARCOIDEA.

Families LITHELIDA, STREBLONIDA, PHORTICIDA et SOREUMIDA.

PLATE 49.

LITHELIDA, STREBLONIDA, PHORTICIDA et SOREUMIDA.

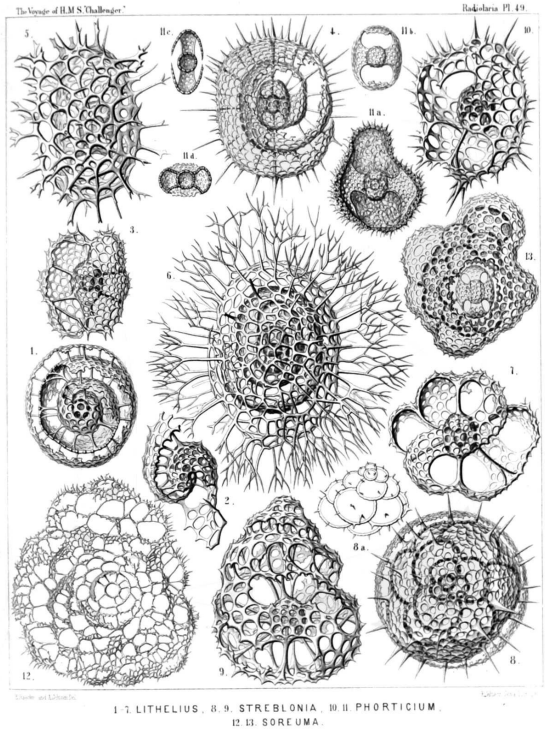


PLATE **50**.

Legion SPUMELLARIA.

Order LARCOIDEA.

Families LARCARIDA, LARNACIDA et ZONARIDA.

PLATE 50.

LARCARIDA, LARNACIDA et ZONARIDA.

Fig. 2*b*. From the principal pole (equatorial section).

Fig. 3. *Larnacalpis triaxonia*, n. sp., × 400 621
From the sagittal pole (dorsal view).

Fig. 4. *Larnacantha hexacantha*, n. sp., × 400 622
From the sagittal pole (dorsal view).

Fig. 5. *Larnacantha bicruciata*, n. sp., × 300 623
Frontal view.

Fig. 6. *Larnacantha prismatica*, n. sp., × 300 623
Half frontal, half lateral view.

Fig. 7. *Cenolarcus primordialis*, n. sp., × 300 607
From the sagittal pole.
Fig. 7*a*. From the lateral pole.
Fig. 7*b*. From the principal pole.

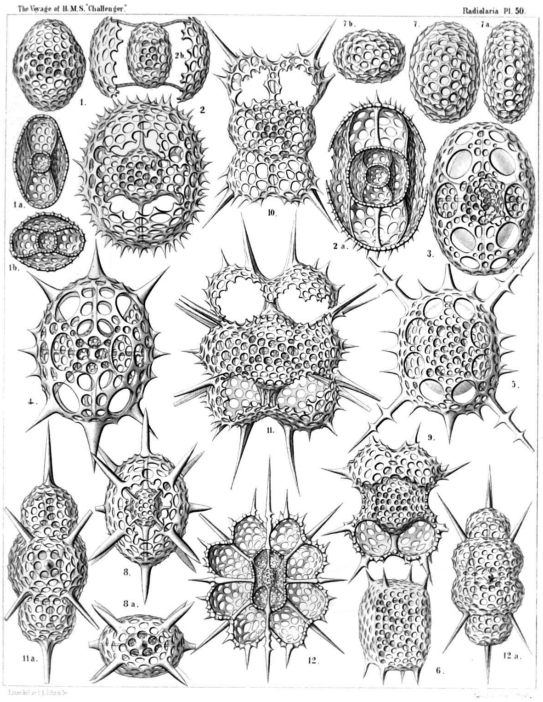
Fig. 8. *Larcidium dodecanthum*, n. sp., × 300 612
From the sagittal pole.
Fig. 8*a*. From the principal pole.

Fig. 9. *Zonarium octangulum*, n. sp., × 300 685
Frontal view.

Fig. 10. *Zoniscus tetracanthus*, n. sp., × 300 687
Frontal view.

Fig. 11. *Zoniscus hexatholius*, n. sp., × 400 687
Dorsal view (from the sagittal pole).
Fig. 11*a*. Lateral view (from the frontal pole).

Fig. 12. *Zonidium octotholium*, n. sp., × 300 688
Frontal section (from the sagittal pole).
Fig. 12*a*. Lateral view (from the frontal pole).



1. LARNACILLA. 2-6. LARNACALPIS. 7. CENOLARCUS.
8. LARCIDIUM. 9-12. ZONARIUM.

PLATE **51**.

Legion NASSELLARIA.

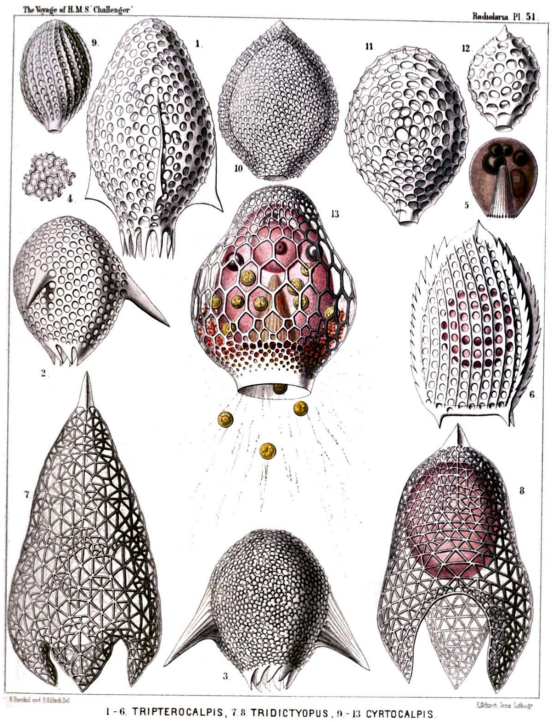
Order CYRTOIDEA.

Families TRIPOCALPIDA, PHÆNOCALPIDA et CYRTOCALPIDA.

PLATE 51.

TRIPOCALPIDA, PHÆNOCALPIDA et CYRTOCALPIDA.

	Diam.	Page.
Fig. 1. *Tripterocalpis phylloptera*, n. sp.,	× 400	1138
Fig. 2. *Tripterocalpis conoptera*, n. sp.,	× 300	1138
Fig. 3. *Tripterocalpis ogmoptera*, n. sp.,	× 300	1138
Fig. 4. *Tripterocalpis ogmoptera*, n. sp., A group of confluent pores, more enlarged.	× 500	1138
Fig. 5. *Tripterocalpis ogmoptera*, n. sp., Central capsule. In the centre the striate podoconus, above it four oil-globules, to the right the nucleus.	× 300	1138
Fig. 6. *Tripocalpis triserrata*, n. sp.,	× 600	1136
Fig. 7. *Tridictyopus conicus*, n. sp.,	× 300	1145
Fig. 8. *Tridictyopus vatillum*, n. sp.,	× 400	1145
Fig. 9. *Cyrtophormis spiralis*, n. sp.,	× 400	1166
Fig. 10. *Archicorys ovata*, n. sp.,	× 300	1185
Fig. 11. *Cyrtocalpis gromia*, n. sp.,	× 400	1188
Fig. 12. *Archicorys microstoma*, n. sp.,	× 400	1185
Fig. 13. *Cyrtocalpis urceolus*, n. sp., The ovate central capsule exhibits in the lower	× 500	1186



1-6. TRIPTEROCALPIS, 7 8. TRIDICTYOPUS, 9-13. CYRTOCALPIS.

half the podoconus, in the upper half the spherical nucleus and three oil-globules. Between the capsule and the shell numerous xanthellæ, partly protruded through the shell-mouth along the radiating pseudopodia.

PLATE **52**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Families TRIPOCALPIDA, PHÆNOCALPIDA, CYRTOCALPIDA et ANTHOCYRTIDA.

PLATE 52.

TRIPOCALPIDA, PHÆNOCALPIDA, CYRTOCALPIDA et ANTHOCYRTIDA.

	Diam.	Page.
Fig. 1. *Cyrtophormis pila*, n. sp.,	× 300	1165
Fig. 2. *Cyrtophormis ærostatica*, n. sp.,	× 300	1166
Fig. 3. *Cyrtophormis ærostatica*, n. sp., Longitudinal section.	× 300	1166
Fig. 4. *Cyrtocalpis sethopora*, n. sp.,	× 600	1187
Fig. 5. *Cyrtocalpis lithomitra*, n. sp.,	× 400	1187
Fig. 6. *Cyrtocalpis lithomitra*, n. sp., Longitudinal section.	× 400	1187
Fig. 7. *Cyrtocalpis compacta*, n. sp.,	× 400	1187
Fig. 8. *Cyrtocalpis compacta*, n. sp., Longitudinal section.	× 400	1187
Fig. 9. *Carpocanistrum flosculum*, n. sp.,	× 400	1171
Fig. 10. *Carpocanistrum cephalum*, n. sp.,	× 300	1171
Fig. 11. *Carpocanistrum evacuatum*, n. sp.,	× 400	1172
Fig. 12. *Carpocanium verecundum*, n. sp., Vertical section through the top of the shell.	× 400	1284
Fig. 13. *Carpocanium verecundum*, n. sp.,	× 400	1284
Fig. 14. *Carpocanium irregulare*, n. sp.,	× 400	1284
Fig. 15. *Carpocanium hexagonale*, n. sp.,	× 400	1282
Fig. 16. *Carpocanium peristomium*, n. sp.,	× 500	1283
Fig. 17. *Carpocanium peristomium*, n. sp., Vertical section.	× 500	1283
Fig. 18. *Carpocanium trepanium*, n. sp., Peristome.	× 600	1282
Fig. 19. *Carpocanium petalospyris*, n. sp.,	× 300	1283
Fig. 20. *Carpocanium virgineum*, n. sp.,	× 600	1285
Fig. 21. *Tripodiscium sphærocephalum*, n. sp.,	× 400	1144
Fig. 22. *Tripodiscium tristylospyris*, n. sp. (vel *Tristylospyris tripodiscium*),	× 600	1143
Fig. 23. *Tripodiscium ramosum*, n. sp. (vel *Tristylospyris ramosa*),	× 600	1144

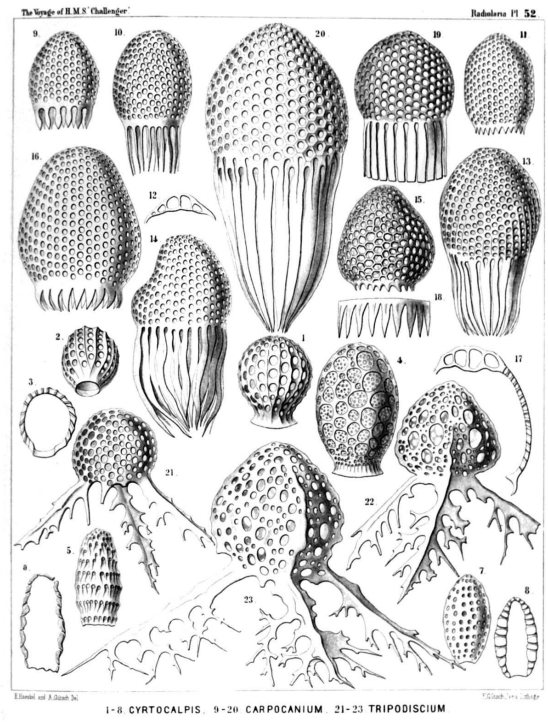


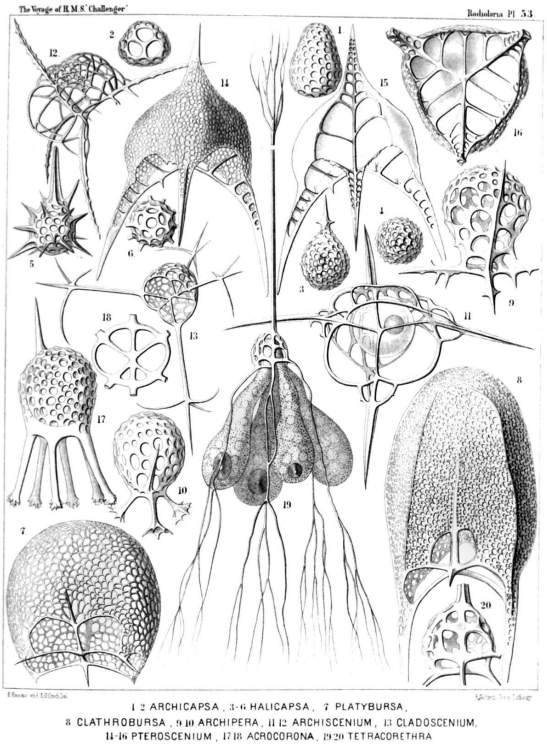
PLATE **53**.

Legion NASSELLARIA.

Orders SPYROIDEA ET CYRTOIDEA.

PLATE 53.

Zygospyrida, Tripocalpida, Phænocalpida et Cyrtocalpida.



	Diam.	Page.
Fig. 1. *Archicapsa triforis*, n. sp., Lateral view.	× 300	1191
Fig. 2. *Archicapsa triforis*, n. sp., Basal view.	× 300	1191
Fig. 3. *Halicapsa triglochin*, n. sp., Lateral view.	× 200	1190
Fig. 4. *Halicapsa triglochin*, n. sp., Basal view.	× 200	1191
Fig. 5. *Halicapsa hystrix*, n. sp., Lateral view.	× 200	1191
Fig. 6. *Halicapsa hystrix*, n. sp., Basal view.	× 200	1191
Fig. 7. *Cantharospyris platybursa*, n. sp. (vel *Platybursa compressa*),	× 400	1051
Fig. 8. *Tessarospyris clathrobursa*, n. sp. (vel *Clathrobursa dictyopus*),	× 400	1045
Fig. 9. *Peridium spinipes*, n. sp.,	× 500	1154
Fig. 10. *Peridium palmipes*, n. sp.,	× 500	1154
Fig. 11. *Archiscenium quadrispinum*, n. sp., In the spherical central capsule the dark nucleus is visible.	× 500	1150
Fig. 12. *Euscenium eucolpium*, n. sp.,	× 500	1147
Fig. 13. *Cladoscenium ancoratum*, n. sp.,	× 400	1149
Fig. 14. *Pteroscenium pinnatum*, n. sp., Lateral view.	× 400	1152
Fig. 15. *Pteroscenium pinnatum*, n. sp., Vertical section.	× 400	1152
Fig. 16. *Pteroscenium pinnatum*, n. sp., Basal view.	× 400	1152
Fig. 17. *Calpophæna hexarrhabda*, n. sp.,	× 400	1176
Fig. 18. *Calpophæna hexarrhabda*, n. sp., Basal plate.	× 400	1176
Fig. 19. *Tetraspyris tetracorethra*, n. sp., With the four-lobed central capsule, in each lobe an oil-globule.	× 400	1044
Fig. 20. *Tetraspyris tetracorethra*, n. sp., Shell more enlarged.	× 800	1044

PLATE **54**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Families Phænocalpida, Cyrtocalpida, Anthocyrtida et Sethocyrtida.

PLATE 54.

Phænocalpida, Cyrtocalpida, Anthocyrtida et Sethocyrtida.

	Diam.	Page.
Fig. 1. *Bathropyramis quadrata*, n. sp.,	× 300	1159
Fig. 2. *Sethopyramis quadrata*, n. sp.,	× 300	1254

Fig. 3. *Bathropyramis trapezoides*, n. sp., × 300 1160

Fig. 4. *Bathropyramis ramosa*, n. sp., × 300 1161

Fig. 5. *Peripyramis circumtexta*, n. sp., × 300 1162

Fig. 6. *Plectopyramis dodecomma*, n. sp., × 400 1258

Fig. 7. *Cinclopyramis infundibulum*, n. sp., × 300 1161

Fig. 8. *Plectopyramis trapezomma*, n. sp., × 400 1258

Fig. 9. *Cornutella hexagona*, n. sp., × 400 1180

Fig. 10. *Cornutella sethoconus*, n. sp., × 400 1180

Fig. 11. *Sethoconus orthoceras*, n. sp., × 400 1294

Fig. 12. *Sethoconus bimarginatus*, n. sp., × 400 1295

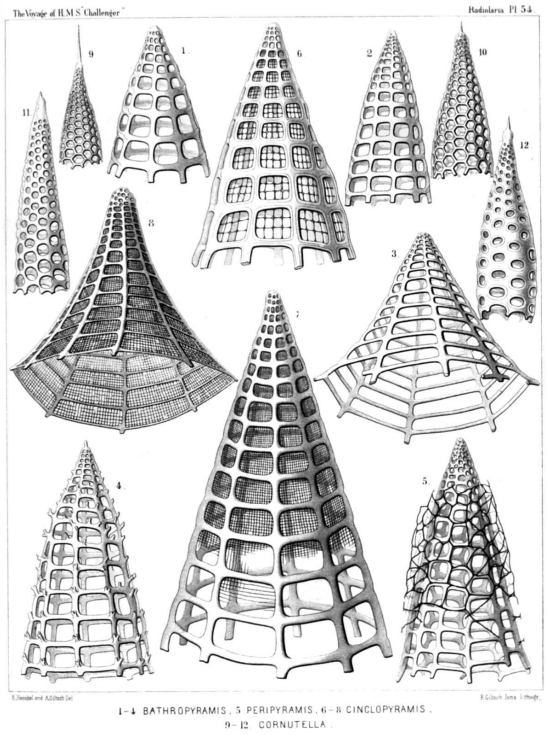


PLATE **55**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Families PHÆNOCALPIDA, ANTHOCYRTIDA et SETHOCYRTIDA.

PLATE 55.

PHÆNOCALPIDA, ANTHOCYRTIDA et SETHOCYRTIDA.

Diam. Page.

Fig. 1. *Sethoconus facetus*, n. sp. (vel *Phlebarachnium facetum*), × 300 1296

Upper part of the shell.

Fig. 2. *Sethoconus venosus*, n. sp. (vel *Phlebarachnium venosum*), × 250 1297

Shell including the four-lobed central capsule.

Fig. 3. *Sethophormis aurelia*, n. sp. (vel *Leptarachnium aurelia*), × 100 1248

Shell seen from above.

Fig. 4. *Sethophormis aurelia*, n. sp., × 400 1248

Cephalis more enlarged, with the enclosed four-lobed central capsule.

Fig. 5. *Cladarachnium ramosum*, n. sp., × 300 1165

Apical view.

Fig. 6. *Cladarachnium ramosum*, n. sp., × 70 1165

Lateral view.

Fig. 7. *Bathropyramis interrupta*, n. sp., × 300 1160

Apical part of the shell, from above.

Fig. 8. *Litharachnium araneosum*, n. sp., × 300 1163

Apical part of the shell, from above.

Fig. 9. *Litharachnium epeira*, n. sp., × 500 1164

Oblique view of the shell.

Fig. 10. *Litharachnium araneosum*, n. sp., × 50 1163

Lateral view.

Fig. 11. *Periarachnium periplectum*, n. sp., × 500 1297

Shell enclosing the trilobed central capsule.

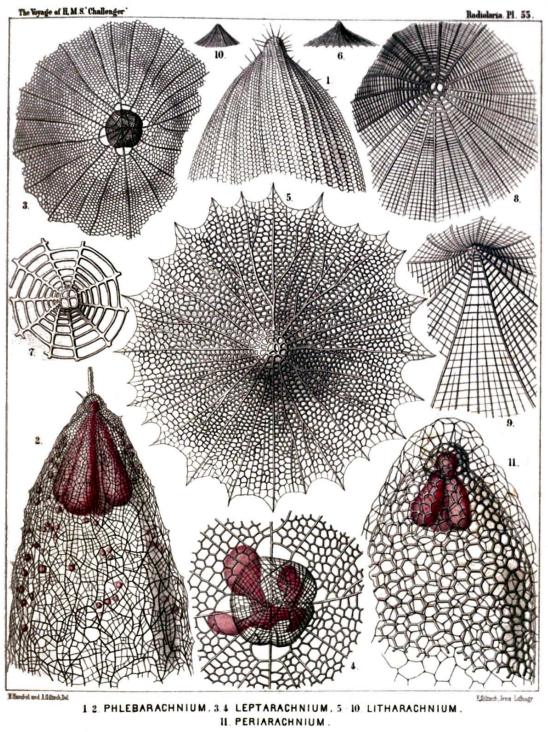


PLATE **56**.

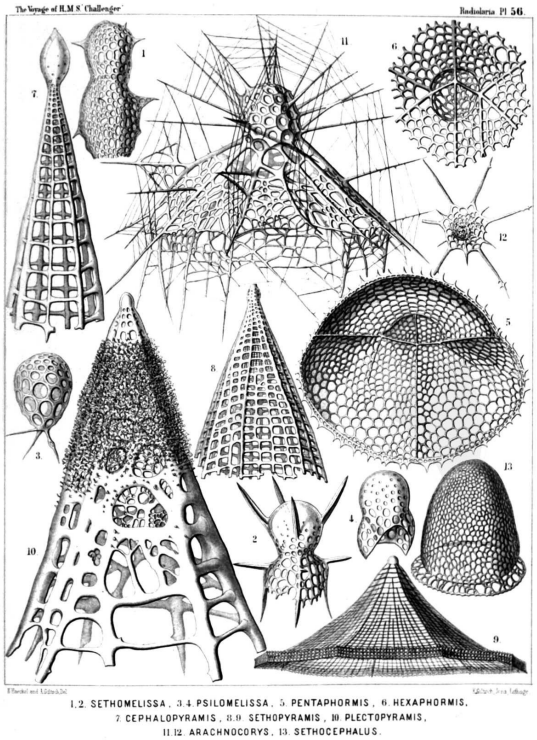
Legion NASSELLARIA.

Order CYRTOIDEA.

Families TRIPOCYRTIDA, ANTHOCYRTIDA et SETHOCYRTIDA.

PLATE 56.

TRIPOCYRTIDA, ANTHOCYRTIDA et SETHOCYRTIDA.



	Diam.	Page.
Fig. 1. *Lithomelissa bütschlii,* n. sp. (vel *Sethomelissa bütschlii*),	× 400	1207
Fig. 2. *Lithomelissa decacantha,* n. sp. (vel *Sethomelissa decacantha*),	× 400	1208
Fig. 3. *Psilomelissa calvata,* n. sp., The cephalis alone, with the three collar beams.	× 400	1209
Fig. 4. *Lychnodictyum scaphopodium,* n. sp.,	× 400	1231
Fig. 5. *Sethophormis pentalactis,* n. sp. (vel *Pentaphormis pentalactis*), Oblique view of the shell, from below.	× 400	1244
Fig. 6. *Sethophormis hexalactis,* n. sp. (vel *Hexaphormis hexalactis*), Central part of the shell, with the cortinar septum.	× 400	1245
Fig. 7. *Sethopyramis enneactis,* n. sp. (vel *Cephalopyramis enneactis*),	× 400	1254
Fig. 8. *Plectopyramis polypleura,* n. sp. (vel *Sethopyramis polypleura*),	× 200	1260
Fig. 9. *Sethophormis eupilium,* n. sp. (vel *Craspedilium eupilium*),	× 400	1247
Fig. 10. *Plectopyramis spongiosa,* n. sp. (vel *Spongopyramis spongiosa*),	× 400	1261
Fig. 11. *Arachnocorys araneosa,* n. sp.,	× 500	1266
Fig. 12. *Sethophormis dodecaster,* n. sp. (vel *Astrophormis dodecaster*),	× 200	1248
Fig. 13. *Sethocephalus eucecryphalus,* n. sp.,	× 400	1298

PLATE **57**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Families TRIPOCYRTIDA, ANTHOCYRTIDA et SETHOCYRTIDA.

PLATE 57.

TRIPOCYRTIDA, ANTHOCYRTIDA et SETHOCYRTIDA.

	Diam.	Page.
Fig. 1. *Dicolocapsa microcephala*, n. sp.,	× 400	1312
Fig. 2. *Sethocapsa pyriformis*, n. sp.,	× 300	1310
Fig. 3. *Lithopera ananassa*, n. sp.,	× 500	1234
Fig. 4. *Sethamphora favosa*, n. sp. (vel *Cryptoprora favosa*),	× 400	1252
Fig. 5. *Sethamphora microstoma*, n. sp. (vel *Cryptoprora microstoma*),	× 300	1252
Fig. 6. *Clistophæna hexolena*, n. sp.,	× 300	1287

Fig. 7. *Clistophæna armata*, n. sp., × 300 1288

Fig. 8. *Clathromitra pterophormis*, n. sp., × 400 1219

Fig. 9. *Sethophormis rotula*, n. sp. (vel *Enneaphormis rotula*), × 400 1246

Fig. 10. *Dictyophimus sphærocephalus*, n. sp., × 400 1195

Fig. 11. *Peromelissa phalacra*, n. sp., × 400 1236

Fig. 12. *Peromelissa calva*, n. sp., × 300 1237

Fig. 13. *Sethochytris triconiscus*, n. sp., × 300 1239

Fig. 14. *Micromelissa bombus*, n. sp., × 300 1235

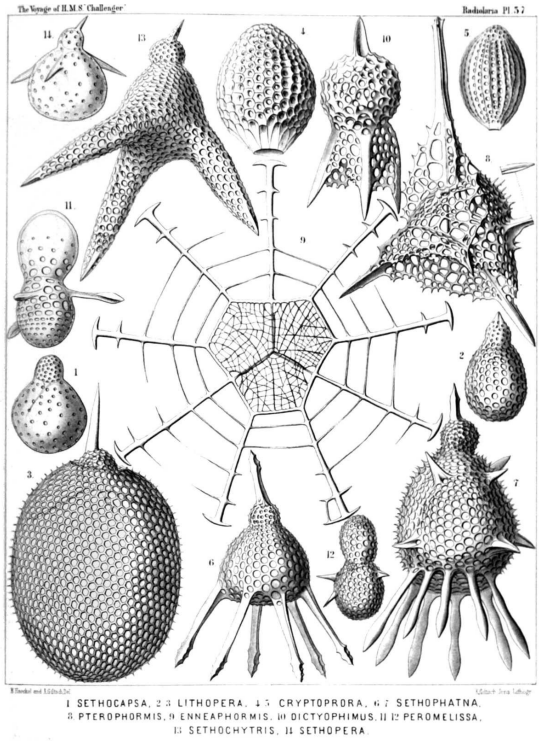


PLATE **58**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Families Tripocyrtida, Sethocyrtida, Phormocyrtida et Theocyrtida.

PLATE 58.

Tripocyrtida, Sethocyrtida, Phormocyrtida et Theocyrtida.

Diam. Page.

Fig. 1. *Cecryphalium sestrodiscus*, n. sp., × 400 1399
Apical view.

Fig. 2. *Cecryphalium lamprodiscus*, n. sp., × 400 1398
Apical view.

Fig. 3. *Clathrocyclas coscinodiscus*, n. sp., × 400 1389
Apical view.

Fig. 4. *Clathrocyclas coscinodiscus*, n. sp., × 700 1389
The cephalis alone, with the two horns.

Fig. 5. *Clathrocyclas semeles*, n. sp., × 400 1388
Lateral view.

Fig. 6. *Sethoconus capreolus*, n. sp., × 400 1291
Lateral view.

Fig. 7. *Lampromitra quadricuspis*, n. sp., × 400 1214
Apical view.

Fig. 8. *Lampromitra furcata*, n. sp., × 400 1215
The collar septum after removal of the cephalis.

Fig. 9. *Lampromitra dendrocorona*, n. sp., × 400 1216
Apical view.

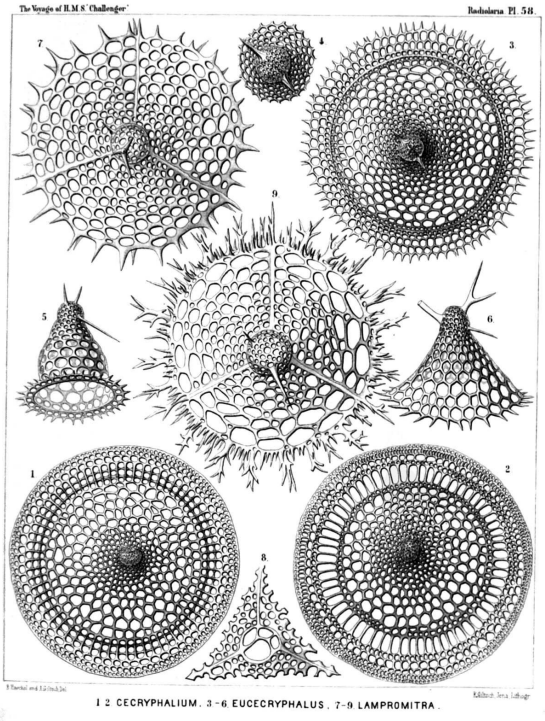


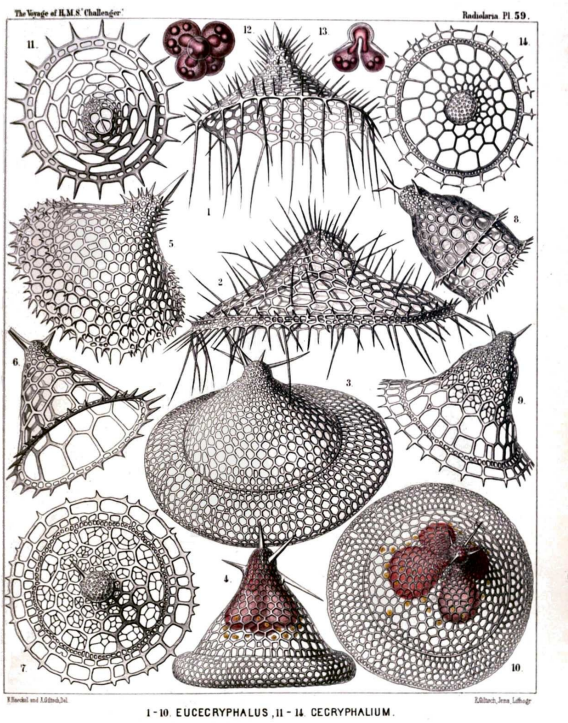
PLATE **59**.

Legion NASSELLARIA.

Order CYRTOIDEA.

PLATE 59.

TRIPOCYRTIDA, PODOCYRTIDA et PHORMOCYRTIDA.



	Diam.	Page.
Fig. 1. *Lampromitra huxleyi*, n. sp.,	× 400	1215
Fig. 2. *Amphiplecta callistoma*, n. sp.,	× 400	1224
Fig. 3. *Corocalyptra agnesæ*, n. sp.,	× 400	1323
Fig. 4. *Corocalyptra emmæ*, n. sp., The shell encloses the trilobate central capsule, with the trilobate nucleus.	× 400	1323
Fig. 5. *Clathrocyclas cassiopejæ*, n. sp.,	× 400	1390
Fig. 6. *Clathrocyclas alcmenæ*, n. sp.,	× 400	1388
Fig. 7. *Clathrocyclas latonæ*, n. sp., Apical view.	× 400	1389
Fig. 8. *Diplocylas bicorona*, n. sp.,	× 400	1392
Fig. 9. *Clathrocyclas ionis*, n. sp.,	× 400	1389
Fig. 10. *Corocalyptra elisabethæ*, n. sp., Oblique apical view of the shell, with the quadrilobate central capsule enclosed.	× 400	1323
Fig. 11. *Clathrocyclas europæ*, n. sp., Apical view of the shell, after removal of the cephalis.	× 400	1388
Fig. 12. *Clathrocyclas europæ*, n. sp., Central capsule, seen from above, with the quadrilobate nucleus.	× 400	1388
Fig. 13. *Clathrocyclas danaës*, n. sp., Vertical section through the cephalis and the quadrilobate central capsule, with the quadrilobate nucleus.	× 300	1388
Fig. 14. *Clathrocyclas danaës*, n. sp., Apical view of the shell.	× 300	1388

PLATE **60**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Family TRIPOCYRTIDA.

PLATE 60.

TRIPOCYRTIDA.

	Diam.	Page.
Fig. 1. *Dictyophimus cienkowskii*, n. sp. (vel *Lamprotripus squarrosus*), Shell seen from the side.	× 300	1200
Fig. 2. *Dictyophimus bütschlii*, n. sp. (vel *Lamprotripus horridus*),	× 300	1201
Fig. 3. *Dictyophimus hertwigii*, n. sp. (vel *Lamprotripus spinosus*), The cephalis of the shell includes the central capsule, with three lobes depending in the pyramidal thorax.	× 400	1201
Fig. 4. *Dictyophimus platycephalus*, n. sp., Central capsule with four thoracic lobes, each of which contains an oil-globule; kidney-shaped nucleus in the cephalic lobe.	× 400	1198
Fig. 5. *Dictyophimus platycephalus*, n. sp., Shell seen from the side.	× 400	1198
Fig. 6. *Dictyophimus brandtii*, n. sp.,	× 300	1198

Shell seen from the base, with the four large pores of the collar septum, two minor jugular and two major cardinal pores.

Fig. 7. *Lampromitra coronata*, n. sp., × 400 1214

Shell seen from below, with the quadrilobate central capsule.

Fig. 7*a*. A portion of the shell-margin, × 800 1214

Fig. 8. *Lampromitra arborescens*, n. sp., × 400 1216

Shell from above.

Fig. 8*a*. The collar septum with the four crossed rods of the cortina, × 400 1216

Fig. 9. *Tripocyrtis plectaniscus*, n. sp., × 400 1202

Fig. 10. *Tripocyrtis plagoniscus*, n. sp., × 400 1201

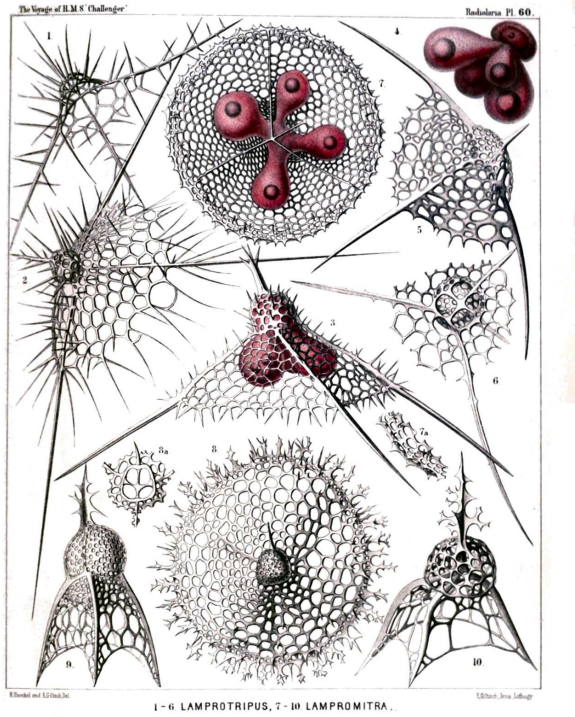


PLATE **61**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Family TRIPOCYRTIDA.

PLATE 61.

TRIPOCYRTIDA.

Diam. Page.

Fig. 1. *Dictyophimus cortina*, n. sp., × 400 1197

Fig. 2. *Lychnocanium pudicum*, n. sp., × 200 1230

Fig. 3. *Dictyophimus longipes*, n. sp., × 400 1197

Fig. 4. *Lychnocanium clavigerum*, n. sp., × 300 1230

Fig. 5. *Dictyophimus lasanum*, n. sp., × 300 1197

Fig. 6. *Lychnocanium favosum*, n. sp., × 300 1225

Fig. 7. *Lychnocanium lanterna*, n. sp., × 300 1224

Fig. 8. *Dictyophimus plectaniscus*, n. sp., × 300 1196

Apical view.

Fig. 9. *Dictyophimus plectaniscus*, n. sp., × 300 1196

Lateral view.

Fig. 10. *Lychnocanium fenestratum*, n. sp., × 400 1228

Fig. 11. *Lychnocanium pyriforme*, n. sp., × 300 1225

Fig. 12. *Lychnocanium fortipes*, n. sp., × 300 1227

Fig. 13. *Lychnocanium tuberosum*, n. sp., × 300 1227

Fig. 14. *Lychnocanium nodosum*, n. sp., × 300 1225

Fig. 15. *Lychnocanium sigmopodium*, n. sp., × 400 1228

Fig. 16. *Dictyophimus pyramis*, n. sp., × 300 1196

Fig. 17. *Dictyophimus triserratus*, n. sp., × 300 1200

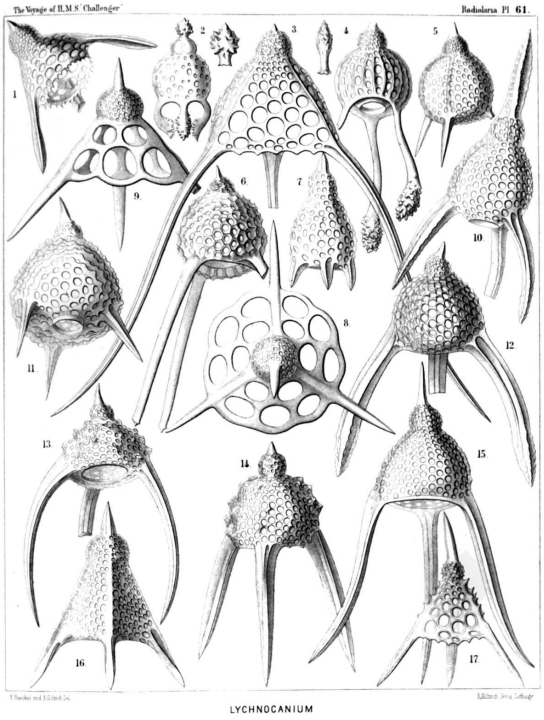


PLATE **62**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Families ANTHOCYRTIDA, SETHOCYRTIDA et PHORMOCYRTIDA.

PLATE 62.

ANTHOCYRTIDA, SETHOCYRTIDA et PHORMOCYRTIDA.

	Diam.	Page.
Fig. 1. *Dictyocephalus australis*, n. sp.,	× 300	1306
Fig. 2. *Dictyocephalus mediterraneus*, n. sp.,	× 300	1307
Fig. 3. *Sethamphora costata*, n. sp. (vel *Dictyocephalus costatus*),	× 300	1251
Fig. 4. *Dictyocephalus amphora*, n. sp.,	× 400	1305
Fig. 5. *Cycladophora (?) favosa*, n. sp. (an *Dictyocephalus?*),	× 400	1380
Fig. 6. *Cycladophora (?) favosa*, n. sp. (an *Dictyocephalus?*), A variety with obliterated ribs (?).	× 400	1380
Fig. 7. *Dictyocephalus globiceps*, n. sp.,	× 400	1308
Fig. 8. *Sethocorys achillis*, n. sp.,	× 400	1301
Fig. 9. *Sethocyrtis oxycephalis*, n. sp.,	× 400	1299
Fig. 10. *Sethocorys odysseus*, n. sp.,	× 400	1302
Fig. 11. *Sethocyrtis agamemnonis*, n. sp., Seen from above (apical view).	× 300	1300
Fig. 11A. *Sethocyrtis agamemnonis*, n. sp., Seen from above, after removal of the cephalis.	× 300	1300
Fig. 12. *Anthocyrtium pyrum*, n. sp.,	× 400	1276
Fig. 13. *Anthocyrtis ovata*, n. sp.,	× 300	1272
Fig. 14. *Anthocyrtium chrysanthemum*, n. sp	× 400	1272
Fig. 15. *Anthocyrtidium ligularia*, n. sp.,	× 400	1278
Fig. 16. *Anthocyrtidium cineraria*, n. sp.,	× 400	1278
Fig. 17. *Anthocyrtium campanula*, n. sp.,	× 400	1274
Fig. 18. *Anthocyrtium doronicum*, n. sp.,	× 300	1276
Fig. 19. *Anthocyrtium flosculus*, n. sp.,	× 300	1277
Fig. 20. *Anthocyrtium adonis*, n. sp.,	× 300	1273
Fig. 21. *Sethoconus anthocyrtis*, n. sp. (vel *Anthocyrtium sethoconium*),	× 300	1296

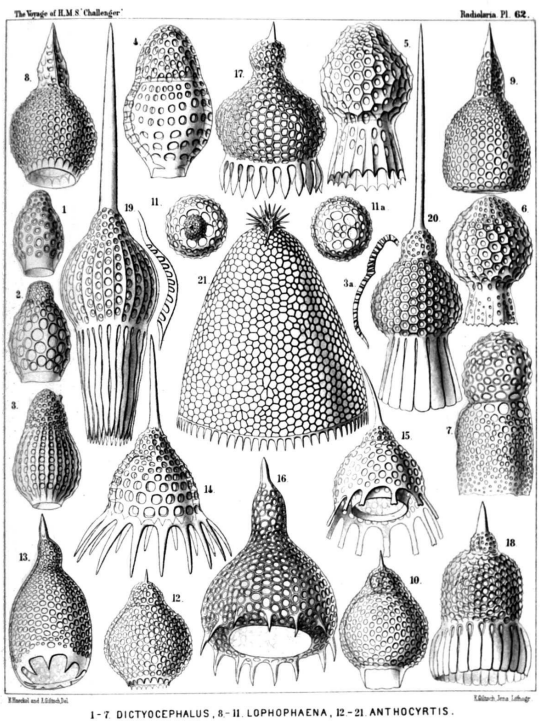


PLATE **63**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Family TRIPOCYRTIDA.

PLATE 63.

TRIPOCYRTIDA.

	Diam.	Page.
Fig. 1. *Callimitra carolotæ*, n. sp., Lateral view.	× 400	1217

Fig. 2. *Callimitra annæ*, n. sp., × 400 1217

Dorsal view.

Fig. 3. *Callimitra emmæ*, n. sp., × 300 1218

Lateral view.

Fig. 4. *Callimitra emmæ*, n. sp., × 400 1218

Cephalis alone, with the enclosed four-lobed central capsule, and the internal four divergent beams; surrounded by some scattered xanthellæ.

Fig. 5. *Callimitra agnesæ*, n. sp., × 400 1217

Dorsal view.

Fig. 6. *Callimitra elisabethæ*, n. sp., × 400 1218

Lateral view.

Fig. 7. *Callimitra carolotæ*, n. sp., × 200 1217

Seen from above (from the apical pole).

Fig. 8. *Callimitra carolotæ*, n. sp., × 200 1217

Seen from below (from the basal pole).

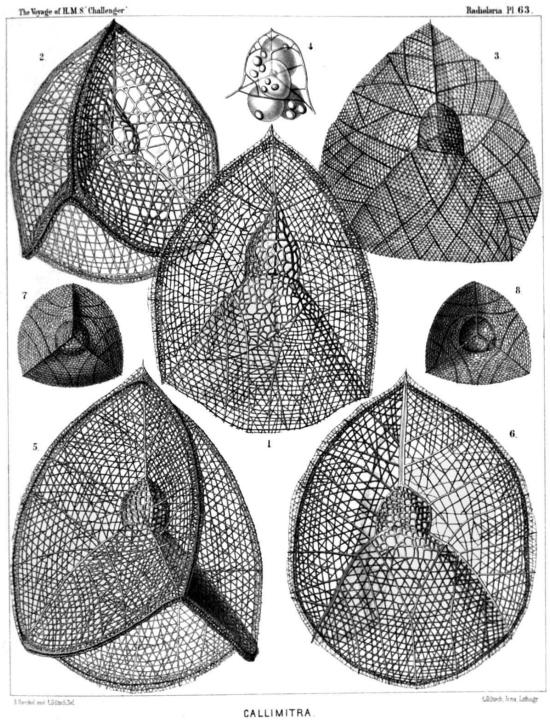


PLATE **64**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Families TRIPOCYRTIDA et PODOCYRTIDA.

PLATE 64.

TRIPOCYRTIDA et PODOCYRTIDA.

Diam. Page.

Fig. 1. *Clathrocanium sphærocephalum*, n. sp., × 600 1211

Fig. 2. *Clathrocanium diadema*, n. sp., × 600 1212

Fig. 3. *Clathrocanium triomma*, n. sp., × 600 1211

Fig. 4. *Clathrocanium reginæ*, n. sp., × 600 1212

Fig. 5. *Clathrolychnus araneosus*, n. sp., × 600 1240

Fig. 6. *Clathrolychnus periplectus*, n. sp., × 600 1241

Fig. 7. *Pteropilium clathrocanium*, n. sp., × 400 1327

Fig. 8. *Clathrocorys murrayi*, n. sp., × 600 1219

Fig. 9. *Clathrocorys giltschii*, n. sp., × 600 1220

Fig. 10. *Clathrocorys teuscheri*, n. sp., × 600 1220

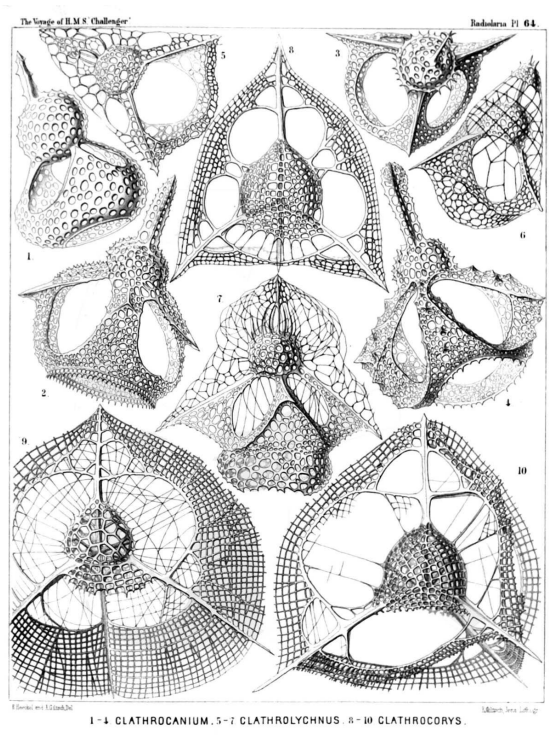


PLATE **65**.

Legion NASSELLARIA.

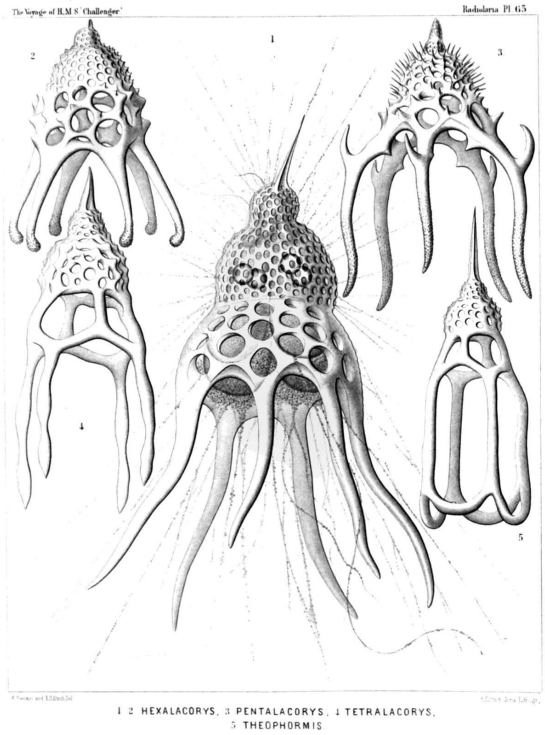
Order CYRTOIDEA.

Family PHORMOCYRTIDA.

PLATE 65.

PHORMOCYRTIDA.

	Diam.	Page.
Fig. 1. *Alacorys friderici*, n. sp. (vel *Hexalacorys friderici*),	× 400	1372
The central capsule, enclosed in the fenestrated shell, exhibits in its lower half four large club-shaped lobes, each of which includes in its upper part a large oil-globule. The uppermost, undivided part of the capsule includes the nucleus, which protrudes four small nuclear lobes through the four holes of the cortinar septum into the thorax. Numerous long pseudopodia arise from the granular sarcomatrix, which the capsule surrounds, and pass through the pores of the siliceous shell.		
Fig. 2. *Alacorys guilelmi*, n. sp. (vel *Hexalacorys guilelmi*),	× 300	1372
Fig. 3. *Alacorys bismarckii*, n. sp. (vel *Pentalacorys bismarckii*),	× 200	1372
Fig. 4. *Alacorys lutheri*, n. sp. (vel *Tetralacorys lutheri*),	× 400	1370
Fig. 5. *Cycladophora goetheana*, n. sp. (vel *Lampterium goetheanum*),	× 300	1376



1, 2 HEXALACORYS, 3 PENTALACORYS, 4 TETRALACORYS, 5 THEOPHORMIS.

PLATE **66**.

Legion NASSELLARIA.

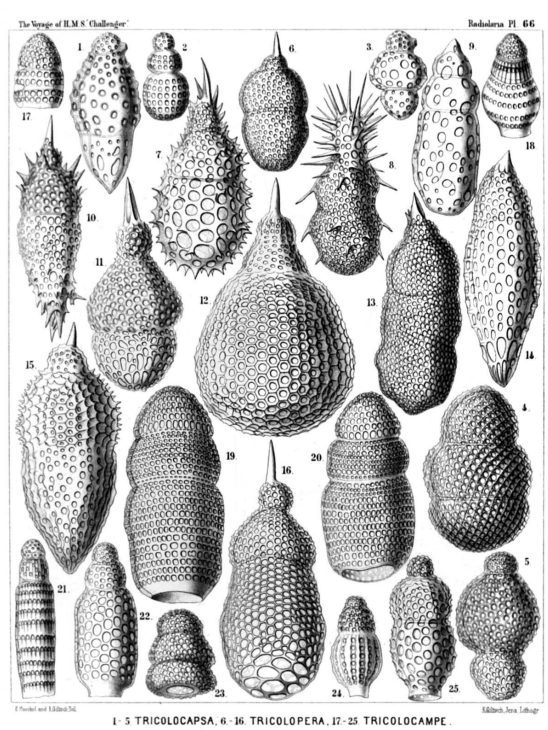
Order CYRTOIDEA.

Family THEOCYRTIDA.

PLATE 66.

THEOCYRTIDA.

	Diam.	Page.
Fig. 1. *Tricolocapsa theophrasti*, n. sp.,	× 400	1432
Fig. 2. *Tricolocapsa schleidenii*, n. sp.,	× 300	1433
Fig. 3. *Tricolocapsa dioscoridis*, n. sp.,	× 300	1432
Fig. 4. *Tricolocapsa decandollei*, n. sp.,	× 300	1433
Fig. 5. *Tricolocapsa linnæi*, n. sp.,	× 400	1432
Fig. 6. *Theocapsa aristotelis*, n. sp.,	× 300	1427
Fig. 7. *Theocapsa mülleri*, n. sp.,	× 400	1431
Fig. 8. *Theocapsa democriti*, n. sp.,	× 400	1427
Fig. 9. *Theocapsa forskalii*, n. sp.,	× 400	1429
Fig. 10. *Theocapsa cuvieri*, n. sp.,	× 400	1430
Fig. 11. *Theocapsa wottonis*, n. sp.,	× 400	1428
Fig. 12. *Theocapsa darwinii*, n. sp.,	× 300	1431
Fig. 13. *Theocapsa linnæi*, n. sp.,	× 400	1429
Fig. 14. *Theocapsa wolffii*, n. sp.,	× 400	1429
Fig. 15. *Theocapsa malpighii*, n. sp.,	× 400	1428
Fig. 16. *Theocapsa lamarckii*, n. sp.,	× 400	1430
Fig. 17. *Tricolocampe amphizona*, n. sp.,	× 400	1413
Fig. 18. *Theocampe collaris*, n. sp.,	× 300	1425
Fig. 19. *Tricolocampe polyzona*, n. sp.,	× 400	1412
Fig. 20. *Tricolocampe stenozona*, n. sp.,	× 400	1413



1-5 TRICOLOCAPSA, 6-16 TRICOLOPERA, 17-25 TRICOLOCAMPE.

Fig. 21. *Tricolocampe cylindrica*, n. sp., × 300 1412

Fig. 22. *Tricolocampe urnula*, n. sp., × 400 1422

Fig. 23. *Theocampe stenostoma*, n. sp., × 300 1423

Fig. 24. *Theocampe costata*, n. sp., × 300 1424

Fig. 25. *Theocampe sphærothorax*, n. sp., × 300 1424

PLATE **67**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Family PODOCYRTIDA.

PLATE 67.

PODOCYRTIDA.

Diam. Page.

Fig. 1. *Lithornithium falco*, n. sp., × 400 1355

Fig. 2. *Lithornithium fringilla*, n. sp., × 400 1355

Fig. 3. *Lithornithium ciconia*, n. sp., × 400 1354

Fig. 4. *Lithornithium trochilus*, n. sp., × 400 1355

Fig. 5. *Theopera fusiformis*, n. sp., × 400 1357

Fig. 6. *Theopera chytropus*, n. sp., × 400 1358

Fig. 7. *Theopera prismatica*, n. sp., × 300 1357

Fig. 8. *Theopera cortina*, n. sp., × 400 1358

Fig. 9. *Rhopalocanium delphicum*, n. sp., × 400 1360

Fig. 10. *Rhopalocanium lasanum*, n. sp., × 300 1359

Fig. 11. *Lithochytris lanterna*, n. sp., × 300 1364

Fig. 12. *Lithochytris cortina*, n. sp., × 300 1362

Fig. 13. *Lithochytris pyriformis*, n. sp., × 400 1362

Fig. 14. *Lithochytris lucerna*, n. sp., × 300 1364

Fig. 15. *Lithochytris pteropus*, n. sp., × 300 1364

Fig. 16. *Lithochytris galeata*, n. sp., × 400 1363

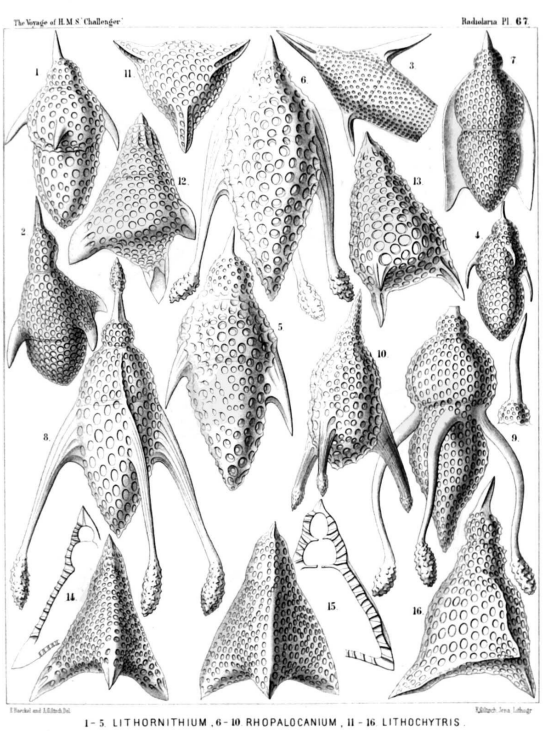


PLATE **68**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Families PODOCYRTIDA, PHORMOCYRTIDA et THEOCYRTIDA.

PLATE 68.

PODOCYRTIDA, PHORMOCYRTIDA et THEOCYRTIDA.

Diam. Page.

Fig. 1. *Axocorys macroceros*, n. sp., × 300 1420

Fig. 1*a*. The internal axial rod of the shell, which bears on its basal part three verticils of three diverging forked spines, × 300

Fig. 2. *Cycladophora fenestrata*, n. sp., × 300 1380

Fig. 3. *Cycladophora pantheon*, n. sp., × 400 1379

Fig. 4. *Theosyringium tibia*, n. sp., × 300 1409

Fig. 5. *Theosyringium pipetta*, n. sp., × 200 1409

Fig. 6. *Pterocorys tubulosa*, n. sp., × 400 1319

Fig. 7. *Pterocanium pyramis*, n. sp., × 400 1330

Fig. 8. *Thyrsocyrtis rhizopodium*, n. sp., × 300 1351

Fig. 9. *Thyrsocyrtis arborescens*, n. sp., × 400 1350

Fig. 10. *Rhopalatractus foveolatus*, n. sp., × 400 1361

Fig. 11. *Rhopalatractus pentacanthus*, n. sp., × 300 1361

Fig. 12. *Rhopalatractus fenestratus*, n. sp. (vel *Dictyatractus fenestratus*), × 300 1361

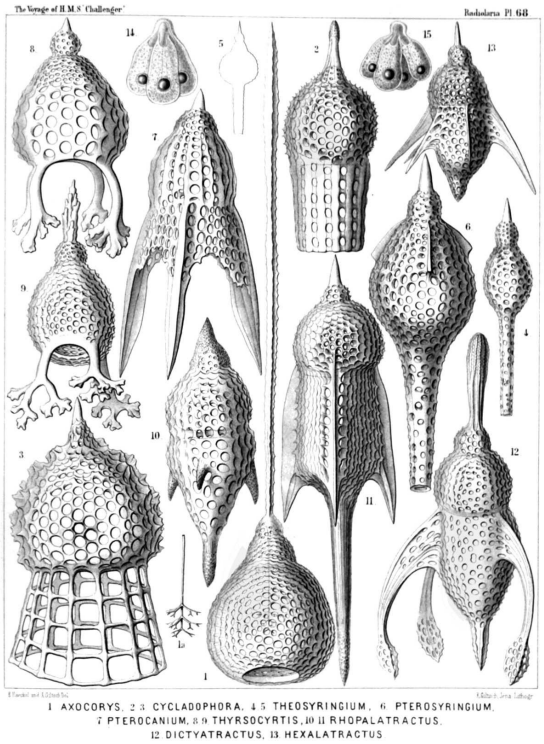
Fig. 13. *Hexalatractus fusiformis*, n. sp., × 300 1391

Fig. 14. *Sethornithium dictyopterum*, n. sp., × 300 1356

The trilobate central capsule, which contains in its uppermost part the trilobate nucleus, and in the basal part of each lobe an oil-globule.

Fig. 15. *Lophocyrtis synapta*, n. sp., × 300 1411

The quadrilobate central capsule, which contains in its uppermost part the quadrilobate nucleus, and in the basal part of each lobe an oil-globule.



1 AXOCORYS. 2 3 CYCLADOPHORA. 4 5 THEOSYRINGIUM. 6 PTEROSYRINGIUM.
7 PTEROCANIUM. 8 9 THYRSOCYRTIS. 10 11 RHOPALATRACTUS.
12 DICTYATRACTUS. 13 HEXALATRACTUS

PLATE **69**.

Legion NASSELLARIA.

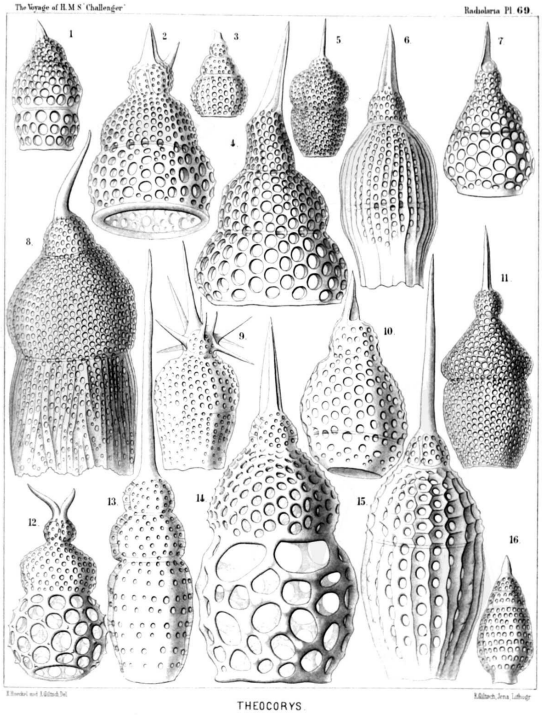
Order CYRTOIDEA.

Families PHORMOCYRTIDA et THEOCYRTIDA.

PLATE 69.

PHORMOCYRTIDA et THEOCYRTIDA.

	Diam.	Page.
Fig. 1. *Theocorys plutonis*, n. sp.,	× 400	1416
Fig. 2. *Lophoconus rhinoceros*, n. sp.,	× 400	1405
Fig. 3. *Theocorys apollinis*, n. sp.,	× 300	1418
Fig. 4. *Theoconus jovis*, n. sp.,	× 400	1401
Fig. 5. *Theocorys veneris*, n. sp.,	× 300	1415
Fig. 6. *Phormocyrtis costata*, n. sp.,	× 300	1369
Fig. 7. *Theoconus junonis*, n. sp.,	× 300	1401
Fig. 8. *Theocyrtis ptychodes*, n. sp.,	× 400	1408
Fig. 9. *Lophocorys astrocephala*, n. sp.,	× 300	1421
Fig. 10. *Theocorys obliqua*, n. sp.,	× 400	1417
Fig. 11. *Theocorys dianæ*, n. sp.,	× 400	1416
Fig. 12. Lophocorys bovicornis, n. sp.,	× 300	1422
Fig. 13. Theocyrtis macroceros, n. sp.,	× 400	1407
Fig. 14. *Theocorys minervæ*, n. sp.,	× 300	1419
Fig. 15. *Phormocyrtis longicornis*, n. sp.,	× 400	1370
Fig. 16. *Theocorys ovata*, n. sp.,	× 300	1416



THEOCORYS.

PLATE **70**.

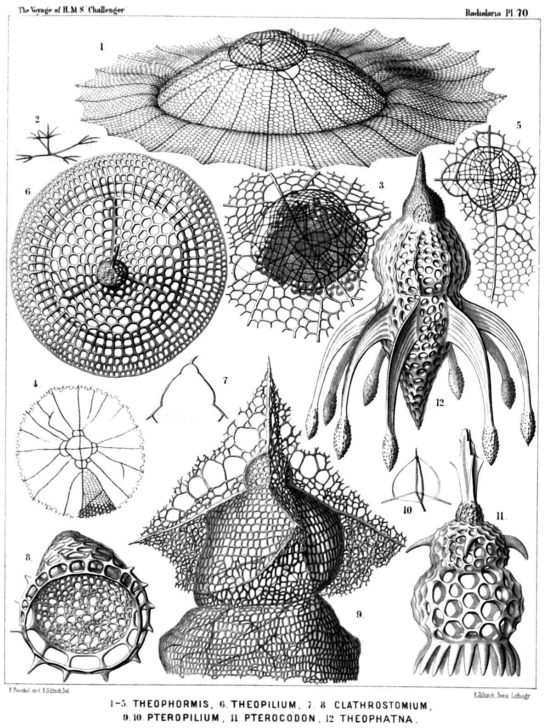
Legion NASSELLARIA.

Order CYRTOIDEA.

Families ANTHOCYRTIDA, PODOCYRTIDA, PHORMOCYRTIDA et THEOCYRTIDA.

PLATE 70.

ANTHOCYRTIDA, PODOCYRTIDA, PHORMOCYRTIDA et THEOCYRTIDA.



	Diam.	Page.
Fig. 1. *Theophormis callipilium*, n. sp.,	× 300	1367
Fig. 2. *Theophormis callipilium*, n. sp., The four cruciate rods of the cortinar septum and the vertical columella in its centre.	× 300	1367
Fig. 3. *Theophormis callipilium*, n. sp., The cephalis alone with the enclosed quadrilobate central capsule, which is surrounded by numerous xanthellæ.	× 400	1367
Fig. 4. *Sethophormis umbrella*, n. sp.,	× 150	1248
Fig. 5. *Sethophormis umbrella*, n. sp., Cephalis with the cruciform cortinar septum.	× 400	1248
Fig. 6. *Theopilium tricostatum*, n. sp., Seen from above.	× 400	1322
Fig. 7. *Phrenocodon clathrostomium*, n. sp., Vertical section through the shell.	× 250	1434
Fig. 8. *Phrenocodon clathrostomium*, n. sp., Shell seen half from below, and exhibiting the fenestrated septum between thorax and abdomen.	× 500	1434
Fig. 9. *Pteropilium stratiotes*, n. sp.,	× 400	1326
Fig. 10. *Pteropilium stratiotes*, n. sp., The three rods of the cortinar septum and the three arches connecting them with the central axial columella.	× 400	1326
Fig. 11. *Pterocodon ornatus*, n. sp.,	× 300	1333
Fig. 12. *Theophæna corona*, n. sp.,	× 300	1394

PLATE **71**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Family PODOCYRTIDA.

PLATE 71.

PODOCYRTIDA.

	Diam.	Page.
Fig. 1. *Pterocorys rhinoceros*, n. sp.,	× 400	1320
Fig. 2. *Pterocorys columba*, n. sp.,	× 400	1317
Fig. 3. *Pterocorys campanula*, n. sp.,	× 400	1316
Fig. 4. *Pterocorys hirundo*, n. sp.,	× 300	1318
Fig. 5. *Pterocorys aquila*, n. sp.,	× 300	1317
Fig. 6. *Dictyoceras insectum*, n. sp.,	× 400	1324
Fig. 7. *Dictyoceras insectum*, n. sp., Seen from the apex.	× 400	1324
Fig. 8. *Dictyoceras formica*, n. sp.,	× 400	1325
Fig. 9. *Dictyoceras melitta*, n. sp., Seen from the apex.	× 400	1325

Fig. 10. *Dictyoceras bombus*, n. sp., × 400 1325

Fig. 11. *Dictyocodon annasethe*, n. sp., × 400 1334

Fig. 12. *Dictyocodon palladius*, n. sp., × 300 1335

Fig. 13. *Dictyocodon palladius*, n. sp., × 600 1335
Apical part of the shell alone.

Fig. 14. *Dictyocodon carolotæ*, n. sp., × 300 1335

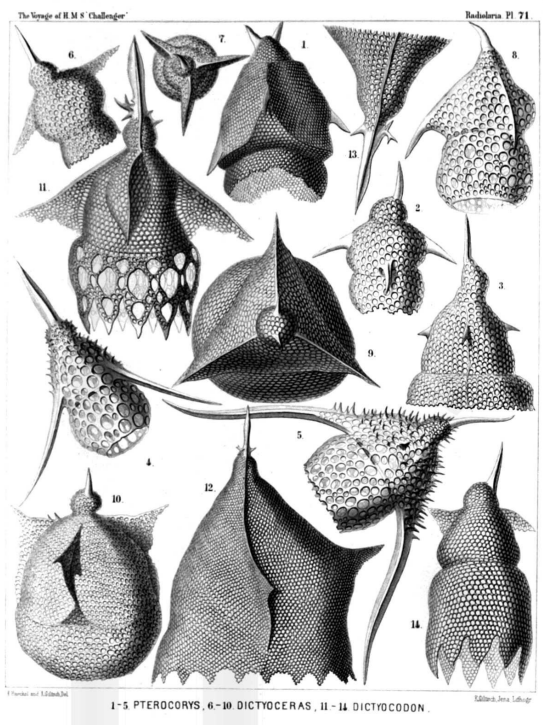


PLATE **72**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Family PODOCYRTIDA.

PLATE 72.

PODOCYRTIDA.

	Diam.	Page.
Fig. 1. *Podocyrtis prismatica*, n. sp.,	× 300	1340
Fig. 2. *Podocyrtis corythæola*, n. sp.,	× 300	1339
Fig. 3. *Podocyrtis lithoconus*, n. sp.,	× 300	1348
Fig. 4. *Podocyrtis tripodiscus*, n. sp.,	× 300	1338
Fig. 5. *Podocyrtis magnifica*, n. sp.,	× 500	1341
Fig. 6. *Podocyrtis divergens*, n. sp.,	× 400	1340
Fig. 7. *Podocyrtis cristata*, n. sp.,	× 400	1342
Fig. 8. *Podocyrtis pedicellaria*, n. sp.,	× 300	1347
Fig. 9. *Podocyrtis flosculata*, n. sp.,	× 500	1341
Fig. 10. *Podocyrtis surena*, n. sp.,	× 400	1339

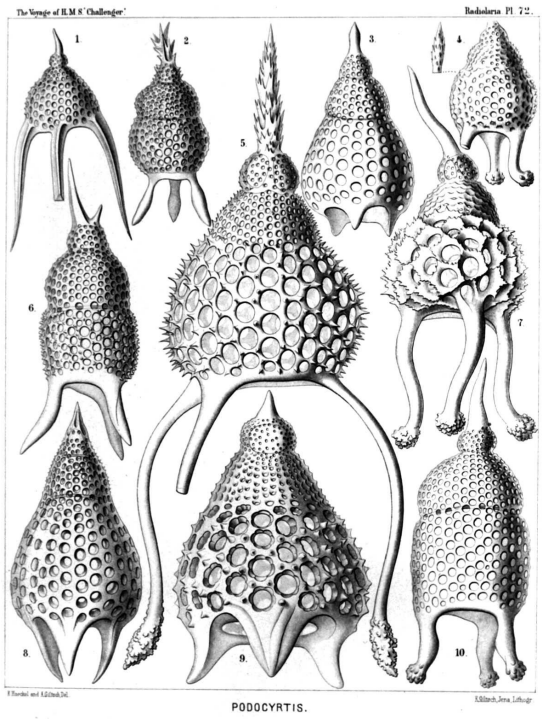


PLATE **73**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Families PODOCYRTIDA et PHORMOCYRTIDA.

PLATE 73.

PODOCYRTIDA et PHORMOCYRTIDA.

	Diam.	Page.
Fig. 1. *Pterocanium tricolpum*, n. sp.,	× 400	1331
Fig. 2. *Pterocanium orcinum*, n. sp.,	× 400	1329
Fig. 3. *Pterocanium gravidum*, n. sp.,	× 400	1329
Fig. 4. *Pterocanium eucolpum*, n. sp.,	× 400	1332
Fig. 5. *Pterocanium bicorne*, n. sp.,	× 400	1332
Fig. 6. *Pterocanium virgineum*, n. sp.,	× 400	1330
Fig. 7. *Dictyopodium thyrsolophus*, n. sp.,	× 300	1354
Fig. 8. *Dictyopodium scaphopodium*, n. sp.,	× 300	1353
Fig. 9. *Calocyclas monumentum*, n. sp.,	× 400	1385
Fig. 10. *Calocyclas casta*, n. sp.,	× 400	1384

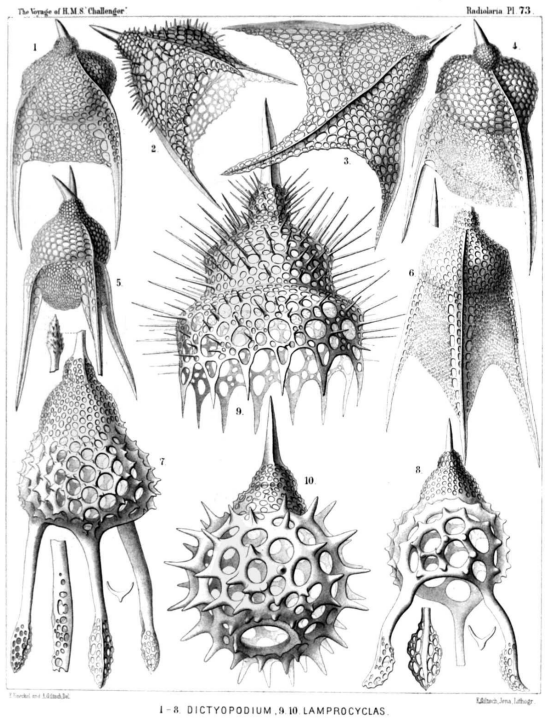


PLATE **74**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Family PHORMOCYRTIDA.

PLATE 74.

PHORMOCYRTIDA.

	Diam.	Page.
Fig. 1. *Calocyclas parthenia*, n. sp.,	× 400	1385
Fig. 2. *Calocyclas amicæ*, n. sp.,	× 400	1382
Fig. 3. *Calocyclas vestalis*, n. sp.,	× 400	1382
Fig. 4. *Calocyclas virginis*, n. sp.,	× 300	1381
Fig. 5. *Calocyclas veneris*, n. sp.,	× 300	1381
Fig. 6. *Clathrocyclas basilea*, n. sp. (vel *Calocyclas basilea*),	× 400	1386
Fig. 7. *Clathrocyclas principessa*, n. sp. (vel *Calocyclas principessa*),	× 400	1386
Fig. 8. *Clathrocyclas collaris*, n. sp. (vel *Calocyclas collaris*),	× 400	1387
Fig. 9. *Alacorys carcinus*, n. sp. (vel *Calocyclas carcinus*),	× 300	1375
Fig. 10. *Lamprocyclas deflorata*, n. sp.,	× 200	1391
Fig. 11. *Lamprocyclas reginæ*, n. sp.,	× 400	1391
Fig. 12. *Lamprocyclas reginæ*, n. sp., Two meshes of the network.	× 800	1391
Fig. 13. *Lamprocyclas maritalis*, n. sp.,	× 400	1390
Fig. 14. *Lamprocyclas maritalis*, n. sp., Vertical section.	× 400	1390
Fig. 15. *Lamprocyclas nuptialis*, n. sp.,	× 400	1390
Fig. 16. *Lamprocyclas saltatricis*, n. sp.,	× 400	1391

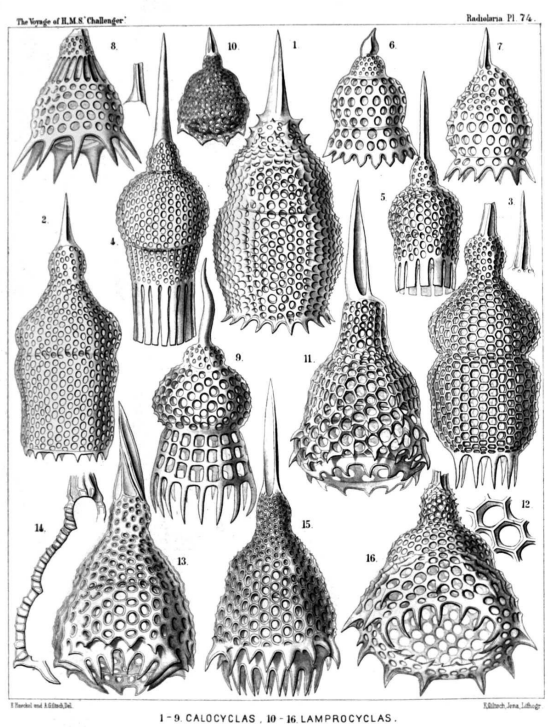


PLATE **75**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Families PODOCAMPIDA et PHORMOCAMPIDA.

PLATE 75.

PODOCAMPIDA et PHORMOCAMPIDA.

	Diam.	Page.
Fig. 1. *Artopilium elegans*, n. sp. (vel *Trictenartus elegans*),	× 200	1440
Fig. 2. *Artophormis horrida*, n. sp.,	× 300	1458
Fig. 3. *Cyrtopera thoracoptera*, n. sp. (vel *Artopera thoracoptera*),	× 300	1450
Fig. 4. *Stichophæna ærostatica*, n. sp. (vel *Artophæna ærostatica*),	× 400	1463
Fig. 5. *Cyrtophormis turricula*, n. sp.,	× 300	1463
Fig. 6. *Stichopodium dictyopodium*, n. sp.,	× 400	1447
Fig. 7. *Artopilium trifenestra*, n. sp. (vel *Clathropyrgus trifenestra*),	× 500	1441
Fig. 8. *Artopilium stichopterygium*, n. sp.,	× 400	1442
Fig. 9. *Stichophormis cornutella*, n. sp.,	× 400	1455
Fig. 10. *Cyrtopera laguncula*, n. sp. (vel *Cyrtolagena laguncula*),	× 400	1451
Fig. 11. *Stichopera pectinata*, n. sp.,	× 500	1449
Fig. 12. *Stichophæna ritteriana*, n. sp.,	× 400	1465

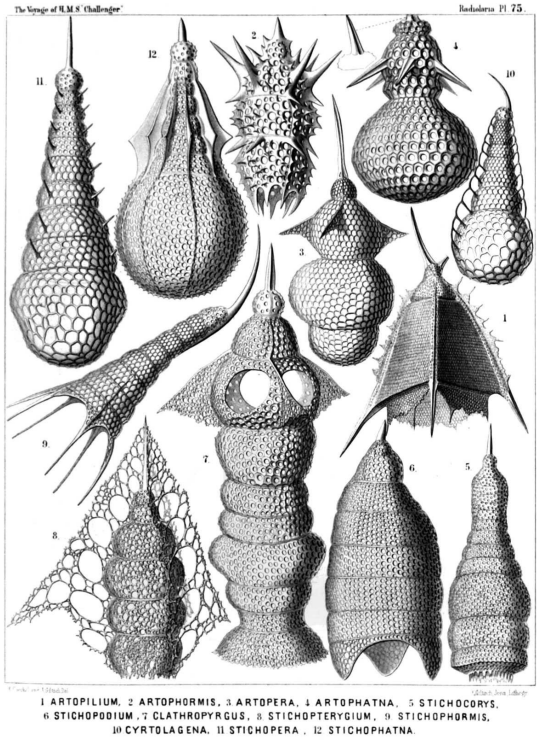


PLATE **76**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Families PHORMOCAMPIDA et LITHOCAMPIDA.

PLATE 76.

PHORMOCAMPIDA et LITHOCAMPIDA.

	Diam.	Page.
Fig. 1. *Stichocapsa pentacola*, n. sp.,	× 400	1517
Fig. 2. *Stichocapsa hexacola*, n. sp.,	× 400	1517
Fig. 3. *Stichocapsa compacta, n.* sp.,	× 400	1517
Fig. 4. *Stichocapsa paniscus*, n. sp.,	× 400	1518
Fig. 5. *Artocapsa fusiformis*, n. sp.,	× 400	1519
Fig. 6. *Stichophæna nonaria*, n. sp.,	× 200	1466
Fig. 7. *Stichophæna novena*, n. sp.,	× 400	1466
Fig. 8. *Artocapsa elegans*, n. sp.,	× 400	1520
Fig. 9. *Cyrtocapsa chrysalidium*, n. sp.,	× 400	1515
Fig. 10. *Artocapsa spinosa*, n. sp.,	× 400	1519
Fig. 11. *Spirocampe callispira*, n. sp.,	× 300	1511
Fig. 12. *Spirocampe allospira*, n. sp.,	× 400	1511
Fig. 13. *Spirocyrtis cornutella*, n. sp.,	× 400	1509
Fig. 14. *Spirocyrtis scalaris*, n. sp.,	× 400	1509

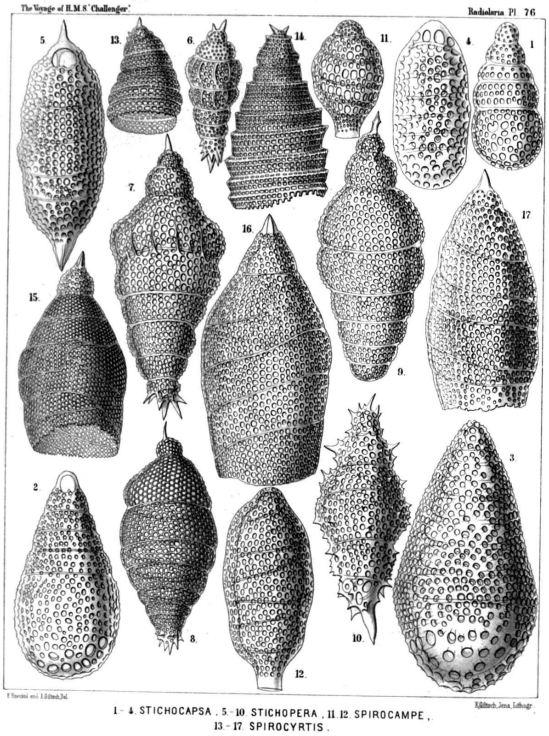


Fig. 15. *Spirocyrtis merospira*, n. sp., × 500 1510

Fig. 16. *Spirocyrtis holospira*, n. sp., × 400 1509

Fig. 17. *Spirocyrtis diplospira*, n. sp., × 400 1510

PLATE **77**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Families PODOCAMPIDA, PHORMOCAMPIDA et LITHOCAMPIDA.

PLATE 77.

PODOCAMPIDA, PHORMOCAMPIDA et LITHOCAMPIDA.

	Diam.	Page.
Fig. 1. *Lithocampe ovata*, n. sp.,	× 500	1504
Fig. 2. *Lithocampe urceolata*, n. sp.,	× 400	1507
Fig. 3. *Lithocampe diploconus*, n. sp.,	× 400	1505
Fig. 4. *Dictyomitra eurythorax*, n. sp.,	× 300	1477
Fig. 5. *Eucyrtidium teuscheri*, n. sp.,	× 400	1491
Fig. 6. *Lithostrobus cornutus*, n. sp.,	× 400	1474
Fig. 7. *Eucyrtidium bütschlii*, n. sp.,	× 400	1492
Fig. 8. *Cyrtocapsa compacta*, n. sp.,	× 300	1512
Fig. 9. *Stichopilium bicorne*, n. sp.,	× 600	1437
Fig. 10. *Artopilium longicorne*, n. sp.,	× 500	1440
Fig. 11. *Stichopilium campanulatum*, n. sp.,	× 400	1438
Fig. 12. *Artopilium cyrtopterum*, n. sp.,	× 400	1440
Fig. 13. *Phormocampe campanula*, n. sp.,	× 400	1456
Fig. 14. *Phormocampe eucalyptra*, n. sp.,	× 300	1457
Fig. 15. *Cyrtophormis corona*, n. sp.,	× 300	1462
Fig. 16. *Phormocampe lamprocyclas*, n. sp.,	× 300	1457
Fig. 17. *Cyrtophormis cylindrica*, n. sp.,	× 300	1461
Fig. 18. *Cyrtophormis cornuta*, n. sp.,	× 500	1462

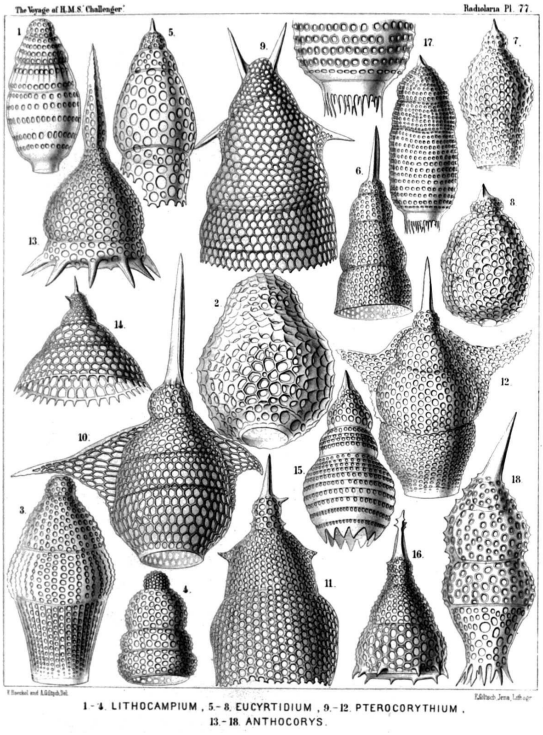


PLATE **78**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Families PHORMOCAMPIDA et LITHOCAMPIDA.

PLATE 78.

PHORMOCAMPIDA et LITHOCAMPIDA.

	Diam.	Page.
Fig. 1. *Stichocapsa tetracola*, n. sp.,	× 600	1515
Fig. 2. *Stichocapsa tricincta*, n. sp.,	× 400	1516
Fig. 3. *Stichocapsa quadrigata*, n. sp.,	× 400	1515
Fig. 4. *Stichocapsa monstrosa*, n. sp.,	× 400	1517
Fig. 5. *Cyrtocapsa tetrapera*, n. sp.,	× 300	1512

Fig. 6. *Cyrtocapsa diploconus*, n. sp.,	× 300	1513
Fig. 7. *Cyrtocapsa fusulus*, n. sp.,	× 400	1514
Fig. 8. *Cyrtocapsa pyrum*, n. sp.,	× 400	1513
Fig. 9. *Cyrtocapsa cornuta*, n. sp.,	× 400	1513
Fig. 10. *Eusyringium conosiphon*, n. sp.,	× 400	1496
Fig. 11. *Eusyringium pachysiphon*, n. sp.,	× 400	1496
Fig. 12. *Eusyringium macrosiphon*, n. sp.,	× 400	1497
Fig. 13. *Eucyrtidium tricinctum*, n. sp.,	× 400	1494
Fig. 14. *Eucyrtidium armatum*, n. sp.,	× 400	1495
Fig. 15. *Eucyrtidium ehrenbergii*, n. sp.,	× 300	1495
Fig. 16. *Eucyrtidium conostoma*, n. sp.,	× 400	1495
Fig. 17. *Cyrtophormis armata*, n. sp.,	× 400	1460
Fig. 18. *Cyrtophormis cingulata*, n. sp.,	× 400	1460

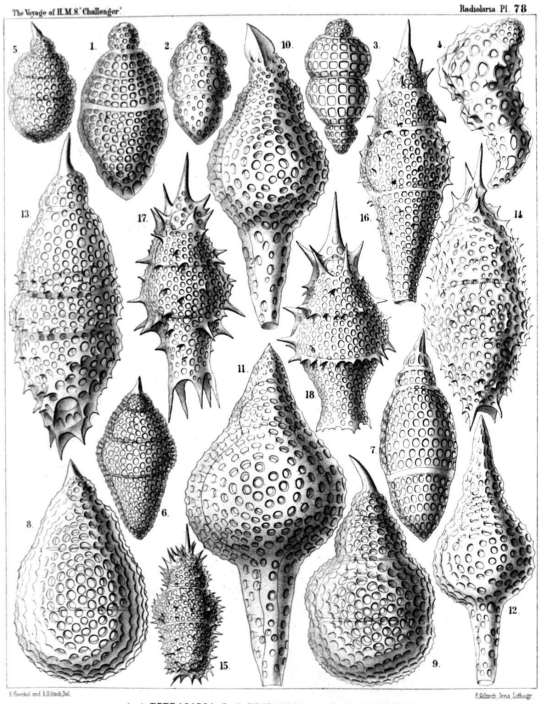


PLATE **79**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Families PHORMOCAMPIDA et LITHOCAMPIDA.

PLATE 79.

PHORMOCAMPIDA et LITHOCAMPIDA.

	Diam.	Page.
Fig. 1. *Lithomitra nodosaria*, n. sp.,	× 600	1484
Fig. 2. *Cyrtophormis tabulata*, n. sp.,	× 400	1166
Fig. 3. *Lithomitra eruca*, n. sp.,	× 500	1485
Fig. 4. *Lithomitra chrysalis*, n. sp.,	× 300	1485
Fig. 5. *Lithomitra infundibulum*, n. sp.,	× 500	1487
Fig. 6. *Lithocampe octocola*, n. sp.,	× 400	1508
Fig. 7. *Lithocampe hexacola*, n. sp.,	× 400	1507
Fig. 8. *Lithocampe heptacola*, n. sp.,	× 400	1508
Fig. 9. *Stichophormis novena*, n. sp.,	× 400	1455
Fig. 10. *Siphocampe annulosa*, n. sp.,	× 300	1500
Fig. 11. *Siphocampe erucosa*, n. sp.,	× 300	1500
Fig. 12. *Siphocampe caminosa*, n. sp.,	× 400	1500
Fig. 13. *Siphocampe tubulosa*, n. sp.,	× 400	1500
Fig. 14. *Siphocampe spiralis*, n. sp.,	× 500	1501
Fig. 15. *Lithostrobus seriatus*, n. sp.,	× 400	1474
Fig. 16. *Artostrobus articulatus*, n. sp.,	× 400	1483
Fig. 17. *Lithostrobus lithobotrys*, n. sp.,	× 400	1475
Fig. 18. *Lithostrobus botryocyrtis*, n. sp.,	× 400	1475
Fig. 19. *Lithostrobus botryocyrtis*, n. sp., Vertical section through the cephalis.	× 400	1475
Fig. 20. *Lithostrobus hexagonalis*, n. sp.,	× 400	1475

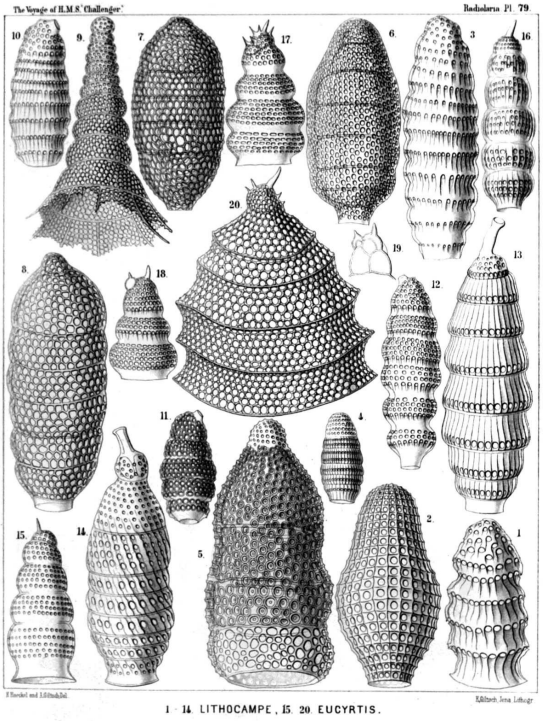


PLATE **80**.

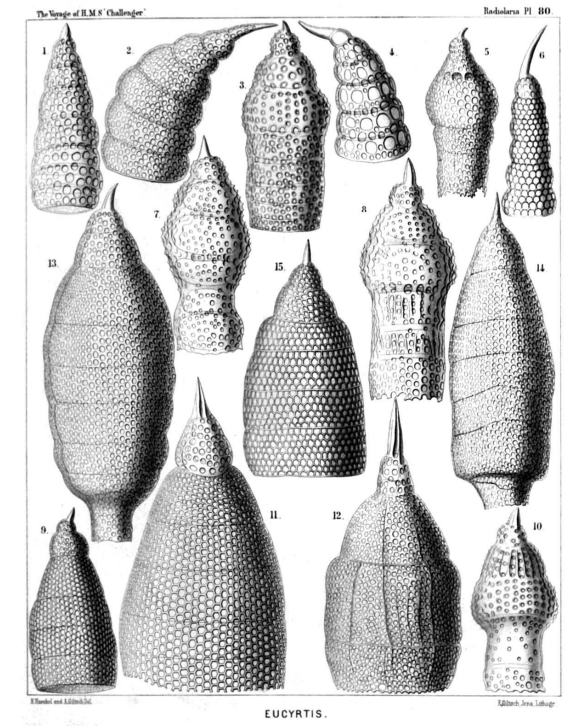
Legion NASSELLARIA.

Order CYRTOIDEA.

Family LITHOCAMPIDA.

PLATE 80.

LITHOCAMPIDA.



	Diam.	Page.
Fig. 1. *Lithostrobus conulus*, n. sp. (vel *Cyrtostrobus conulus*),	× 400	1472
Fig. 2. *Lithostrobus cyrtoceras*, n. sp. (vel *Cornustrobus cyrtoceras*),	× 400	1470
Fig. 3. *Stichocorys huschkei*, n. sp.,	× 400	1480
Fig. 4. *Lithostrobus caloceras*, n. sp. (vel *Cornustrobus caloceras*),	× 400	1471
Fig. 5. *Stichocorys okenii*, n. sp.,	× 300	1480
Fig. 6. *Lithostrobus tetrastichus*, n. sp. (vel *Conostrobus tetrastichus*),	× 500	1470
Fig. 7. *Stichocorys panderi, n. sp.*,	× 400	1479
Fig. 8. *Stichocorys baerii*, n. sp.,	× 400	1479
Fig. 9. *Eucyrtidium cienkowskii*, n. sp.,	× 400	1493
Fig. 10. *Stichocorys wolffii*, n. sp.,	× 400	1479
Fig. 11. *Eucyrtidium hexagonatum*, n. sp.,	× 600	1489
Fig. 12. *Eucyrtidium hertwigii*, n. sp.,	× 400	1491
Fig. 13. *Eusyringium cannostoma*, n. sp.,	× 600	1499
Fig. 14. *Eusyringium siphonostoma*, n. sp.,	× 500	1499
Fig. 15. *Lithostrobus hexastichus*, n. sp. (vel *Artostrobus hexastichus*),	× 500	1470

PLATE **81**.

Legion NASSELLARIA.

Order STEPHOIDEA.

Family STEPHANIDA.

PLATE 81.

STEPHANIDA.

	Diam.	Page.
Fig. 1. *Archicircus primordialis*, n. sp.,	× 200	942
Fig. 2. *Zygocircus polygonus*, n. sp.,	× 200	947
Fig. 3. *Zygocircus triquetrus*, n. sp.,	× 300	947
Fig. 4. *Archicircus hexacanthus*, n. sp.,	× 300	942
Fig. 5. *Zygocircus acacia*, n. sp.,	× 300	947
Fig. 6. *Lithocircus crambessa*, n. sp.,	× 400	944
Fig. 7. *Archicircus rhombus*, n. sp.,	× 300	942
Fig. 8. *Zygocircus pentagonus*, n. sp.,	× 300	946
Fig. 9. *Lithocircus quadricornis*, n. sp.,	× 300	944
Fig. 10. *Dendrocircus arborescens*, n. sp.,	× 300	949
Fig. 11. *Dendrocircus dodecancistra*, n.		

sp., × 300 949

Fig. 12. *Archicircus sexangularis*, n. sp., × 300 943

Fig. 13. *Dendrocircus elegans*, n. sp., × 400 949

Fig. 14. *Dendrocircus stalactites*, n. sp., × 400 950

Fig. 15. *Lithocircus decimalis*, n. sp., × 300 944

Fig. 16. *Lithocircus magnificus*, n. sp., × 400 945

The ovate, red-coloured central capsule exhibits in the lower half the striate podoconus, in the upper half four oil-globules, and at the left the kidney-shaped nucleus. Numerous "yellow cells" or xanthellæ are scattered in the calymma, which contains brown pigment around the porochora. Numerous pseudopodia radiate from the supporting spines of the sagittal ring.

Fig. 17. *Lithocircus hexablastus*, n. sp., × 400 944

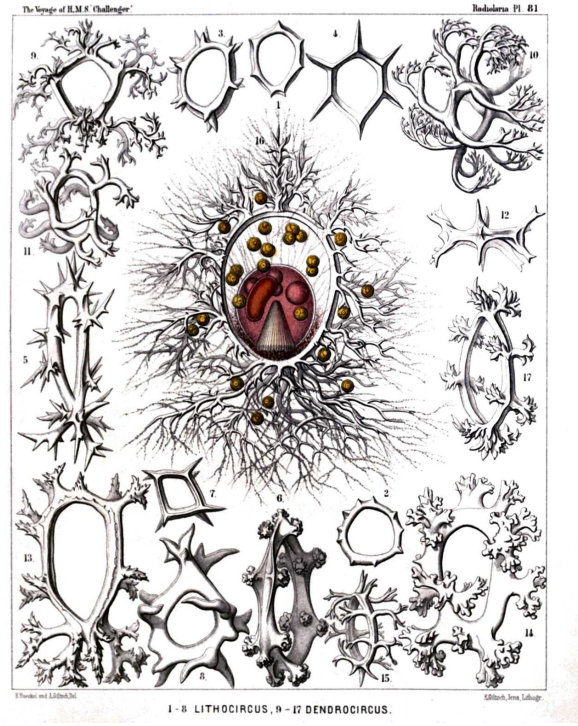


PLATE **82**.

Legion NASSELLARIA.

Order STEPHOIDEA.

Families Coronida et Tympanida.

PLATE 82.

Coronida et Tympanida.

Diam. Page.

Fig. 1. *Coronidium cervicorne*, n. sp., × 400 974

Seen from the apical pole.

Fig. 2. *Coronidium acacia*, n. sp., × 300 975

Fig. 3. *Eucoronis angulata*, n. sp., × 400 978

Half from the apical, half from the dorsal side.

Fig. 4. *Eucoronis challengeri*, n. sp., × 400 978

The red central capsule encloses a large ovate nucleus and is surrounded by numerous xanthellæ.

Fig. 5. *Eucoronis nephrospyris*, n. sp., × 300 977

Fig. 6. *Eucoronis perspicillum*, n. sp., × 300 977

Fig. 7. *Coronidium dyostephanus*, n. sp., × 400 974

Seen from the apical pole.

Fig. 8. *Coronidium diadema*, n. sp., × 300 974

Fig. 9. *Acrocubus octopylus*, n. sp., × 300 993

Fig. 10. *Parastephanus asymmetricus*, n. sp., × 400 1008

Fig. 11. *Eutympanium militare*, n. sp., × 400 1014

Oblique view.

Fig. 12. *Lithocubus astragalus*, n. sp., × 400 1012

Fig. 13. *Trissocircus globus*, n. sp., × 400 986

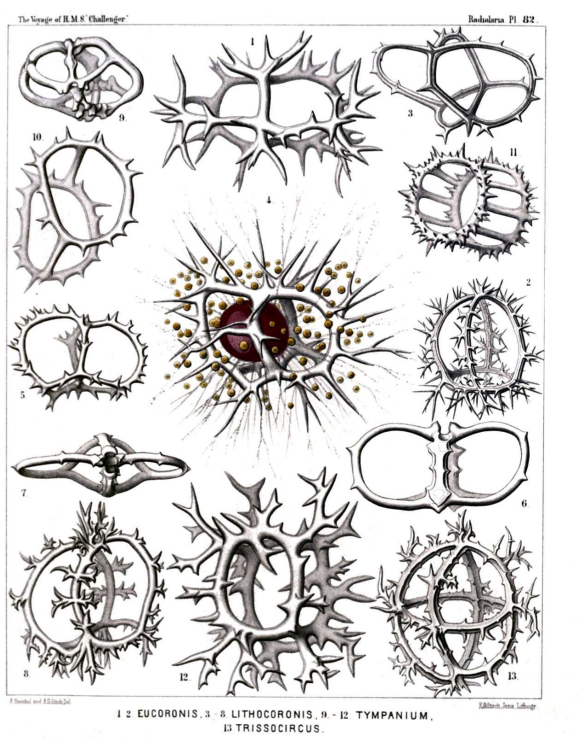


PLATE **83**.

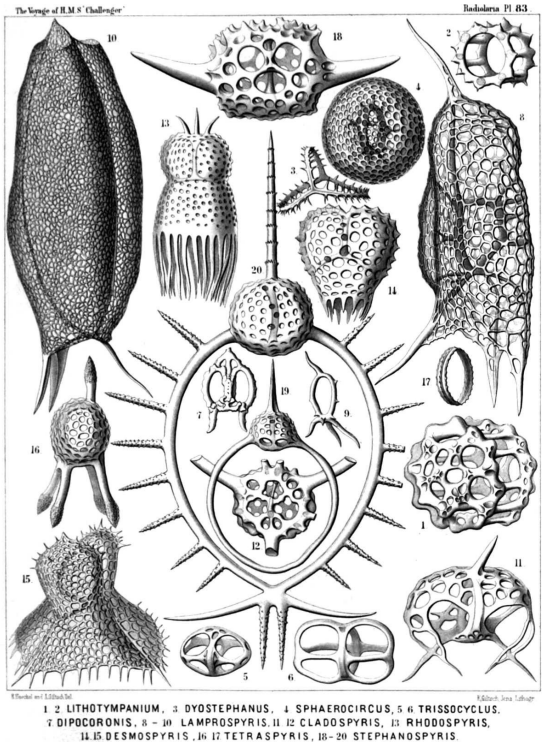
Legion NASSELLARIA.

Orders STEPHOIDEA ET SPYROIDEA.

Families STEPHANIDA, SEMANTIDA, CORONIDA, TYMPANIDA, ZYGOSPYRIDA, PHORMOSPYRIDA et ANDROSPYRIDA.

PLATE 83.

STEPHANIDA, SEMANTIDA, CORONIDA, TYMPANIDA, ZYGOSPYRIDA, PHORMOSPYRIDA et ANDROSPYRIDA.



	Diam.	Page.
Fig. 1. *Lithotympanum tuberosum*, n. sp.,	× 400	1006
Fig. 2. *Eutympanium musicantum*, n. sp.,	× 300	1013
Fig. 3. *Semantis distephanus*, n. sp.,	× 300	957
Fig. 4. *Sphærospyris globosa*, n. sp.,	× 300	1100
Fig. 5. *Trissocyclus stauroporus*, n. sp.,	× 200	987
Fig. 6. *Trissocircus binellipsis*, n. sp.,	× 300	985
Fig. 7. *Podocoronis toxarium*, n. sp.,	× 200	980
Fig. 8. *Androspyris anthropiscus*, n. sp.,	× 400	1093
Fig. 9. *Cortina tripus*, n. sp.,	× 200	950
Fig. 10. *Cephalospyris cancellata*, n. sp.,	× 400	1035
Fig. 11. *Tripospyris furcata*, n. sp.,	× 400	1029
Fig. 12. *Petalospyris novena*, n. sp., Basal view of the shell, with the cortinar septum.	× 400	1062
Fig. 13. *Rhodospyris tricornis*, n. sp.,	× 400	1089
Fig. 14. *Desmospyris mammillata*, n. sp.,	× 400	1089
Fig. 15. *Phormospyris tricostata*, n. sp.,	× 400	1087
Fig. 16. *Zygospyris equus*, n. sp.,	× 300	1056
Fig. 17. *Archicircus monostephus*, n. sp.,	× 300	941
Fig. 18. *Dipospyris cubus*, n. sp., Basal view of the shell, with the cortinar septum.	× 400	1036
Fig. 19. *Gamospyris circulus*, n. sp.,	× 200	1042
Fig. 20. *Stephanospyris excellens*, n. sp.,	× 300	1043

PLATE **84**.

Legion NASSELLARIA.

Order SPYROIDEA.

Family ZYGOSPYRIDA.

PLATE 84.

ZYGOSPYRIDA.

	Diam.	Page.
Fig. 1. *Tripospyris capitata,* n. sp., Seen from the dorsal side.	× 400	1028
Fig. 2. *Tripospyris semantis,* n. sp., Seen from the ventral side.	× 300	1026
Fig. 3. *Tripospyris semantis,* n. sp., Seen from the lateral side.	× 300	1026
Fig. 4. *Tripospyris eucolpos,* n. sp., Seen from the dorsal side.	× 300	1029

Fig. 5. *Tripospyris diomma,* n. sp., × 400 1026
Half from the right side, half from the basal side.

Fig. 6. *Tripospyris cortiniscus,* n. sp., × 500 1026
Half from the dorsal, half from the right side.
Fig. 6*a.* Frontal section through the ring, × 500

Fig. 7. *Tripospyris conifera,* n. sp., × 400 1027
Seen from the dorsal side.
Fig. 7*a.* From the basal side, × 200

Fig. 8. *Tripospyris euscenium,* n. sp. (vel *Euscenium tripospyris*), × 400 1147
Seen from the frontal or ventral side.

Fig. 9. *Triceraspyris gazella,* n. sp., × 500 1031
Seen from the ventral side.

Fig. 10. *Triceraspyris damæcornis,* n. sp., (vel *Elaphospyris damæcornis?*); compare p. 1032, × 400 1057
Seen from the apical (or basal?) side.

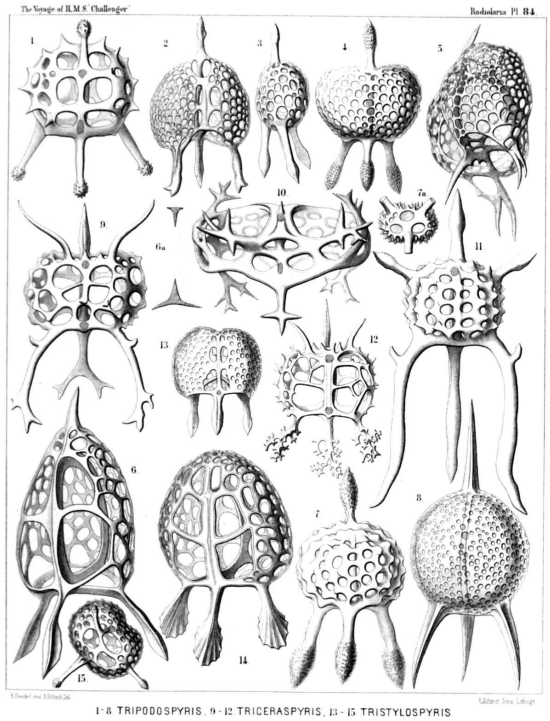
Fig. 11. *Triceraspyris giraffa,* n. sp., × 400 1031
Seen from the frontal side.

Fig. 12. *Triceraspyris corallorrhiza,* n. sp., × 400 1031
Seen from the frontal side.

Fig. 13. *Tristylospyris scaphipes,* n. sp., × 400 1033
Seen from the dorsal side.

Fig. 14. *Tristylospyris palmipes,* n. sp., × 400 1033
Seen from the dorsal side.

Fig. 15. *Tristylospyris clavipes,* n. sp., × 400 1033
Seen from the basal side.



1-8 TRIPODOSPYRIS, 9-12 TRICERASPYRIS, 13-15 TRISTYLOSPYRIS

PLATE **85**.

Legion NASSELLARIA.

Order SPYROIDEA.

Family ZYGOSPYRIDA.

PLATE 85.

ZYGOSPYRIDA.

Diam. Page.

Fig. 1. *Dipospyris forcipata*, n. sp., × 300 1037

Fig. 2. *Dipospyris irregularis*, n. sp., × 200 1037

Fig. 3. *Dipospyris chelifer*, n. sp., × 300 1037

Fig. 4. *Dorcadospyris dinoceras*, n. sp., × 400 1041

Fig. 5. *Dorcadospyris antilope*, n. sp., × 200 1041

Fig. 6. *Dorcadospyris dentata*, n. sp., × 200 1040

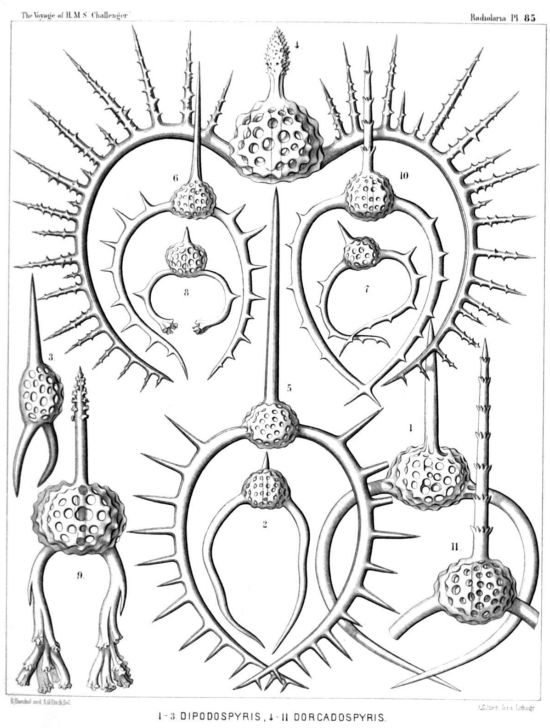
Fig. 7. *Dorcadospyris decussata*, n. sp., × 200 1041

Fig. 8. *Dendrospyris polyrrhiza*, n. sp., × 200 1039

Fig. 9. *Dendrospyris arborescens*, n. sp., × 400 1040

Fig. 10. *Stephanospyris cordata*, n. sp., × 200 1042

Fig. 11. *Stephanospyris verticillata*, n. sp., × 300 1043



1-3 DIPODOSPYRIS, 4-11 DORCADOSPYRIS.

PLATE **86**.

Legion NASSELLARIA.

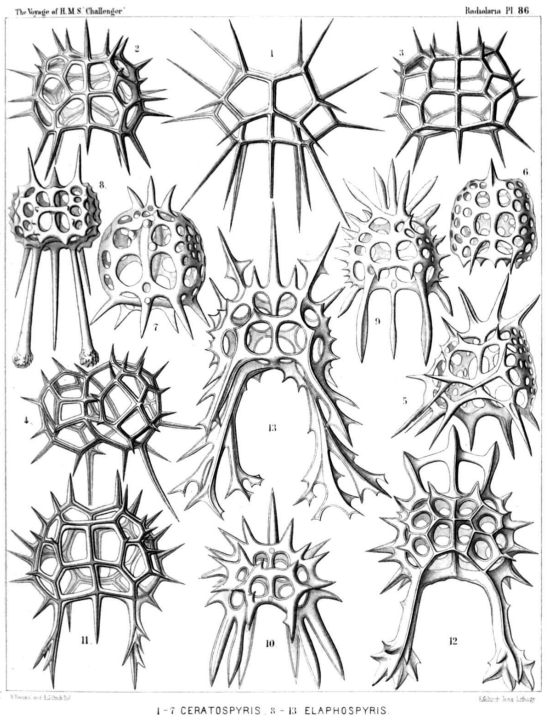
Order SPYROIDEA.

Family ZYGOSPYRIDA.

PLATE 86.

ZYGOSPYRIDA.

	Diam.	Page.
Fig. 1. *Ceratospyris polygona*, n. sp.,	× 400	1066
Fig. 2. *Ceratospyris strasburgeri*, n. sp.,	× 400	1067
Fig. 3. *Ceratospyris allmersii*, n. sp.,	× 400	1067
Fig. 4. *Ceratospyris mulderi*, n. sp.,	× 400	1067
Fig. 5. *Anthospyris aculeata*, n. sp.,	× 400	1065
Fig. 6. *Petalospyris dictyocubus*, n. sp.,	× 400	1063
Fig. 7. *Liriospyris hexapoda*, n. sp.,	× 400	1049
Fig. 8. *Aegospyris caprina*, n. sp.,	× 400	1054
Fig. 9. *Ceratospyris preyeri*, n. sp.,	× 400	1068
Fig. 10. *Ceratospyris krausei*, n. sp.,	× 400	1068
Fig. 11. *Ceratospyris carnerii*, n. sp.,	× 400	1069
Fig. 12. *Elaphospyris alcicornis*, n. sp.,	× 400	1057
Fig. 13. *Elaphospyris cervicornis*, n. sp.,	× 400	1057



1–7 CERATOSPYRIS. 8–13 ELAPHOSPYRIS.

PLATE **87**.

Legion NASSELLARIA.

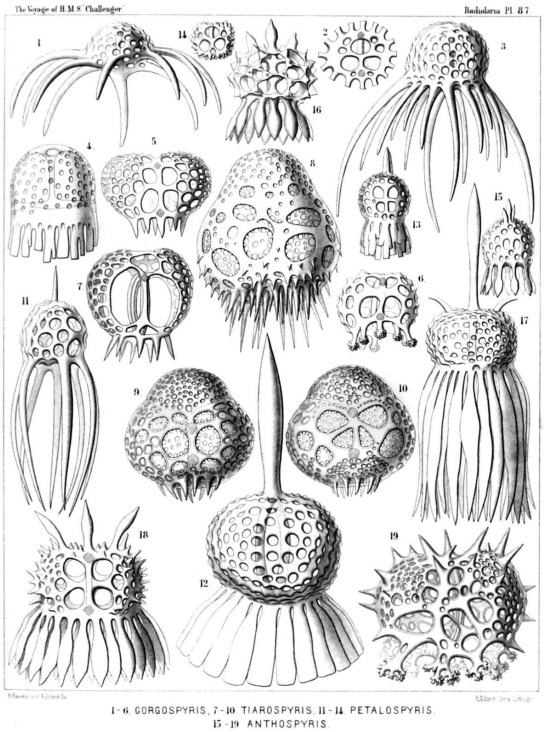
Order SPYROIDEA.

Families ZYGOSPYRIDA et THOLOSPYRIDA.

PLATE 87.

ZYGOSPYRIDA et THOLOSPYRIDA.

	Diam.	Page.
Fig. 1. *Gorgospyris medusa*, n. sp.,	× 300	1070
Fig. 2. *Gorgospyris medusetta*, n. sp., From the basal side, with the nine cortinar pores.	× 300	1070
Fig. 3. *Gorgospyris polypus*, n. sp.,	× 300	1070
Fig. 4. *Gorgospyris schizopodia*, n. sp.,	× 400	1071
Fig. 5. *Gorgospyris eurycolpos*, n. sp.,	× 300	1071
Fig. 6. *Gorgospyris liriope*, n. sp.,	× 300	1071
Fig. 7. *Tiarospyris pervia*, n. sp.,	× 400	1082
Fig. 8. *Tiarospyris amphora*, n. sp.,	× 400	1083
Fig. 9. *Tiarospyris mitra*, n. sp., From the ventral side.	× 400	1082
Fig. 10. *Tiarospyris mitra*, n. sp., From the dorsal side.	× 400	1082
Fig. 11. *Petalospyris octopus*, n. sp.,	× 400	1061
Fig. 12. *Petalospyris dinoceras*, n. sp.,	× 400	1063
Fig. 13. *Petalospyris lobata*, n. sp.,	× 300	1064



1–6 GORGOSPYRIS. 7–10 TIAROSPYRIS. 11–14 PETALOSPYRIS.
15–19 ANTHOSPYRIS.

Fig. 14. *Petalospyris triomma*, n. sp., × 200 1060

From the basal side, with the six cortinar pores.

Fig. 15. *Anthospyris spathulata*, n. sp., × 400 1065

Fig. 16. *Anthospyris mammillata*, n. sp., × 400 1064

Fig. 17. *Anthospyris tragopogon*, n. sp., × 300 1066

Fig. 18. *Anthospyris doronicum*, n. sp., × 300 1065

Fig. 19. *Ceratospyris calorrhiza*, n. sp., × 400 1069

PLATE **88**.

Legion NASSELLARIA.

Orders STEPHOIDEA ET SPYROIDEA.

Families TYMPANIDA et ANDROSPYRIDA.

PLATE 88.

TYMPANIDA et ANDROSPYRIDA.

	Diam.	Page.
Fig. 1. *Toxarium circospyris*, n. sp.,	× 400	995
Fig. 2. *Amphispyris sternalis*, n. sp.,	× 300	1096
Fig. 3. *Amphispyris costata*, n. sp.,	× 300	1097
Fig. 4. *Amphispyris thorax*, n. sp.,	× 300	1096
Fig. 5. *Amphispyris subquadrata*, n. sp.,	× 300	1097
Fig. 6. *Amphispyris quadrigemina*, n. sp.,	× 300	1096
Fig. 7. *Amphispyris toxarium*, n. sp.,	× 300	1097
Fig. 8. *Tricolospyris baconiana*, n. sp.,	× 400	1098
Fig. 9. *Tricolospyris leibnitziana*, n. sp.,	× 600	1098
Fig. 10. *Tricolospyris kantiana*, n. sp.,	× 600	1098
Fig. 11. *Tricolospyris newtoniana*, n. sp.,	× 400	1098
Fig. 12. *Perispyris lentellipsis*, n. sp.,	× 400	1099
Fig. 13. *Perispyris bicincta*, n. sp.,	× 400	1099

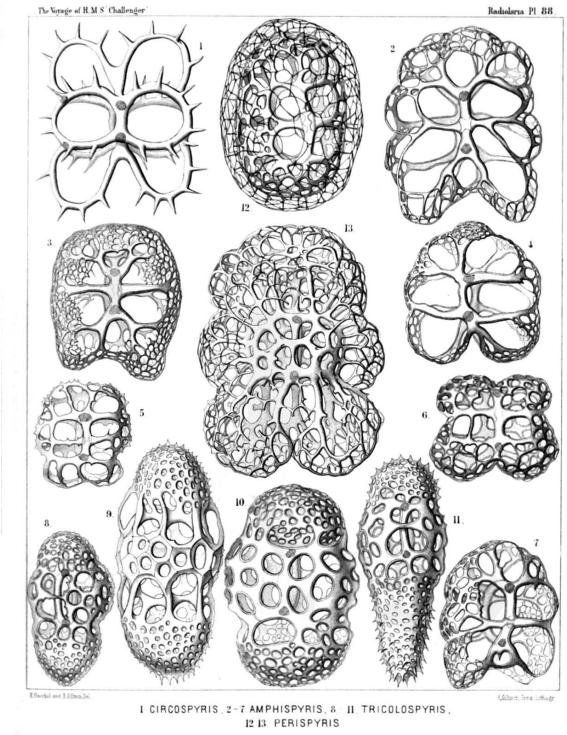


PLATE **89**.

Legion NASSELLARIA.

Order SPYROIDEA.

Families ZYGOSPYRIDA, THOLOSPYRIDA et ANDROSPYRIDA.

PLATE 89.

ZYGOSPYRIDA, THOLOSPYRIDA et ANDROSPYRIDA.

	Diam.	Page.
Fig. 1. *Tholospyris tripodiscus*, n. sp.,	× 400	1079
Ventral side.		
Fig. 2. *Tholospyris fenestrata*, n. sp.,	× 400	1079
Dorsal side.		
Fig. 3. *Tholospyris ramosa*, n. sp.,	× 400	1079
Dorsal side.		
Fig. 4. *Tholospyris cupola*, n. sp.,	× 400	1080
Ventral side.		

Fig. 5. *Therospyris leo*, n. sp., × 400 1059
Ventral side.

Fig. 6. *Therospyris felis*, n. sp., × 400 1059
Dorsal side.

Fig. 7. *Dictyospyris stalactites*, n. sp., × 400 1073
Ventral side.

Fig. 8. *Dictyospyris anthophora*, n. sp., × 400 1076
Ventral side.

Fig. 9. *Dictyospyris mammillaris*, n. sp., × 400 1076
Ventral side.

Fig. 10. *Dictyospyris mammillaris*, n. sp., × 400 1076
Frontal section.

Fig. 11. *Dictyospyris distoma*, n. sp., × 300 1073
Ventral side.

Fig. 12. *Dictyospyris distoma*, n. sp., × 300 1073
Frontal section.

Fig. 13. *Lamprospyris darwinii*, n. sp., × 300 1094
Ventral side.

Fig. 14. *Lamprospyris huxleyi*, n. sp., × 300 1094
Ventral side.

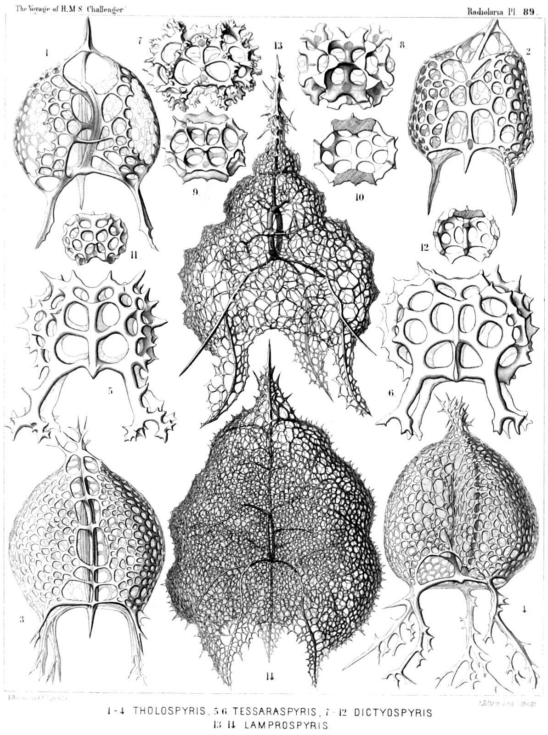


PLATE **90**.

Legion NASSELLARIA.

Order SPYROIDEA.

Family ANDROSPYRIDA.

PLATE 90.

ANDROSPYRIDA.

Diam. Page.

Fig. 1. *Nephrospyris paradictyum*, n. sp. (vel *Paradictyum paradoxum*), × 250 1102
The complete shell, seen from the frontal side.

Fig. 2. *Nephrospyris paradictyum*, n. sp., × 250 1102
The incomplete shell, seen from the dorsal side.

Fig. 3. *Nephrospyris paradictyum*, n. sp., × 500 1102
The sagittal ring, isolated, from the dorsal side; more enlarged.

Fig. 4. *Nephrospyris paradictyum*, n. sp., × 120 1102
Vertical section through half the shell, exhibiting the thickened margin with the included symbiontes (compare page 1101).

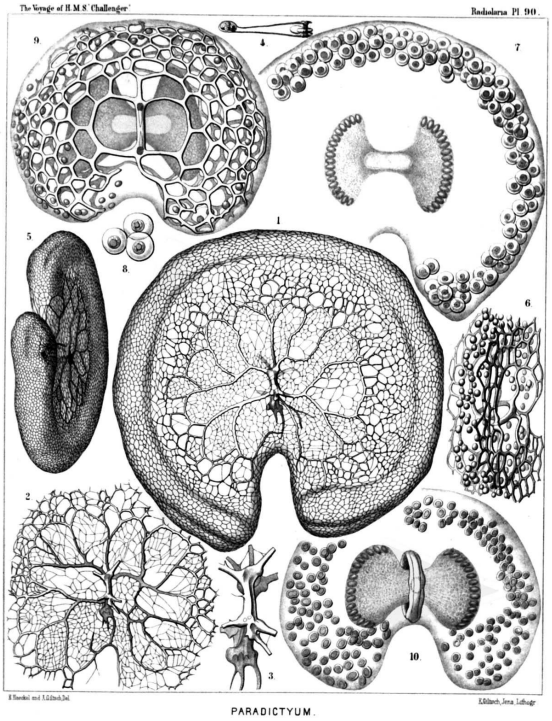
Fig. 5. *Nephrospyris paradictyum*, n. sp., × 200 1102
Oblique marginal view of the shell.

Fig. 6. *Nephrospyris paradictyum*, n. sp., × 250 1102
Marginal view of a young specimen, with open fissure between the two parallel net-plates.

Fig. 7. *Nephrospyris paradictyum*, n. sp., × 250 1102
The soft body alone, without the skeleton. The bilobed central capsule exhibits a central transverse nucleus, and on each lobe a stratum of oil-globules. The kidney-shaped calymma contains on the margin numerous symbiontes (*Xanthellæ* or *Vorticellinæ*? Compare page 1102).

Fig. 8. *Nephrospyris paradictyum*, n. sp., × 500 1102
Three single unicellular symbiontes (*Zooxanthellæ*?).

Fig. 9. *Nephrospyris renilla*, n. sp. (vel *Nephrodictyum renilla*), × 250 1101
The bilobed central capsule is enclosed by the



discoidal shell and in the middle constricted by the sagittal ring; it contains a transverse nucleus. The kidney-shaped calymma contains in the peripheral part numerous symbiontes (*Xanthellæ* or *Vorticellinæ*? Compare page 1101).

Fig. 10. *Nephrospyris renilla*, n. sp., × 250 1101

A singular abnormality (occurring not rarely), in which the reduced skeleton has nearly disappeared and the sagittal ring alone remained. The kidney-shaped calymma, however, which encloses numerous symbiontes, has preserved the form of the skeleton. The bilobed central capsule is similar to that in figs. 7 and 9, and is encircled by the thickened sagittal ring.

PLATE **91**.

Legion NASSELLARIA.

Orders NASSOIDEA ET PLECTOIDEA.

Families NASSELLIDA, PLAGONIDA et PLECTANIDA.

PLATE 91.

NASSELLIDA, PLAGONIDA et PLECTANIDA.

	Diam.	Page.
Fig. 1. *Cystidium princeps*, n. sp.,	× 400	897
Fig. 2. *Triplagia primordialis*, n. sp.,	× 100	909
Fig. 3. *Tetraplagia phænaxonia*, n. sp.,	× 200	911
Fig. 4. *Plagoniscus tripodiscus*, n. sp.,	× 200	912
Fig. 5. *Plagiocarpa procortina*, n. sp.,	× 300	914
Fig. 6. *Plagonium sphærozoum*, n. sp.,	× 300	916
Fig. 7. *Triplecta triactis*, n. sp.,	× 300	922
Fig. 8. *Tetraplecta pinigera*, n. sp.,	× 300	924
Fig. 9. *Plectaniscus cortiniscus*, n. sp.,	× 300	925
Fig. 10. *Periplecta cortina*, n. sp.,	× 400	926
Fig. 11. *Plectanium trigeminum*, n. sp.,	× 400	928
Fig. 12. *Polyplecta heptacantha*, n. sp.,	× 300	929

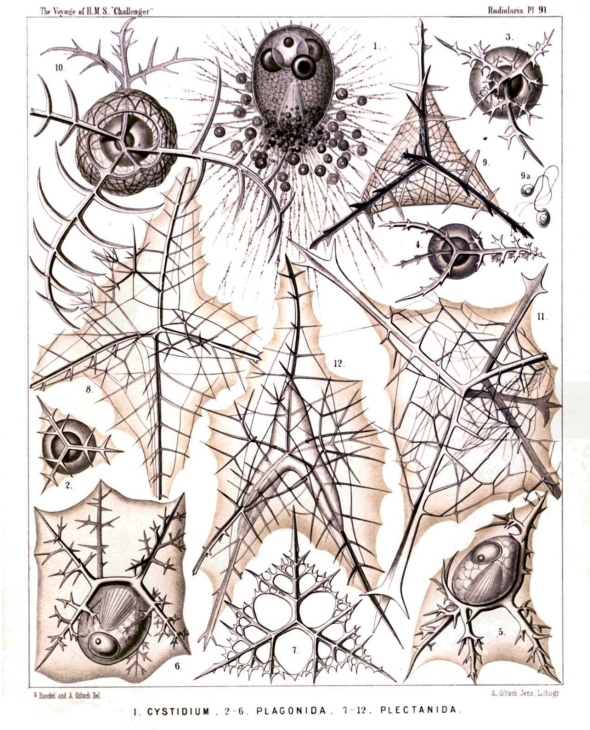


PLATE **92**.

Legion NASSELLARIA.

Order STEPHOIDEA.

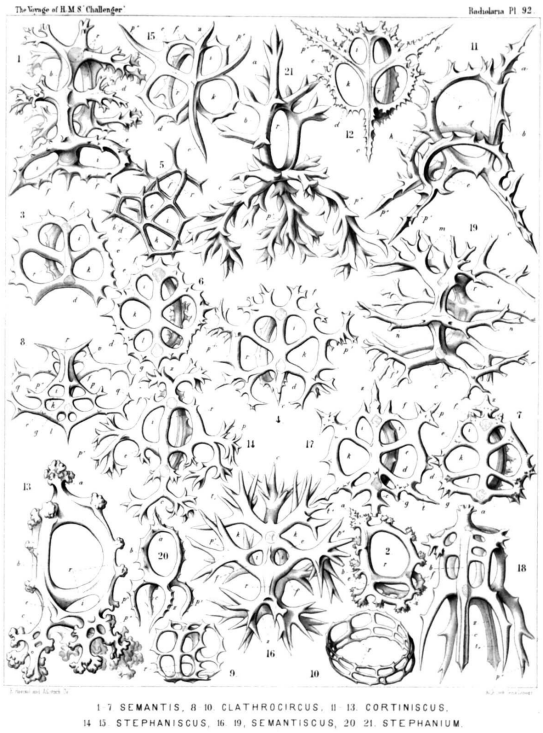
Families STEPHANIDA et SEMANTIDA.

PLATE 92.

STEPHANIDA et SEMANTIDA.

	Diam.	Page.
Fig. 1. *Semantis sigillum*, n. sp.,	× 400	957
Fig. 2. *Semantis biforis*, n. sp.,	× 300	956
Fig. 3. *Semantrum tetrastoma*, n. sp.,	× 300	959
Fig. 4. *Semantrum signarium*, n. sp.,	× 400	960

Fig. 5. *Semantrum quadrifore*, n. sp.,	× 400	958
Fig. 6. *Semantidium hexastoma*, n. sp.,	× 400	960
Fig. 7. *Semantidium signatorium*, n. sp.,	× 400	961
Fig. 8. *Clathrocircus stapedius*, n. sp.,	× 400	962
Fig. 9. *Clathrocircus dictyospyris*, n. sp.,	× 300	963
Fig. 10. *Clathrocircus multiforis*, n. sp.,	× 300	963
Fig. 11. *Cortiniscus tripodiscus*, n. sp.,	× 400	963
Fig. 12. *Cortiniscus typicus*, n. sp.,	× 300	964
Fig. 13. *Cortiniscus dipylaris*, n. sp.,	× 400	964
Fig. 14. *Stephaniscus quadrifurcus*, n. sp.,	× 300	965
Fig. 15. *Stephaniscus quadrigatus*, n. sp.,	× 400	965
Fig. 16. *Semantiscus hexapodius*, n. sp.,	× 400	966
Fig. 17. *Semantiscus hexapylus*, n. sp.,	× 400	967
Fig. 18. *Semantiscus hexaspyris*, n. sp.,	× 400	966
Fig. 19. *Lithocircus tarandus*, n. sp.,	× 400	944
Fig. 20. *Stephanium quadrupes*, n. sp.,	× 200	952
Fig. 21. *Cortina cervina*, n. sp.,	× 300	952



1-7. SEMANTIS, 8-10. CLATHROCIRCUS, 11-13. CORTINISCUS, 14-15. STEPHANISCUS, 16-19. SEMANTISCUS, 20-21. STEPHANIUM.

PLATE **93**.

Legion NASSELLARIA.

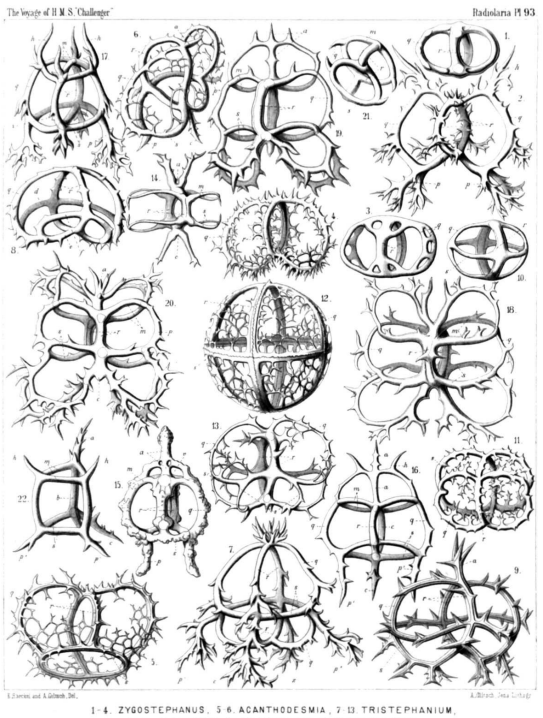
Order STEPHOIDEA.

Families Coronida et Tympanida..

PLATE 93.

Coronida et Tympanida..

	Diam.	Page.
Fig. 1. *Zygostephanus dissocircus*, n. sp.,	× 300	971
Fig. 2. *Zygostephanus bicornis*, n. sp.,	× 300	972
Fig. 3. *Zygostephanium dizonium*, n. sp.,	× 300	973
Fig. 4. *Zygostephanium paradictyum*, n. sp.,	× 300	973
Fig. 5. *Acanthodesmia corona*, n. sp.,	× 400	976
Fig. 6. *Plectocoronis pentacantha*, n. sp.,	× 300	979
Fig. 7. *Tristephanium quadricorne*, n. sp.,	× 300	984
Fig. 8. *Tristephanium octopyle*, n. sp.,	× 300	983
Fig. 9. *Tristephanium dimensivum*, n. sp.,	× 400	983
Fig. 10. *Trissocircus lentellipsis*, n. sp.,	× 300	985
Fig. 11. *Trissocircus octostoma*, n. sp.,	× 300	986
Fig. 12. *Trissocyclus sphæridium*, n. sp.,	× 300	987
Fig. 13. *Tricyclidium dictyospyris*, n. sp.,	× 300	984
Fig. 14. *Protympanium amphipodium*, n. sp.,	× 300	992
Fig. 15. *Acrocubus arcuatus*, n. sp.,	× 300	993
Fig. 16. *Acrocubus cortina*, n. sp.,	× 300	994
Fig. 17. *Acrocubus amphithectus*, n. sp.,	× 300	995
Fig. 18. *Toxarium thorax*, n. sp.,	× 300	996
Fig. 19. *Toxarium cordatum*, n. sp.,	× 300	996



1-4. ZYGOSTEPHANUS, 5-6. ACANTHODESMIA, 7-13. TRISTEPHANIUM, 14-17. ACROCUBUS, 18-20. TOXARIUM, 21-22. PRISMATIUM.

Fig. 20. *Toxarium bifurcum*, n. sp., × 300 997

Fig. 21. *Parastephanus quadrispinus*, n. sp., × 300 1008

Fig. 22. *Prismatium tripodium*, n. sp., × 300 1009

PLATE **94**.

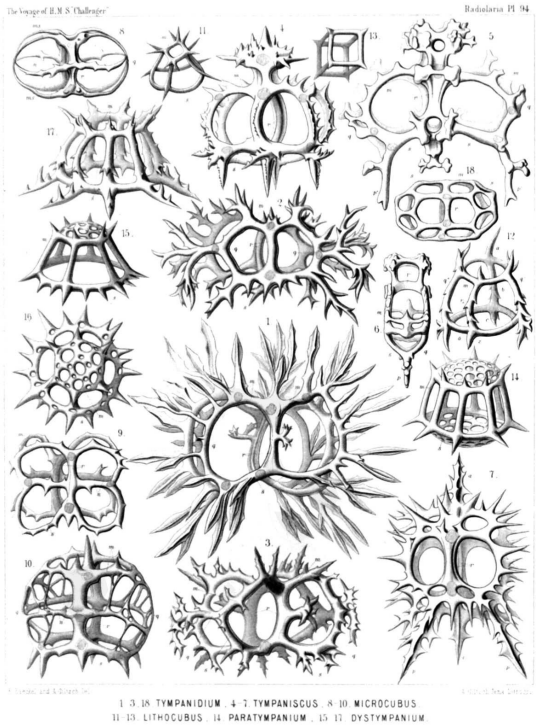
Legion NASSELLARIA.

Order STEPHOIDEA.

Family TYMPANIDA.

PLATE 94.

TYMPANIDA.



	Diam.	Page.
Fig. 1. *Tympanidium foliosum*, n. sp.,	× 400	1003
Fig. 2. *Octotympanum cervicorne*, n. sp.,	× 400	1000
Fig. 3. *Octotympanum octonarium*, n. sp.,	× 400	1000
Fig. 4. *Tympaniscus quadrupes*, n. sp.,	× 400	1002
Fig. 5. *Tympaniscus dipodiscus*, n. sp., Frontal view.	× 400	1001
Fig. 6. *Tympaniscus dipodiscus*, n. sp., Lateral view.	× 400	1001
Fig. 7. *Tympaniscus tripodiscus*, n. sp., Frontal view.	× 400	1002
Fig. 8. *Microcubus zonarius*, n. sp.,	× 300	998
Fig. 9. *Microcubus dodecastoma*, n. sp.,	× 300	998
Fig. 10. *Microcubus amphispyris*, n. sp.,	× 400	999
Fig. 11. *Pseudocubus obeliscus*, n. sp.,	× 400	1010
Fig. 12. *Pseudocubus hexapylus*, n. sp.,	× 300	1011
Fig. 13. *Lithocubus geometricus*, n. sp.,	× 200	1011
Fig. 14. *Paratympanum octostylum*, n. sp.,	× 400	1005
Fig. 15. *Dystympanium dictyocha*, n. sp., Lateral view.	× 400	1007
Fig. 16. *Dystympanium dictyocha*, n. sp., Apical view.	× 400	1007
Fig. 17. *Circotympanum octogonium*, n. sp.,	× 500	1013
Fig. 18. *Tympanidium binoctonum*, n. sp.,	× 400	1004

PLATE **95**.

Legion NASSELLARIA.

Order SPYROIDEA.

Families ZYGOSPYRIDA, THOLOSPYRIDA, PHORMOSPYRIDA et ANDROSPYRIDA.

PLATE 95.

ZYGOSPYRIDA, THOLOSPYRIDA, PHORMOSPYRIDA et ANDROSPYRIDA.

	Diam.	Page.
Fig. 1. *Tripospyris cortina*, n. sp., Basal view.	× 300	1025

Fig. 2. *Tripospyris triplecta*, n. sp., × 300 1027
Basal view.

Fig. 3. *Tripospyris semantrum, n.* sp., × 400 1027
Basal view.

Fig. 4. *Tripospyris hexomma*, n. sp., × 300 1028
Basal view.

Fig. 5. *Brachiospyris diacantha*, n. sp., × 400 1038
Basal view.

Fig. 6. *Tetraspyris stephanium*, n. sp., × 300 1044
Basal view.

Fig. 7. *Liriospyris amphithecta*, n. sp., × 300 1050
Basal view.

Fig. 8. *Hexaspyris hexacorethra*, n. sp., × 300 1048
Frontal view.

Fig. 9. *Clathrospyris pyramidalis*, n. sp., × 500 1052
Frontal view.

Fig. 10. *Aegospyris aegoceras*, n. sp., × 400 1054
Frontal view.

Fig. 11. *Pentaspyris pentacantha*, n. sp., × 400 1054
Dorsal view.

Fig. 12. *Taurospyris cervina*, n. sp., × 400 1058
Frontal view.

Fig. 13. *Circospyris nucula*, n. sp., × 300 1072
Dorsal view.

Fig. 14. *Lophospyris dipodiscus*, n. sp., × 400 1080
Frontal view.

Fig. 15. *Sepalospyris platyphylla*, n. sp., × 400 1081
Dorsal view.

Fig. 16. *Pylospyris canariensis*, n. sp., × 400 1084
Frontal view.

Fig. 17. *Acrospyris clathrocanium*, n. sp., × 300 1085
Dorsal view.

Fig. 18. *Phormospyris tridentata*, n. sp., × 400 1087
Frontal view.

Fig. 19. *Patagospyris anthocyrtis*, n. sp., × 500 1088
Dorsal view.

Fig. 20. *Androspyris pithecus*, n. sp., × 400 1093
Lateral view.

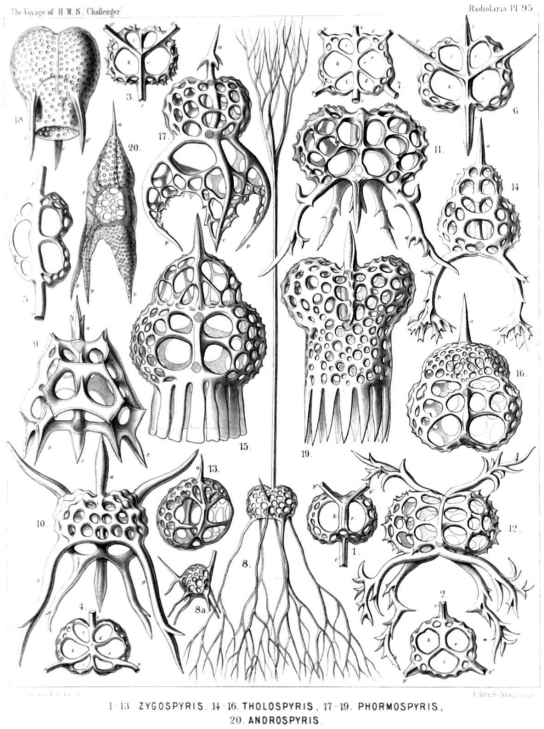


PLATE **96**.

Legion NASSELLARIA.

Order BOTRYODEA.

Families CANNOBOTRYIDA, LITHOBOTRYIDA et PYLOBOTRYIDA.

PLATE 96.

CANNOBOTRYIDA, LITHOBOTRYIDA et PYLOBOTRYIDA
Diam. Page.

Fig. 1. *Botryopera cyrtoloba*, n. sp., × 500 1108
Apical view.

Fig. 2. *Botryopera quinqueloba*, n. sp., × 500 1109
Half lateral, half frontal view.

Fig. 3. *Cannobotrys tricanna*, n. sp., × 400 1110
View half from the frontal, half from the left side.

Fig. 4. *Cannobotrys cortina*, n. sp., × 400 1110
Basal view.

Fig. 5. *Botryopyle inclusa*, n. sp., × 500 1113
Frontal view.

Fig. 6. *Botryopyle dictyocephalus*, n. sp., × 500 1113
Lateral view (right side).

Fig. 7. *Botryopyle sethocorys*, n. sp., × 400 1112
Frontal view.

Fig. 8. *Acrobotrys trisolenia*, n. sp., × 400 1115
Lateral view (right side).

Fig. 9. *Acrobotrys acuminata*, n. sp., × 400 1115
Lateral view (right side).

Fig. 10. *Acrobotrys disolenia*, n. sp., × 400 1114
Lateral view (left side).

Fig. 11. *Acrobotrys auriculata*, n. sp., × 500 1115
Lateral view (right side).

Fig. 12. *Botryocella multicellaris*, n. sp., × 500 1117
Lateral view (left side).

Fig. 13. *Botryocella quadricellaris*, n. sp., × 400 1117
Lateral view (left side).

Fig. 14. *Botryocella quadrigemina*, n. sp., × 400 1117
Collar septum, between cephalis and thorax.

Fig. 15. *Lithobotrys sphærothorax*, n. sp., × 500 1119
Lateral view (right side).

Fig. 16. *Lithobotrys mascula*, n. sp., × 500 1119
Frontal view.

Fig. 17. *Lithobotrys orchidea*, n. sp., × 500 1119
Frontal view.

Fig. 18. *Botryocyrtis cerebellum*, n. sp., × 400 1121
Apical view.

Fig. 19. *Botryocyrtis theocampe*, n. sp., × 500 1121
Lateral view (left side).

Fig. 20. *Pylobotrys fontinalis*, n. sp., × 400 1122
Apical view.

Fig. 21. *Pylobotrys putealis*, n. sp., × 500 1121
Lateral view (right side).

Fig. 22. *Pylobotrys cerebralis*, n. sp., × 500 1122
Dorsal view.

Fig. 23. *Botryocampe rotalia*, n. sp., × 400 1123
Collar septum.

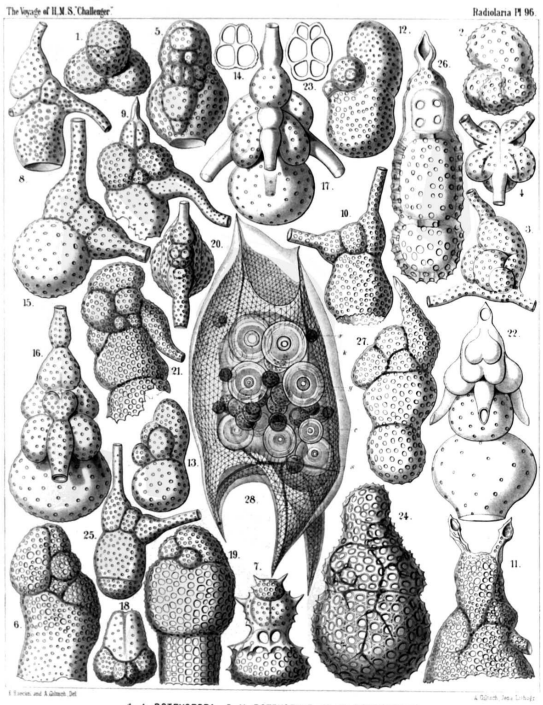
Fig. 24. *Botryocampe camerata*, n. sp., × 500 1124
Lateral view (left side).

Fig. 25. *Phormobotrys cannothalamia*, n. sp., × 400 1125
Lateral view (right side).

Fig. 26. *Phormobotrys trithalamia*, n. sp., × 500 1124
Frontal section. The dorsal wall is visible, in the cephalis the cruciform frontal septum.

Fig. 27. *Phormobotrys pentathalamia*, n. sp., × 400 1124
Lateral view (left side).

Fig. 28. *Cephalospyris triangulata*, n. sp., × 400 1035
The central capsule encloses numerous spherical concrements.



1–4. BOTRYOPERA. 5–11. BOTRYOPYLE. 12–17. BOTRYOCELLA.
18–22. BOTRYOCYRTIS. 23–27. BOTRYOCAMPE. 28. CEPHALOSPYRIS.

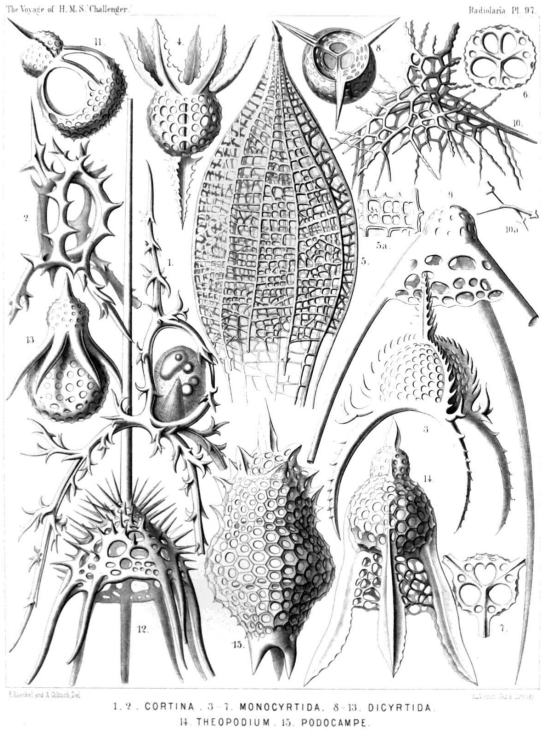
PLATE **97**.

Legion NASSELLARIA.

Families STEPHANIDA, CORONIDA, TRIPOCALPIDA, PHÆNOCALPIDA, TRIPOCYRTIDA, PODOCYRTIDA et PODOCAMPIDA.

PLATE 97.

STEPHANIDA, CORONIDA, TRIPOCALPIDA, PHÆNOCALPIDA, TRIPOCYRTIDA, PODOCYRTIDA et PODOCAMPIDA.



	Diam.	Page.
Fig. 1. *Cortina typus*, n. sp., View from the right side. The upper part of the central capsule includes the nucleus, the lower part the podoconus, besides some oil-globules. The two pectoral feet are partly broken off.	× 300	951
Fig. 2. *Podocoronis cortiniscus*, n. sp., View from the right anterior side.	× 400	981
Fig. 3. *Tripocalpis cortinaris*, n. sp.,	× 400	1137
Fig. 4. *Phænocalpis petalospyris*, n. sp., Lateral view (inverted).	× 400	1173
Fig. 5. *Haliphormis lagena*, n. sp.,	× 200	1167
Fig. 6. *Halicapsa lithapium*, n. sp., Basal view.	× 300	1190
Fig. 7. *Peridium alatum*, n. sp., Basal view.	× 300	1155
Fig. 8. *Sethopilium orthopus*, n. sp., Basal view.	× 300	1202
Fig. 9. *Sethopilium macropus*, n. sp.,	× 400	1203
Fig. 10. *Amphiplecta acrostoma*, n. sp.,	× 400	1223
Fig. 11. *Sethopera tricostata*, n. sp.,	× 400	1232
Fig. 12. *Acanthocorys macroceras*, n. sp.,	× 200	1264
Fig. 13. *Sethophæna hexaptera*, n. sp.,	× 400	1286
Fig. 14. *Theopodium tricostatum*, n. sp.,	× 400	1328
Fig. 15. *Podocampe trictenota*, n. sp.,	× 500	1446

PLATE **98**.

Legion NASSELLARIA.

Order CYRTOIDEA.

Families TRIPOCALPIDA et PHÆNOCALPIDA.

PLATE 98.

TRIPOCALPIDA et PHÆNOCALPIDA.

	Diam.	Page.
Fig. 1. *Euscenium plectaniscus*, n. sp., Half frontal, half basal view.	× 300	1146
Fig. 2. *Cladoscenium pectinatum*, n. sp., Shell opened by a vertical section.	× 400	1150
Fig. 3. *Archiscenium cyclopterum*, n. sp., View from the dorsal side.	× 400	1151
Fig. 4. *Pteroscenium arcuatum*, n. sp., The central capsule contains a large spherical nucleus with a nucleolus.	× 400	1152
Fig. 5. *Archipera cortiniscus*, n. sp.,	× 400	1155
Fig. 6. *Archibursa tripodiscus*, n. sp., Basal view.	× 400	1157

Fig. 7. *Archipilium orthopterum*, n. sp., × 400 1139

Fig. 8. *Tripilidium costatum*, n. sp., × 300 1141

Fig. 8*a*. Central capsule in the upper part of the shell,

Fig. 8*b*. Cortinar septum,

Fig. 9. *Phænoscenium hexapodium*, n. sp., × 300 1175

Fig. 10. *Archiphæna gorgospyris*, n. sp., × 300 1178

Fig. 10*a*. Cortinar septum with four collar pores, × 300

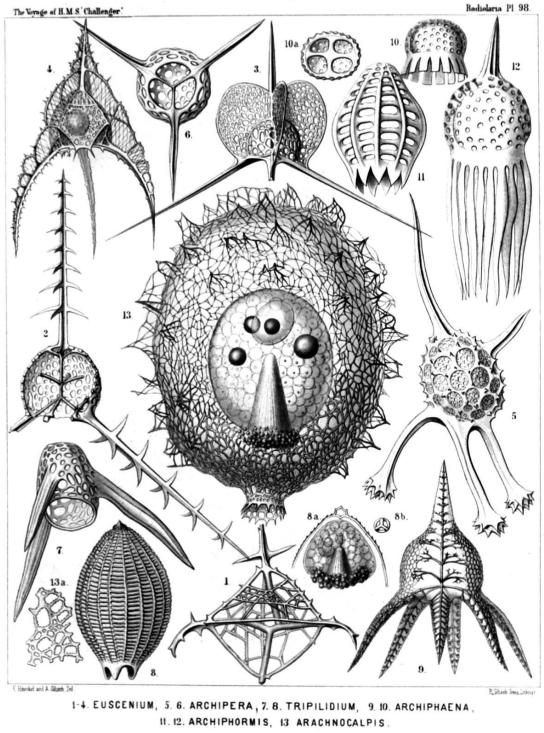
Fig. 11. *Archiphormis urceolata*, n. sp., × 300 1168

Fig. 12. *Halicalyptra petalospyris*, n. sp., × 400 1169

Fig. 13. *Arachnocalpis ellipsoides*, n. sp., × 300 1172

The central capsule is filled up by clear vacuoles and exhibits in the upper half the ellipsoidal nucleus and four oil-globules, in the lower half the slender striated podoconus.

Fig. 13*a*. A piece of the network, more enlarged, × 900



1-4. EUSCENIUM, 5. 6. ARCHIPERA, 7. 8. TRIPILIDIUM, 9. 10. ARCHIPHAENA, 11. 12. ARCHIPHORMIS, 13. ARACHNOCALPIS.

PLATE **99**.

Legion PHÆODARIA.

Order PHÆOGROMIA.

Family CHALLENGERIDA.

PLATE 99.

CHALLENGERIDA.

Diam. Page.

(The central capsule is coloured red and the phæodium green in Figs. 1, 6, 10, 14-17, 20).

Fig. 1. *Challengeria murrayi*, n. sp., × 50 1653

From the dorsal side. Numerous streams of sarcode arise from the central capsule and pierce the calymma inside the shell.

Fig. 2. *Challengeria wildi*, n. sp., × 400 1653

The peristome from the left side.

Fig. 3. *Challengeria bromleyi*, n. sp., × 400 1652

From the dorsal side.

Fig. 4. *Challengeria sloggettii*, John Murray × 150 1649

The ventral corner broken off. From the left side.

Fig. 4*a*. Vertical section through the shell-wall.

Fig. 5. *Challengeria tritonis*, n. sp., × 150 1649

Fig. 6. *Challengeron diodon*, n. sp., × 400 1654

From the dorsal side. The shell contains two central capsules.

Fig. 7. *Challengeron pearceyi*, n. sp., × 300 1654

From the dorsal side.

Fig. 8. *Challengeron richardsii*, n. sp., × 100 1655

From the oral margin

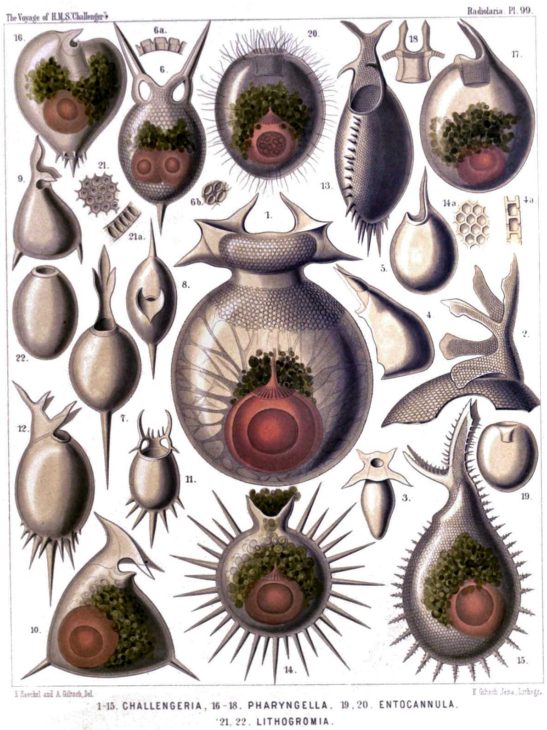
Fig. 9. *Challengeron fergusoni*, n. sp., × 100 1656

From the right side.

Fig. 10. *Challengeron triangulum*, n. sp., × 200 1656

From the right side.

Fig. 11. *Challengeron crosbiei*, n. sp., × 300 1657



1-15. CHALLENGERIA, 16-18. PHARYNGELLA. 19, 20. ENTOCANNULA. 21, 22. LITHOGROMIA.

From the ventral side.

Fig. 12. *Challengeron buchanani*, n. sp., × 300 1657

From the right side.

Fig. 13. *Challengeron willemoesii*, n. sp., × 400 1659

From the ventral side.

Fig. 14. *Challengeron moseleyi*, n. sp., × 300 1658

From the right side.

Fig. 15. *Challengeron wyvillei*, n. sp., × 300 1660

From the left side.

Fig. 16. *Porcupinia cordiformis*, n. sp., × 200 1663

From the right side.

Fig. 17. *Pharyngella gastræa*, n. sp., × 150 1662

Fig. 18. *Pharyngella gastrula*, n. sp., × 150 1662

Fig. 19. *Entocannula infundibulum*, n. sp., × 100 1661

Fig. 20. *Entocannula hirsuta*, n. sp., × 150 1661

Fig. 21. *Lithogromia diatomacea*, n. sp., × 400 1647

A piece of the shell with diatomaceous structure.

Fig. 21*a*. Vertical section through the shell-wall.

Fig. 22. *Lithogromia silicea*, n. sp., × 150 1647

PLATE **100**.

Legion PHÆODARIA.

Order PHÆOGROMIA.

Family TUSCARORIDA.

PLATE 100.

TUSCARORIDA.

Diam. Page.

Fig. 1. *Tuscarora bisternaria*, John Murray, × 30 1706

View from the dorsal side.

Fig. 1*a*. View from the mouth pole × 25

Fig. 2. *Tuscarora murrayi*, n. sp., × 30 1706

View from the dorsal side. The central capsule (in the aboral half), and the phæodium (in the middle of the shell-cavity) are visible. A fine network of pseudopodia pierces the calymma, which fills up the shell-cavity.

Fig. 3. *Tuscarora wyvillei*, n. sp., × 30 1707

View from the dorsal side.

Fig. 3*a*. Base of a tooth, × 100

Fig. 3*b*. Transverse section through the base of a tooth.

Fig. 3*c*. Base of a foot.

Fig. 4. *Tuscarora tetrahedra*, John Murray, × 15 1707

View from the dorsal side.

Fig. 4*a*. Mouth with the three teeth, × 50

Fig. 5. *Tuscarora tubulosa*, John Murray, × 40 1707

View from the ventral side.

Fig. 5*a*. Mouth with the two teeth, × 100

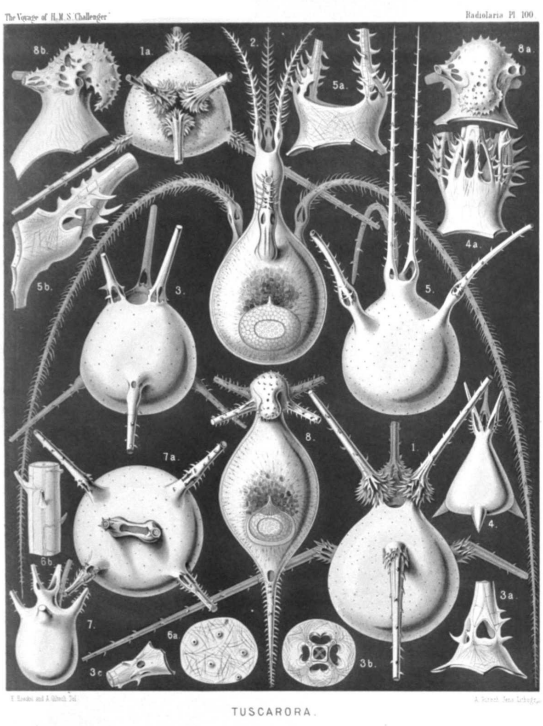
Fig. 5*b*. Basal part of a single tooth, × 150

Fig. 6. *Tuscarora porcellana*, John Murray, × 600 1708

Fig. 6*a*. A piece of the shell, with five pores.

Fig. 6*b*. A piece of a tooth, with the internal axial rod and its transverse branches.

Fig. 7. *Tuscarusa medusa*, n. sp., × 25 1709



View from the side.

Fig. 7*a*. View from the mouth, × 50

Fig. 8. *Tuscaridium lithornithium*, n. sp., × 20 1710

View from the ventral side. Central capsule and calymma as in fig. 2.

Fig. 8*a*. Peristome from the ventral side.

Fig. 8*b*. Peristome from the right side.

PLATE **101**.

Legion PHÆODARIA.

Order PHÆOCYSTINA.

Families PHÆODINIDA, CANNORRHAPHIDA et AULACANTHIDA.

PLATE 101.

PHÆODINIDA, CANNORRHAPHIDA et AULACANTHIDA.

Diam. Page.

Fig. 1. *Phæocolla primordialis*, n. sp., × 300 1544

Central capsule, isolated. The double contoured outer membrane exhibits only one opening, with a radiate operculum and long proboscis. The granular protoplasm encloses clear spherical vacuoles. The sphæroidal nucleus contains irregular amœboid nucleoli.

Fig. 2. *Phæodina tripylea*, n. sp., × 300 1545

A central capsule in self-division, with two elliptical nuclei. The astropyle is already bisected and has two proboscides.

Fig. 3. *Cannorrhaphis spinulosa*, n. sp., × 300 1552

A complete specimen with two central capsules, each of which contains two nuclei. The alveolate calymma contains a dark phæodium and is surrounded by tangential tubular needles.

Fig. 4. *Cannorrhaphis spinulosa*, n. sp., × 300 1552

A single tangential tube.

Fig. 5. *Cannorrhaphis spathillata*, n. sp., × 300 1552

A single tangential tube.

Fig. 6. *Aulactinium actinastrum*, n. sp., × 100 1574

A complete specimen, seen in optical meridional section. In the centre the spheroidal central capsule, with its double membrane and three openings (above two lateral parapylæ, below the large astropyle with its radiate operculum). The capsule encloses numerous spherical vacuoles and two hemispherical nuclei, each with numerous nucleoli. The anterior half of the capsule is surrounded by the blackish phæodium. The spherical calymma contains numerous globular alveoles and is pierced by the radial tubes, the proximal ends of which are in contact with the surface of the central capsule (compare Pl. **103**, fig. 1).

Fig. 7. *Aulactinium actinastrum*, n. sp., × 300 1574

A single radial tube.

Fig. 8. *Aulactinium actinelium*, n. sp., × 200 1574

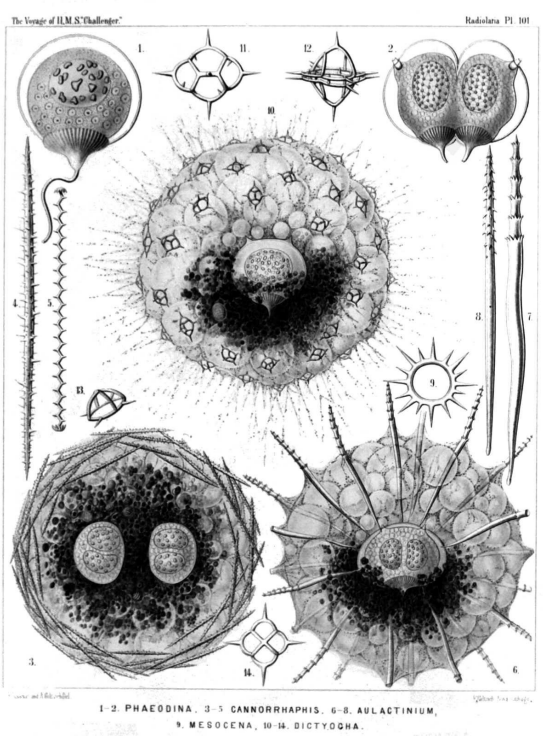
A single radial tube.

Fig. 9. *Mesocena stellata*, n. sp., × 600 1557

A single annular piece of the skeleton

Fig. 10. *Dictyocha stapedia*, n. sp., × 300 1561

A complete specimen, observed living at Ceylon. In the centre is visible the large, spheroidal, tripylean central capsule, with its three openings, containing a large nucleus with numerous nucleoli. Its oral half is covered with the dark phæodium. The voluminous spherical calymma contains numerous globular alveoles and its surface is covered with scattered, stirrup-shaped pieces of the skeleton. Numerous free pseudopodia



arise from the surface.

Fig. 11. *Dictyocha stapedia*, n. sp., × 800 1561

A single piece of the skeleton, from above.

Fig. 12. *Dictyocha stapedia*, n. sp., × 800 1561

A twin piece of the skeleton.

Fig. 13. *Dictyocha medusa*, n. sp., × 800 1560

A single piece of the skeleton, from the side.

Fig. 14. *Dictyocha medusa*, n. sp., × 800 1560

A single piece of the skeleton, from above.

PLATE **102**.

Legion PHÆODARIA.

Order PHÆOCYSTINA.

Family AULACANTHIDA.

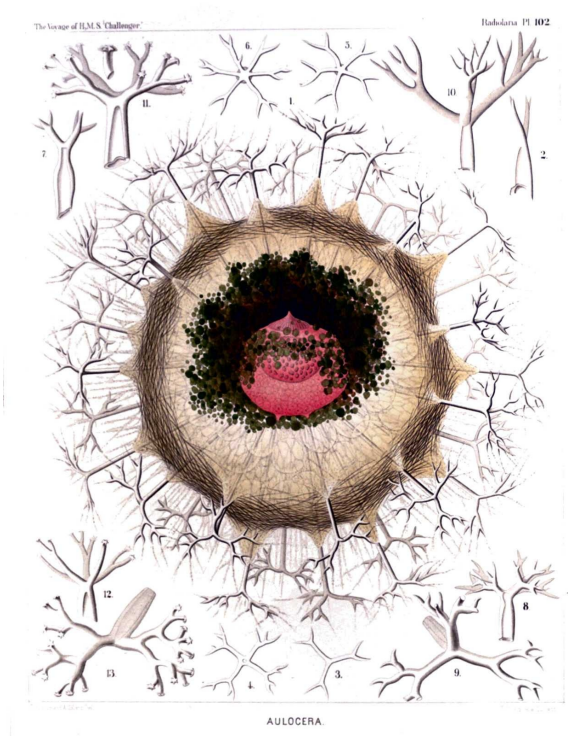
PLATE 102.

AULACANTHIDA.

Diam. Page.

Fig. 1. *Auloceros elegans*, n. sp., × 80 1584

A complete specimen, observed living at Ceylon. In the centre is visible the red central capsule with its three openings, containing a large nucleus of half the size, with numerous nucleoli. The alveolate calymma encloses a green excentric phæodium, is surrounded by a veil of interwoven tangential needles, and forms conical elevations, which enclose the piercing radial tubes. Between these radiate numerous pseudopodia (compare for the single parts, Pl. **103**, fig. 1 and Pl. **104**, figs. 1-3, and their explanation).



Figs. 2-6. *Auloceros furcosus*, n. sp., × 100 1583

Distal ends of different radial tubes, exhibiting the great variability of this species.

Fig. 7. *Auloceros trigeminus*, n. sp., × 300 1584

Distal end of a single tube.

Fig. 8. *Auloceros capreolus*, n. sp., × 200 1584

Distal End of a Single Tube.

Figs. 9, 10. *Auloceros cervinus*, n. sp., × 300 1584

Distal ends of two single tubes.

Fig. 12. *Auloceros spathillaster*, n. sp., × 300 1585

Distal end of a single tube.

Figs. 11, 13. *Auloceros arborescens*, n. sp., × 300 1585

Distal ends of two single tubes.

PLATE **103**.

Legion PHÆODARIA.

Order PHÆOCYSTINA.

Family AULACANTHIDA.

PLATE 103.

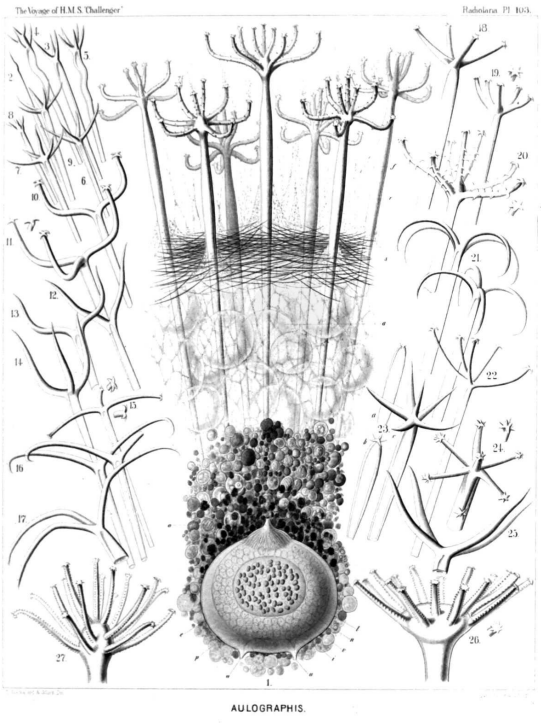
AULACANTHIDA.

Diam. Page.

Fig. 1. *Aulographis candelabrum*, n. sp., × 100 1583

p, The dark phæodium surrounding the central capsule on its oral part; *a*, a part of the surrounding alveolate calymma, also

surrounding the central capsule; *s*, the veil of tangential needles covering the surface of the alveolate calymma; *r*, the big radial tubes, seven of which are visible, with an elegant verticil of terminal branches; *f*, the numerous pseudopodia radiating between the branches. The central capsule exhibits the following parts:—*o*, Astropyle; *u*, parapylæ; *e*, outer membrane; *i*, inner membrane; *v*, vacuoles; *n*, nucleus; *l*, nucleoli.



Figs. 2-9. *Aulographis pandor*, n. sp., × 100 1577

Distal ends of various radial tubes of a single specimen, exhibiting the extraordinary variability of this species.

Fig. 10. *Aulographis furcula*, n. sp., × 400 1580

A two-branched tube.

Fig. 11. *Aulographis furcula*, n. sp., × 400 1580

A three-branched tube.

Figs. 12, 13. *Aulographis bovicornis*, n. sp., × 200 1577

Two tubes with two branches.

Fig. 14. *Aulographis bovicornis*, n. sp., × 200 1577

A tube with three branches.

Fig. 15. *Aulographis triangulum*, n. sp., × 200 1580

A single tube.

Fig. 16. *Aulographis taumorpha*, n. sp., × 300 1577

Two tubes, each with two branches.

Fig. 17. *Aulographis triglochin*, n. sp., × 300 1578

A tube with three branches.

Figs. 18, 19. *Aulographis hexancistra*, n. sp., × 300 1581

Distal end of two tubes (one with four, the other with five terminal branches).

Fig. 20. *Aulographis dentata*, n. sp., × 200 1582

Distal end of a single tube.

Fig. 21. *Aulographis ancorata*, n. sp., × 300 1578

Two tubes, each with four recurved branches.

Fig. 22. *Aulographis tetrancistra*, n. sp., × 300 1581

A single tube.

Fig. 23. *Aulographis stellata*, n. sp., × 300 1578

a and *b*, Two rudimentary or incompletely developed tubes; *c*, a well-developed tube of the usual form.

Fig. 24. *Aulographis asteriscus*, n. sp., × 300 1581

Terminal verticil of a single tube.

Fig. 25. *Aulographis cruciata*, n. sp., × 300 1578

Distal end of a single tube.

Fig. 26. *Aulographis pulvinata*, n. sp., × 400 1582

Distal end of a single tube.

Fig. 27. *Aulographis serrulata*, n. sp., × 400 1582

Distal end of a single tube.

PLATE **104**.

Legion PHÆODARIA.

Order PHÆOCYSTINA.

Family AULACANTHIDA.

PLATE 104.

AULACANTHIDA.

Diam. Page.

Fig. 1. *Aulospathis bifurca*, n. sp., × 50 1586

A complete specimen, excellently preserved, with an ovate alveolate calymma and two central capsules. The surface of the calymma is covered with tangential needles.

Fig. 2. *Aulospathis bifurca*, n. sp., × 100 1586

An isolated central capsule of another specimen, surrounded by granules of the phæodium. *o*, Radiate operculum of the astropyle; *u*, the two lateral parapylæ; *e*, external membrane of the capsule; *i*, internal membrane; *c*, vacuoles in the protoplasm; *n*, nucleus; *l*, numerous nucleoli.

Fig. 3. *Aulospathis bifurca*, n. sp., × 80 1586

Two central capsules of another specimen, surrounded by the phæodium (Self-division). Characters as in fig. 2.

Fig. 4. *Aulospathis bifurca*, n. sp., × 100 1586

A single radial tube.

Fig. 5. *Aulospathis bifurca*, n. sp., × 200 1586

Distal part of another radial tube, partly filled up by air-bubbles.

Fig. 6. *Aulospathis trifurca*, n. sp., × 200 1586

Distal part of a single radial tube.

Fig. 7. *Aulospathis trifurca*, n. sp., × 200 1586

Distal part of another radial tube.

Fig. 8. *Aulospathis triodon*, n. sp., × 100 1587

A single radial tube.

Fig. 9. *Aulospathis tetrodon*, n. sp., × 200 1588

Distal end of single tube.

Figs. 10-13. *Aulospathis polymorpha*, n. sp., × 400 1587

Four single terminal branches with very different forms of spathillæ.

Figs. 14-17. *Aulospathis variabilis*, n. sp., × 400 1588

Four single terminal branches with very different forms of spathillæ.

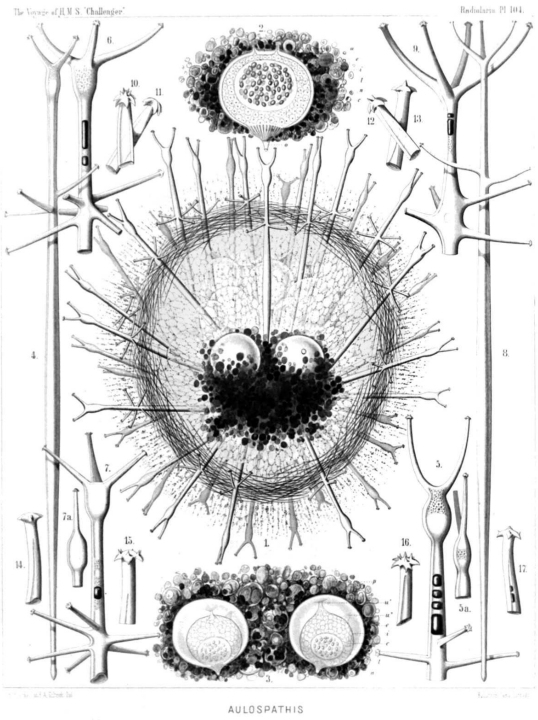


PLATE **105**.

Legion PHÆODARIA.

Order PHÆOCYSTINA.

Family AULACANTHIDA.

PLATE 105.

AULACANTHIDA.

Diam. Page.

AULACANTHIDA.

Fig. 1. *Aulodendron indicum*, n. sp., × 200 1590

A single tube.

Fig. 2. *Aulodendron pacificum*, n. sp., × 400 1589

Distal half of a tube.

Fig. 3. *Aulodendron australe*, n. sp., × 300 1589

A single tube.

Fig. 4. *Aulacantha spinosa*, n. sp., × 300 1575

Distal half of a tube.

Fig. 5. *Aulodendron antarcticum*, n. sp., × 300 1589

A single tube.

Fig. 6. *Aulographis pistillum*, n. sp., × 300 1579

A single tube.

Fig. 7. *Aulographis martagon*, n. sp., × 300 1579

Distal end of a single tube.

Fig. 8. *Aulographis triæna*, n. sp., × 80 1579

A single tube.

Fig. 9. *Aulographis flammabunda*, n. sp., × 100 1579

Distal end of a tube.

Fig. 10. *Aulographis flosculus*, n. sp., × 300 1580

Distal end of a tube.

Fig. 11. *Aulographis gemmascens*, n. sp., × 100 1580

Distal end of a tube.

Fig. 12. *Aulographis verticillata*, n. sp., × 400 1582

Distal end of a tube.

Fig. 12*a*. Apical view, with four verticils of five branches.

Fig. 13. *Aulographis tripentas*, n. sp., × 300 1582

Distal end of a tube.

Fig. 13*a*. Apical view, with three verticils of five branches.

Fig. 14. *Auloceros dicranaster*, n. sp., × 400 1585

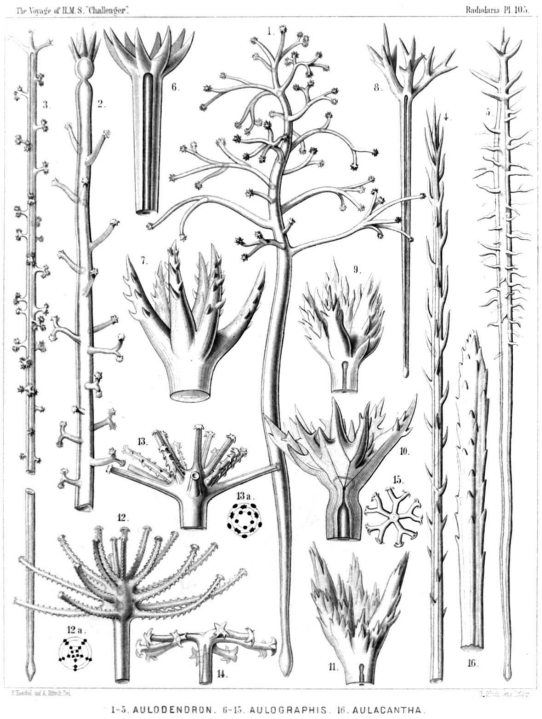
Distal end of a tube, seen from the side.

Fig. 15. *Auloceros dicranaster*, n. sp., × 200 1585

Distal end of a tube, seen from the terminal face.

Fig. 16. *Aulacantha cannulata*, n. sp., × 300 1576

Distal end of a tube.



1–5. AULODENDRON. 6–15. AULOGRAPHIS. 16. AULACANTHA.

PLATE **106**.

Legion PHÆODARIA.

Orders PHÆOSPHÆRIA.

Family OROSPHÆRIDA.

PLATE 106.

OROSPHÆRIDA.

OROSPHÆRIDA. Diam. Page.

Fig. 1. *Orosphæra serpentina*, n. sp., × 50 1595

The entire shell.

Fig. 2. *Orosphæra horrida*, n. sp., × 50 1596

The entire shell.

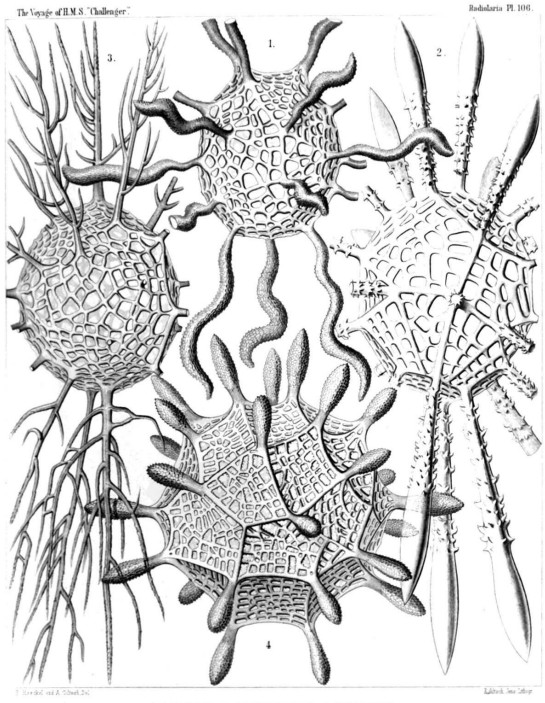
Fig. 3. *Orosphæra arborescens*, n. sp. (vel *Orothamnus arborescens*), × 50 1597

The entire shell.

Fig. 4. *Oroscena gegenbauri*, n. sp., × 50 1597

The entire shell.

(Compare Pl. **12**, fig. 1.)



1, 2. ORONIA, 3. OROTHAMNUS, 4. OROSCENA.

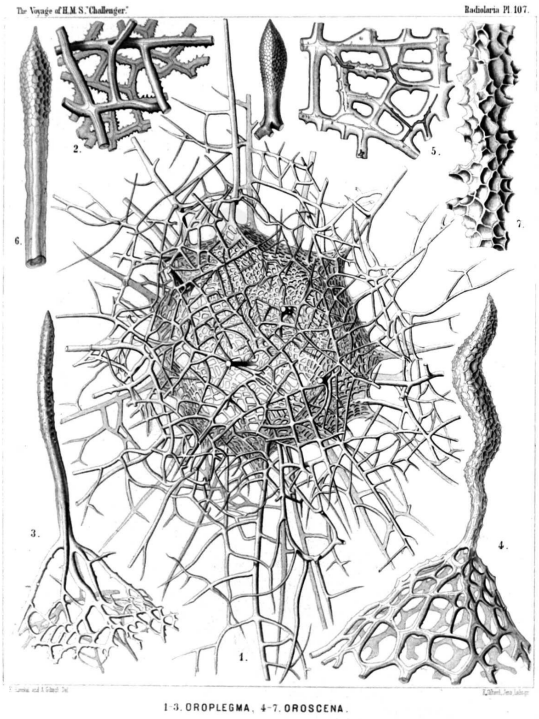
PLATE **107**.

Legion PHÆODARIA.

Order PHÆOSPHÆRIA.

PLATE 107.

OROSPHÆRIDA.



	Diam.	Page.
(Fig. 8 of this Plate has no number, by mistake; it is at the top in the middle.)		
Fig. 1. *Oroplegma diplosphæra*, n. sp., The entire shell, enveloped by an outer mantle of spongy framework.	× 50	1600
Fig. 2. *Oroplegma giganteum*, n. sp., A small piece of the spongy framework.	× 200	1601
Fig. 3. *Oroplegma spongiosum*, n. sp., A pyramidal elevation of the inner shell, with its spongy framework, and a radial spine on the top.	× 50	1601
Fig. 4. *Oroscena bærii*, n. sp., A pyramidal elevation of the shell, with a radial spine on its top.	× 100	1598
Fig. 5. *Orona maxima*, n. sp., A small piece of the network; the central canals of the bars are partly filled by air.	× 300	1594
Fig. 6. *Oroscena cuvieri*, n. sp., A single radial spine.	× 50	1598
Fig. 7. *Orona crassissima*, n. sp., A single bar of the coarse network, with dimpled surface.	× 300	1594
Fig. 8. *Oroscena mülleri*, n. sp., A single radial spine.	× 50	1598

PLATE **108**.

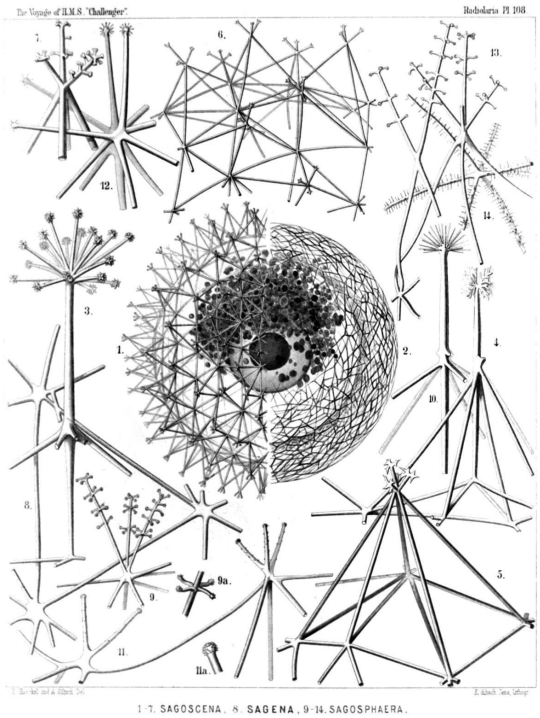
Legion PHÆODARIA.

Order PHÆOSPHÆRIA.

Family SAGOSPHÆRIDA.

PLATE 108.

SAGOSPHÆRIDA.



	Diam.	Page.
SAGOSPHÆRIDA.		
Fig. 1. *Sagoscena castra*, n. sp., Half the shell, with the enclosed central capsule and the phæodium, stained by carmine. (The central nucleus dark.)	× 50	1608
Fig. 2. *Sagmarium spongodictyum*, n. sp., Half the shell, with its delicate spongy framework.	× 50	1612
Fig. 3. *Sagenoscena stellata*, n. sp., Top and axial rod of a pyramid, prolonged into a crowned radial spine.	× 300	1610
Fig. 4. *Sagenoscena ornata*, n. sp., A single pyramid with its axial rod, prolonged into a crowned radial spine.	× 300	1610
Fig. 5. *Sagoscena pellorium*, n. sp., A single pyramid of the shell-surface.	× 300	1609
Fig. 6. *Sagoscena tentorium*, n. sp., A piece of the shell with eight pyramids.	× 100	1608
Fig. 7. *Sagoscena prætorium*, n. sp., Top of a pyramid.	× 400	1609
Fig. 8. *Sagena ternaria*, n. sp., A single triangular mesh of the lattice sphere.	× 400	1606

Fig. 9. *Sagmidium crucicorne*, n. sp., × 400 1613

A single nodal point with three radial spines.

Fig. 9*a*. A portion of a spine, more highly magnified.

Fig. 10. *Sagosphæra penicilla*, n. sp., × 400 1607

One nodal point and its radial spine.

Fig. 11. *Sagosphæra furcilla*, n. sp., × 300 1607

Two nodal points of the network.

Fig. 11*a*. Extremity of a spine.

Fig. 12. *Sagmidium quadricorne*, n. sp., × 400 1614

A nodal point of the shell surface, with four divergent spines.

Fig. 13. *Sagoplegma scenophora*, n. sp., × 300 1615

Tops of two pyramids.

Fig. 14. *Sagmarium plegmosphærium*, n. sp., × 300 1612

A nodal point of the spongy framework.

PLATE **109**.

Legion PHÆODARIA.

Order PHÆOSPHÆRIA.

Family AULOSPHÆRIDA.

PLATE 109.

AULOSPHÆRIDA.

Diam. Page.

Fig. 1. *Aulosphæra dendrophora*, n. sp., × 50 1625

The entire shell, with the central capsule and its nucleus, enveloped by the dark granular phæodium.

Fig. 2. *Aulosphæra dendrophora*, n. sp., × 300 1625

A single radial tube.

Fig. 3. *Aulosphæra sceptrophora*, n. sp., × 300 1625

A hexagonal group of six triangular meshes.

Fig. 4. *Aulosphæra sceptrophora*, n. sp., × 300 1625

A similar group, seen from the side, with three radial tubes.

Fig. 5. *Aulosphæra spinosa*, n. sp., × 300 1627

A hexagonal group of six triangular meshes.

Fig. 6. *Aulosphæra undulata*, n. sp., × 400 1627

A single radial tube.

Fig. 7. *Aulosphæra spathillata*, n. sp., × 400 1624

A single radial tube.

Fig. 7*a*. An abnormal variety, × 400

Fig. 8. *Aulosphæra triodon*, n. sp., × 400 1623

A single radial tube.

Fig. 9. *Aulosphæra trifurca*, n. sp., × 400 1626

A single radial tube.

Fig. 10. *Aulosphæra cruciata*, n. sp., × 300 1624

A single radial tube.

Fig. 11. *Aulosphæra bisternaria*, n. sp., × 300 1624

A single radial tube.

Fig. 12. *Aulosphæra bisternaria*, n. sp., × 600 1624

Distal end of a single radial tube.

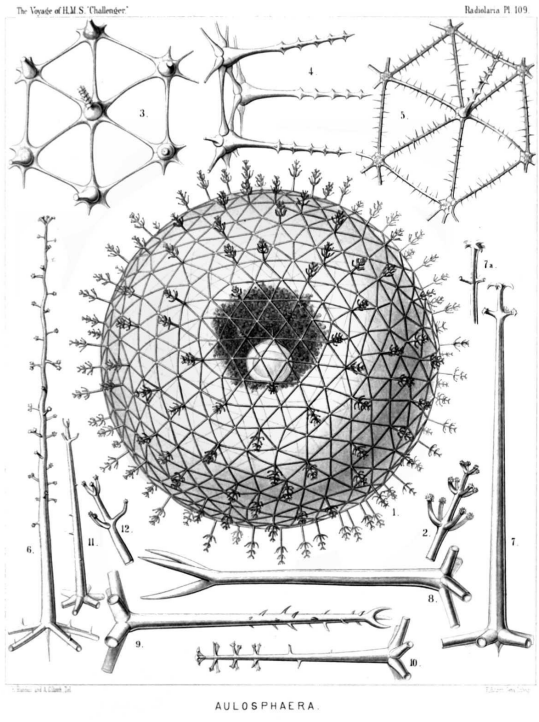


PLATE **110**.

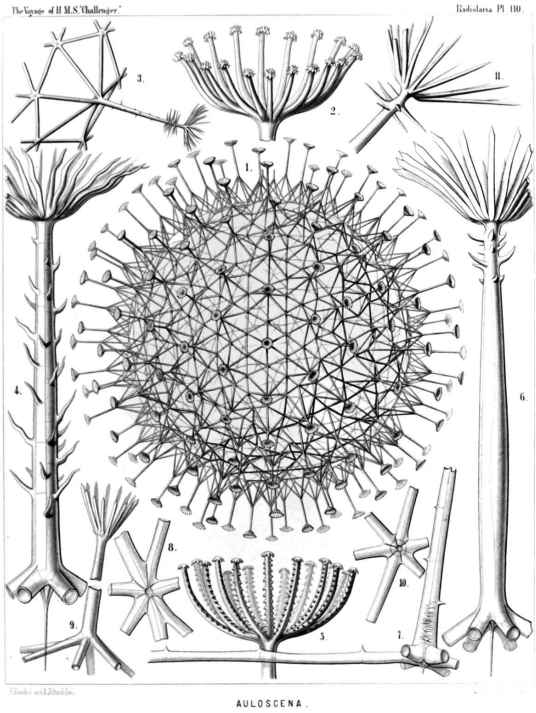
Legion PHÆODARIA.

Order PHÆOSPHÆRIA.

Family AULOSPHÆRIDA.

PLATE 110.

AULOSPHÆRIDA.



	Diam.	Page.
Fig. 1. *Auloscena mirabilis*, n. sp.,	× 50	1628
The complete shell, representing a regular latticed sphere, which is composed of equal hexagonal pyramids; the top of each pyramid bears a radial tube with a terminal corona.		
Fig. 2. *Auloscena mirabilis*, n. sp.,	× 600	1628
Terminal corona of a single radial tube.		
Fig. 3. *Auloscena penicillus*, n. sp.,	× 200	1629
A single tent-shaped elevation or six-sided pyramid, bearing on the top a brush-shaped radial tube.		
Fig. 4. *Auloscena flammabunda*, n. sp.,	× 400	1629
A single radial tube, with a centripetal free prolongation at the base and a verticil of undulate terminal branches at the distal end.		
Fig. 5. *Auloscena serrata*, n. sp.,	× 600	1630
Terminal corona of a single radial tube.		
Fig. 6. *Auloscena tentorium*, n. sp.,	× 400	1628
A single radial tube, with a centripetal prolongation at the base and a terminal corona at the distal end.		
Fig. 7. *Auloscena gigantea*, n. sp.,	× 400	1629
Basal part of a radial tube, exhibiting the internal axial thread and its connection with the six tubes, which form the edges of a flat six-sided pyramid (usually more elevated than the figure exhibits).		
Fig. 8. *Auloscena spectabilis*, n. sp.,	× 400	1628
Apex of an abnormal pyramid (sometimes occurring), in which seven radial tubes are united, instead of six.		
Fig. 9. *Auloscena spectabilis*, n. sp.,	× 800	1628
Basal part of a radial tube, in the top of a flat six-sided pyramid; above it the distal part of the same tube with its terminal corona (middle part of the tube wanting).		
Fig. 10. *Auloscena verticillus*, n. sp.,	× 300	1629
Apex of a six-sided pyramid, seen from the inside.		
Fig. 11. *Auloscena verticillus*, n. sp.,	× 400	1629
Distal part of a single radial tube, with the terminal corona.		

PLATE **111**.

Legion PHÆODARIA.

Order PHÆOSPHÆRIA.

Family AULOSPHÆRIDA.

PLATE 111.

AULOSPHÆRIDA.

	Diam.	Page.
Fig. 1. *Aulonia hexagonia*, n. sp.,	× 30	1634
The complete spherical shell.		
Fig. 2. *Aularia ternaria*, n. sp.,	× 300	1621

A group of six triangular meshes, with seven nodal points of radial tubes. Behind the central capsule, with its double membrane (*e*, outer; *i*, inner) and radiate operculum (*o*); *u*, the two outer parapylæ; *v*, vacuoles in the protoplasm. The ellipsoidal nucleus (*n*) contains numerous nucleoli (*l*).

Fig. 3. *Aulastrum triceros*, n. sp., × 50 1635

The complete shell.

Fig. 3*a*. *Aulastrum triceros*, n. sp., × 300 1635

A single radial tube.

Figs. 4*a*, 4*b*, 4*c*. *Aulastrum dendroceros*, n. sp., × 400 1635

Three single radial spines (taken from three different specimens).

Fig. 5*a*. *Aulophacus lenticularis*, n. sp., × 300 1631

A single radial spine.

Fig. 5*b*. *Aulophacus amphidiscus*, n. sp., × 300 1631

A single radial spine.

Fig. 6. *Aulatractus fusiformis*, n. sp., × 5 1632

The complete shell, five times enlarged.

Fig. 6*a*. *Aulatractus fusiformis*, n. sp., × 20 1632

Apical part of the shell.

Fig. 6*b*. *Aulatractus fusiformis*, n. sp., × 400 1632

A single radial tube.

Fig. 7. *Aulatractus diploconus*, n. sp., × 20 1632

Apical part of the shell.

Fig. 7*a*. *Aulatractus diploconus*, n. sp., × 400 1632

A single radial tube.

Fig. 8. *Auloplegma perplexum*, n. sp., × 50 1630

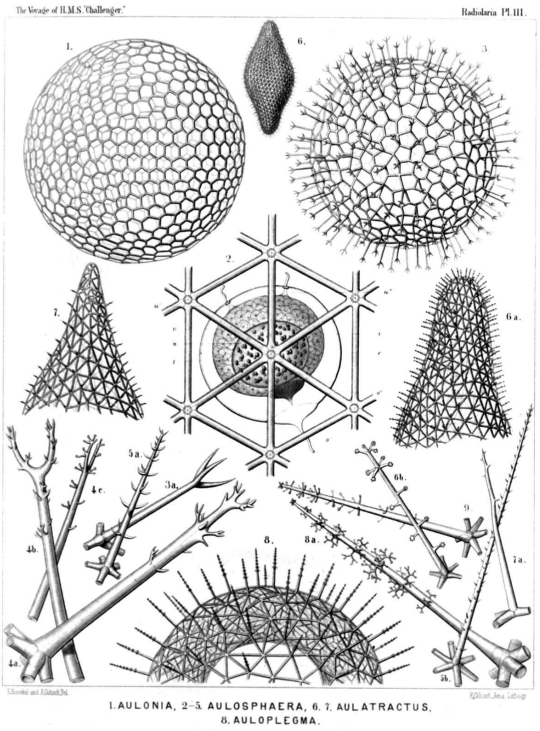
Half the shell.

Fig. 8*a*. *Auloplegma perplexum*, n. sp., × 400 1630

A single radial tube.

Fig. 9. *Auloplegma spongiosum*, n. sp., × 300 1631

A single radial tube.



1. AULONIA, 2–5. AULOSPHAERA, 6. 7. AULATRACTUS, 8. AULOPLEGMA.

PLATE **112**.

Legion PHÆODARIA.

Orders PHÆOSPHÆRIA.

Family CANNOSPHÆRIDA.

PLATE 112.

CANNOSPHÆRIDA.

Diam. Page.

CANNOSPHÆRIDA.

Fig. 1. *Cannosphæra antarctica*, n. sp., × 50 1640

The entire shell. The inner mammillate shell, from the month of which is prominent the phæodium, in connected by numerous radial beams with the outer shell.

Fig. 2. *Cannosphæra antarctica*, n. sp., × 200 1640

The inner shell, from the mouth of which is prominent the phæodium, and a single hexagonal mesh of the outer shell, connected with the former by thin radial threads.

Fig. 3. *Cannosphæra antarctica*, n. sp., × 200 1640

A single radial spine, with four terminal branches.

Fig. 4. *Cannosphæra pacifica*, n. sp., × 200 1641

The inner shell, exhibiting on its base the widely open mouth, and in its upper half the transparent spherical central capsule with its

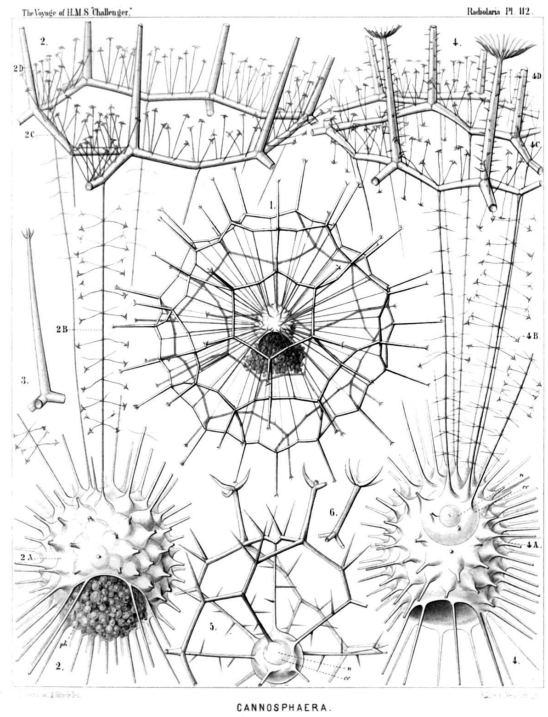
nucleus. Of the outer shell (which is connected with the inner by thin radial threads), only a few polygonal meshes are visible.

Fig. 5. *Cannosphæra atlantica*, n. sp., × 200 1640

The inner shell, connected by spiny radial beams with the outer shell, a quadrant only of which is visible.

Fig. 6. *Cannosphæra atlantica*, n. sp., × 200 1640

A single radial spine, with five terminal branches.



CANNOSPHAERA.

PLATE **113**.

Legion PHÆODARIA.

Order PHÆOGROMIA.

Family CASTANELLIDA.

PLATE 113.

CASTANELLIDA.

Diam. Page.

Fig. 1. *Castanissa challengeri*, n. sp., × 100 1686

In the lower part of the figure is visible the large corona of teeth around the mouth (*a*).

Fig. 2. *Castanidium moseleyi*, n. sp., × 80 1686

In the upper part of the figure, at left, is visible the irregular polygonal mouth (*a*).

Fig. 3. *Castanopsis naresi*, n. sp., × 80 1688

In the upper part of the figure is visible the smooth circular mouth (*a*).

Fig. 4. *Castanura tizardi*, n. sp., × 80 1689

Fig. 4*a*. A single main-spine of the same, × 400

Fig. 5. *Castanidium murrayi*, n. sp., × 100 1685

With a large phæodium, partly protruded through the circular mouth.

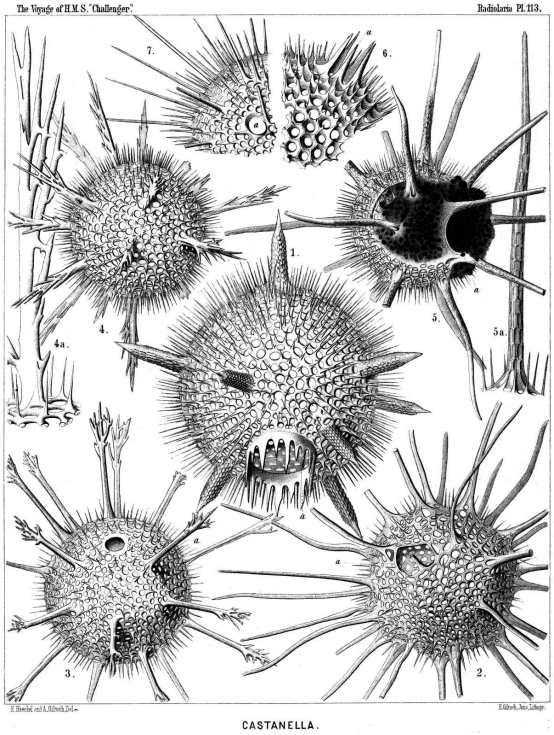
Fig. 5*a*. A single main-spine of the same, hexagonally dimpled, × 400

Fig. 6. *Castanella wyvillei*, n. sp., × 100 1683

A piece of the shell with the mouth, armed with six large teeth (*a*).

Fig. 7. *Castanidium buchanani*, n. sp., × 100 1685

A piece of the shell with the smooth roundish mouth (*a*).



CASTANELLA.

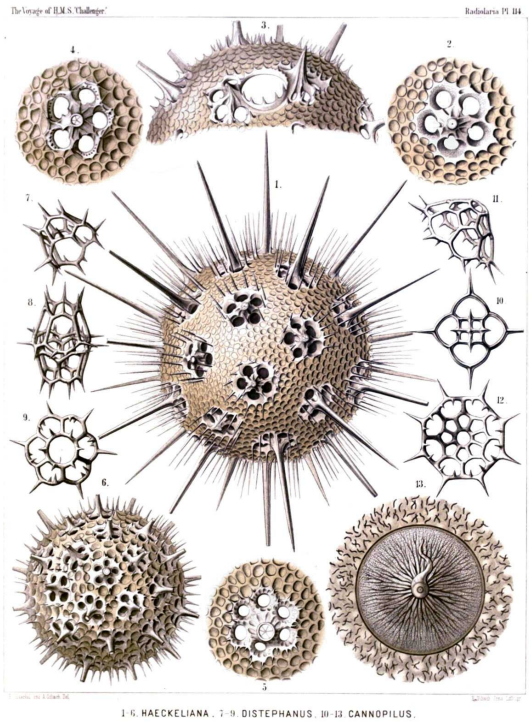
PLATE **114**.

Legion PHÆODARIA.

Orders PHÆOCYSTINA ET PHÆOGROMIA.

PLATE 114.

CANNORRHAPHIDA et CIRCOPORIDA.



	Diam.	Page.
Fig. 1. *Haeckeliana darwiniana*, n. sp., A complete shell.	× 200	1702
Fig. 2. *Haeckeliana darwiniana*, n. sp., A single coronet of pores.	× 400	1702
Fig. 3. *Haeckeliana gœtheana*, n. sp., The oral part of the shell with the mouth.	× 300	1702
Fig. 4. *Haeckeliana lamarckiana*, n. sp., A single coronet of pores.	× 400	1701
Fig. 5. *Haeckeliana maxima*, n. sp., A single coronet of pores.	× 300	1701
Fig. 6. *Haeckeliana porcellana*, John Murray, A complete shell.	× 200	1701
Fig. 7. *Distephanus corona*, n. sp., A single pileated piece (half from the side, half from below).	× 800	1566
Fig. 8. *Distephanus corona*, n. sp., Two coupled pileated pieces caught into one another (twin-piece).	× 800	1566
Fig. 9. *Distephanus corona*, n. sp., A single pileated piece, seen from above.	× 800	1566
Fig. 10. *Cannopilus diplostaurus*, n. sp., A single pileated piece, seen from above.	× 800	1568
Fig. 11. *Cannopilus cyrtoides*, n. sp., A single pileated piece, seen obliquely from the side.	× 800	1569
Fig. 12. *Cannopilus cyrtoides*, n. sp., A single pileated piece, seen from below.	× 800	1569
Fig. 13. *Haeckeliana porcellana*, John Murray, The radiate operculum of the central capsule.	× 600	1526

PLATE **115**.

Legion PHÆODARIA.

Order PHÆOGROMIA.

Family CIRCOPORIDA.

PLATE 115.

CIRCOPORIDA.

	Diam.	Page.
Fig. 1. *Circoporus sexfuscinus*, n. sp., The cruciform mouth is visible in the upper part of the figure, to the right.	× 100	1695
Fig. 2. *Circoporus sexfuscinus*, n. sp., A single radial spine, with four cruciate pores at the base.	× 200	1695
Fig. 3. *Circoporus sexfuscinus*, n. sp., The radiate operculum of the central capsule, with the proboscis.	× 600	1695
Fig. 4. *Circospathis furcata*, n. sp., Five of the nine spines are visible, two others (on the upper face) broken off. Between the latter the pentagonal mouth (with five teeth).	× 100	1696

Fig. 5. *Circospathis furcata*, n. sp., × 300 1696

The mouth with its five teeth.

Fig. 6. *Circospathis furcata*, n. sp., × 400 1696

A piece of the shell with a radial spine.

Fig. 7. *Circospathis furcata*, n. sp., × 400 1696

Vertical section through the base of a radial spine, to show the central funicle.

Fig. 8. *Circogonia dodecacantha*, n. sp., × 100 1698

The central capsule with the elliptical nucleus (to the right) and the dark phæodium (to the left) are visible, in the upper part (to the left) the mouth of the shell, with six teeth.

Fig. 9. *Circogonia dodecacantha*, n. sp., × 400 1698

A fragment of the shell, exhibiting its peculiar structure (needles tangentially scattered in the cement of the porcellanous substance), and a circle of nine pores around the base of a broken spine.

Fig. 10. *Circospathis tetrodonta*, n. sp., × 400 1697

The mouth with four teeth, in profile view.

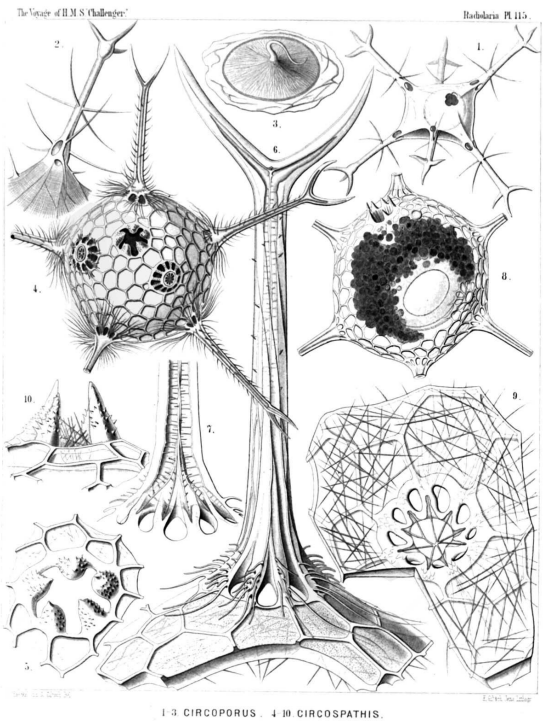


PLATE **116**.

Legion PHÆODARIA.

Order PHÆOGROMIA.

Families MEDUSETTIDA et CIRCOPORIDA.

PLATE 116.

MEDUSETTIDA et CIRCOPORIDA.

Diam. Page.

Fig. 1. *Polypetta mammillata*, n. sp., × 500 1677

In the upper part of the figure the dentate proboscis.

Fig. 1*a*. Vertical section through the shell-wall, showing two of the hollow alveoles, opening on its inside, × 1000

Fig. 2. *Polypetta tabulata*, n. sp., × 500 1677

In the upper part of the figure the dentate proboscis.

Fig. 2*a*. A piece of the shell, seen from the surface, with the triangular plates, × 1000

Fig. 2*b*. Vertical section through the shell-wall, with an alveole, × 1000

Fig. 3. *Circostephanus coronarius*, n. sp., × 150 1699

The polyhedral shell exhibits in its wall the small tangential needles. The radial spines are partly broken off. The mouth of the shell, surrounded by eight short conical teeth, is visible on the left side of the figure.

Fig. 3*a*. The mouth of the shell, seen in profile, with eight conical spinulate teeth, × 400

Fig. 3*b*. The base of a radial spine broken off, to show the corona of (five or six) basal pores, × 400

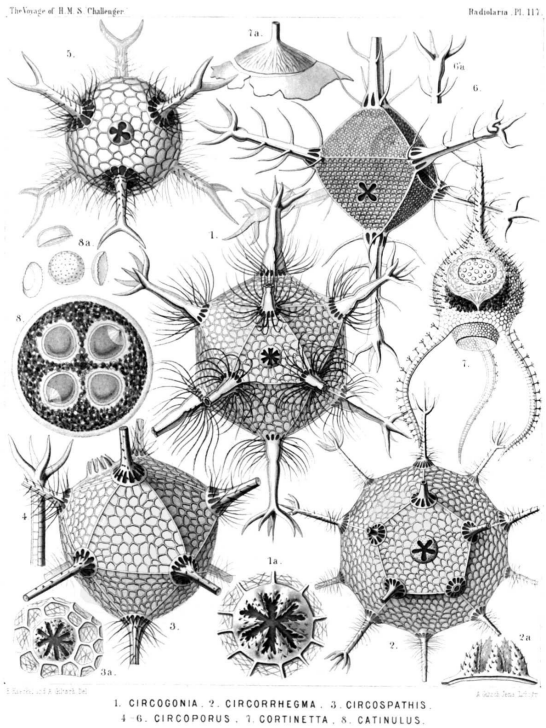


PLATE **117**.

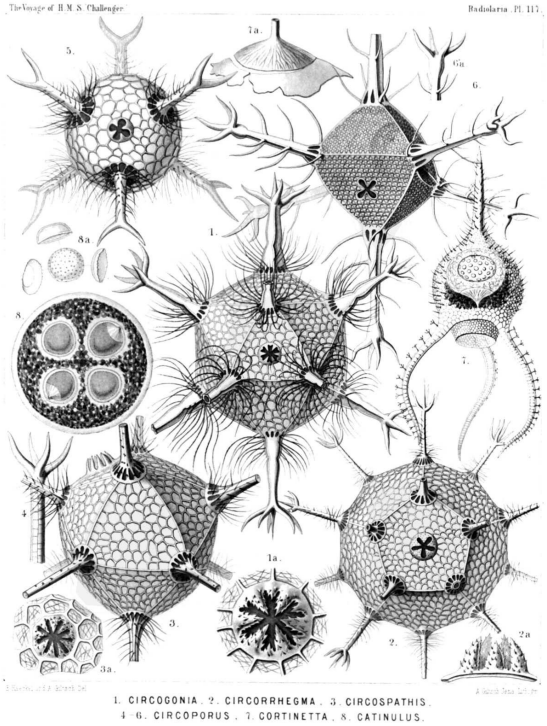
Legion PHÆODARIA.

Orders PHÆOCYSTINA ET PHÆOGROMIA.

Families CANNORRHAPHIDA, MEDUSETTIDA et CIRCOPORIDA.

PLATE 117.

CANNORRHAPHIDA, MEDUSETTIDA et CIRCOPORIDA.



	Diam.	Page.
Fig. 1. *Circogonia icosahedra*, n. sp.,	× 80	1698
The entire shell, with twelve radial tubes and twenty triangular faces. In the centre of one face is the mouth, with six teeth.		
Fig. 1*a*. The mouth alone, with its six spinulate teeth,	× 400	
Fig. 2. *Circorrhegma dodecahedra*, n. sp.,	× 80	1699
The entire shell, with twenty radial tubes and twelve pentagonal faces. In the centre of one face is the mouth, with five teeth.		
Fig. 2*a*. The mouth alone, with its five spinulate teeth, seen in profile,	× 200	
Fig. 3. *Circospathis novena*, n. sp.,	× 100	1696
The entire shell, with nine radial tubes and fourteen triangular faces. In one face (to the left above) is the mouth with nine teeth.		
Fig. 3*a*. The mouth alone, with its nine spinulate teeth,	× 150	
Fig. 4. *Circoporus hexastylus*, n. sp.,	× 80	1695
A single radial spine.		
Fig. 5. *Circoporus sexfurcus*, n. sp.,	× 80	1694
The entire spherical shell with six forked and ciliated radial tubes. In the centre the cruciform mouth with four teeth.		
Fig. 6. *Circoporus octahedrus*, n. sp.,	× 300	1695
The entire shell, with six verticillate radial tubes and eight triangular faces. In the centre of one face is the mouth, with four teeth.		
Fig. 7. *Cortinetta tripodiscus*, n. sp.,	× 300	1667
The entire shell with the enclosed central capsule, and the phæodium around the astropyle.		
Fig. 7*a*. The astropyle, partly detached from the wall of the central capsule, seen in profile,	× 800	
Fig. 8. *Catinulus quadrifidus*, n. sp.,	× 80	1553
A complete specimen, with four equal central capsules, united in a single spherical calymma.		
Fig. 8*a*. Some single pieces of the skeleton,	× 400	

PLATE **118**.

Legion PHÆODARIA.

Order PHÆOGROMIA.

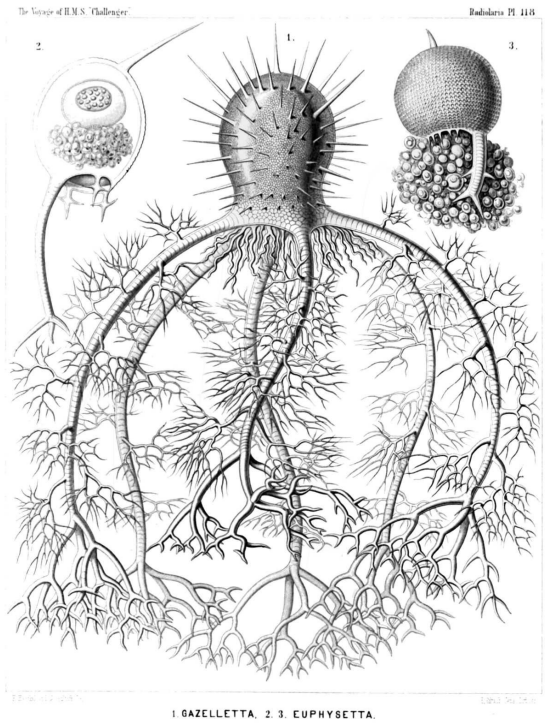
Family MEDUSETTIDA.

PLATE 118.

MEDUSETTIDA.

	Diam.	Page.
Fig. 1. *Gazelletta melusina*, n. sp.,	× 300	1674
From the peristome of the thorny campanulate shell arise six large descending feet, which are studded with arborescent fragile lateral branches, and armed at the distal end with stouter dichotomous terminal branches.		
Fig. 2. *Euphysetta staurocodon*, n. sp.,	× 300	1670
The peristome of the ovate shell bears an odd large foot with three terminal branches and three cruciate rudimentary feet. In the upper part of the shell-cavity is visible the sphæroidal central capsule (containing a nucleus of half the size, with numerous nucleoli); in the lower half the dark pigment-masses of the green phæodium.		
Fig. 3. *Euphysetta amphicodon*, n. sp.,	× 300	1670

The shell-wall exhibits the regular alveolate structure. From the mouth are prominent large masses of the phæodium, which is more voluminous than the shell-cavity, and seems to contain nucleated cells.



1. GAZELLETTA. 2. 3. EUPHYSETTA.

PLATE **119**.

Legion PHÆODARIA.

Order PHÆOGROMIA.

Family MEDUSETTIDA.

PLATE 119.

MEDUSETTIDA.

	Diam.	Page.
Fig. 1. *Gorgonetta mirabilis*, n. sp.,	× 100	1674

The entire body. From the margin of the cap-shaped shell arise six ascending arborescent feet and six alternating descending feet, which are covered with anchor-pencils and branched at the distal end. From the mouth of the delicately alveolate shell depend prominent parts of the dark voluminous phæodium.

Fig. 2. *Gorgonetta mirabilis*, n. sp.,	× 300	1674

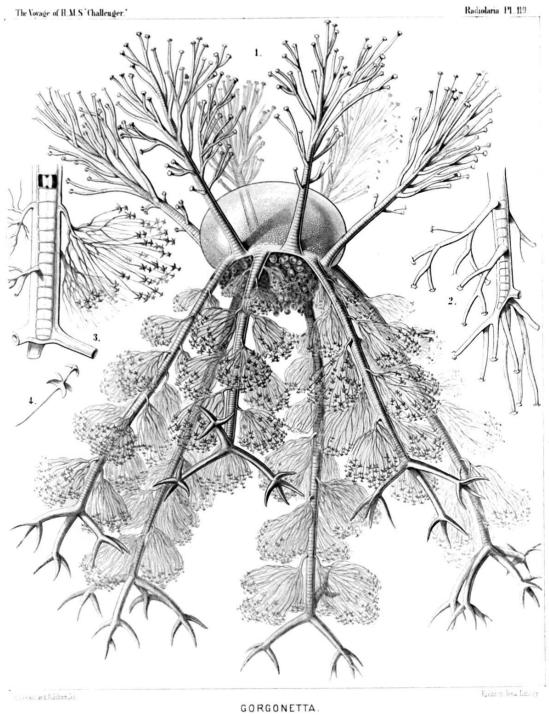
The distal end of an ascending foot; the branches bear a terminal spathilla with small recurved teeth.

Fig. 3. *Gorgonetta mirabilis*, n. sp.,	× 300	1674

The distal end of a descending foot, with three lateral anchor-pencils and three terminal branches (broken off). Odd alveole contains an air-bubble.

Fig. 4. *Gorgonetta mirabilis*, n. sp.,	× 600	1674

A single thread of an anchor-pencil with two quadridentate spathillæ, a larger proximal and a smaller distal (terminal).



GORGONETTA.

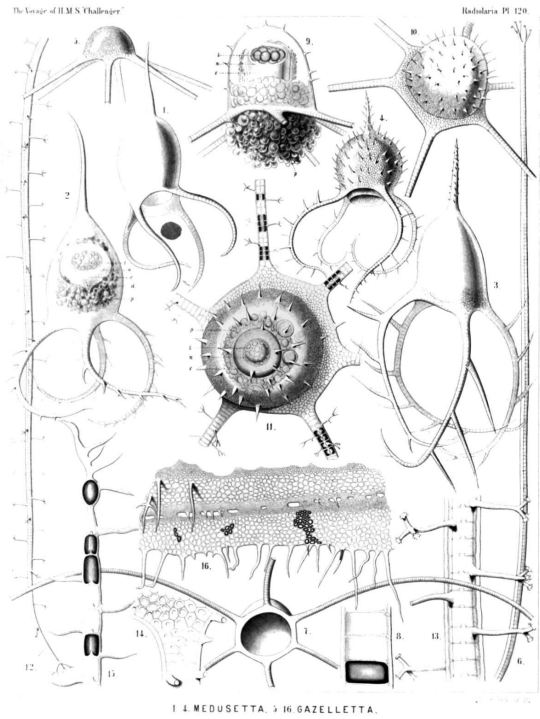
PLATE **120**.

Legion PHÆODARIA.

Order PHÆOGROMIA.

Family MEDUSETTIDA.

PLATE 120.



MEDUSETTIDA.

	Diam.	Page.
Fig. 1. *Medusetta codonium*, n. sp.,	× 400	1668
Fig. 2. *Medusetta quadrigata*, n. sp.,	× 400	1668
The central capsule is visible in the upper half, the phæodium in the lower half of the shell-cavity.		
Fig. 3. *Medusetta tetranema*, n. sp.,	× 400	1669
Fig. 4. *Medusetta craspedota*, n. sp.,	× 400	1669
Fig. 5. *Gazelletta hexanema*, n. sp.,	× 300	1671
Fig. 6. *Gazelletta bifurca*, n. sp.,	× 300	1672
A single alveolate foot.		
Fig. 7. *Gazelletta macronema*, n. sp.,	× 200	1671
Oral view of the shell.		
Fig. 8. *Gazelletta macronema*, n. sp.,	× 800	1671
Three joints of an alveolate foot.		
Fig. 9. *Gazelletta cyrtonema*, n. sp.,	× 300	1671
The upper part of the shell encloses the central capsule with its nucleus. The voluminous phæodium is prominent over the mouth.		
Fig. 10. *Gazelletta orthonema*, n. sp.,	× 200	1671
The central capsule and its nucleus are visible in the shell-cavity.		
Fig. 11. *Gazelletta schleinitzii*, n. sp.,	× 400	1673
Oblique apical view, with the enclosed central capsule, the nucleus of which contains numerous nucleoli.		
Fig. 12. *Gazelletta schleinitzii*, n. sp.,	× 300	1673
A single alveolate foot.		
Fig. 13. *Gazelletta trispathilla*, n. sp.,	× 400	1673
The middle part of a foot.		
Fig. 14. *Gazellatta robusta*, n. sp.,	× 300	1673
The base of a foot, exhibiting the pores of the alveoli.		
Fig. 15. *Gazelletta studeri*, n. sp.,	× 400	1673
The distal end of a foot; four alveoli filled up by air-bubbles.		
Fig. 16. *Gazelletta dendronema*, n. sp.,	× 300	1674
A part of the velum, seen from the inside. The alveoles are partly filled by air.		

PLATE **121**.

Legion PHÆODARIA.

Order PHÆOCONCHIA.

Family CŒLODENDRIDA.

PLATE 121.

CŒLODENDRIDA.

	Diam.	Page.
Fig. 1. *Cœlodendrum furcatissimum*, n. sp.,	× 50	1735
A complete specimen with the central capsule and the big phæodium. The spherical calymma envelops almost the entire skeleton.		
Fig. 2. *Cœlodendrum furcatissimum*, n. sp.,	× 300	1735
A distal branch with its terminal ramification.		
Fig. 3. *Cœlodendrum furcatissimum*, n.		

sp., × 100 1735

One valve of the shell, with its galea and the four hollow forked tubes arising from it.

Fig. 4. *Cœlodendrum furcatissimum*, n. sp., × 100 1735

The central capsule with its nucleus; on the left side one valve of the closely enveloping shell (seen in vertical section), and its galea with the origin of the four tubes.

Fig. 5. *Cœlodendrum serratum*, n. sp., × 400 1737

A flabellate terminal branch.

Fig. 6. *Cœlodendrum flabellatum*, n. sp., × 150 1737

A flabellate terminal branch.

Fig. 7. *Cœlodendrum spinosissimum*, n. sp., × 300 1735

Forked distal end of a terminal branch.

Fig. 8. *Cœlodendrum cervicorne*, n. sp., × 150 1736

One valve of the shell, with its galea and the four tubes arising from it. A network of protoplasm connects the distal branches.

Fig. 9. *Cœlodrymus ancoratus*, n. sp., × 50 1738

A complete specimen, with the central capsule and the enveloping phæodium. The surface of the spherical calymma is covered by a dense network, from which arise numerous, anchor-bearing, radial tubules.

Fig. 10. *Cœlodrymus ancoratus*, n. sp., × 150 1738

A small piece of the superficial network of the skeleton, with the zigzag radial tubules arising from it, each of which bears an anchor with two recurved denticulate teeth on the distal end.

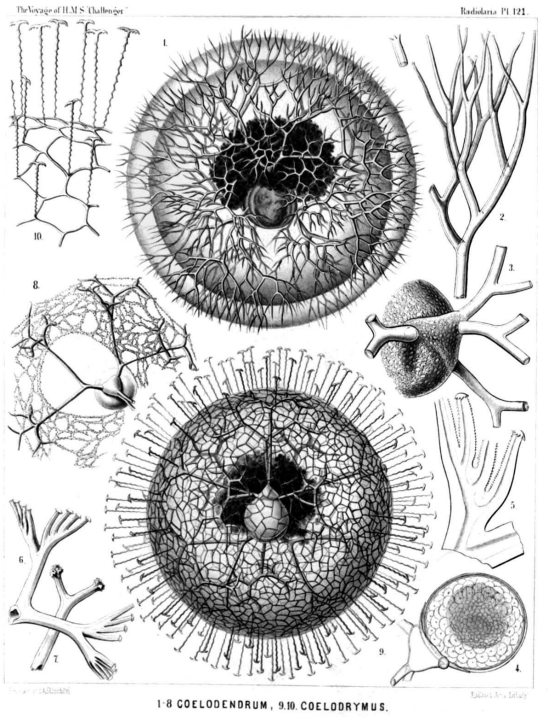


PLATE **122**.

Legion PHÆODARIA.

Order PHÆOCONCHIA.

Family CŒLOGRAPHIDA.

PLATE 122.

CŒLOGRAPHIDA.

Diam. Page.

Fig. 1. *Cœlotholus octonus*, n. sp., × 30 1749

The entire bivalved shell, seen obliquely from the dorsal and somewhat from the right side, enveloped by the yellowish calymma.

Fig. 2. *Cœlotholus octonus*, n. sp., × 100 1749

One valve of the shell (*h*) with its large galea and the origin of the three styles. The base of the two lateral styles (g^1, g^2) is connected by two latticed lateral frenula (b^1, b^2) with the mouth (*m*) of the rhinocanna (*t*). The odd style (g^3) is free.

Fig. 3. *Cœlothauma duodenum*, n. sp., × 20 1750

The entire shell, seen from the dorsal side. The long styles are enveloped by the yellowish calymma.

Fig. 4. *Cœlothauma duodenum*, n. sp., × 80 1750

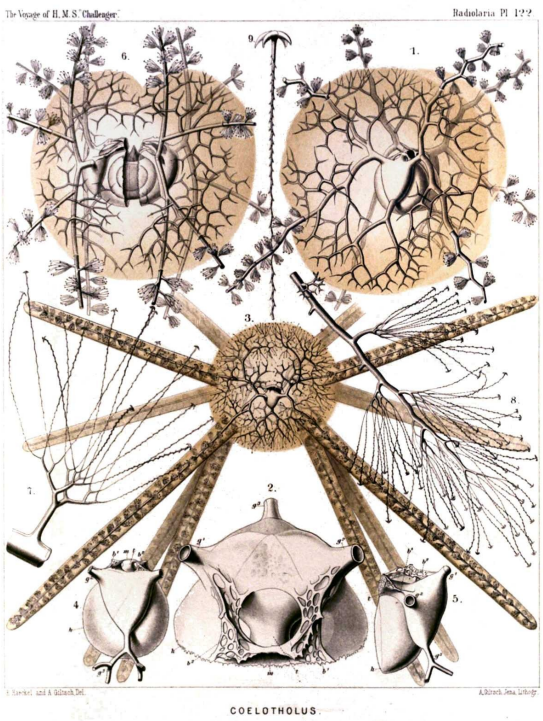
One valve of the shell (*h*), seen from the apical side; *t*, rhinocanna; *m*, its mouth; b^1, b^2, the two lateral frenula; g^1, g^2, the two paired styles; g^3, the odd style.

Fig. 5. *Cœlothauma duodenum*, n. sp., × 80 1750

One valve of the shell, seen in profile. Characters as in fig. 4.

Fig. 6. *Cœlothamnus bivalvis*, n. sp., × 30 1751

The entire shell, enveloped by the yellowish calymma, seen from the left side; between



the two valves is the central capsule, with nucleus and astropyle.

Fig. 7. *Cœlothamnus bivalvis*, n. sp., × 100 1751

A single lateral anchor-pencil.

Fig. 8. *Cœlothamnus bivalvis*, n. sp., × 200 1751

Distal end of a style, with its anchor-pencils.

Fig. 9. *Cœlothamnus bivalvis*, n. sp., × 400 1751

A single anchor-thread, with its quadridentate terminal spathilla.

PLATE **123**.

Legion PHÆODARIA.

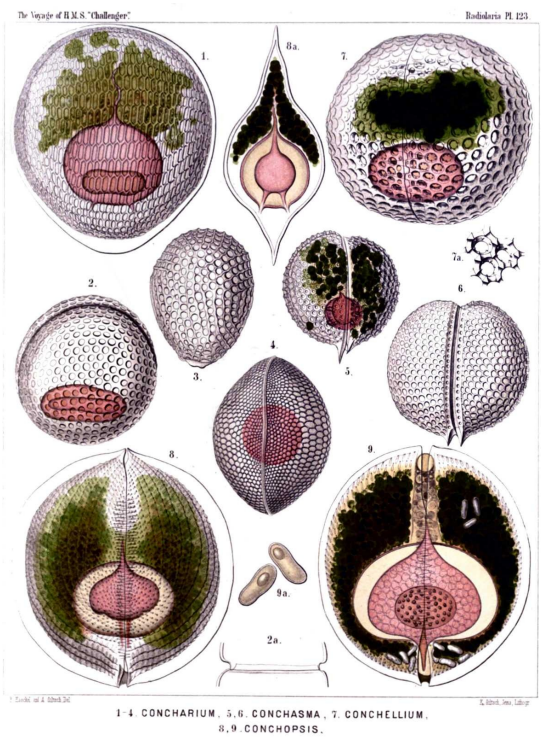
Order PHÆOCONCHIA.

Family CONCHARIDA.

PLATE 123.

CONCHARIDA.

(The central capsule is coloured red in the figures of this plate, the phæodium green).



1–4. CONCHARIUM, 5, 6. CONCHASMA, 7. CONCHELLIUM, 8, 9. CONCHOPSIS.

		Diam.	Page.
Fig. 1. *Conchārium diatomeum*, n. sp.,	1717		
Dorsal view. The central capsule (red) exhibits above the anterior tubular main-opening (astropyle), and below the two small posterior lateral openings (right and left parapylæ).			
Fig. 2. *Conchārium bivalvum*, n. sp.,	×	150	1717
Dorsal view. The central capsule is visible in the lower part, the margin of the two valves in the upper part of the figure.			
Fig. 2*a* exhibits the two smooth lateral margins of the valves, catching into one another. (Lateral view).			
Fig. 3. *Conchārium nucula*, n. sp.,	1717		
The dorsal valve alone, seen from the outside.			
Fig. 4. *Conchārium bacillarium*, n. sp.,	1718		
Lateral view from the smooth margin, by which the two valves are united.			
Fig. 5. *Conchasma radiolites*, n. sp.,	×	300	1719
Lateral view. In the aboral half of the shell-cavity lies the red central capsule, in the oral half the green phæodium.			
Fig. 6. *Conchasma sphærulites*, n. sp.,	×	300	1719
Lateral view. On the aboral pole the two horns of the hinge.			
Fig. 7. *Conchellium tridacna*, n. sp.,	×	200	1720
Oblique lateral view (from the right and ventral side).			
Fig. 7*a*. Three pores of the same, with their hexagonal frames and six internal denticles,	×	400	
Fig. 8. *Conchopsis carinata*, n. sp.,	×	150	1725
Lateral view, from the left side.			
Fig. 9. Conchopsis lenticula, n. sp.,	×	150	1726
Lateral view, from the right side. The two membranes of the central capsule are separated by a wide interval in this and the preceding figure. The nucleus contains numerous nucleoli.			
Fig. 9*a*. Two of the peculiar cells, which are contained in the green phæodium in large numbers,	×	400	

PLATE **124**.

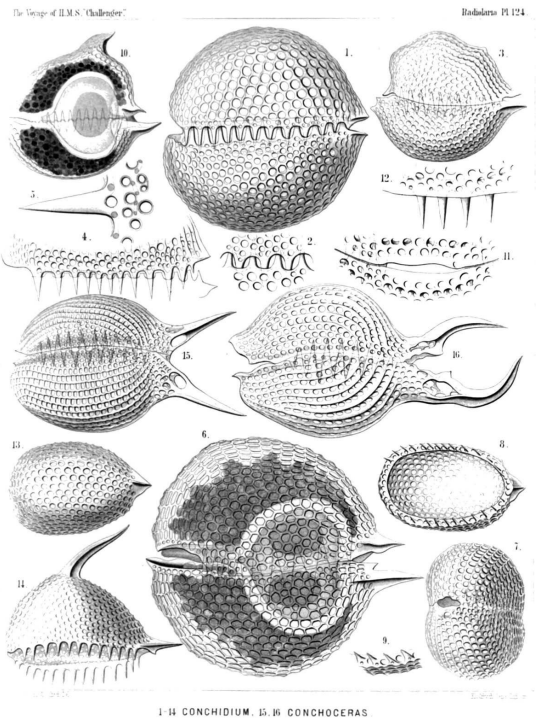
Legion PHÆODARIA.

Order PHÆOCONCHIA.

Family CONCHARIDA.

PLATE 124.

CONCHARIDA.



	Diam.	Page.
Fig. 1. *Conchidium terebratula*, n. sp., Lateral view, from the left side.	× 400	1721
Fig. 2. *Conchidium terebratula*, n. sp., A piece of the frontal girdle-fissure, with the teeth of both valves catching into one another.	× 800	1721
Fig. 3. *Conchidium rhynchonella*, n. sp., Lateral view, from the left side.	× 200	1722
Fig. 4. *Conchidium leptæna*, n. sp., Girdle-fissure with the teeth, seen from the left side.	× 300	1722
Fig. 5. *Conchidium leptæna*, n. sp., A single tooth with its base.	× 800	1722
Fig. 6. *Conchidium thecidium*, n. sp., Lateral view, from the left side. In the oral part of the shell-cavity the dark phæodium, in the aboral part the central capsule with two nuclei (a dorsal and a ventral).	× 300	1721
Fig. 7. *Conchidium argiope*, n. sp., Oblique oral view (half from the anterior, half from the left side).	× 300	1722
Fig. 8. *Conchidium argiope*, n. sp., Dorsal valve, from below.	× 300	1722
Fig. 9. *Conchidium argiope*, n. sp., A piece of the valve margin, with four teeth.	× 600	1722
Fig. 10. *Conchonia diodon*, n. sp., Lateral view, from the left side. In the anterior part of the shell-cavity the dark phæodium, in the posterior part the central capsule with the nucleus. The two valves are connected at the posterior hinge by a ligament (to the right in the figure).	× 200	1723
Fig. 11. *Conchonia diodon*, n. sp., Mouth of the shell, with its two lips, seen from the oral pole.	× 400	1723
Fig. 12. *Conchonia diodon*, n. sp., A piece of the valve-margin, with four teeth.	× 400	1723
Fig. 13. *Conchonia triodon*, n. sp., Ventral valve, seen from the lower face.	× 300	1724
Fig. 14. *Conchonia triodon*, n. sp., Dorsal valve, seen from the left side.	× 300	1724
Fig. 15. *Conchoceras caudatum*, n. sp., Lateral view, from the left side.	× 300	1727
Fig. 16. *Conchoceras cornutum*, n. sp., Lateral view, from the left side.	× 200	1728

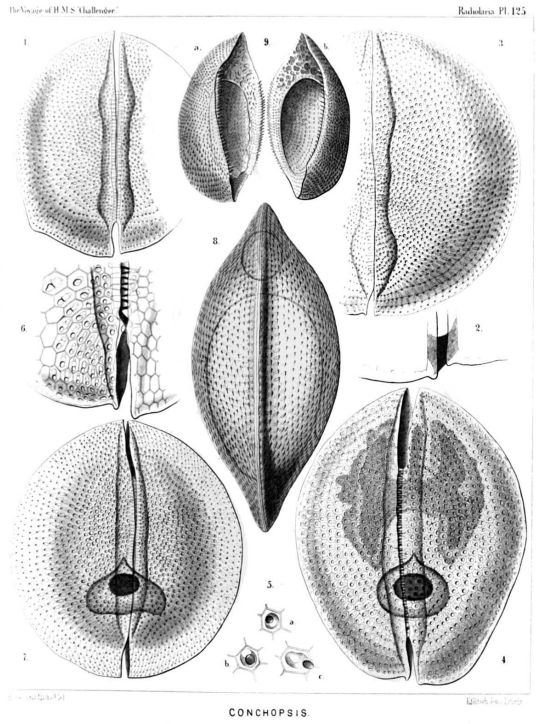
PLATE **125**.

Legion PHÆODARIA.

Order PHÆOCONCHIA.

PLATE 125.

CONCHARIDA.



	Diam.	Page.
Fig. 1. *Conchopsis aspidium*, n. sp.,	× 150	1726
Lateral view, from the left side.		
Fig. 2. *Conchopsis aspidium*, n. sp.,	× 300	1726
The hinge of another specimen, in which the two valves are connected by a ligament (as in figs. 8 and 9, Pl. 123).		
Fig. 3. *Conchopsis orbicularis*, n. sp.,	× 200	1725
Lateral view, from the left side.		
Fig. 4. *Conchopsis navicula*, n. sp.,	× 150	1727
Lateral view, from the right side. In the lower (posterior) half of the figure is visible the central capsule with its dark nucleus, in the upper (anterior) half the phæodium with two broad sagittal wings.		
Fig. 5. *Conchopsis navicula*, n. sp.,	× 400	1727
Three single pores with their hexagonal external frame and the dilated internal ovate or ampullaceous channel.		
Fig. 6. *Conchopsis navicula*, n. sp.,	× 400	1727
Hinge of the shell, from the right side.		
Fig. 7. *Conchopsis compressa*, n. sp.,	× 150	1725
Lateral view from the left side. The triangular central capsule with the dark nucleus is visible.		
Fig. 8. *Conchopsis compressa*, n. sp.,	× 150	1725
Dorsal view of the upper valve with its keel.		
Fig. 9. *Conchopsis pilidium*, n. sp.,	× 80	1726
The two valves separated and seen obliquely, half from the lateral, half from the internal side. The inner opening of each valve is bordered and partly closed by a broad horizontal velum or diaphragm like the deck of a boat.		

PLATE **126**.

Legion PHÆODARIA.

Order PHÆOCONCHIA.

Family CŒLOGRAPHIDA.

PLATE 126.

CŒLOGRAPHIDA.

	Diam.	Page.
Figs. 1-1*c*. *Cœlographis regina*, n. sp.,		1752
Fig. 1. Lateral view. The central capsule it visible between the two valves of the inner shell, the galeæ of which are filled by the phæodium,	×	20
Fig. 1*a*. Dorsal view (somewhat obliquely from the left side). The galeæ appear triangular,	×	20
Fig. 1*b*. Basal view,	×	20
Fig. 1*c*. Distal end of a style,	×	300
Figs. 2-2*b*. *Cœlodecas sagittaria*, n. sp.,		1755
Fig. 2. One valve of the shell, seen from the outside,	×	30
Fig. 2*a*. Distal end of a style,	×	300
Figs. 3-3*a*. *Cœlostylus bisenarius*, n. sp.,		1756

Fig. 3. Lateral view of the bivalved shell. The central capsule is visible between the two valves of the inner shell, the galeæ of which are filled by the phæodium, × 20

Fig. 3*a*. Distal end of a style, × 300

Figs. 4-4*a*. *Cœlagalma mirabile*, n. sp., 1759

Fig. 4. Dorsal view of the bivalved shell, × 30

Fig. 4*a*. Basal view of the bivalved shell, × 10

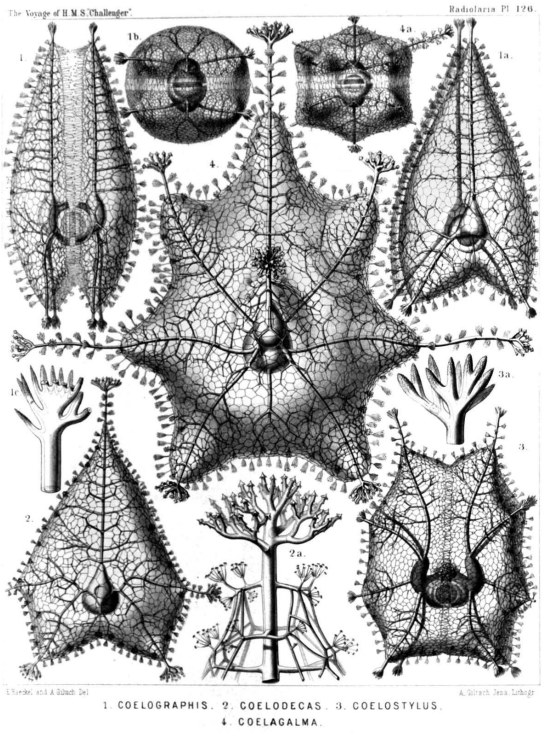


PLATE **127**.

Legion PHÆODARIA.

Order PHÆOCONCHIA.

Family CŒLOGRAPHIDA.

PLATE 127.

CŒLOGRAPHIDA.

Diam. Page.

Fig. 1. Cœloplegma murrayanum, n. sp., × 40 1757

One valve of the bivalved shell, seen from the inside, of the usual ovate form.

Fig. 2. *Cœloplegma murrayanum*, n. sp., × 40 1757

One valve of the bivalved shell, seen from the inside, of the rarer polyhedral form, which may be distinguished as a different species (*Cœloplegma tritonis*, compare p. 1758). *h*, hemispherical inner valve; *g*, galea; *s*, its base.

Fig. 3. *Cœloplegma murrayanum*, n. sp., × 40 1757

The entire shell, seen from the base of the aboral pole (dorsal and ventral valve connected by delicate teeth, catching into one another).

Fig. 4. *Cœloplegma murrayanum*, n. sp., × 100 1757

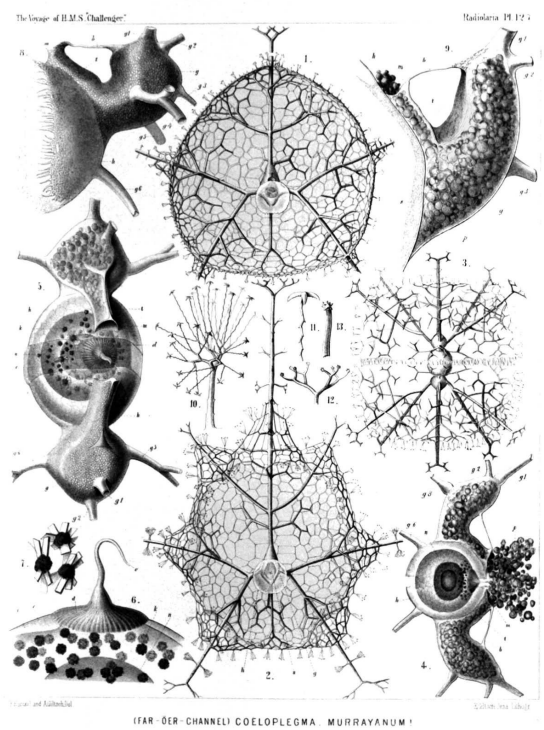
h, The two hemispherical inner valves of the shell, seen from the right side; *n*, the central nucleus inside the central capsule; *d*, the astropyle; *g*, the galea; *t*, the nasal tube, arising from its base; *m*, its mouth; *p*, the phæodium, which is partly thrown out by the nasal openings, filling up the galea and nasal tube.

Fig. 5. *Cœloplegma murrayanum*, n. sp., × 200 1757

h, The two hemispherical inner valves of the shell and the enclosed central capsule, seen from the oral side; *d*, the radiate operculum of the astropyle, seen in the frontal fissure between the two valves; *n*, the nucleus; *k*, the crystals; *g*, galea; g^1-g^5, the styles arising from the galea; *t*, nasal tube; *m*, mouth of it.

Fig. 6. *Cœloplegma murrayanum*, n. sp., × 600 1757

Oral part of a central capsule, in profile. *o*, Opening of the proboscis; *d*, radiate



operculum of the astropyle, which gives rise to the proboscis; *e*, the outer, *i*, the inner membrane of the capsule; *k*, groups of crystals; *n*, nucleus.

Fig. 7. *Cœloplegma murrayanum*, n. sp., × 1000 1757

Three single groups of crystals, taken from the central capsule.

Fig. 8. *Cœloplegma murrayanum*, n. sp., × 300 1757

One inner valve of the shell, in profile. *h*, hemispherical valve; g, galea; g^1-g^5, the tubes arising from it; *t*, rhinocanna or nasal tube; *m*, its mouth; *b*, frenulum.

Fig. 9. *Cœloplegma murrayanum*, n. sp., × 400 1757

g, The galea; *t*, rhinocanna of one inner valve; *m*, its mouth; *p*, phæodella filling up both the galea and the mouth of the rhinocanna. g^1-g^5, the styles arising from the galea; *s*, sieve-plate, which separates the cavity of the galea from the hemispherical valve (*h*). View in profile.

Fig. 10. *Cœloplegma murrayanum*, n. sp., × 300 1757

An anchor-pencil of the outer shell.

Fig. 11. *Cœloplegma murrayanum*, n. sp., × 1000 1757

A single anchor-thread of a pencil.

Fig. 12. *Cœloplegma murrayanum*, n. sp., × 300 1757

Terminal branches of a style.

Fig. 13. *Cœloplegma murrayanum*, n. sp., × 1000 1757

A single terminal branch of a style.

PLATE **128**.

Legion PHÆODARIA.

Order PHÆOCONCHIA.

Family CŒLOGRAPHIDA.

PLATE 128.

CŒLOGRAPHIDA.

Diam. Page.

Fig. 1. *Cœlospathis ancorata*, n. sp., × 50 1754

Lateral view of the entire shell. The central capsule is visible between the two valves of the inner shell. The galeæ and rhinocannæ of the two inner valves are filled up by the black phæodium.

Fig. 2. *Cœlospathis ancorata*, n. sp., × 100 1754

The two valves of the inner shell; the galeæ and rhinocannæ of which are filled up by the black phæodium. Between the mouth of the two rhinocannæ is prominent the proboscis of the astropyle, arising from the radiate operculum of the central capsule. The latter contains numerous crystals and a big dark nucleus. Lateral view.

Fig. 3. *Cœlospathis ancorata*, n. sp., × 200 1754

The rhinocanna or the nasal tube of one valve, and the latticed frenulum which connects its mouth with the top of the galea.

Fig. 4. *Cœlospathis ancorata*, n. sp., × 80 1754

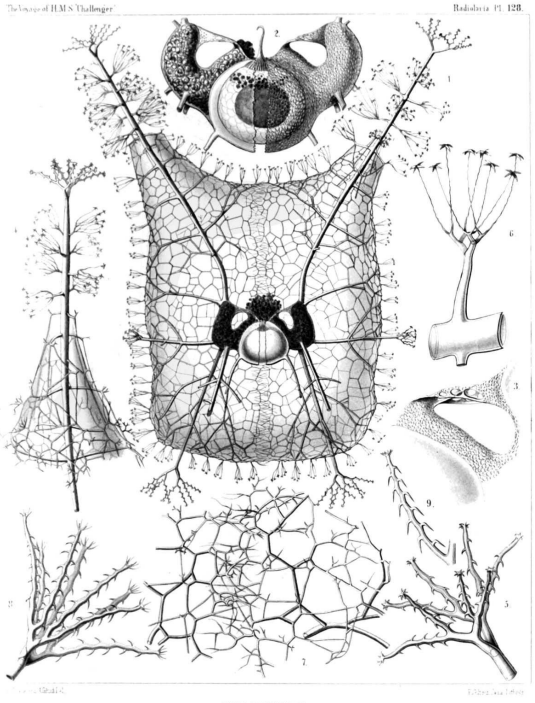
Distal end of a style.

Fig. 5. *Cœlospathis ancorata*, n. sp., × 200 1754

Terminal branches of a style.

Fig. 6. *Cœlospathis ancorata*, n. sp., × 600 1754

Lateral branch of a style, with an anchor-pencil.



COELOSPATHIS

Fig. 7. *Cœlospathis ancorata*, n. sp., × 300 1754

The lateral margins of the latticed valves of the outer shell or mantle, catching into one another, without being connected directly.

Fig. 8. *Cœlospathis octostyla*, n. sp., × 300 1754

Terminal branches of a style.

Fig. 9. *Cœlospathis octodactyla*, n. sp., × 400 1755

A single terminal branch of a style.

PLATE **129**.

Legion ACANTHARIA.

Orders ACTINELLIDA et ACANTHONIDA.

Families ASTROLOPHIDA, LITHOLOPHIDA, CHIASTOLIDA et ASTROLONCHIDA.

PLATE 129.

ASTROLOPHIDA, LITHOLOPHIDA, CHIASTOLIDA et ASTROLONCHIDA.

Diam. Page.

Fig. 1. *Actinelius primordialis*, n. sp., × 100 730

The red central capsule, coloured by carmine, contains numerous intensely stained nuclei.

Fig. 2. *Litholophus decapristis*, n. sp., × 300 735

The conical central capsule contains numerous nuclei. The calymma exhibits on the distal end of each spine a coronet of myophriscs.

Fig. 3. *Chiastolus amphicopium*, n. sp., × 150 738

Sixteen diametral spines pierce the spherical, red coloured capsule. The conical sheets of the calymma bear myophriscs.

Figs. 3*a*, 3*b*. Two isolated diametral spines exhibiting the peculiar spiral revolution at their central part, × 300

Fig. 4. *Xiphacantha ciliata*, n. sp., × 300 761

The spherical central capsule is coloured red. The yellowish calymma envelops the radial spines completely. The polygonal network of lines, in which the radiating pseudopodia are symmetrically arranged, is partly visible.

Fig. 5. *Xiphacantha ciliata*, n. sp., × 300 761

The central part of the skeleton, exhibiting the central junction of the radial spines.

Fig. 6. *Acanthometron dolichoscion*, n. sp., × 300 743

Central capsule of a young specimen; in its upper half the peculiar kidney-shaped nucleus is visible, with its invagination; in the lower half some nucleated yellow cells are visible (intracapsular xanthellæ). These and the nucleus are stained by carmine.

Fig. 7. *Acanthometron dolichoscion*, n. sp., × 300 743

Cleavage of an isolated nucleus, with four buds.

Fig. 8. *Acanthometron dolichoscion*, n. sp., × 300 743

A central capsule with four large budding nuclei; and numerous small spherical nuclei produced by gemmation.

Fig. 9. *Acanthonia tetracopa*, n. sp., × 400 749

Central capsule of s young specimen, with a large, irregularly lobate nucleus.

Fig. 10. *Acanthonia tetracopa*, n. sp., × 400 749

An isolated nucleus, exhibiting the peculiar invagination, with its circular folds, and the connection with the flatly conical nucleolus.

Fig. 11. *Acanthonia tetracopa*, n. sp., × 800 749

Four flagellate spores.

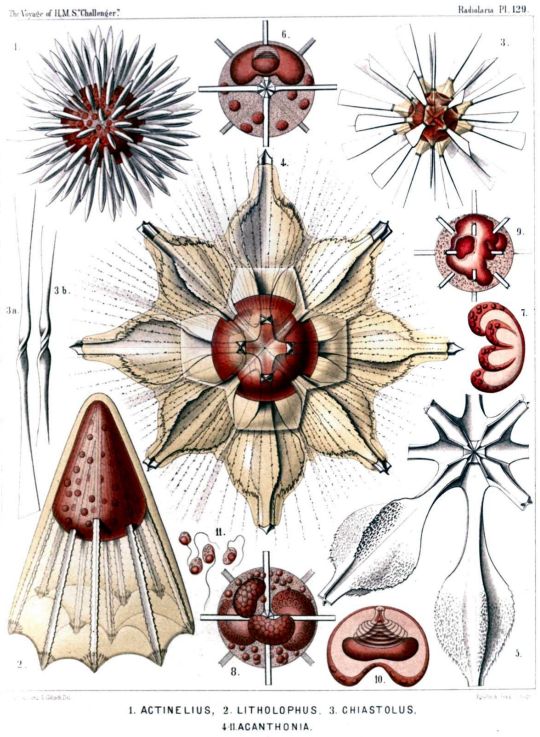


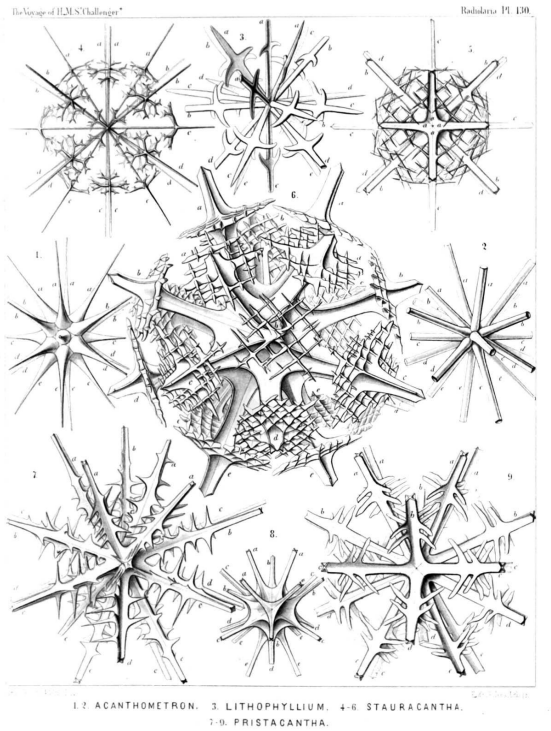
PLATE **130**.

Legion ACANTHARIA.

Order ACANTHONIDA.

Family ASTROLONCHIDA.

PLATE 130.



N.B.—The signification of the characters is the same in all the figures (compare p. 718).

a. Northern polar spines.
b. Northern tropical spines.
c. Equatorial spines.
d. Southern tropical spines.
e. Southern polar spines.

ASTROLONCHIDA.

	Diam.	Page.
Fig. 1. *Acanthometron bulbiferum*, n. sp.,	× 300	745
Fig. 2. *Acanthometron cylindricum*, n. sp.,	× 200	743
Fig. 3. *Lithophyllium gladiatum*, n. sp.,	× 200	754
Fig. 4. *Stauracantha quadrifurca*, n. sp.,	× 300	764
Fig. 5. *Stauracantha orthostaura*, n. sp.,	× 200	762
Fig. 6. *Phatnacantha icosaspis*, n. sp.,	× 400	765
Fig. 7. *Pristacantha polyodon*, n. sp.,	× 300	766
Fig. 8. *Pristacantha dodecodon*, n. sp., Only the central parts and the leaf-cross.	× 300	766
Fig. 9. *Pristacantha octodon*, n. sp.,	× 200	765

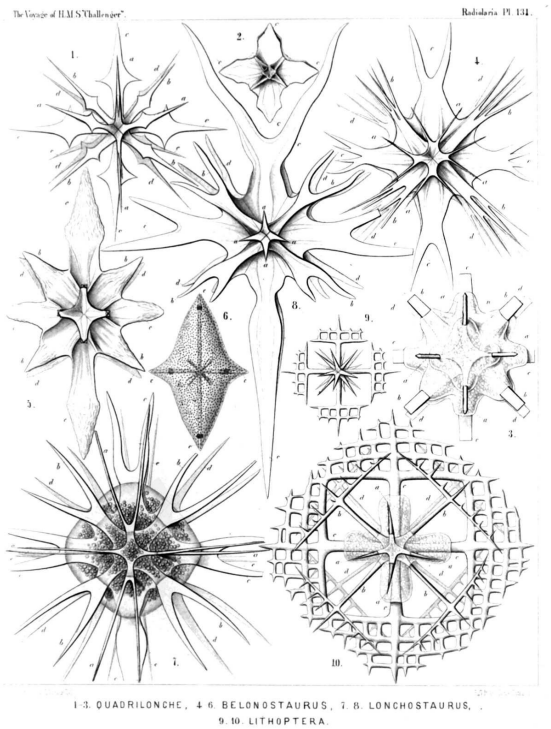
PLATE **131**.

Legion ACANTHARIA.

Order ACANTHONIDA.

Family QUADRILONCHIDA.

PLATE 131.



N.B.—The signification of the characters is the same in all the figures (compare p. 718).

a. Northern polar spines.
b. Northern tropical spines.
c. Equatorial spines.
d. Southern tropical spines.
e. Southern polar spines.

QUADRILONCHIDA.

	Diam.	Page.
Fig. 1. *Quadrilonche mesostaura*, n. sp.,	× 300	777
Fig. 2. *Quadrilonche platystaura*, n. sp.,	× 100	777
Fig. 3. *Xiphoptera dodecactena*, n. sp., The central capsule with the central part of the skeleton.	× 200	778
Fig. 4. *Lonchostaurus bifurcus*, n. sp.,	× 300	773
Fig. 5. *Lonchostaurus crystallinus*, n. sp.,	× 400	773
Fig. 6. *Lonchostaurus rhomboides*, n. sp., The radial spines are completely enclosed in the rhombic calymma, the surface of which is covered with small plates, similar to those in	× 200	772

the shell of the Sphærocapsida.

Fig. 7. *Zygostaurus amphithectus*, n. sp., × 300 774

The square central capsule envelops the half skeleton.

Fig. 8. *Zygostaurus sagittalis*, n. sp., × 300 775

Fig. 9. *Lithoptera tetraptera*, n. sp., × 300 779

Fig. 10. *Lithoptera quadrata*, n. sp., × 300 780

The central part of the skeleton is enclosed by the four-lobed central capsule.

PLATE **132**.

Legion ACANTHARIA.

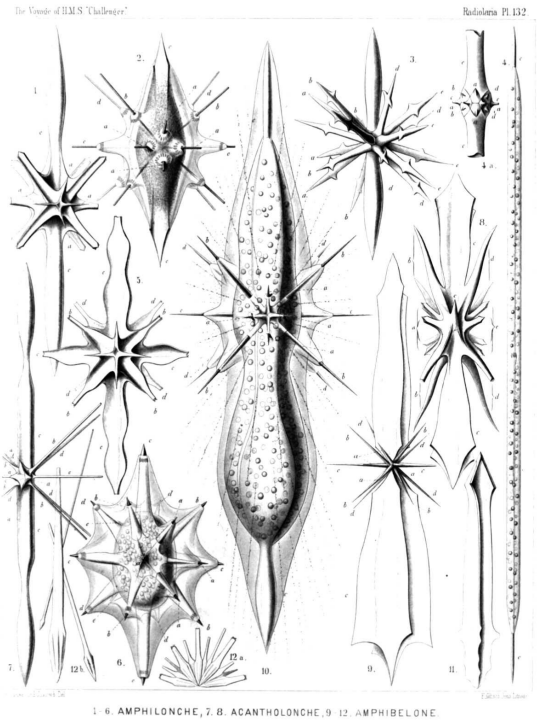
Orders ACTINELLIDA ET ACANTHONIDA.

Families ASTROLOPHIDA, ASTROLONCHIDA et AMPHILONCHIDA.

PLATE 132.

N.B.—The signification of the characters is the same in all the figures (compare p. 718).

a. Northern polar spines.
b. Northern tropical spines.
c. Equatorial spines.
d. Southern tropical spines.
e. Southern polar spines.



ASTROLOPHIDA, ASTROLONCHIDA et AMPHILONCHIDA.

Diam. Page.

Fig. 1. *Amphilonche lanceolata*, n. sp., × 300 783

Fig. 2. *Amphilonche hydrotomica*, n. sp., × 300 786

The spindle-shaped central capsule is filled up with small granules. The clear calymma forms conical sheaths for the spines, with myophriscs.

Fig. 3. *Amphilonche diodon*, n. sp., × 300 783

Fig. 4. *Amphilonche concreta*, n. sp., × 100 787

A complete specimen with the cylindrical central capsule.

Fig. 4*a*. Central part of the skeleton, × 400

Fig. 5. *Amphilonche violina*, n. sp., × 300 787

Fig. 6. *Amphilonche conica*, n. sp., × 300 785

The ellipsoidal central capsule contains numerous nuclei and is enclosed by the calymma. The conical sheaths of the latter include the radial spines completely and exhibit coronets of myophriscs.

Fig. 7. *Acantholonche amphipolaris*, n. sp., × 200 790

Fig. 8. *Acantholonche peripolaris*, n. sp., × 300 791

Fig. 9. *Amphibelone pyramidata*, n. sp., × 300 789

Fig. 10. *Amphibelone cultellata*, n. sp., × 400 789

The central capsule contains numerous spherical nuclei and is enclosed by the hyaline calymma, which forms conical sheaths around the spines.

Fig. 11. *Stauracantha johannis*, n. sp., × 400 763

Basal part of a radial spine, exhibiting the peculiar torsion of the basal leaf-cross and the central apex.

Fig. 12. *Astrolophus solaris*, n. sp., × 200 732

Fig. 12*a*. A group of larger and smaller radial spines united in the centre.

Fig. 12*b*. Three isolated spines (one larger and two smaller), × 200

PLATE **133**.

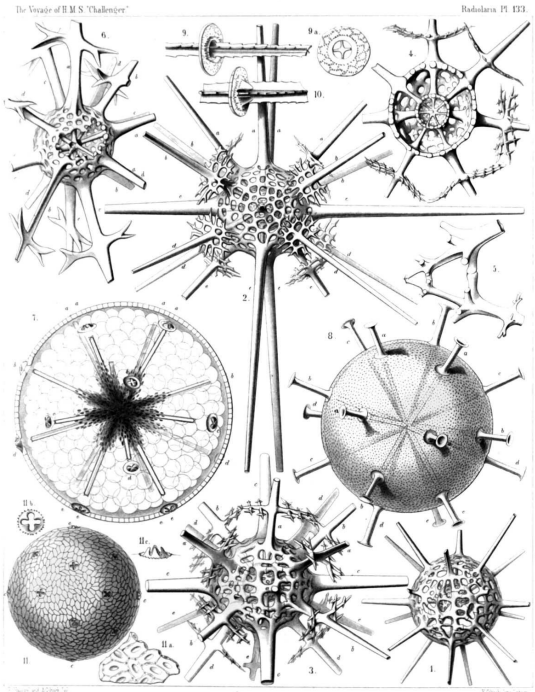
Legion ACANTHARIA.

Order SPHÆROPHRACTA.

Families SPHÆROCAPSIDA, DORATASPIDA et PHRACTOPELTIDA.

PLATE 133.

N.B.—The signification of the characters is the same in all the figures (compare p. 718).
a. Northern polar spines.
b. Northern tropical spines.
c. Equatorial spines.
d. Southern tropical spines.
e. Southern polar spines.



SPHÆROCAPSIDA, DORATASPIDA et PHRACTOPELTIDA.

	Diam.	Page.
Fig. 1. *Phractopelta doratapsis*, n. sp.,	× 300	852
Fig. 2. *Dorypelta tessaraspis*, n. sp.,	× 300	858
Fig. 3. *Stauropelta cruciata*, n. sp.,	× 400	859
Fig. 4. *Pantopelta icosaspis*, n. sp., Meridional section through the double shell.	× 400	855
Fig. 5. *Octopelta scutella*, n. sp., Proximal part of two meeting spines, isolated.	× 400	856
Fig. 6. *Orophaspis furcata*, n. sp.,	× 400	818
Fig. 7. *Porocapsa murrayana*, n. sp., The central capsule is filled up by spherical vacuoles and enclosed by the porous shell; in the centre radii of small granules (nuclei ?) occur.	× 300	800
Fig. 8. *Cannocapsa stethoscopium*, n. sp., The shell alone.	× 300	801
Fig. 9. *Astrocapsa coronata*, n. sp., Middle part of one spine with the four aspinal holes.	× 400	799
Fig. 9*a*. Transverse section of a radial spine, with the four surrounding aspinal holes and the neighbouring part of the shell,	× 400	
Fig. 10. *Astrocapsa stellata*, n. sp., Part of one spine, with the aspinal holes and their four triangular teeth.	× 400	799
Fig. 11. *Cenocapsa nirvana*, n. sp., The entire shell, with its pavement of small plates and the twenty cruciform perspinal holes.	× 200	802
Fig. 11*a*. A group of small ovate plates which compose the shell; in each plate a dimple with a porule,	× 400	
Fig. 11*b*. A cruciform perspinal hole, seen from the face,	× 400	
Fig. 11*c*. A cruciform perspinal hole, with its four teeth, seen in profile,	× 400	

PLATE **134**.

Legion ACANTHARIA.

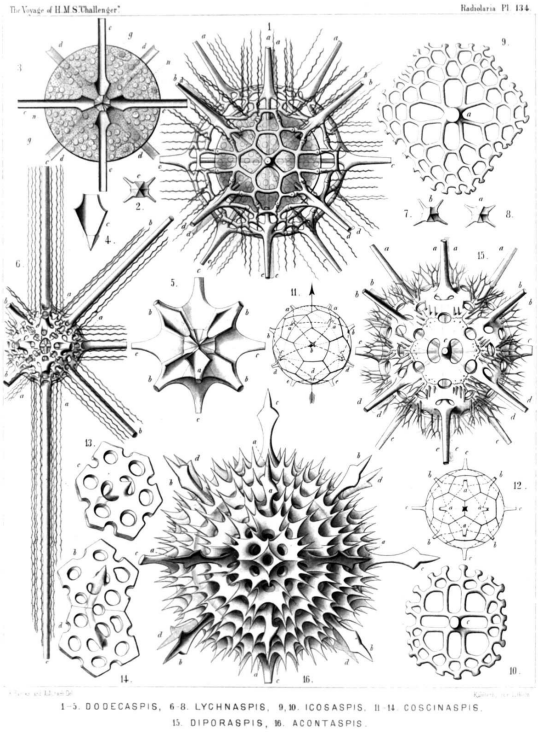
Order SPHÆROPHRACTA.

Family DORATASPIDA.

PLATE 134.

N.B.—The signification of the characters is the same in all the figures (compare p. 718).

a. Northern polar spines.
b. Northern tropical spines.
c. Equatorial spines.
d. Southern tropical spines.
e. Southern polar spines.



DORATASPIDA.

	Diam.	Page.
Fig. 1. *Dodecaspis tricincta*, n. sp., The enclosed central capsule contains numerous spherical nuclei.	× 400	834
Fig. 2. *Lychnaspis minima*, n. sp., Six-sided basal pyramid of an equatorial spine, with the leaf-cross, seen from the centre.	× 400	841
Fig. 3. *Zonaspis cingulata*, n. sp., Equatorial section through the central capsule. n, nuclei; g, yellow bodies (intracapsular xanthellæ).	× 400	834
Fig. 4. *Zonaspis cingulata*, n. sp., Central pyramidal base of an equatorial spine, with the leaf-cross.	× 800	834
Fig. 5. *Stauraspis cruciata*, n. sp., Central union of the radial spines, three polar spines being taken off.	× 400	831
Fig. 6. *Lychnaspis longissima*, n. sp.,	× 400	841
Fig. 7. Lychnaspis minima, n. sp., Five-sided basal pyramid of a tropical spine, with the leaf-cross, seen from the centre.	× 400	841
Fig. 8. *Lychnaspis minima*, n. sp., Six-sided basal pyramid of a polar spine, with the leaf-cross, seen from the centre.	× 400	841
Fig. 9. *Icosaspis elegans*, n. sp., An isolated polar plate.	× 400	844
Fig. 10. *Icosaspis cruciata*, n. sp., An isolated equatorial plate.	× 400	844
Fig. 11, 12. *Doratospis species*, Diagram of the composition of the shell of twenty plates (and also of the central union of the basal leaf-cross). Fig. 11. Oblique equatorial aspect. Fig. 12. Accurate polar aspect (compare p. 804, 805).	× 100	
Fig. 13. *Coscinaspis isopora*, n. sp., An isolated equatorial plate (with two aspinal and six coronal pores).	× 400	828
Fig. 14. *Coscinaspis isopora*, n. sp., Two isolated tropical plates (*b*, northern; *d*, southern), each with two aspinal and five coronal pores.	× 400	828
Fig. 15. *Diporaspis nephropora*, n. sp.,	× 400	816
Fig. 16. *Acontaspis hastata*, n. sp.,	× 400	829

PLATE **135**.

Legion ACANTHARIA.

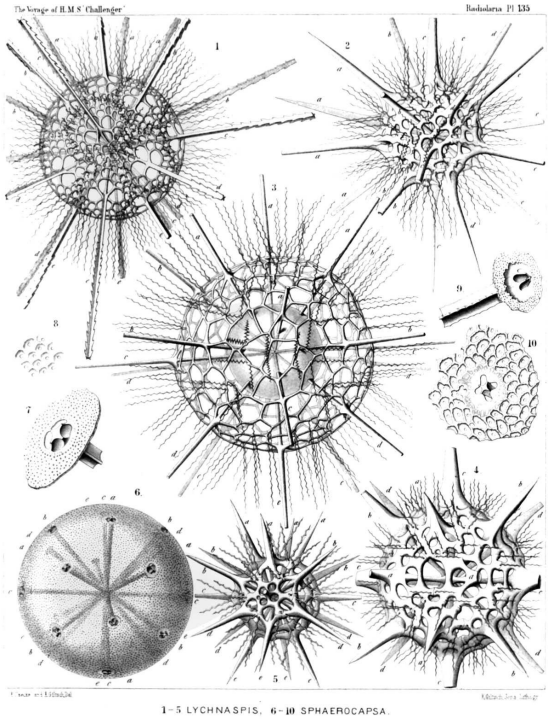
Order SPHÆROPHRACTA.

Families SPHÆROCAPSIDA et DORATASPIDA.

PLATE 135.

N.B.—The signification of the characters is the same in all the figures (compare p. 718).

a. Northern polar spines.
b. Northern tropical spines.
c. Equatorial spines.
d. Southern tropical spines.
e. Southern polar spines.



1–5 LYCHNASPIS, 6–10 SPHAEROCAPSA.

SPHÆROCAPSIDA et DORATASPIDA.

	Diam.	Page.
Fig. 1. *Hylaspis serrulata*, n. sp.,	× 300	846
Fig. 2. *Lychnaspis undulata*, n. sp.,	× 400	841
Fig. 3. *Lychnaspis giltschii*, n. sp.,	× 400	839
The spherical central capsule is enclosed in the shell.		
Fig. 4. *Lychnaspis rottenburgii*, n. sp.,	× 400	841
Fig. 5. *Zonaspis æquatorialis*, n. sp.,	× 300	834
Fig. 6. *Sphærocapsa cruciata*, n. sp.,	× 150	798
The entire shell, with its twenty cruciate perspinal holes.		
Fig. 7. *Sphærocapsa cruciata*, n. sp.,	× 800	798
Insertion of one spine in the cruciate perspinal hole of the shell.		
Fig. 8. *Sphærocapsa quadrata*, n. sp.,	× 800	798
A group of pores and dimples in the shell surface.		
Fig. 9. *Sphærocapsa dentata*, n. sp.,	× 800	798
Insertion of one spine in the cruciate perspinal hole of the shell.		
Fig. 10. *Sphærocapsa pavimentata*, n. sp.,	× 800	798
Insertion of one spine in the perspinal hole of the shell, which is composed of four cruciate aspinal holes and surrounded by a group of dimples and pores.		

PLATE **136**.

Legion ACANTHARIA.

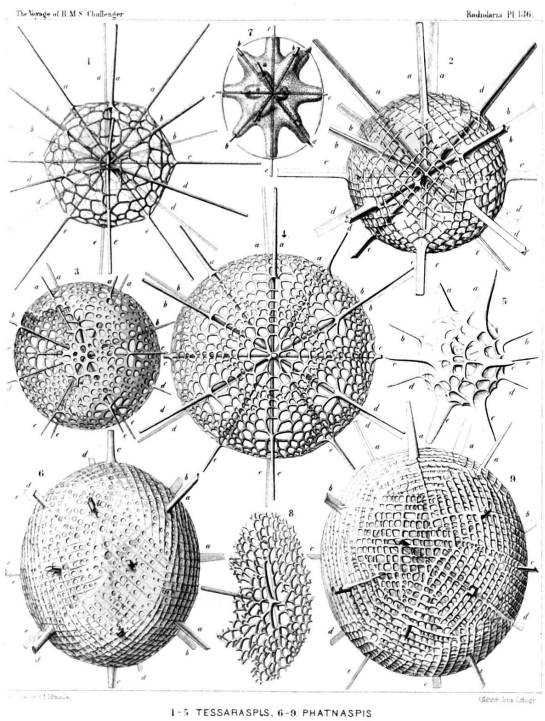
Orders SPHÆROPHRACTA ET PRUNOPHRACTA.

Families DORATASPIDA et BELONASPIDA.

PLATE 136.

N.B.—The signification of the characters is the same in all the figures (compare p. 718).

a. Northern polar spines.
b. Northern tropical spines.
c. Equatorial spines.
d. Southern tropical spines.
e. Southern polar spines.



1–5 TESSARASPIS, 6–9 PHATNASPIS.

DORATASPIDA et BELONASPIDA.

	Diam.	Page.
Fig. 1. *Tessaraspis arachnoides*, n. sp.,	× 300	836
Fig. 2. *Icosaspis tabulata*, n. sp.,	× 200	843
Fig. 3. *Icosaspis icosastaura*, n. sp.,	× 400	846
Fig. 4. *Icosaspis elegans*, n. sp.,	× 300	844
Fig. 5. *Tessaraspis concreta*, n. sp.,	× 400	838
Fig. 6. *Phatnaspis cristata*, n. sp.,	× 400	869
Fig. 7. *Phatnaspis haliommidium*, n. sp.,	× 200	871
Central capsule within the shell—outline.		

Fig. 8. *Coscinaspis polypora*, n. sp., × 300 827

A single lattice-plate of the shell.

Fig. 9. *Phatnaspis lacunaria*, n. sp., × 400 869

PLATE **137**.

Legion ACANTHARIA.

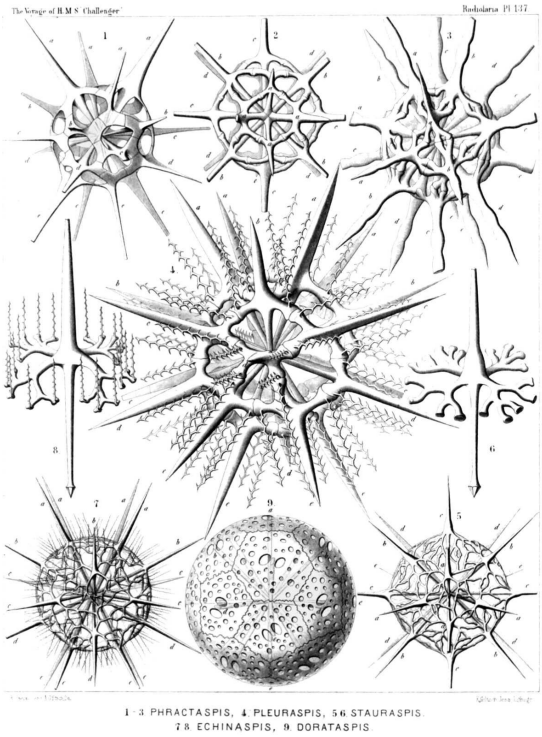
Order SPHÆROPHRACTA.

Family DORATASPIDA.

PLATE 137.

N.B.—The signification of the characters is the same in all the figures (compare p. 718).

a. Northern polar spines.
b. Northern tropical spines.
c. Equatorial spines.
d. Southern tropical spines.
e. Southern polar spines.



1–3 PHRACTASPIS, 4 PLEURASPIS, 5 6 STAURASPIS.
7 8 ECHINASPIS, 9 DORATASPIS.

DORATASPIDA.

	Diam.	Page.
Fig. 1. *Phractaspis complanata*, n. sp.,	× 400	809
Fig. 2. *Phractaspis prototypus*, n. sp.,	× 400	809
Fig. 3. *Phractaspis constricta*, n. sp.,	× 400	810
Fig. 4. *Pleuraspis horrida*, n. sp.,	× 400	811
Fig. 5. *Stauruspis stauracantha*, n. sp.,	× 300	832
Fig. 6. *Stauruspis stauracantha*, n. sp., A single spine.	× 600	832
Fig. 7. *Echinaspis echinoides*, n. sp.,	× 300	833
Fig. 8. *Echinaspis echinoides*, n. sp., A single spine.	× 800	833
Fig. 9. *Coscinaspis parmipora*, n. sp.,	× 400	827

PLATE **138**.

Legion ACANTHARIA.

Order SPHÆROPHRACTA.

Family DORATASPIDA.

PLATE 138.

N.B.—The signification of the characters is the same in all the figures (compare p. 718).

a. Northern polar spines.
b. Northern tropical spines.
c. Equatorial spines.
d. Southern tropical spines.
e. Southern polar spines.

DORATASPIDA.

	Diam.	Page.
Fig. 1. *Coscinaspis peripora* (vel *Doratapsis peripora*), n. sp.,	× 300	826
Fig. 2. *Doratapsis fusigera*, n. sp.,	× 400	813

Fig. 3. *Doratospis micropora*, n. sp., × 300 815

Fig. 4. *Doratospis typica*, n. sp., × 300 815

Fig. 4*a*. Polar view of the central union of the twenty spines, × 300 815

Fig. 5. *Ceriaspis inermis*, n. sp., × 400 821

Fig. 6. *Ceriaspis favosa*, n. sp., × 400 821

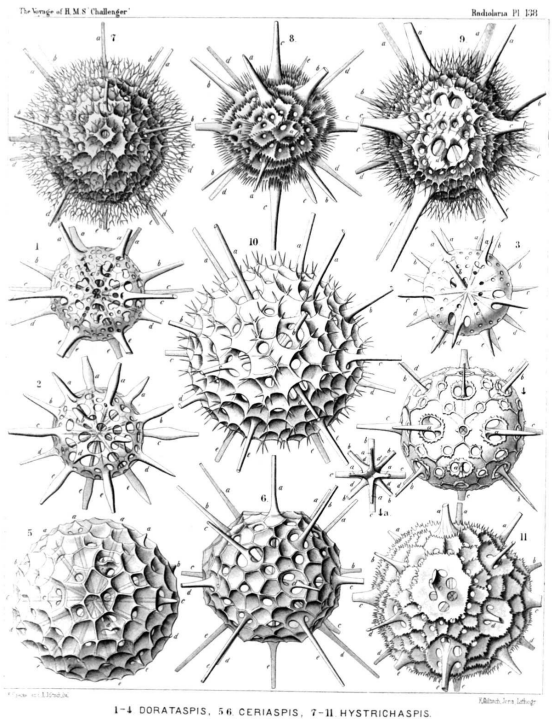
Fig. 7. *Hystrichaspis fruticata*, n. sp., × 300 825

Fig. 8. *Hystrichaspis pectinata*, n. sp., × 300 822

Fig. 9. *Hystrichaspis furcata*, n. sp., × 400 822

Fig. 10. *Hystrichaspis dorsata*, n. sp., × 300 823

Fig. 11. *Hystrichaspis cristata* (vel *Siphonaspis cristata*, n. sp.), × 400 823



1–4 DORATASPIS, 5 6 CERIASPIS, 7–11 HYSTRICHASPIS.

PLATE **139**.

Legion ACANTHARIA.

Order PRUNOPHRACTA.

Families BELONASPIDA et HEXALSPIDA.

PLATE 139.

N.B.—The signification of the characters is the same in all the figures (compare p. 718).
a. Northern polar spines.
b. Northern tropical spines.
c. Equatorial spines.
d. Southern tropical spines.
e. Southern polar spines.

BELONASPIDA et HEXALSPIDA.

Diam. Page.

Fig. 1. *Hexacolpus nivalis*, n. sp., × 300 880

Fig. 2. *Hexalaspis heliodiscus*, n. sp., × 300 875

Fig. 3. *Hexaconus ciliatus*, n. sp., × 300 876

Fig. 4. *Hexaconus serratus*, n. sp., × 300 877
c, Central base of an equatorial spine; *d*, central base of a tropical spine.

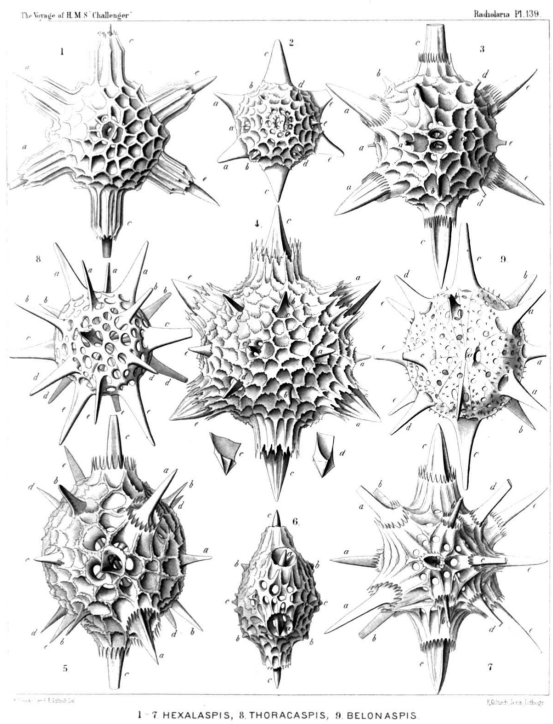
Fig. 5. *Hexaconus coronatus*, n. sp., × 300 877

Fig. 6. *Hexaconus velatus*, n. sp., × 300 877
Marginal view of the shell.

Fig. 7. *Hexaconus vaginatus*, n. sp., × 300 877

Fig. 8. *Thoracaspis bipennis*, n. sp., × 300 862

Fig. 9. *Belonaspis datura*, n. sp., × 400 863



1–7 HEXALASPIS, 8 THORACASPIS, 9 BELONASPIS.

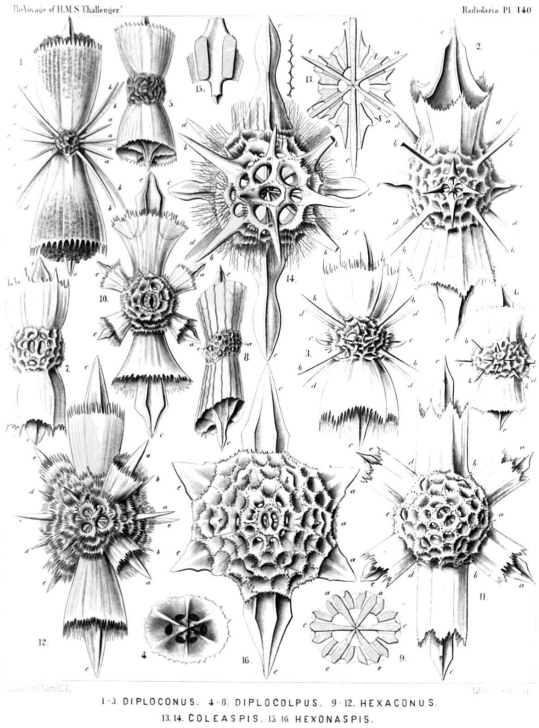
PLATE **140**.

Legion ACANTHARIA.

PLATE 140.

N.B.—The signification of the characters is the same in all the figures (compare p. 718).

a. Northern polar spines.
b. Northern tropical spines.
c. Equatorial spines.
d. Southern tropical spines.
e. Southern polar spines.



Belonaspida, Hexalaspida et Diploconida.

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Fig. 1. *Diploconus amalla*, n. sp.,	× 300	885
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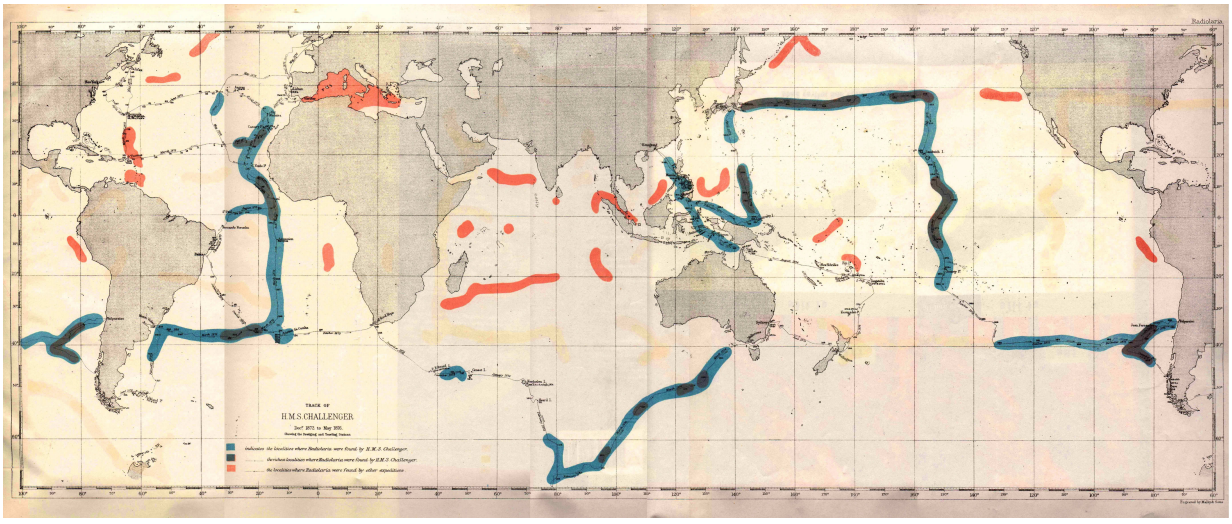

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