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Prof. T. Rupert Jones & George Jennings Hinde

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AND

I. A CATALOGUE OF THE WORKS ALREADY PUBLISHED;

II. A CLASSIFIED LIST OF THE MONOGRAPHS COMPLETED, IN COURSE OF PUBLICATION, AND IN PREPARATION, WITH THE NAMES OF THEIR RESPECTIVE AUTHORS;

III. THE DATES OF ISSUE OF THE ANNUAL VOLUMES;

IV. A GENERAL SUMMARY, SHOWING THE NUMBER OF THE PAGES, PLATES, FIGURES, AND SPECIES IN EACH MONOGRAPH;

V. A STRATIGRAPHICAL LIST OF THE BRITISH FOSSILS FIGURED AND DESCRIBED IN THE YEARLY VOLUMES.

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§ I. CATALOGUE OF WORKS

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THE PALÆONTOGRAPHICAL SOCIETY:

Showing the ORDER *of publication; the* YEARS *during which the Society has been in operation; and the* CONTENTS *of each yearly Volume.*

Vol. I.	Issued for the Year	1847	The Crag Mollusca, Part I, Univalves, by Mr. S. V. Wood, 21 plates.
„ II.	„	1848	The Reptilia of the London Clay, Vol. I, Part I, Chelonia, &c., by Profs. Owen and Bell, 38 plates. The Eocene Mollusca, Part I, Cephalopoda, by Mr. F. E. Edwards, 9 plates.
„ III.*	„	1849	The Entomostraca of the Cretaceous Formations, by Mr. T. R. Jones, 7 plates. The Permian Fossils, by Prof. Wm. King, 29 plates. The Reptilia of the London Clay, Vol. I, Part II, Crocodilia and Ophidia, &c., by Prof. Owen, 18 plates. The Fossil Corals, Part I, Crag, London Clay, Cretaceous, by Messrs. Milne Edwards and Jules Haime, 11 plates.
„ IV.	„	1850	The Crag Mollusca, Part II, No. 1, by Mr. S. V. Wood, 12 plates. The Mollusca of the Great Oolite, Part I, Univalves, by Messrs. Morris and Lycett, 15 plates. The Fossil Brachiopoda, Vol. I, Part III, No. 1, Oolitic and Liassic, by Mr. Davidson, 13 plates.
„ V.	„	1851	The Reptilia of the Cretaceous Formations, by Prof. Owen, 39 plates. The Fossil Corals, Part II, Oolitic, by Messrs. Milne Edwards and Jules Haime, 19 plates. The Fossil Lepadidæ, by Mr. Charles Darwin, 5 plates.
„ VI.	„	1852	The Fossil Corals, Part III, Permian and Mountain-limestone, by Messrs. Milne Edwards and Jules Haime, 16 plates. The Fossil Brachiopoda, Vol. I, Part I, Tertiary, by Mr. Davidson, 2 plates. The Fossil Brachiopoda, Vol. I, Part II, No. 1, Cretaceous, by Mr. Davidson, 5 plates. The Fossil Brachiopoda, Vol. I, Part III, No. 2, Oolitic, by Mr. Davidson, 5 plates. The Eocene Mollusca, Part II, Pulmonata, by Mr. F. E. Edwards, 6 plates. The Radiaria of the Crag, London Clay, &c., by Prof. E. Forbes, 4 plates.
„ VII.	„	1853	The Fossil Corals, Part IV, Devonian, by Messrs. Milne Edwards and Jules Haime, 10 plates. The Fossil Brachiopoda, Introduction to Vol. I, by Mr. Davidson, 9 plates. The Mollusca of the Chalk, Part I, Cephalopoda, by Mr. D. Sharpe, 10 plates. The Mollusca of the Great Oolite, Part II, Bivalves, by Messrs. Morris and Lycett, 8 plates. The Mollusca of the Crag, Part II, No. 2, Bivalves, by Mr. S. V. Wood, 8 plates. The Reptilia of the Wealden Formations, Part I, Chelonia, by Prof. Owen, 9 plates.
„ VIII.†	„	1854	The Fossil Brachiopoda, Vol. I, Part II, No. 2, Cretaceous, with Appendix and Index to Vol. I, by Mr. Davidson, 8 plates. The Reptilia of the Wealden Formations, Part II, Dinosauria, by Prof. Owen, 20 plates. The Mollusca of the Great Oolite, Part III, Bivalves, by Messrs. Morris and Lycett, 7 plates. The Fossil Corals, Part V, Silurian, by Messrs. Milne Edwards and Jules Haime, 16 plates. The Fossil Balanidæ and Verrucidæ, by Mr. Charles Darwin, 2 plates. The Mollusca of the Chalk, Part II, Cephalopoda, by Mr. D. Sharpe, 6 plates. The Eocene Mollusca, Part III, No. 1, Prosobranchiata, by Mr. F. E. Edwards, 8 plates.

* The Volume for the year 1849 consists of two separate portions, each of which is stitched in a paper cover, on which are printed the dates 1848, 1849, and 1850. The one portion contains 'Cretaceous Entomostraca' and 'Permian Fossils;' the other, 'London Clay Reptilia,' Part II, and 'Fossil Corals,' Part I.

† This Vol. is marked on the outside 1855.

CATALOGUE OF WORKS—Continued.

Vol. IX.*	Issued for the Year 1855	The Mollusca of the Crag, Part II, No. 3, Bivalves, by Mr. S. V. Wood, 11 plates. The Reptilia of the Wealden Formations, Part III, by Prof. Owen, 12 plates. The Eocene Mollusca, Part III, No. 2, Prosobranchiata, continued, by Mr. F. E. Edwards, 4 plates. The Mollusca of the Chalk, Part III, Cephalopoda, by Mr. D. Sharpe, 11 plates. The Tertiary Entomostraca, by Mr. T. R. Jones, 6 plates. The Fossil Echinodermata, Oolitic, Vol. I, Part I, by Dr. Wright, 10 plates.
„ X.	„ 1856	The Fossil Echinodermata, Oolitic, Vol. I, Part II, by Dr. Wright, 12 plates. The Fossil Crustacea, Part I, London Clay, by Prof. Bell, 11 plates. The Fossil Brachiopoda, Vol. II, Part IV, Permian, by Mr. Davidson, 4 plates. The Fossil Brachiopoda, Vol. II, Part V, No. 1, Carboniferous, by Mr. Davidson, 8 plates. The Reptilia of the Wealden Formations, Part IV (Supplement No. 1), by Prof. Owen. 11 plates. The Reptilia of the London Clay, Vol. I (Supplement), by Prof. Owen, 2 plates.
„ XI.	„ 1857	The Fossil Echinodermata, Oolitic, Vol. I, Part III, by Dr. Wright, 14 plates. The Fossil Brachiopoda, Vol. II, Part V, No. 2, Carboniferous, by Mr. Davidson, 8 plates. The Reptilia of the Cretaceous Formations (Supplement No. 1), by Prof. Owen, 4 plates. The Reptilia of the Wealden Formations (Supplement No. 2), by Prof. Owen, 8 plates. The Polyzoa of the Crag, by Prof. Busk, 22 plates.
„ XII.	„ 1858	The Fossil Echinodermata, Oolitic, Vol. I, Part IV, by Dr. Wright, 7 plates. The Eocene Mollusca, Part III, No. 3, Prosobranchiata continued, by Mr. F. E. Edwards, 6 plates. The Reptilia of the Cretaceous Formations (Supplements No. 2, No. 3), by Prof. Owen, 7 plates. The Reptilia of the Purbeck Limestones, by Prof. Owen, 1 plate. The Fossil Brachiopoda, Vol. II, Part V, No. 3, Carboniferous, by Mr. Davidson, 10 plates.
„ XIII.	„ 1859	The Fossil Brachiopoda, Part V, No. 4, Carboniferous, by Mr. Davidson, 20 plates. The Reptilia of the Oolitic Formations, No. 1, Lower Lias, by Prof. Owen, 6 plates. The Reptilia of the Kimmeridge Clay, No. 1, by Prof. Owen, 1 plate. The Eocene Mollusca, Part IV, No. 1, Bivalves, by Mr. S. V. Wood, 13 plates.
„ XIV.	„ 1860	The Fossil Brachiopoda, Vol. II, Part V, No. 5, Carboniferous, by Mr. Davidson, 8 plates. The Reptilia of the Oolitic Formations, No. 2, Lower Lias, by Prof. Owen, 11 plates. The Reptilia of the Kimmeridge Clay, No. 2, by Prof. Owen, 1 plate. The Fossil Estheriæ, by Prof. Rupert Jones, 5 plates. The Fossil Crustacea, Part II, Gault and Greensand, by Prof. Bell, 11 plates.
„ XV.	„ 1861	The Fossil Echinodermata, Oolitic, Vol. II, Part I (Asteroidea), by Dr. Wright, 13 plates. Supplement to the Great Oolite Mollusca, by Dr. Lycett, 15 plates.
„ XVI.	„ 1862	The Fossil Echinodermata, Cretaceous, Vol. I, Part I, by Dr. Wright, 11 plates. The Trilobites of the Silurian, Devonian, &c., Formations, Part I (Devonian and Silurian), by Mr. J. W. Salter, 6 plates. The Fossil Brachiopoda, Vol. III, Part VI, No. 1, Devonian, by Mr. Davidson, 9 plates. The Eocene Mollusca, Part IV, No. 2, Bivalves, by Mr. S. V. Wood, 7 plates. The Reptilia of the Cretaceous and Wealden Formations (Supplements), by Prof. Owen, 10 plates.
„ XVII.	„ 1863	The Trilobites of the Silurian, Devonian, &c., Formations, Part II, by Mr. J. W. Salter, 8 plates. The Fossil Brachiopoda, Vol. III, Part VI, No. 2, Devonian, by Mr. Davidson, 11 plates. The Belemnitidæ, Part I, Introduction, by Prof. Phillips. The Reptilia of the Liassic Formations, Part I, by Prof. Owen, 16 plates.
„ XVIII.	„ 1864	The Fossil Echinodermata, Oolitic, Vol. II, Part II (Liassic Ophiuroidea), by Dr. Wright, 6 plates. The Trilobites of the Silurian, Devonian, &c., Formations, Part III, by Mr. J. W. Salter, 11 plates. The Belemnitidæ, Part II, Liassic Belemnites, by Prof. Phillips, 7 plates. The Pleistocene Mammalia, Part I, Introduction, Felis spelæa, by Messrs. W. Boyd Dawkins and W. A. Sanford, 5 plates. Title-pages, &c., to the Monographs on the Reptilia of the London Clay, Cretaceous, and Wealden Formations.

* This Vol. is marked on the outside 1856.

CATALOGUE OF WORKS—Continued.

Vol. XIX.*	Issued for the Year 1865	The Crag Foraminifera, Part 1, by Messrs. T. Rupert Jones, W. K. Parker, and H. B. Brady, 4 plates. Supplement to the Fossil Corals, Part I, Tertiary, by Dr. Duncan, 10 plates. The Fossil Merostomata, Part I, Pterygotus, by Mr. H. Woodward, 9 plates. The Fossil Brachiopoda, Vol. III, Part VII, No. 1, Silurian, by Mr. Davidson, 12 plates.
„ XX.*	„ 1866	Supplement to the Fossil Corals, Part IV, No. 1, Liassic, by Dr. Duncan, 11 plates. The Trilobites of the Silurian, Devonian, &c., Formations, Part IV (Silurian), by Mr. J. W. Salter, 6 plates. The Fossil Brachiopoda, Vol. III, Part VII, No. 2, Silurian, by Mr. Davidson, 10 plates. The Belemnitidæ, Part III, Liassic Belemnites, by Prof. Phillips, 13 plates.
„ XXI.*	„ 1867	Flora of the Carboniferous Strata, Part I, by Mr. E. W. Binney, 6 plates. Supplement to the Fossil Corals, Part IV, No. 2, Liassic, by Dr. Duncan, 6 plates. The Fossil Echinodermata, Cretaceous, Vol. I, Part II, by Dr. Wright, 14 plates. The Fishes of the Old Red Sandstone, Part I, by Messrs. J. Powrie and E. Ray Lankester, 5 plates. The Pleistocene Mammalia, Part II, Felis spelæa, continued, by Messrs. W. Boyd Dawkins and W. A. Sanford, 14 plates.
„ XXII.*	„ 1868	Supplement to the Fossil Corals, Part II, No. 1, Cretaceous, by Dr. Duncan, 9 plates. The Fossil Merostomata, Part II, Pterygotus, by Mr. H. Woodward, 6 plates. The Fossil Brachiopoda, Vol. III, Part VII, No. 3, Silurian, by Mr. Davidson, 15 plates. The Belemnitidæ, Part IV, Liassic and Oolitic Belemnites, by Prof. Phillips, 7 plates. The Reptilia of the Kimmeridge Clay, No. 3, by Prof. Owen, 4 plates. The Pleistocene Mammalia, Part III, Felis spelæa, concluded, with F. lynx, by Messrs. W. Boyd Dawkins and W. A. Sanford, 6 plates.
„ XXIII.*	„ 1869	Supplement to the Fossil Corals, Part II, No. 2, Cretaceous, by Dr. Duncan, 6 plates. The Fossil Echinodermata, Cretaceous, Vol. I, Part III, by Dr. Wright, 10 plates. The Belemnitidæ, Part V, Oxford Clay, &c., Belemnites, by Prof. Phillips, 9 plates. The Fishes of the Old Red Sandstone, Part I (concluded), by Messrs. J. Powrie and E. Ray Lankester, 9 plates. The Reptilia of the Liassic Formations, Part II, by Prof. Owen, 4 plates. The Crag Cetacea, No. 1, by Prof. Owen, 5 plates.
„ XXIV.*	„ 1870	The Flora of the Carboniferous Strata, Part II, by Mr. E. W. Binney, 6 plates. The Fossil Echinodermata, Cretaceous, Vol. I, Part IV, by Dr. Wright, 10 plates. The Fossil Brachiopoda, Vol. III, Part VII, No. 4, Silurian, by Mr. Davidson, 13 plates. The Eocene Mollusca, Part IV, No. 3, Bivalves, by Mr. S. V. Wood, 5 plates. The Fossil Mammalia of the Mesozoic Formations, by Prof. Owen, 4 plates.
„ XXV.*	„ 1871	The Flora of the Carboniferous Strata, Part III, by Mr. E. W. Binney, 6 plates. The Fossil Merostomata, Part III, Pterygotus and Slimonia, by Mr. H. Woodward, 5 plates. Supplement to the Crag Mollusca, Part I (Univalves), by Mr. S. V. Wood, with an Introduction on the Crag District, by Messrs. S. V. Wood, jun., and F. W. Harmer, 7 plates and map. Supplement to the Reptilia of the Wealden (Iguanodon), No. IV, by Prof. Owen, 3 plates The Pleistocene Mammalia, Part IV, Felis pardus, &c., by Messrs W. Boyd Dawkins and W. A. Sanford, 2 plates. The Pleistocene Mammalia, Part V, Ovibos moschatus, by Mr. W. Boyd Dawkins, 5 plates.
„ XXVI*	„ 1872	Supplement to the Fossil Corals, Part III (Oolitic), by Prof. Duncan, with an Index to the Tertiary and Secondary Species, 7 plates. The Fossil Echinodermata, Cretaceous, Vol. I, Part V, by Dr. Wright, 5 plates. The Fossil Merostomata, Part IV (Stylonurus, Eurypterus, Hemiaspis), by Mr. H. Woodward, 10 plates. The Fossil Trigoniæ, No. I, by Dr. Lycett, 9 plates.
„ XXVII.*	„ 1873	The Fossil Echinodermata, Cretaceous, Vol I, Part VI, by Dr. Wright, 8 plates. Supplement to the Fossil Brachiopoda, Vol. IV, Part I (Tertiary and Cretaceous), by Mr. Davidson, 8 plates. Supplement to the Crag Mollusca, Part II (Bivalves), by Mr. S. V. Wood, 5 plates. Supplement to the Reptilia of the Wealden (Iguanodon), No. V, by Prof. Owen, 2 plates. Supplement to the Reptilia of the Wealden (Hylæochampsa) No. VI, by Prof. Owen. The Fossil Reptilia of the Mesozoic Formations, Part I, by Prof. Owen, 2 plates.

* These Volumes are issued in two forms of binding; first, with all the Monographs stitched together and enclosed in one cover; secondly, with each of the Monographs separate, and the whole of the separate parts placed in an envelope. The previous Volumes are not in separate parts.

CATALOGUE OF WORKS—Continued.

Vol. XXVIII*	Issued for the Year 1874		The Post-Tertiary Entomostraca, by Mr. G. S. Brady, Rev. H. W. Crosskey, and Mr. D. Robertson, 16 plates. The Carboniferous Entomostraca, Part I (Cypridinadæ), by Prof. T. Rupert Jones and Messrs. J. W. Kirkby and G. S. Brady, 5 plates. The Fossil Trigoniæ, No. II, by Dr. Lycett, 10 plates.
„ XXIX*	„	1875	The Flora of the Carboniferous Strata, Part IV, by Mr. E. W. Binney, 6 plates. The Fossil Echinodermata, Cretaceous, Vol. I, Part VII, by Dr. Wright, 10 plates. The Fossil Trigoniæ, No. III, by Dr. Lycett, 8 plates. The Fossil Reptilia of the Mesozoic Formations, Part II, by Prof. Owen, 20 plates.
„ XXX.*	„	1876	The Carboniferous and Permian Foraminifera (the genus Fusulina excepted), by Mr. H. B. Brady, 12 plates. Supplement to the Fossil Brachiopoda, Vol. IV, Part II, No. 1 (Jurassic and Triassic), by Mr. Davidson, 8 plates. Supplement to the Reptilia of the Wealden (Poikilopleuron and Chondrosteosaurus) No. VII, by Prof. Owen, 6 plates.
„ XXXI.*	„	1877	Supplement to the Eocene Mollusca (Bivalves), by Mr. S. V. Wood, 2 plates. The Fossil Trigoniæ, No. IV, by Dr. Lycett, 13 plates. The Eocene Mollusca (Univalves), Part IV, by Mr. S. V. Wood, 1 plate. The Carboniferous Ganoid Fishes, Part I (Palæoniscidæ), by Dr. Traquair, 7 plates. The Fossil Reptilia of the Mesozoic Formations, Part III, by Prof. Owen, 2 plates. The Fossil Elephants (E. antiquus), Part I, by Prof. Leith Adams, 5 plates.
„ XXXII.*	„	1878	The Fossil Echinodermata, Cretaceous, Vol. I, Part VIII, by Dr. Wright, 8 plates. Index and Title Page to the Fossil Echinodermata, Oolitic, Vol. I (Echinoidea), by Dr. Wright. The Fossil Merostomata, Part V (Neolimulus, &c.), by Dr. H. Woodward, 6 plates. Supplement to the Fossil Brachiopoda, Vol. IV, Part II, No. 2 (Jurassic and Triassic), by Mr. Davidson, 13 plates. The Lias Ammonites, Part I, by Dr. Wright, 8 plates. The Sirenoid and Crossopterygian Ganoids, Part I, by Prof. Miall, 6 plates. Supplement to the Reptilia of the Wealden (Goniopholis, Petrosuchus, and Suchosaurus), No. VIII, by Prof. Owen, 6 plates. The Pleistocene Mammalia, Part A (Preliminary Treatise), by Prof. Boyd Dawkins.
„ XXXIII*	„	1879	The Eocene Flora, Vol. I, Part I, by Mr. J. S. Gardner and Baron Ettingshausen, 5 plates. Second Supplement to the Crag Mollusca (Univalves and Bivalves), by Mr. S. V. Wood, 6 plates. The Fossil Trigoniæ, No. V (*Conclusion*), by Dr. Lycett, 1 plate. The Lias Ammonites, Part II, by Dr. Wright, 10 plates. Supplement to the Reptilia of the Wealden (Goniopholis, Brachydectes, Nannosuchus, Theriosuchus, and Nuthetes), No. IX, by Prof. Owen, 4 plates. The Fossil Elephants (E. primigenius), Part II, by Prof. Leith Adams, 10 plates.
„ XXXIV*	„	1880	The Eocene Flora, Vol. I, Part II, by Mr. J. S. Gardner and Baron Ettingshausen, 6 plates. The Fossil Echinodermata, Oolitic, Vol. II, Part III (Asteroidea and Ophiuroidea), by Dr. Wright, 3 plates. Supplement to the Fossil Brachiopoda, Vol. IV, Part III (Permian and Carboniferous), by Mr. Davidson, 8 plates. The Lias Ammonites, Part III, by Dr. Wright, 22 plates. The Reptilia of the London Clay, Vol. II, Part I (Chelone) by Prof. Owen, 2 plates.
„ XXXV*	„	1881	The Fossil Echinodermata, Cretaceous, Vol. I, Part IX, by Dr. Wright, 6 plates. Supplement to the Fossil Brachiopoda, Vol. IV, Part IV (Devonian and Silurian, from Budleigh-Salterton Pebble Bed), by Mr. Davidson, 5 plates. The Fossil Trigoniæ (Supplement No. 1), by Dr. Lycett. The Lias Ammonites, Part IV, by Dr. Wright, 10 plates. The Reptilia of the Liassic Formations, Part III (*Conclusion*), by Prof. Owen, 13 plates. The Fossil Elephants (E. primigenius and E. meridionalis), Part III (*Conclusion*), by Prof. Leith Adams, 13 plates.

* These Volumes are issued in two forms of binding; first, with all the Monographs stitched together and enclosed in one cover; secondly, with each of the Monographs separate, and the whole of the separate parts placed in an envelope.

CATALOGUE OF WORKS—Continued.

Vol. XXXVI*	Issued for the Year 1882	The Eocene Flora, Vol. I, Part III (*Conclusion*), by Mr. J. S. Gardner and Baron Ettingshausen, 2 plates. Third Supplement to the Crag Mollusca, by the late Mr. S. V. Wood, 1 plate. The Fossil Echinodermata, Cretaceous, Vol. I, Part X (*Conclusion*), by Dr. Wright, 5 plates. Supplement to the Fossil Brachiopoda, Vol. IV, Part V (*Conclusion*), by Dr. Davidson. Supplement to the Fossil Brachiopoda, Vol. V, Part I (Devonian and Silurian), by Dr. Davidson, 7 plates. The Lias Ammonites, Part V, by Dr. Wright, 22 plates.
„ XXXVII*	„ 1883	The Eocene Flora, Vol. II, Part I, by Mr. J. S. Gardner, 9 plates. The Trilobites of the Silurian, Devonian, &c., Formations, Part V (*Conclusion*), by the late Mr. J. W. Salter. The Carboniferous Trilobites, Part I, by Dr. H. Woodward, 6 plates. Supplement to the Fossil Brachiopoda, Vol. V, Part II (Silurian), by Dr. Davidson, 10 plates. The Fossil Trigoniæ (Supplement No. 2), by the late Dr. Lycett, 4 plates. The Lias Ammonites, Part VI, by Dr. Wright, 8 plates.
„ XXXVIII*	„ 1884	The Eocene Flora, Vol. II, Part II, by Mr. J. S. Gardner, 11 plates. The Carboniferous Entomostraca, Part I, No. 2 (*Conclusion*), by Prof. T. Rupert Jones, Mr. J. W. Kirkby, and Prof. G. S. Brady, 2 plates. The Carboniferous Trilobites, Part II, by Dr. H. Woodward, 4 plates. Supplement to the Fossil Brachiopoda, Vol. V, Part III (*Conclusion*), by Dr. Davidson, 4 plates. The Lias Ammonites, Part VII, by Dr. Wright, 10 plates.
„ XXXIX*	„ 1885	The Eocene Flora, Vol. II, Part III (*Conclusion*), by Mr. J. S. Gardner, 7 plates. The Stromatoporoids, Part I, by Prof. Alleyne Nicholson, 11 plates. The Fossil Brachiopoda (Bibliography), Vol. VI (*Conclusion*), by the late Dr. Davidson and Mr. W. H. Dalton. The Lias Ammonites, Part VIII (*Conclusion*), by the late Dr. Wright, 1 plate.
„ XL*	„ 1886	The Morphology and Histology of Stigmaria Ficoides, by Prof. W. C. Williamson, 15 plates. The Fossil Sponges, Part I, by Dr. G. J. Hinde, 8 plates. The Jurassic Gasteropoda, Part I, No. 1, by Mr. W. H. Hudleston. The Inferior Oolite Ammonites, Part I, by Mr. S. S. Buckman, 6 plates. The Pleistocene Mammalia, Part VI, by Prof. Boyd Dawkins, 7 plates.
„ XLI*	„ 1887	The Fossil Sponges, Part II, by Dr. G. J. Hinde, 1 plate. The Palæozoic Phyllopoda, Part I, by Prof. T. R. Jones and Dr. Woodward, 12 plates. The Jurassic Gasteropoda, Part I, No. 2, by Mr. W. H. Hudleston, 6 plates. The Inferior Oolite Ammonites, Part II, by Mr. S. S. Buckman, 8 plates.
„ XLII*	„ 1888	The Stromatoporoids, Part II, by Prof. Alleyne Nicholson, 8 plates. The Tertiary Entomostraca (Supplement), by Prof. T. Rupert Jones and Mr. C. D. Sherborn, 3 plates. The Jurassic Gasteropoda, Part I, No. 3, by Mr. W. H. Hudleston, 5 plates. The Inferior Oolite Ammonites, Part III, by Mr. S. S. Buckman, 10 plates. The Devonian Fauna of the South of England, Part I, by the Rev. G. F. Whidborne, 4 plates. Title-pages to the Monographs on the Reptilia of the Wealden and Purbeck (Supplements), Kimmeridge Clay, and Mesozoic Formations, and on the Cetacea of the Red Crag.
„ XLIII*	„ 1889	The Cretaceous Entomostraca (Supplement), by Prof. T. Rupert Jones and Dr. G. J. Hinde, 4 plates. The Jurassic Gasteropoda, Part I, No. 4, by Mr. W. H. Hudleston, 5 plates. The Inferior Oolite Ammonites, Part IV, by Mr. S. S. Buckman, 13 plates. The Devonian Fauna of the South of England, Part II, by the Rev. G. F. Whidborne, 12 plates.

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§ II. LIST OF MONOGRAPHS

Completed, in course of Publication, and in Preparation.

1. MONOGRAPHS which have been COMPLETED, and which may be bound as separate Volumes, with directions for the BINDING :—

The Morphology and Histology of Stigmaria ficoides by Prof. W. C. Williamson. (*Complete with Title-page and Index in the Volume for* 1886.)

The Eocene Flora, Vol. I (Filices), by Mr. J. S. Gardner and Baron Ettingshausen. (*Complete in the Volumes for the years* 1879, 1880, *and* 1882. *Title-page, Index, and directions for the binding, will be found in the Volume for* 1882.)

The Eocene Flora, Vol. II (Gymnospermæ), by Mr. J. S. Gardner. (*Complete in the Volumes for* 1883, 1884, *and* 1885. *Title-page, Index, and directions for the binding, will be found in the Volume for* 1885.)

The Carboniferous and Permian Foraminifera (the genus Fusulina excepted), by Mr. H. B. Brady. (*Complete in the Volume for the year* 1876.)

The Tertiary, Cretaceous, Oolitic, Devonian, and Silurian Corals, by MM. Milne-Edwards and J. Haime. (*Complete in the Volumes for the years* 1849, 1851, 1852, 1853, *and* 1854. *The Title-page and Index, with corrected explanations of Plates XVII and XVIII, will be found in the Volume for the year* 1854.)

The Polyzoa of the Crag, by Mr. G. Busk. (*Complete with Title-page and Index in the Volume for the year* 1857.)

The Tertiary Echinodermata, by Professor Forbes. (*Complete with Title-page in the Volume for the year* 1852.)

The Fossil Cirripedes, by Mr. C. Darwin. (*Complete in the Volumes for the years* 1851, 1854, *and* 1858. *The Title-page will be found in the Volume for the year* 1854, *and the Index in the Volume for the year* 1858.

The Post-Tertiary Entomostraca, by Mr. G. S. Brady, the Rev. H. W. Crosskey, and Mr. D. Robertson. (*Complete, with Title-page and Index, in the Volume for the year* 1874.)

The Tertiary Entomostraca, by Prof. T. Rupert Jones. (*Complete, with Title-page and Index, in the Volume for the year* 1855.)

The Cretaceous Entomostraca, by Prof. T. Rupert Jones. (*Complete, with Title-page and Index, in the Volume for the year* 1849.)

The Carboniferous Entomostraca, Part I (Cypridinadæ and their allies), by Prof. T. Rupert Jones, Mr. J. W. Kirkby, and Prof. G. S. Brady. (*Complete in the volumes for* 1874 *and* 1884. *The Title-page and Index will be found in the Volume for the year* 1884.)

The Fossil Estheriæ, by Prof. T. Rupert Jones. (*Complete, with Title-page and Index, in the Volume for the year* 1860.)

The Trilobites of the Cambrian, Silurian, and Devonian Formations, by Mr. J. W. Salter. (*Complete in the Volumes for the years* 1862, 1863, 1864, 1866, *and* 1883. *The Title-page and Index, with directions for the binding, will be found in the Volume for the year* 1883.)

The Fossil Merostomata, by Dr. H. Woodward. (*Complete in the Volumes for the years* 1865, 1868, 1871, 1872, *and* 1878. *The Title-page and Index, with directions for the binding, will be found in the Volume for the year* 1878.)

The Fossil Brachiopoda (Tertiary, Cretaceous, Oolitic, and Liassic), Vol. I, by Mr. T. Davidson. (*Complete in the Volumes for the years* 1850, 1852, 1853, *and* 1854. *The Index will be found in the Volume for the year* 1854, *and corrected Title-page in that for* 1870.)

The Fossil Brachiopoda (Permian and Carboniferous), Vol. II, by Mr. T. Davidson. (*Complete in the Volumes for the years* 1856, 1857, 1858, 1859, *and* 1860. *The Index will be found in the Volume for the year* 1860, *and corrected Title-page in that for* 1870.)

The Fossil Brachiopoda (Devonian and Silurian), Vol. III, by Mr. T. Davidson. (*Complete in the Volumes for the years* 1862, 1863, 1865, 1866, 1868, *and* 1870. *The Title-page and Index will be found in the Volume for the year* 1870.)

The Fossil Brachiopoda, Vol. IV, by Dr. T. Davidson. Supplements: Tertiary, Cretaceous, Jurassic, Triassic, Permian, and Carboniferous. (*Complete in the Volumes for the years* 1873, 1876, 1878, 1880, 1881, *and* 1882. *The Title-page and Index, with directions for the binding will be found in the Volume for the year* 1882.)

The Fossil Brachiopoda, Vol. V, by Dr. T. Davidson. Supplements: Devonian and Silurian. Appendix to Supplements, General Summary, Catalogue and Index of the British Species. (*Complete in the Volumes for the years* 1882, 1883, *and* 1884. *The Title-page, with directions for the binding will be found in the Volume for* 1884.)

The Fossil Brachiopoda, Vol. VI, by Dr. T. Davidson and Mr. W. H. Dalton. Bibliography. (*Complete in the Volume for the year* 1885.)

The Eocene Bivalves, Vol. I, by Mr. S. V. Wood. (*Complete, with Title-page and Index, in the Volumes for the years* 1859, 1862, *and* 1870. *The directions for the binding will be found in the Volume for the year* 1870.)

Supplement to the Eocene Bivalves, by Mr. S. V. Wood. (*Complete, with Title-page and Index, in the Volume for the year* 1877.)

The Eocene Cephalopoda and Univalves, Vol. I, by Mr. F. E. Edwards and Mr. S. V. Wood. (*Complete in the Volumes for the years* 1848, 1852, 1854, 1855, 1858, *and* 1877. *The Title-page, Index, and directions for the binding, will be found in the Volume for the year* 1877.)

The Mollusca of the Crag, Vol. I, Univalves, by Mr. S. V. Wood. (*The Text, Plates, and Index, will be found in the Volume for the year* 1847, *and the Title-page will be found in the Volume for the year* 1855.)

The Mollusca of the Crag, Vol. II, Bivalves, by Mr. S. V. Wood. (*Complete in the Volumes for the years* 1850, 1853, 1855, 1858, *and* 1873. *The Title-page will be found in the Volume for the year* 1873, *and the Index will be found in the Volume for the year* 1855, *and a Note in the Volume for the year* 1858).

The Mollusca of the Crag, Vol. III, Supplement, by Mr. S. V. Wood. (*Complete in the Volumes for the years* 1871 *and* 1873. *The Title-page and Index will be found in the Volume for the year* 1873.)

Second Supplement to the Crag Mollusca, by Mr. S. V. Wood. (*Complete, with Title-page and Index, in the Volume for the year* 1879.)

Third Supplement to the Crag Mollusca, by Mr. S. V. Wood. (*Complete, with Title-page and Index, in the Volume for the year* 1882.)

The Great Oolite Mollusca, by Professor Morris and Dr. Lycett. (*Complete in the Volumes for the years* 1850, 1853, *and* 1854. *The Title-page and Index will be found in the Volume for the year* 1854.)

The Fossil Trigoniæ, by Dr. Lycett. (*Complete in the Volumes for the years* 1872, 1874, 1875, 1877, *and* 1879. *The directions for the binding will be found in the Volume for the year* 1879.)

Supplement to the Fossil Trigoniæ, by Dr. Lycett. (*Complete in the Volumes for the years* 1881 *and* 1883. *The Title-page, Index, with directions for the binding, will be found in the Volume for the year* 1883.)

The Oolitic Echinodermata, Vol. I, Echinoidea, by Dr. Wright. (*Complete in the Volumes for the years* 1855, 1856, 1857, 1858, *and* 1878. *Title-page, Index, and directions for the binding, will be found in the Volume for the year* 1878.)

The Oolitic Echinodermata, Vol. II, Asteroidea, by Dr. Wright. (*Complete in the Volumes for the years* 1861, 1864, *and* 1880. *Title-page, Index, and directions for the binding, will be found in the Volume for the year* 1880).

The Cretaceous Echinodermata, Vol. I, Echinoidea, by Dr. Wright. (*Complete in the Volumes for the years* 1862, 1867, 1869, 1870, 1872, 1873, 1875, 1878, 1881, *and* 1882. *The Title-page and Index, with directions for the binding, will be found in the Volume for the year* 1882.)

The Cretaceous (Upper) Cephalopoda, by Mr. D. Sharpe. (*Complete in the Volumes for the years* 1853, 1854, *and* 1855, *but wants Title-page and Index.*)

The Lias Ammonites, by Dr. Wright. (*Complete in the Volumes for the years* 1878, 1879, 1880, 1881, 1882, 1883, 1884, *and* 1885. *The Title-page and Index, with directions for the binding, will be found in the Volume for the year* 1885.)

The Fossils of the Permian Formation, by Professor King. *Complete, with Title-page and Index, in the Volume for the year* 1849. *Corrected explanations of Plates XXVIII and XXVIII* will be found in the Volume for the year* 1854.)

The Reptilia of the London Clay (and of the Bracklesham and other Tertiary Beds), Vol. I, by Professors Owen and Bell. (*Complete in the Volumes for the years* 1848, 1849, 1856, *and* 1864. *Directions for the binding, Title-page, and Index, will be found in the Volume for the year* 1864.) Part I of Vol. II, containing Chelone gigas (*to be found in the Volume for the year* 1880), can be added.

The Reptilia of the Cretaceous Formations, by Prof. Owen. (*Complete in the Volumes for the years* 1851, 1857, 1858, 1862, *and* 1864. *Directions for the binding, Title-page, and Index, will be found in the Volume for the year* 1864.)

The Reptilia of the Wealden and Purbeck Formations, by Professor Owen. (*Complete in the Volumes for the years* 1853, 1854, 1855, 1856, 1857, 1858, 1862, *and* 1864. *Directions for the binding, Title-pages, and Index, will be found in the Volume for the year* 1864.)

The Reptilia of the Wealden and Purbeck Formations (Supplements 4—9), by Professor Owen. (*Complete in the Volumes for the years* 1871, 1873, 1876, 1878, 1879, *and* 1888. *Directions for the binding, Title-page, Preface, and Table of Contents, will be found in the Volume for the year* 1888.)

The Reptilia of the Kimmeridge Clay Formation, by Professor Owen. (*Complete in the Volumes for the years* 1859, 1860, 1868, and 1888. *Directions for the binding, Title-page, Preface, and Table of Contents, will be found in the Volume for the year* 1888.)

The Reptilia of the Liassic Formations, by Professor Owen. (*Complete in the Volumes for the years* 1859, 1860, 1863, 1869, *and* 1881. *Directions for the binding, Title-pages, and Index, will be found in the Volume for the year* 1881.)

The Reptilia of the Mesozoic Formations, by Professor Owen. (*Complete in the Volume for the years* 1873, 1875, 1877, *and* 1888. *Directions for the binding, Title-page, Preface, and Table of Contents, will be found in the Volume for the year* 1888.)

The Red Crag Cetacea, by Professor Owen. (*Complete in the Volume for the years* 1869 *and* 1888. *Directions for the binding, Title-page, Preface, and Table of Contents, will be found in the Volume for the year* 1888.)

The Fossil Mammalia of the Mesozoic Formations, by Professor Owen. (*Complete, with Title-page and Table of Contents, in the Volume for the year* 1870.)

The Fossil Elephants, by Professor Leith Adams. (*Complete in the Volumes for the years* 1877, 1879, *and* 1881. *Directions for the binding, Title-page, and Index will be found in the Volume for the year* 1881.

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2. MONOGRAPHS in course of PUBLICATION :—†

The Eocene Flora, by Mr. J. S. Gardner.

The Fossil Sponges, by Dr. G. J. Hinde.

The Stromatoporoids, by Prof. H. Alleyne Nicholson.

Supplement to the Fossil Corals, by Dr. Duncan.

The Jurassic Gasteropoda, by Mr. W. H. Hudleston.

The Palæozoic Phyllopoda, by Prof. T. Rupert Jones and Dr. H. Woodward.

The Trilobites, by Dr. H. Woodward.

The Inferior Oolite Ammonites, by Mr. S. S. Buckman.

The Belemnites, by Professor Phillips.*

The Sirenoid and Crossopterygian Ganoids, by Professor Miall.

The Fishes of the Carboniferous Formation, by Prof. Traquair.

The Fishes of the Old Red Sandstone, by Messrs. J. Powrie and E. Ray Lankester, and Professor Traquair.

The Pleistocene Mammalia, by Messrs. Boyd Dawkins and W. A. Sanford.

The Fauna of the Devonian Formation of the South of England, by the Rev. G. F. Whidborne.

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3. MONOGRAPHS which are in course of PREPARATION :—†

The Fossil Cycadeæ, by Mr. W. Carruthers.

The Rhizopoda of the Chalk, Chalk Marl, Gault, and Upper Greensand, by Messrs. T. Rupert Jones, W. K. Parker, and H. B. Brady.

The Foraminifera of the Lias, by Mr. H. B. Brady.

The Carboniferous Entomostraca, Part II (Leperditiadæ), by Messrs. T. Rupert Jones, J. W. Kirkby, and G. S. Brady.

The Wealden, Purbeck, and Jurassic Entomostraca, by Messrs. T. R. Jones and G. S. Brady.

The Purbeck Mollusca, by Mr. R. Etheridge.

The Rhætic Mollusca, by Mr. R. Etheridge.

The Silurian Fish Bed, by Dr. Harley.

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* Unfinished through the death of the Author, but will be continued by Mr. G. C. Crick.

† Members having specimens which might assist the authors in preparing their respective Monographs are requested to communicate in the first instance with the Honorary Secretary.

§ III. Dates of the Issue of the Yearly Volumes of the Palæontographical Society.

Volume	I	for	1847	was	issued	to	the Members,	March, 1848.
,,	II	,,	1848	,,	,,		,,	July, 1849.
,,	III	,,	1849	,,	,,		,,	August, 1850.
,,	IV	,,	1850	,,	,,		,,	June, 1851.
,,	V	,,	1851	,,	,,		,,	June, 1851.
,,	VI	,,	1852	,,	,,		,,	August, 1852.
,,	VII	,,	1853	,,	,,		,,	December, 1853.
,,	VIII	,,	1854	,,	,,		,,	May, 1855.
,,	IX	,,	1855	,,	,,		,,	February, 1857.
,,	X	,,	1856	,,	,,		,,	April, 1858.
,,	XI	,,	1857	,,	,,		,,	November, 1859
,,	XII	,,	1858	,,	,,		,,	March, 1861.
,,	XIII	,,	1859	,,	,,		,,	December, 1861.
,,	XIV	,,	1860	,,	,,		,,	May, 1863.
,,	XV	,,	1861	,,	,,		,,	May, 1863.
,,	XVI	,,	1862	,,	,,		,,	August, 1864.
,,	XVII	,,	1863	,,	,,		,,	June, 1865.
,,	XVIII	,,	1864	,,	,,		,,	April, 1866.
,,	XIX	,,	1865	,,	,,		,,	December, 1866.
,,	XX	,,	1866	,,	,,		,,	June, 1867.
,,	XXI	,,	1867	,,	,,		,,	June, 1868.
,,	XXII	,,	1868	,,	,,		,,	February, 1869.
,,	XXIII	,,	1869	,,	,,		,,	January, 1870.
,,	XXIV	,,	1870	,,	,,		,,	January, 1871.
,,	XXV	,,	1871	,,	,,		,,	June, 1872.
,,	XXVI	,,	1872	,,	,,		,,	October, 1872.
,,	XXVII	,,	1873	,,	,,		,,	February, 1874.
,,	XXVIII	,,	1874	,,	,,		,,	July, 1874.
,,	XXIX	,,	1875	,,	,,		,,	December, 1875.
,,	XXX	,,	1876	,,	,,		,,	December, 1876.
,,	XXXI	,,	1877	,,	,,		,,	February, 1877.
,,	XXXII	,,	1878	,,	,,		,,	March, 1878.
,,	XXXIII	,,	1879	,,	,,		,,	May, 1879.
,,	XXXIV	,,	1880	,,	,,		,,	May, 1880.
,,	XXXV	,,	1881	,,	,,		,,	May, 1881.
,,	XXXVI	,,	1882	,,	,,		,,	June, 1882.
,,	XXXVII	,,	1883	,,	,,		,,	October, 1883.
,,	XXXVIII	,,	1884	,,	,,		,,	December, 1884.
,,	XXXIX	,,	1885	,,	,,		,,	January, 1886.
,,	XL	,,	1886	,,	,,		,,	March, 1887.
,,	XLI	,,	1887	,,	,,		,,	January, 1888.
,,	XLII	,,	1888	,,	,,		,,	March, 1889.
,,	XLIII	,,	1889	,,	,,		,,	March, 1890.

§ IV. SUMMARY OF THE MONOGRAPHS ISSUED TO THE MEMBERS (*up to* MARCH, 1890): *showing in the* FIRST *column whether each Monograph hitherto published be* complete, *or in the* course of completion; *in the* SECOND *column, the yearly volumes which contain each particular Monograph (as a guide to binding the same); and in the* FOURTH *and following columns, the number of pages, plates, figures, and species described in the different Monographs.*

I. SUBJECT OF MONOGRAPH.	II. Dates of the Years *for which* the volume containing the Monograph was issued.	III *m*. Dates of the Years *in which* the Monograph was published.	IV. No. of Pages of Letterpress in each Monograph.	V. No. of Plates in each Monograph.	VI. No. of Lithographed Figures and of Woodcuts.	VII. No. of Species described in the Text.
The Morphology and Histology of Stigmaria ficoides, by Prof. W. C. Williamson, COMPLETE	1886	1887	66	15	91	1
The Eocene Flora, by Mr. J. S. Gardner and Baron Ettingshausen. Vol. I, COMPLETE.....	1879, 1880, 1882	1879, 1880, 1882	87	13	151	23
,, ,, by Mr. J. S. Gardner. Vol. II, COMPLETE	1883, 1884, 1885	1883, 1884, 1886	159	27	400	31
The Flora of the Carboniferous Strata, by Mr. E. W. Binney, *in course of completion*	1867, 1870, 1871, 1875	1868, 1871, 1872, 1875	147	24	141	16
The Fossil Sponges, by Dr. G. J. Hinde, *in course of completion*.....	1886, 1887	1887, 1888	188	9	337	50
The Crag Foraminifera, by Messrs. T. Rupert Jones, W. K. Parker, and H. B. Brady, *in course of completion*	1865	1866	78	4	211	43
The Carboniferous and Permian Foraminifera, by Mr. H. B. Brady, COMPLETE.....	1876	1876	166	12	266	62
The Stromatoporoids, by Prof. Alleyne Nicholson, *in course of completion*	1885, 1888	1886, 1889	161	19	269	16
Tertiary, Cretaceous, Oolitic, Devonian, and Silurian Corals, by MM. Milne-Edwards and J. Haime, COMPLETE (*k*)	1849, 1851, 1852, 1853, 1854	1850, 1851, 1852, 1853, 1855	406	72	800	319*g*
Supplement to the Fossil Corals, by Prof. Duncan, *in course of completion*	1865, 1866, 1867, 1868, 1869, 1872	1866, 1867, 1868, 1869, 1870, 1872	232	49	797	149
The Polyzoa of the Crag, by Mr. G. Busk, COMPLETE	1857	1859	145	22	641	122
The Tertiary Echinodermata, by Prof. Forbes, COMPLETE	1852	1852	39	4	144	44
The Oolitic Echinodermata, by Dr. Wright. Vol. I, COMPLETE (*l*)	1855, 1856, 1857, 1858, 1878	1857, 1858, 1859, 1861, 1878	491	43	724	120*h*
,, ,, Vol. II, COMPLETE	1861, 1864, 1880	1863, 1866, 1880	207	22	232	35
The Cretaceous Echinodermata, by Dr. Wright. Vol. I, COMPLETE.....	1862, 1867, 1869, 1870, 1872, 1873, 1875, 1878, 1881, 1882	1864, 1868, 1870, 1871, 1872, 1874, 1875, 1878, 1881, 1882	390	87	1119	113
The Fossil Cirripedes, by Mr. C. Darwin, COMPLETE	1851, 1854, 1858*a*	1851, 1855, 1861	137	7	320	54
The Fossil Merostomata, by Dr. H. Woodward, COMPLETE	1865, 1868, 1871, 1872, 1878	1866, 1869, 1872, 1872, 1878	265	36	365	51
The Post-Tertiary Entomostraca, by Mr. G. S. Brady, Rev. H. W. Crosskey, and Mr. D. Robertson, COMPLETE	1874	1874	237	16	515	134
The Tertiary Entomostraca, by Prof. Rupert Jones, COMPLETE	1855	1857	74	6	233	56
,, ,, ,, and Mr. C. D. Sherborn (Supplement), COMPLETE	1888	1889	55	3	134	48
The Cretaceous Entomostraca, by Prof. Rupert Jones, COMPLETE	1849	1850	41	7	176	31
,, ,, ,, and Dr. G. J. Hinde (Supplement)	1889	1890	78	4	258	46
The Carboniferous Entomostraca, by Prof. Rupert Jones and Messrs. J. W. Kirkby and Prof. G. S. Brady. Part I, COMPLETE.....	1874, 1884	1874, 1884	95	7	374	81
The Fossil Estheriæ, by Prof. Rupert Jones, COMPLETE	1860	1863	139	5	158	19*i*
		CARRIED FORWARD...	4083	513	8856	1664

Summary of the Monographs issued to the Members (*up to* MARCH, 1890)—*continued.*

I. Subject of Monograph.	II. Dates of the Years *for which* the volume containing the Monograph was issued.	III *m*. Dates of the Years *in which* the Monograph was published.	IV. No. of Pages of Letterpress in each Monograph.	V. No. of Plates in each Monograph.	VI. No. of Lithographed Figures and of Woodcuts.	VII. No. of Species described in the Text.
		Brought forward...	4083	513	8856	1664
The Palæozoic Phyllopoda, by Prof. Rupert Jones and Dr. H. Woodward, *in course of completion*	1887	1888	72	12	121	39
The Trilobites of the Cambrian, Silurian, and Devonian Formations, by Mr. J. W. Salter, COMPLETE	1862, 1863, 1864, 1866, 1883	1864, 1865, 1866, 1867, 1883	224	31	703	114
The Carboniferous Trilobites, by Dr. H. Woodward, COMPLETE	1883, 1884	1883, 1884	86	10	148	31
The Malacostracous Crustacea (comprising those of the London Clay, Gault, and Greensands), by Prof. T. Bell, *in course of completion*	1856, 1860	1858, 1863	88	22	215	50
The Fossil Brachiopoda, Vol. I. The Tertiary, Cretaceous, Oolitic, and Liassic Brachiopoda, by Mr. T. Davidson, COMPLETE	1850, 1852, 1853, 1854	1851, 1852, 1853, 1855	409	42	1855	160
„ „ Vol. II. The Permian and Carboniferous Brachiopoda, COMPLETE	1856*d*, 1857, 1858, 1859, 1860	1858, 1859, 1861, 1861, 1863	331	59	1909	157
„ „ Vol. III. The Devonian and Silurian Brachiopoda, COMPLETE	1862, 1863, 1865, 1866, 1868, 1870	1864, 1865, 1866, 1867, 1869, 1871	528	70	2766	321
„ „ Vol. IV. Supplements, Tertiary to Carboniferous, COMPLETE	1873, 1876, 1878, 1880, 1881, 1882	1874, 1876, 1878, 1880, 1881, 1882	383	42	1664	215
„ „ Vol. V. Supplements, Devonian and Silurian, COMPLETE	1882, 1883, 1884	1882, 1883, 1884	476	21	1135	116
„ „ Vol. VI. Bibliography, COMPLETE	1885	1886	163	—	—	—
The Fossil Trigoniæ, by Dr. Lycett, COMPLETE	1872, 1874, 1875, 1877, 1879	1872, 1874, 1875, 1877, 1879	246	41	446	115
Supplement to the Fossil Trigoniæ, by Dr. Lycett, COMPLETE	1881, 1883	1881, 1883	19	4	53	9*h*
The Mollusca of the Crag, by Mr. S. V. Wood:—						
Vol. I. (Univalves), COMPLETE	1847, 1855*b*	1848, 1857	216	21	581	244
Vol. II. (Bivalves), COMPLETE	1850, 1853, 1855, 1858*c*	1851, 1853, 1857, 1861	344	31	691	253
Supplements to the Crag Mollusca, No. I and II, by Mr. S. V. Wood, COMPLETE	1871, 1873, 1879	1872, 1874, 1879	322	18	517	232
„ „ No. III „ COMPLETE	1882	1882	24	1	29	13
The Eocene Mollusca, Cephalopoda and Univalves, by Mr. F. E. Edwards, continued by Mr. S. V. Wood. Vol. I, COMPLETE	1848, 1852, 1854, 1855, 1858, 1877	1849, 1852, 1855, 1857, 1861, 1877	361	34	625	275
The Eocene Mollusca, Bivalves, by Mr. S. V. Wood. Vol. I, COMPLETE	1859, 1862, 1870	1861, 1864, 1871	182	25	531	194
Supplement to the Eocene Mollusca, by Mr. S. V. Wood (Bivalves). Vol. I, COMPLETE	1877	1877	24	2	66	30
The Great Oolite Mollusca, by Prof. Morris and Dr. Lycett, COMPLETE	1850, 1853, 1854	1850, 1853, 1855	282	30	846	419
„ „ „ Supplement by Dr. Lycett, COMPLETE	1861	1863	129	15	337	194
The Jurassic Gasteropoda, by Mr. W. H. Hudleston, *in course of completion*	1886, 1887, 1888, 1889	1887, 1888, 1889, 1890	224	16	558	162
The Inferior Oolite Ammonites, by Mr. S. S. Buckman, *in course of completion*	1886, 1887, 1888, 1889	1887, 1888, 1889, 1890	224	37	427	60
The Liassic Ammonites, by Dr. Wright, COMPLETE	1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885	1878, 1879, 1880, 1881, 1882, 1883, 1884, 1886	503	91	726	107
		Carried forward...	9943	1188	25,805	5174

SUBJECT OF MONOGRAPH.	II. Dates of the Years *for which* the volume containing the Monograph was issued.	III *m*. Dates of the Years *in which* the Monograph was published.	IV. No. of Pages of Letterpress in each Monograph.	V. No. of Plates in each Monograph.	VI. No. of Lithographed Figures and of Woodcuts.	VII. No. of Species described in the Text.
		BROUGHT FORWARD...	9943	1188	25,805	5174
The Belemnites, by Prof. Phillips, *in course of completion*	1863, 1864, 1866, 1868, 1869	1865, 1866, 1867, 1869, 1870	128	36	622	69
The Upper Cretaceous Cephalopoda, by Mr. D. Sharpe, COMPLETE	1853, 1854, 1855	1853, 1855, 1857	67	27	319	79
The Fossils of the Permian Formation, by Prof. King, COMPLETE	1849, 1854*e*	1850, 1855	287	29	511	138
The Fauna of the Devonian Formation of the South of England, by the Rev. G. F. Whidborne, *in course of completion*	1888, 1889	1889, 1890	156	16	370	90
The Sirenoid Ganoids, by Prof. Miall, *in course of completion*	1878	1878	32	6	61	6
The Fishes of the Carboniferous Formation, by Dr. Traquair, *in course of completion*	1877	1877	60	7	58	5
The Fishes of the Old Red Sandstone, by Messrs. J. Powrie and E. Ray Lankester, *in course of completion*	1867, 1869	1868, 1870	62	14	195	21
The Reptilia of the London Clay [and of the Bracklesham and other Tertiary Beds], by Profs. Owen and Bell, Vol. I, COMPLETE ‡	1848, 1849, 1856*f*	1849, 1850, 1859	150	58	304	39
,, ,, Vol. II, Part I, by Prof. Owen, COMPLETE	1880	1880	4	2	4	1
The Reptilia of the Cretaceous Formations, by Prof. Owen, COMPLETE‡	1851, 1857, 1858, 1862	1851, 1859, 1861, 1864	184	59	519	26
The Reptilia of the Wealden and Purbeck Formations (with Supplements 1, 2, 3), by Prof. Owen, COMPLETE ‡	1853, 1854, 1855, 1856, 1857, 1858, 1862	1853, 1855, 1857, 1858, 1859, 1861, 1864	155	62	251	17
The Reptilia of the Wealden and Purbeck Formations (Supplements 4—9), COMPLETE	1871, 1873, 1876, 1878, 1879, 1888*n*	1872, 1874, 1876, 1878, 1879, 1889	85	21	175	15
The Reptilia of the Kimmeridge Clay Formation, by Prof. Owen, COMPLETE	1859, 1860, 1868, 1888*n*	1861, 1863, 1869, 1889	16	6	23	4
The Reptilia of the Liassic Formations, by Prof. Owen, COMPLETE	1859,‖ 1860,‖ 1863, 1869, 1881*n*	1861, 1863, 1865, 1870, 1881	174	50	276	20
The Reptilia of the Mesozoic Formations, by Prof. Owen, COMPLETE	1873, 1875, 1877, 1888*n*	1874, 1875, 1877	101	24	165	17
The Red Crag Cetacea, by Prof. Owen, COMPLETE	1869, 1888*n*	1870, 1889	42	5	43	9
The Fossil Elephants, by Prof. Leith Adams, COMPLETE	1877, 1879, 1881*n*	1877, 1879, 1881	265	28	216	3
The Pleistocene Mammalia, by Messrs. W. Boyd Dawkins and W. A. Sanford, *in course of completion*	1864, 1867, 1868, 1871, 1878, 1886	1866, 1868, 1869, 1872, 1878, 1887	333	39	340	12
The Mammalia of the Mesozoic Formations, by Prof. Owen, COMPLETE	1870	1871	115	4	247	30
		TOTAL.....	12,359	1681	30,504	5775

a Index. *b* Title-page to Univalves. *c* Note to Crag Mollusca. *d* Contains the Permian. *e* Two corrections of Plates. *f* Supplement.
g Many of the species are described, but not figured. *h* British species only reckoned. *i* British species only reckoned. *k* A Supplement is now in course of publication.
l Index will be found in 1878 vol. *m* Useful for establishing the dates of new species. *n* Contains title-pages and directions for binding.
‡ Title-pages and Index will be found in the 1864 Volume. ‖ Marked on outside label 'Reptilia of Oolitic Formations.'

§ V. Stratigraphical Table *exhibiting the* British Fossils *already figured and described in the* Annual Volumes (1847—1889) *of the* Palæontographical Society.

	PLANTS.	PROTOZOA.		RADIATA.		ARTICULATA.					
		Sponges.	Foraminifera.	Stromatoporoids and Corals.	Echinodermata.	Cirripedes.	Cypridæ, Cytherinæ, &c.	Phyllopoda.	Merostomata.	Trilobites.	Malacostracous Crustacea.
Pleistocene	...	...	...	...	.....	.....	1874, 1888				
Crag	...	...	1865	1849	1852	1851, 1854	1888				
Eocene	1879, 1880, 1882, 1883, 1884, 1885	...	...	1849, 1865	1852	1851, 1854	1855, 1888	...	.....	.....	1856
Cretaceous.....	...	...	...	1849, 1868, 1869	1862, 1867, 1869, 1870, 1872, 1873, 1875, 1878, 1881, 1882	1851, 1854	1849, 1889	...	.....	.....	1860
Wealden	...	...	...	...	.....	.....	...	1860			
Oolitic	...	...	...	1851, 1872	1855, 1856, 1857, 1858, 1861, 1878, 1880	1851	...	1860			
Liassic	...	...	...	1851, 1866, 1867	1855, 1856, 1858, 1861, 1864						
Triassic	...	...	...	...	1880	.....	...	1860			
Permian	1849	1849	1849, 1876	1849, 1852	1849	.....	1849	1860			
Carboniferous...	1867, 1870, 1871, 1875, 1886	1887	1876	1852	.....	.....	1874, 1884	1860, 1887	1872, 1878	1883, 1884	
Devonian	...	1887	...	1853, 1885, 1888	.....	.....	1888	1860	1865, 1868, 1872, 1878	1862, 1888	
Silurian.....	...	1886, 1887	...	1854, 1885	.....	.....	...	1887	1868, 1871, 1872, 1878	1862, 1863, 1864, 1866	
Cambrian	...	1886, 1887	...	...	.....	.....	...	1887	.....	1864	

Note.—The numbers in the above List refer to the Volumes issued for those Dates.

STRATIGRAPHICAL TABLE *exhibiting the* BRITISH FOSSILS *already figured and described in the* ANNUAL VOLUMES (1847—1889) *of the* PALÆONTOGRAPHICAL SOCIETY (*continued*).

	MOLLUSCA.				VERTEBRATA.		
	Polyzoa.	Brachiopoda.	Monomyaria, Dimyaria, and Gasteropoda.	Cephalopoda.	Fishes.	Reptiles.	Mammalia.
Pleistocene	...	1873	.....	...	...	.....	1864, 1867, 1868, 1871, 1877, 1878, 1879, 1881, 1886
Crag	1857	1852, 1873, 1879	1847, 1850, 1853, 1855, 1871, 1873, 1879, 1882	...	...	.....	1869, 1881, 1888
Eocene	...	1852, 1873	1852, 1854, 1855, 1858, 1859, 1862, 1870, 1877	1848	...	1848, 1849, 1856, 1880	
Cretaceous.....	...	1852, 1854, 1873, 1884	1872, 1875, 1877, 1879	1853, 1854, 1855	...	1851, 1857, 1858, 1862, 1873, 1888	
Wealden	...	... ..	.....	...	...	1853, 1854, 1855, 1856, 1857, 1862, 1871, 1873, 1875, 1876, 1878, 1879	
Oolitic	...	1850, 1852, 1876, 1878, 1884	1850, 1853, 1854, 1872, 1874, 1875, 1877, 1879, 1883, 1886, 1887, 1888, 1889	1850, 1861, 1868, 1869, 1886, 1887, 1888, 1889	...	(Purbeck) 1853, 1858 (Kim. Clay), 1859, 1860, 1868, 1873, 1875, 1877, 1888 (Great Oolite) 1875, 1888	1870
Liassic	...	1850, 1852, 1876, 1878, 1884	1874, 1877, 1879, 1883	1863, 1864, 1866, 1868, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885,	...	1859, 1860, 1863, 1869, 1873, 1881	
Triassic.....	...	1876, 1878	1879	.....	1878	.....	1870
Permian	1849	1849, 1856, 1880	1849	1849	1849	1849	
Carboniferous ...	...	1856, 1857, 1858, 1859, 1860, 1880, 1884	.....	.....	1877		
Devonian	...	1862, 1863, 1881, 1882, 1884	.....	1889	1867, 1869		
Silurian.....	...	1865, 1866, 1868, 1870, 1881, 1882, 1883					
Cambrian							

NOTE.—The numbers in the above List refer to the Volumes issued for those Dates.

THE

PALÆONTOGRAPHICAL SOCIETY.

INSTITUTED MDCCCXLVII.

VOLUME FOR 1889.

LONDON:

MDCCCXC.

A SUPPLEMENTARY MONOGRAPH

OF THE

CRETACEOUS ENTOMOSTRACA

OF

ENGLAND AND IRELAND.

BY

PROF. T. RUPERT JONES, F.R.S., F.G.S., &c.,

AND

GEORGE JENNINGS HINDE, PH.D., F.G.S., &c.

PAGES i—viii; 1—70. PLATES I—IV.

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1890.

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TABLE OF CONTENTS.

INTRODUCTION.

When the Monograph of the Cretaceous Entomostraca was written by one of us in 1849, our knowledge of these organisms, though considerably beyond the rudimentary stage, was very deficient in that critical acquaintance with the structural features which now determine the bounds of genera and species. It is not surprising, therefore, that, with the great amount of research which has been bestowed on the group within the last forty years, it should be found necessary to revise in many respects the determinations then arrived at. The author of the former Monograph can now see that, actuated by a desire not to increase the number of species unnecessarily, he ventured to place some of the English forms under species, described by Continental palæontologists, which have since been proved to be distinct; and, further, in view of the results of recent researches, that the limits then assigned to genera and species were together of too wide a character to be now maintained. Owing also to the imperfect figures and lax descriptions of species, some of the Cretaceous forms were inaccurately compared with species from different geological formations on the Continent and elsewhere, as well as with some still existing forms. A brief revision of the Monograph of the Cretaceous Entomostraca was attempted in 1870;[1] but, owing to various obstacles, the carrying out of the wish, then expressed, of re-examining the work and reproducing the illustrations on a smaller scale has been delayed until now. In some respects this delay has been advantageous; for, thanks to recent discoveries, not only has the number of species been materially added to, but more complete specimens of forms already known have been obtained, from which better figures have been prepared.

Of the new plates accompanying this Supplement, the figures on three are drawn mostly on the scale of about 18 diameters, suitable figures in the plates of the Monograph having been reduced by photography and redrawn on this smaller scale. Figures of new species, some on the scales of 20 and of 25 diameters, were added, and, owing to the necessities of space, without close relation-

[1] "Notes on the Cretaceous Entomostraca" by Prof. T. Rupert Jones, F.G.S., 'Geol. Mag.' vol. vii, 1870, pp. 74—77.

ship being maintained for adjoining figures. It had been intended to include the series in three plates, but fresh species were discovered, and these, together with forms in which it was desirable to illustrate particular features on a larger scale, are shown on the fourth plate on the scale of 25 and 30 diameters.

As regards the classification, we have followed as closely as possible that adopted by Brady and Norman in their excellent Monograph of the Marine and Freshwater Ostracoda of the North Atlantic and North-west Europe ('Trans. Royal Dublin Society,' ser. 2, vol. iv, 1889). Of course with respect to the fossil forms, the character of the carapace-valves furnishes the only ground for comparison with the recent; but this is in most instances now known to be so intimately correlated with the other structural features of the organism, that it may reasonably be considered as affording a safe clue to their systematic relationships.

We are enabled to give the geological horizon and locality from which the fresh material studied by us has been obtained with geater precision than was possible in the former Monograph, and we append hereto some notes of the strata in which the number and variety of species have been most marked.

§ 1. *Upper Chalk.—Horstead, Norfolk.*—The Chalk in this locality belongs to the zone of *Belemnitella mucronata;* and, if we except the beds at Trimingham, it is on the highest horizon of the formation in this country. In addition to the horizontal layers of flints, which occur here the same as in the Upper Chalk of other places, there are numerous larger flint masses, subcylindrical to subspherical in form, in some instances with open tubular cavities, in others with central cavities completely inclosed by a flinty crust. These masses, known as "Paramoudras"[1] or "Pot-stones," range up to three or four feet in length and from one to three feet in diameter. The interior cavities of these stones are in some cases filled with a hard porous mass of silica, whilst in others there is a quantity of fine powdery material, resembling in appearance the Chalk itself, but it is incoherent, and, unlike the Chalk, it is for the most part siliceous in composition. This powder or "flint-meal," as it has been termed, is usually made up to a great extent of Foraminifera, Entomostraca, and other minute organisms, of which the Chalk is largely formed, and there is also in it a great number of the spicules of siliceous Sponges, likewise originally in the Chalk. The composition of this flint-meal may be regarded as representing to a great extent the structure of the Chalk whilst in the condition of a deep-sea ooze, before pressure and other subsequent changes of fossilization had consolidated the material and crushed together its component organisms.

Completely sealed up within one of these pot-stones in the Chalk at Horstead, one of us obtained, some years since, a quantity of flint-meal, which proved to be

[1] S. Woodward, 'Outlines of the Geology of Norfolk,' 1833, p. 26; H. B. Woodward, 'Geology of England and Wales,' 2nd ed., 1887, p. 399.

remarkably rich in Microzoa. The Sponge-remains[1] in this were described ten years ago, and we now give in the Appendix (p. 54) a list of the Entomostraca (Ostracoda), in which it will be seen a large majority of the entire number of species known from the Upper Chalk is present. The Ostracoda, in common with the other organisms in this material, are in beautiful preservation; in many instances both valves of the carapace are united together, and the delicate crenulated fringes, tubercles, spines, &c., in numerous forms are uninjured. The specimens are now of a dull, creamy-white tint, and nearly opaque; and by treatment with acid it is found that the carbonate of lime has been to a great extent replaced by silica, for so treated the shell still retains its form in this mineral though it is now snowy-white by reflected light, and nearly transparent by transmitted light when mounted in Canada Balsam. A similar change has likewise taken place in the Foraminifera in the same material.

Norwich.—The Chalk of Thorpe, Whitlingham, and other places on the outskirts of the city, is on the same horizon as the beds at Horstead mentioned above, but the Ostracoda obtained from it have been mostly from the Chalk itself, and not from the interior of flints. The beds of Chalk near the surface in this district have been in many places disturbed by glacial action, and the material is then softened and the smaller organisms can be more readily washed out of it. The list of species from Norwich is given at p. 54.

Antrim, Londonderry, and Down.—The Chalk of these Counties in the North of Ireland appears to be on the same geological horizon as that of Norwich and Horstead—that is, in the zone of *Belemnitella mucronata*. In character, however, it is very different, for instead of the soft earthy material with which we are familiar in England, it has been indurated by the vast sheet of basalt by which it is covered, and changed into a hard white limestone. As a consequence of this, the Microzoa in it are not recognisable unless in thin sections. The Chalk, however, contains both the ordinary flints and large Paramoudras of precisely similar character to those at Horstead, and the cavities in them are likewise filled with a flint-meal rich in Foraminifera, Entomostraca, and Sponge-spicules. For this discovery we are indebted to Mr. Joseph Wright, F.G.S., of Belfast,[2] who, with characteristic energy, obtained samples of this material from thirty-six different localities within the above-named Counties, and examined the Microzoa from each separately. In addition to more than one hundred species and varieties of Foraminifera, there were in the material seventeen species of Ostracoda determined by one of us. Six of these forms appeared to be new, and provisional MS. names were given to them

1 'Fossil Sponge Spicules from the Upper Chalk, found in the Interior of a single Flint-stone from Horstead, in Norfolk.' By G. J. Hinde, F.G.S. 8vo. Munich, 1880.

2 'A List of the Cretaceous Microzoa of the North of Ireland,' by Joseph Wright, F.G.S., 'Systematic Lists, &c., Belfast Naturalist Field Club,' Appendix iii, 1875, pp. 73—99, pls. ii, iii.

in Mr. Wright's list (op. cit., pp. 81 and 92). As in the Horstead material, these Irish Entomostraca are similarly replaced by silica, and their state of preservation is equally perfect. The list of species is given in the Appendix (pp. 55, 56).

Colchester, Essex.—The Entomostraca from this locality were obtained by Mr. John Brown, F.G.S.,[1] from the Chalk passed through in boring an artesian well. The species, as will be seen in the list in the Appendix (p. 56), are common forms, and probably derived from the Chalk with flints.

§ II. *Chalk-rock.*[2]—This thin but well-marked band of hard, cream-coloured, nodular limestone on the zone of *Holaster planus*, has also yielded a suite of Entomostraca of which a list is given in the Appendix (pp. 57, 58). These have mostly been obtained from outcrops of this rock at Dunstable and the railway-cutting between Luton and New Millend (Bedfordshire), Chinnor (Oxfordshire), and West Wycombe (Buckingham).

§ III. *Chalk-detritus.—Charing, Kent.*—The nature of this deposit, from which the large majority of species described in the 'Monograph Entomostraca Cret. Form. Engl.,' 1849, were obtained, has already been referred to in that memoir (p. 2). It is an extensive bed of soft, whitish clay, containing fragments of white and grey Chalk, which has clearly been formed by the washing from the adjacent Chalk hills, forming part of the North Downs in Kent. In this material a great variety of Microzoa has been preserved, but of course it is not practicable to determine the definite horizon from which each particular species has been derived. This defect is to some extent compensated by the perfect state of preservation of the specimens. A short notice and some figures of the commoner forms of the Entomostraca in this "Detritus" were first given by Prof. Dr. W. C. Williamson,[3] who placed them in the Genus *Cytherina*.

§ IV. "*Greensand of Cambridge.*"—This bed of glauconitic marl, formerly supposed to be on the horizon of the Upper Greensand, is now known to represent the so-called Chloritic or Glauconitic Marl, and to be really the base of the Chalk-marl, which rests here on an eroded surface of Gault. It contains numerous Microzoa; and several species of Entomostraca from it, recorded by Prof. Sollas[4]

[1] "Note on the Artesian Well at Colchester;" and "Remarks on some of the Microscopic Fossils from the Colchester Chalk," by John Brown, Esq., F.G.S., of Stanway, 'Ann. and Mag. Nat. Hist.' ser. 2, vol. xii, 1853, pp. 240—242.

[2] For references to the character of this rock see the following: W. Whitaker, 'Quart. Journ. Geol. Soc.,' vol. xvii, p. 166; ib. vol. xxi, p. 398; 'Mem. Geol. Surv.,' vol. iv, 1872, p. 46. Jukes-Browne, 'Geol. Mag.' dec. ii, vol. vii, p. 254; A. Geikie, 'Text-Book of Geology,' 2nd edit., pp. 821, 828; H. B. Woodward, 'Geology of England and Wales,' 2nd ed., pp. 403, 413; Judd, 'Quart. Journ. Geol. Soc.,' vol. xl, p. 733; John Morrison, 'Transact. Hertfordshire Nat. Hist. Soc.,' vol. v, 1889, pp. 199—202.

[3] 'Mem. Lit. and Phil. Soc. Manchester,' 2nd ser., vol. viii, 1848, pp. 78—80, pl. iv, figs. 75—80.

[4] 'Quart. Journ. Geol. Soc.,' vol. xxviii, 1872, p. 398-9. For other references to this bed see T. G. Bonney, 'Proc. Geol. Assoc.,' iii (1873), p. 4, *et seq.*; A. J. Jukes-Browne, 'Quart. Journ. Geol.

in 1872, are noted in the Appendix (p. 59). The list of species which we have seen from it is given in the Appendix (pp. 59, 60).

§ v. *Upper Greensand.*—The Entomostraca from this division are but few, and these have been obtained from the glauconitic arenaceous beds at Warminster (Wiltshire), zone of *Pecten asper*, and at Blackdown (Devonshire), zone of *Ammonites inflatus;* also at Ventnor, Isle of Wight. Those from Meux's Well, London, are also mentioned in the Appendix (p. 60).

§ vi. *Gault of Folkestone.*—From the beds of this formation at Copt Point Mr. F. G. Hilton Price, F.G.S.,[1] has recorded fourteen species of Entomostraca, the names of which will be found in the Appendix (p. 62).

From the Gault of Folkestone (Kent) and Godstone (Surrey), Mr. Davies Sherborn, F.G.S., and Mr. Frederic Chapman, have obtained a very large series of Ostracoda; Appendix (pp. 61—63). The collection made by Mr. F. Chapman in 1880 is fully represented in this Supplemental Monograph, but the still richer results of his Examination, in 1888, of each separate zone of the Gault at Folkestone, came too late to receive full justice at our hands; its chief features, however, are noted either in the text or in the Appendix.

Soc.,' vol. xxxi, pp. 256—316; A. Geikie, 'Text-Book of Geology,' 2nd edit., p. 826; H. B. Woodward, 'Geol. England and Wales,' 2nd ed., p. 410.

[1] 'The Gault,' by F. G. Hilton Price (1879), p. 50.

In figuring the *Ostracoda* we find it convenient to place the valves with the anterior end upwards (instead of to the right or to the left, as the animal would be when moving). Hence the *height* of the valves seems on the Plates to be the *breadth*, and is so referred to sometimes in the text. In Pl. IV, figs. 5 and 6 and figs. 40 and 41 have been inadvertently placed with the posterior end upwards, and therefore *reversed* in relation to the other figures.

CORRIGENDUM.

Page 48, lines 5—8, CYTHERINA PEDATA (?), 1843, should precede CYTHERINA SERRATA (?), 1847.

A SUPPLEMENTARY MONOGRAPH

OF THE

CRETACEOUS ENTOMOSTRACA OF ENGLAND AND IRELAND.

I. CYPRIDIDÆ.

I. Paracypris, *G. O. Sars*, 1865.

Among the marine members of the *Cyprididæ* is *Paracypris*, described by G. S. Brady in the 'Trans. Linn. Soc.,' vol. xxvi, 1868, p. 377. The general shape of the carapace, which is long, narrow, and somewhat curved, relatively high and thick in the anterior third, and tapering obliquely to the acute posterior extremity, is our guide in referring the following specimens to this genus.

1. Paracypris gracilis (*Bosquet*). Plate II, fig. 50.

Bairdia siliqua, var. β, *Jones*. Monogr. Entom. Cret., 1849, p. 25, pl. v, fig. 16 *h*.

— arcuata (*Münster*), var. gracilis, *Bosquet*. Mém. Commiss. Carte géol. Neerlande, vol. ii, 1854, p. 70, pl. v, fig. 4.

Paracypris? gracilis, *Jones*. Geol. Mag., 1870, pp. 75, 77.

Size.—Length ·77, height ·22 mm.

The original fig. 16 *h* (Pl. II, fig. 50) represents a somewhat deformed or injured individual, probably identical with the delicate, narrow, elongate, tapering form, which M. Bosquet regarded as a thin variety of Münster's *Cythere arcuata*.[1] The differences, however, are sufficient to allow of specific distinction among *Ostracoda*.

Bosquet's Tertiary *Bairdia curvata*, 'Mém. Cour. Acad. Belg.,' vol. xxiv, 1852,

[1] As described and figured by Bosquet, loc. cit., fig. 3.

p. 35, pl. ii, fig. 2, differs from fig. 50 in having a thicker posterior third, ending obtusely.

Localities.—*P. gracilis* has been collected from the *Detritus* (Lower Chalk and Chalk-marl) at Charing,[1] Kent, by the late Mr. W. Harris, F.G.S.; and from the *Chalk* at Keady Hill,[2] co. Londonderry, by Mr. Joseph Wright, F.G.S.

2. PARACYPRIS SILIQUA, sp. nov. Plate II, figs. 48, 49, 51; Plate III, figs. 33, 34.

PARACYPRIS GRACILIS, *Jones.* System. Lists, &c., Belfast Nat. Field Club, vol. i, Appendix iii, 1875, pp. 79 and 81.

Fig. 49. Length ·88; height ·32; thickness[3] ·32 mm.
Fig. 33. „ ·9; „ ·3; „ ·3 „

Elongate, narrow, arched on the back (slightly flattened at the hinge-line in some instances, figs. 49 and 51), and sloping posteriorly to an oblique point; obliquely rounded in front, sinuous and incurved on the ventral border. Edge view of the united valves is long, obovate, acute at both ends; end view, suborbicular. The carapace somewhat resembles a radish pod. Fig. 34 shows the most curvature or arching, and is rather blunter posteriorly than the others. Fig. 49 offers a close resemblance to the Tertiary specimen of *Paracypris polita*,[4] Sars, figured and described by G. S. Brady, 'Trans. Zool. Soc., vol. x, 1878, p. 381, pl. lxiii, fig. 5.

This form has some resemblance to the male[5] of *Pontocypris faba* (Reuss), as defined, with some doubt, by Dr. G. S. Brady, 'Challenger Report,' 1880, p. 37, pl. i, fig. 4 *d* (the female being much like *C. attenuata*, Reuss, 'Böhm. Kreidef.,' 1846, pl. xxiv, fig. 15), and 'Trans. Zool. Soc.,' vol. x, 1878, p. 382, pl. lxiii, figs. 6 *a*—*e*. Fossil in the Antwerp Crag, and recent in Bass's Strait and off Honolulu. It is, however, proportionally longer, and has less height dorsally, tapers more slowly at the posterior third, and is not so convex.

Localities.—The specimen shown in Pl. II, figs. 48 and 49, was collected by Mr. Joseph Wright, F.G.S., from the *Chalk* of the Black Hill, near Hannahstown,

[1] See 'Monograph Entom. Cret.,' 1849, p. 2.

[2] Only those localities in Ireland from which we have seen specimens are particularised in this Monograph; but other localities for these Ostracoda from the *flint-meal* are enumerated by Mr. Wright in the System. Lists, &c., Belfast Nat. Field Club, vol. i, Appendix iii, 1875, pp. 76—81, and 92, 93.

[3] The *thickness* in all these measurements is that of carapace (united valves).

[4] In the recent state *P. polita* is figured by Dr. Brady in the 'Trans. Linn. Soc.,' 1868, p. 378, pl. xxvii, figs. 1—4.

[5] This male (?) individual of *P. faba* differs from the male ascribed to the same species by Dr. Brady in the 'Trans. Zool. Soc.,' vol. x, pl. lxiii, figs. 6 *c*—*e*, being much less arched at the antero-dorsal, and more incurved at the ventral margin.

co. Antrim; and similar specimens at a quarry half-a-mile north of the railway-terminus at Larne, co. Antrim, and at Keady Hill, co. Londonderry.

Pl. II, fig. 51, and Pl. III, figs 33 and 34, were collected by Dr. G. J. Hinde, F.G.S.,[1] from the *Chalk* of Horstead, Norfolk.

II. Pontocypris, *G. O. Sars*, 1865.

Valves "higher in front than behind, elongated, and subreniform or subtriangular," G. S. Brady, 'Trans. Zool. Soc.,' vol. x, 1878, p. 381.

1. Pontocypris trigonalis, sp. nov. Plate III, figs. 25 and 26; and Plate IV, figs. 1 and 2.

Fig. 25 and fig. 1. Length ·55; height ·25; thickness ·2 mm.

Valve subtriangular, rounded in front, acute behind, straight below (on the ventral margin), obliquely arched above, sloping away backwards from the antero-dorsal border where the arching is highest at the anterior third.[2] Edge view of the carapace long, compressed-oval; end view sub-oval.

There are some known forms from the Cretaceous strata of Europe which are closely related to our *P. trigonalis*, but the English specimens are much more symmetrically rounded on the anterior and straighter along the ventral margin than the figured Cretaceous forms, such as *Cytherina acuminata*, Alth, Haidinger's 'Naturw. Abhandl.,' vol. iii, 2 Abth., 1850, p. 198, pl. x, fig. 16—a bad figure, but referred to by Reuss under the same name, op. cit., vol. iv, 1 Abth., 1850, p. 33, pl. vi, figs. 7 and 8 (not alike); *C. attenuata*, Reuss, 'Böhm. Kreideform.,' vol. ii, 1846, p. 104, pl. xxiv, fig. 15, refigured as *Bairdia attenuata*, Reuss, 'Denksch. Akad. Wien,' vol. vii, 1854, p. 140, pl. xxvi, fig. 3; also *Cytherina lævigata*, Römer, 'Nordd. Kreideg.,' 1841, p. 104, pl. xvi, fig. 20, refigured as *Cytherideis lævigata* by Reuss, in Geinitz's 'Elbthalgeb., &c.,' pt. 2, 1874, p. 150, pl. xxviii, figs. 1—3. These three are not alike, but possibly comprise one female and two male individuals; fig. 2 is somewhat like the male of *P. faba* (Reuss) as figured by G. S. Brady; see above, p. 2. There are also some Tertiary forms described and figured by Dr. A. E. von Reuss in Haidinger's 'Naturw. Abhandl.,' vol. iii, 1 Abth., 1850, as *Cytherina lucida* and *mytiloides*, that seem to belong to

[1] See his memoir on the 'Fossil Sponge-spicules from the Upper Chalk found in the Interior of a single Flint-stone from Horstead, Norfolk,' 8vo., Munich, 1880.

[2] The drawing, fig. 25, does not make it sufficiently convex here, and fig. 26 is wrong in giving a double straight line at the junction of the valves.

this kind of *Pontocypris*, while his *C. unguiculus* and *arcuata* (op. cit.) look more like *Paracypris*, unless they prove to be males.

Dr. G. S. Brady has described and figured an allied form as *Pontocypris faba* (Reuss), from the Antwerp Crag ('Trans. Zool. Soc.,' vol. x, 1878, p. 382, pl. lxiii, figs. 6 *a—e*), but it is obliquely rounded in front and has a greater thickness of carapace at the anterior third.

Locality.—*P. trigonalis* has been collected from the *Gault* of Folkestone by Mr. F. Chapman.

Neither *Pontocypris attenuata*, Brady, 'Ann. Mag. N. H.,' ser. 4, vol. ii, 1868, p. 35, pl. iv, figs. 12—14, nor *Pontocypris intermedia*, Brady, ibid., p. 220, pl. xiv, figs. 1, 2, though closely allied, embrace our *Pontocyprides* from the Chalk.

2. PONTOCYPRIS TRIQUETRA (*Jones*). Plate III, figs. 22—24, 35—37.

BAIRDIA TRIQUETRA, *Jones*. Monogr. Entom. Cret., 1849, p. 27, pl. vi, figs. 19 *a—c*.

Fig. 22. Length ·694; height ·361; thickness ·44 mm.
Fig. 35. „ ·725; „ ·375; „ ·375 „ (large variety or female).

This is a near ally to *P. acuminata* and *P. attenuata* referred to above, but it is much stouter, being thicker, higher, not acuminate behind, and its greatest thickness is medial (not at the anterior third); it is related also to *P. trigonalis* just described, but is thicker, higher, and more triangular.

Fig. 22 shows a sloping, and fig. 35 a rounded antero-dorsal margin; such conditions seen in Dr. G. S. Brady's figures of *P. faba*, alluded to above, are regarded by him as sexual features.

Edge view of carapace long-oval; end view nearly circular, rather oval.

Localities.— Two valves from the *Chalk* of Gravesend, four carapaces from the *Detritus*, Charing, and one valve from the *Greensand* of Blackdown, Devon.

3. PONTOCYPRIS BOSQUETIANA, sp. nov. Plate II, fig. 65; and Plate IV, fig. 3.

BAIRDIA ANGUSTA (partim), *Jones*. Monogr. Entom. Cret., 1849, p. 26, pl. vi, figs. 18 *f*, *f'* (not *a—e'*).
CYTHERIDEIS ANGUSTA (partim), *Jones*. Geol. Mag., 1870, pp. 75, 77.

Fig. 65. Length ·88; height ·4; thickness ·3 (?) mm.
Fig. 3. „ ·8; „ ·4 „

One of the old figures of this form (interior of a left valve, Pl. IV, fig. 3) has

been reproduced here. The new fig. 65, of a specimen from the Chalk-marl at Didcot railway-station, Berkshire, gives a good idea of the exterior of a right valve of this species. It is longer than *P. triquetra*, less triangular, with a well-rounded anterior margin, and proportionally less arching of the back. The greatest thickness is at the posterior third. The surface is minutely punctate.

Edge view, lanceolate; end view, acute-oval.

This form, at first sight, seems to be near to the recent *P. trigonella*,[1] Sars; but it is rounder in front, and the greatest thickness is behind the middle of the valves. We propose to associate with this elegant form the name of the late eminent Ostracodist, J. Bosquet, of Maastricht.

In a carapace valve in Mr. F. Chapman's collection from the Gault of Folkestone Mr. Sherborn has recognised the occurrence of distinct muscle-spots—consisting of a curved row of four (convex downwards) with two above—very similar to figs. 1 *e* and 8 *e* in pl. i of the 'Monogr. Tert. Entom.,' 1857, but in a *reversed* position.

Localities.—Figs. 18 *f*, *f'*, in Pl. VI, 1849, represent the interior of a left valve from the *Gault* of Folkestone. Pl. IV, fig. 3, reproduces 18 *f*. Pl. II, fig. 65, illustrates a specimen from the *Chalk-marl* at Didcot station, Berks; and with a high power the surface is seen to be beset with distinct pimples, but very small and irregularly scattered. On another specimen, from Folkestone, minute punctations appear to be characteristic.

III. Bairdia, *M'Coy*, 1844.

1. Bairdia subdeltoidea (*Münster*). Plate II, figs. 31—34 (refigured[2] from the figs. 15 *a*—*d* of the Monograph, 1849; but figs. *e*, *f*, *f'*, *f''*, *f'''*, have not been reproduced).

Cythere subdeltoidea,		*Münster.*	Jahrb. f. Min., &c., 1830, p. 64, No. 13; 1835, p. 446.
Cytherina subdeltoidea,		*Römer.*	Neues Jahrb. f. Min., &c., 1838, p. 517, pl. vi, fig. 16.
—	—	—	Verstein. nordd. Kreidegeb., p. 105, pl. xvi, fig. 22.
—	—	*Reuss.*	Verstein. böhm. Kreideform., pt. 1, 1845, p. 16, pl. v, fig. 38; pt. 2, p. 104.

[1] 'Monograph Post-Tertiary Entom.,' Pal. Soc., 1874.

[2] The postero-ventral edge in fig. 34 has been serrated by mistake; it should be regular and entire, like that in fig. 33. The prickles introduced, from optical illusion, in fig. 15 *d* are necessarily omitted in fig. 34.

CYTHERINA SUBDELTOIDEA, *Geinitz.* Grund. Verst.-Kunde, 1845, p. 244, pl. viii, fig. 21.
CYTHERE TRIGONA, *Bosquet.* Mém. Soc. Roy. Sci. Liége, vol. iv, 1847, p. 358, pl. i, fig. 3.
BAIRDIA SUBDELTOIDEA, *Jones.* Monogr. Entom. Cret., 1849, p. 23, pl. v, fig. 15.
CYTHERINA — *Reuss.* Haidinger's naturw. Abhandl., vol. iii, Abth. 1, 1850, p. 40, pl. viii, fig. 1.
— — — Ibid., vol. iv, Abth. 1, 1851, p. 47.
BAIRDIA — *Bosquet.* Mém. cour., &c., Acad. Roy. Belgique, vol. xxiv, 1852, p. 29, pl. i, fig. 13.
CYPRIS PRISTINA, *Eichwald.* Lethæa Rossica, pt. 3, 1853, pp. 316 and 317, pl. xi, fig. 23.
BAIRDIA SUBDELTOIDEA, *Bosquet.* Mém. Commiss. Carte Géol. Neerlande, vol. ii, 1854, p. 66, pl. viii, fig. 4.
— — *Reuss.* Denkschr. k. Akad. Wiss. Wien, vol. vii, 1854, pp. 41 and 139.
— — *Jones.* Monogr. Entom. Tert., 1856, p. 52 (not the figures).
— — *Egger.* Neues Jahrb. f. Min., &c., 1858, p. 405, pl. i, fig. 1.
— — *Speyer.* Bericht Vereins Naturkunde Cassel (for 1860—1862), 1863, p. 43, pl. i, fig. 5 (right valve), and *B. oviformis*, ibid., fig. 6 (left valve).
— — *G. S. Brady.* Trans. Zool. Soc., vol. v, 1866, p. 365, pl. lvii, fig. 8.
— — *Jones.* Geol. Mag., 1870, pp. 75 and 157.
— — *Reuss.* In Geinitz's Elbthalgebirge in Sachsen, pt. 2, 1874, p. 140, pl. xxvi, fig. 5.
— — var. DENTICULATA, *Marsson.* Mittheil. naturw. Ver. Neu-Vorpommern und Rügen, Jahrg. 12, 1880, p. 34, pl. ii, fig. 9.
— — *J. Kafka.* Crustaceen böhm. Kreidef., 1887, p. 13, fig. 23.
— — *Jones and Sherborn.* Geol. Mag., 1887, p. 387.
— — — Suppl. Monogr. Entom. Tert., 1889, p. 16, pl. i, fig. 15.

Fig. 33. Left (large) valve: Length ·94; height ·61 mm.

Fig. 34. Right (small) valve of a smaller individual: Length ·88; height ·5 mm.

Fig. 31. Smaller individual: Length ·77; height? thickness ·38 mm.

B. subdeltoidea has been mentioned in several geological and palæontological memoirs and handbooks as occurring in the Cretaceous and Tertiary strata of Europe. As to the exact specific relationship of the many recorded fossil specimens with each other and with recent forms, there is room for doubt. In 1874 Dr. Reuss expressed an opinion that it was doubtful if any of the fossil forms were of the same species as the recent (see 'Elbthalgeb., p. 140); and Dr. G. S. Brady considers that, of the recent forms, *B. foveolata* ('Challenger Report Ostracoda,'

1880, p. 55, pl. viii, figs. 1 and 2) is most comparable with *B. subdeltoidea*, and that "it is very probable that several species are comprised under the specific name *subdeltoidea*, as applied by various palæontologists; the figures of that species given in the works of Messrs. Bosquet, Jones, Speyer, Reuss, and Egger presenting important points of difference among themselves." Of *B. foveolata* he states, "This is one of the most abundant forms of *Bairdia*, especially in the Southern Seas," and is subject to much variation. The recent form recognised as *B. subdeltoidea* in 1866 ('Tr. Zool. Soc.,' vol. v, p. 365) was from Australia, the West Indies, Crete, and Serpho.

For the great variety of recent *Bairdiæ*, Dr. Brady's 'Challenger Report,' 1880, besides his other memoirs, can be consulted; and a great variety of forms occurring fossil in the Carboniferous and Permian strata are figured and described in the 'Quart. Journ. Geol. Soc.,' vol. xxxv, 1879, pp. 565, &c. Some, however, of these may possibly belong to other genera.

A careful comparison proved the Tertiary species from Bracklesham ('Suppl. Mon. Tert.,' p. 16) to be the same as Count Münster's species, and there is no dissimilarity at all between these and the Cretaceous specimens here figured.

Localities:

Chalk: Norwich, Horstead, Colchester, and South-east England; Cave Hill, (Antrim), and Keady Hill (Londonderry).

Chalk-rock: Dunstable and Luton (Bedfordshire), West Wycombe (Buckinghamshire), Chinnor (Oxfordshire).

Chalk-marl: Didcot (Berkshire).

Detritus: Charing (Kent).

Gault: Godstone (Surrey).

Greensand: Cambridge and Warminster.

Foreign:

Cretaceous formations: Royan, Maastricht, Rügen, Gehrden,[1] Münster, Lemforde, Dresden, Weinböhla, Gosau, Dobrutscha. See also Reuss, 'Elbthalgeb.,' pp. 140, 141, 153, for the localities.

We may remark that, as with other species, the geographical and geological distribution of this form has to be revised and determined by reference to collections and late works, and is left for future consideration.

[1] For the localities of the several Cretaceous formations in North Germany see the Appendix to Römer's 'North-German Chalk-formation,' translated in Taylor's 'Scientific Memoirs,' vol. iv, Article v.

2. Bairdia Harrisiana, *Jones*. Plate II, figs. 52—55.

Bairdia Harrisiana, *Jones*. Monogr. Entom. Cret., 1849, p. 25, pl. vi, figs. 17 *a*—*e* (not fig. 17 *f*). Fig. 17 *e* is not reproduced here.

— — (partim?), *Reuss*. Elbthalgeb., &c., pt. 2, 1874, p. 141, pl. xxvi, figs. 6 and 7.

(Not Cytheridea Harrisiana, *Bosquet*. Mém. Commission Carte géol. Neerlande, vol. ii, 1854, p. 73, pl. v, fig. 5.)

Fig. 54. Length ·83; height ·33 mm.
Fig. 53. Thickness ·33 mm.
Fig. 52. „ ·27 „

Valves elongate, convex, narrow, somewhat arcuate; anterior end obliquely rounded, posterior oblique and subacute; left valve larger than the other, and more uniformly arched on the back, which is slightly angular in the right valve. Edge view compressed oval; end view oval.

Some of these features are present in *Argillœcia cylindrica*, G. O. Sars; but they have a closer agreement with such a *Bairdia* as the recent *B. complanata*, G. S. B., 'Trans. Linn. Soc.,' 1868, p. 390, pl. xxxiv, figs. 1—3, and the Tertiary *B. contracta*, Jones, 'Monogr. Tert. Entom.,' 1857, p. 53, pl. v, fig. 1.

The spots on the figures in the 'Monogr.,' 1849, are due to mottling produced by mineral change.

Localities.—From the *Chalk* of Keady Hill (Derry), and of Gravesend and Charlton (Kent); *Chalk-rock*, Dunstable (Bedfordshire). *Detritus*, Charing (Kent). *Gault*, Folkestone and Leacon Hill (Kent); *Greensand*, Cambridge.

Foreign.—Weinböhla and Strehlen (Reuss, 'Elbthalgeb.,' p. 141).

2*. Bairdia Harrisiana, *Jones*; var. *amplior*, nov. Plate II, fig. 57; and Plate IV, fig. 4.

Fig. 57, right valve. Length ·8; height ·32 mm.
Fig. 4, left valve. „ ·83; „ ·4 „

A right and a left valve, arched on the back, incurved at the middle of the ventral border, obliquely rounded[1] in front, and subacute behind, come from the Chalk of Kent. The left valve (Pl. IV, fig. 4) is larger, incurved for overlapping at the back, and ends less sharply behind than the right valve (Pl. II, fig. 57).

[1] The slight angularity on the front margin of the right valve in fig. 57 is too much emphasized.

These features are represented more or less closely in our *Bairdia Harrisiana*, but on a smaller scale. Of course these may be sexual differences, but it is unsafe to hazard an opinion on this point.

Locality.—Two valves from the *Chalk* of Kent.

IV. Macrocypris, *Brady*, 1867.

In this genus the right valve is larger than the left.

§ 1. Species belonging to the same group as *M. Minna* (Baird) and others of like form. Several of these elongate species have been described and figured, especially by Dr. G. S. Brady in his 'Challenger Report,' 1880, p. 41, &c., and pl. ii.

1. Macrocypris siliqua, *Jones*. Plate II, figs. 38—41.

Bairdia siliqua, *Jones*. Monogr. Entom. Cret., 1849, p. 25, pl. v, figs. 16 *a—d* (not figs. 16 *e, f, g, h*).
Macrocypris siliqua, *Jones*. Geol. Mag., 1870, pp. 75, 77.

Fig. 41, right valve, inside. Length 1·41; height ·5 mm.
Fig. 40, right valve, outside. „ 1·27; „ ·47 „
Fig. 39. Thickness ·25 mm.
Fig. 38. Length 1·16; thickness ·3 mm.

This well-developed *Macrocypris* has many relatives in the recent state, but none of exactly the same form. The valves are long, subtriangular, narrow, convex, smooth;[1] strongly arched on the back, slanting off posteriorly; ventral margin nearly straight; contracted and rounded in front,[2] acuminate behind.

Localities.—From the *Chalk*,[3] Ballytober (Antrim), Keady Hill (Derry), and South-eastern England; the *Detritus*, Charing; and *Greensand*, Ventnor, Isle of Wight.

Foreign.—*Eocene*, Clausenberg, Transylvania (A. von Pavay).

[1] Not spined or prickly as in fig. 16 *c*.

[2] The anterior curvature has been made rather too flat and broad in the reproduction, fig. 41.

[3] In this, and in all the other cases of Irish Chalk, the powder from the flints is referred to; and there are other localities besides those specially mentioned (see above, page 2).

2. MACROCYPRIS WRIGHTII, sp. nov. Plate II, figs. 43, 44.

MACROCYPRIS SILIQUA, *Jones*. System. Lists, &c., Belfast Nat. Field Club, vol. i, Appendix iii, 1875, pp. 81 and 92.

Length 2·58; height ·83; thickness ·83 mm.

Valve elongate, convex, smooth; neatly curved on the dorsal, and gracefully sinuate on the ventral border; narrow and rounded anteriorly, acute posteriorly. Greatest height behind, and greatest thickness at the middle. The united valves would have a long-acute-oval edge view, and an oval end view.

This elegant species is here named after Joseph Wright, Esq., F.G.S., of Belfast, who has contributed very much to our knowledge of both the fossil and the recent Microzoa of Ireland, and by whom this specimen was collected from the *Chalk* (powder in flint) at Ballytober, island Magee, co. Antrim.

§ II. Species of the group comprising *Macrocypris setigera, maculata,* &c., Brady.

3. MACROCYPRIS MUENSTERIANA, sp. nov. Plate II, figs. 42 and 45—47.

BAIRDIA SILIQUA, var. *a*, *Jones*. Monogr. Entom. Cret., 1849, p. 25, pl. v, figs. 16 *e, f, g*.
MACROCYPRIS ARCUATA, *Jones*. Geol. Mag., 1870, pp. 75, 77.

Fig. 42. Length ·76; height ·32 mm.
Fig. 45. „ ·72; „ ·27 (?); thickness ·27 mm.

This form is distinct from *Cythere arcuata*,[1] Münster, as figured by Römer, Reuss, and Bosquet, not being merely arcuate by a more or less obliquely arched dorsal, and centrally incurved ventral margin, for it is well arched on the back, the curve falling into the rounded anterior extremity, and sloping with a hollow curve to the pointed end, and the sinuous ventral outline is incurved at the anterior third. The greatest height is behind the middle, and the greatest thickness at the middle. The edge view is compressed acute-oval; end view oval. This species is named after Count Georg von Münster, one of the earliest observers and describers of fossil Ostracoda.

[1] None of the published illustrations are sufficiently like our figures to substantiate the provisional reference made in the 'Geol. Mag.,' 1870, p. 75. Indeed, the published figures differ among themselves, and we cannot agree with Dr. Reuss's synonyms as offered in his article on "*Bairdia arcuata*, var. *faba*," 'Elbthalgeb.,' pp. 141, 142.

This species is somewhat like *Macrocypris decora*, Brady, 'Trans. Zool. Soc.,' vol. v, 1866, p. 366, pl. lvii, fig. 13; and 'Challenger Report,' 1880, p. 44, pl. i, fig. 3, and pl. vi, fig. 8: but it is shorter, much more deeply incurved at the antero-ventral region, and more acute posteriorly. It may rather be said to have the characters of our *M. Wrightii* (see p. 10) in a much less elongated frame.

Localities.—From the *Chalk* of Kent and the *Detritus* at Charing, Kent.

4. MACROCYPRIS CONCINNA, sp. nov. Plate II, figs. 66, 67.

Length ·95; height ·35; thickness ·3 mm.

Valves rather long, subtriangular, nearly straight on the ventral, and neatly arched on the dorsal margin; rounded in front, narrower and obliquely rounded behind. Surface gently convex. Edge view of the united valves long-acute-oval. End view oval.

Locality.—Two specimens from the *Chalk-rock* of Dunstable; one of them (broken and not figured) is rather larger than the other (fig. 67), rather rounder in front, more obtuse posteriorly, and slightly inflexed on the ventral margin.

V. BYTHOCYPRIS, *Brady*, 1880.

In this genus the left is larger than the right valve.

1. BYTHOCYPRIS SIMULATA (*Jones*). Plate I, figs. 27—29.

CYTHERE FABA, *Jones* (not *Reuss*[1]). Monogr. Entom. Cret., 1849, p. 13, pl. ii, figs. 4 *a—c*.

— SIMULATA, *Jones*. Geol. Mag., 1870, p. 75.

Length ·77; height ·38; thickness ·33 mm.

This is bean-shaped, tumid, and boldly arched, with an elliptical curve above; sinuous on the ventral border, which is incurved at its anterior third, and highest behind the middle of the valves. Anterior extremity rounded; posterior, sub-acute.[2]

[1] See the remarks by the late Dr. A. E. von Reuss in the 'Zeitschr. d. D. g. G.,' vol. vii, 1855, p. 278, on this species, and in the 'Elbthalgeb.,' &c., pt. ii, p. 142. The original figure of *C. faba*, Reuss, in the 'Böhm. Kreidef.,' although very poor, is certainly matched by this species better than by any other that we know. Dr. Reuss, however, found them to be different, and the name was altered.

[2] Not drawn so perfectly in the reproduction, fig. 27, as in the former fig. 4 *a*.

The edge view (fig. 28) is elongate and compressed obovate, being blunter in front than behind; the end view (fig. 29) is acute-ovate.

Locality.—One specimen only, from the *Detritus* of Charing, Kent.

The specimens referred to in the 'Monogr.,' 1849, p. 13, as from the Upper Oolite, and as somewhat resembling this species, are probably what are now known as *Cypris Purbeckensis*, Forbes, 'Quart. Journ. Geol. Soc.,' vol. xli, 1885, p. 347, pl. ix, figs. 3 and 5, with *Candona Bononiensis*, Jones, ibid., p. 348, pl. ix, fig. 7.

2. Bythocypris Reussiana, sp. nov. Plate II, figs. 56 and 61—63.

Bairdia angusta (*partim*), *Jones* (not *Münster*). Monogr. Entom. Cret., 1849, p. 26, pl. vi, figs. 18 *a—c*, *e*, *e'* (not *d*, *f*, *f'*; 18 *d* belongs to *Bythocypris silicula*; 18 *f*, *f'* to *Pontocypris Bosquetiana*). Also part of *Bairdia Harrisiana*, Jones, ibid., p. 25, pl. vi, fig. 17*f*.

Cytherideis angusta (*partim*), *Jones*. Geol. Mag., 1870, pp. 76, 77.

Fig. 56. Length ·861; height ·38 mm.

Fig. 63. „ ·72; „ ·33 (?); thickness ·33 mm.

The left valve (fig. 56) long-obovate, moderately arched on the back, with inturned edge, ventral margin straight, also with an inflexed edge (thus adapted to overlap the other valve above and below); obliquely rounded in front, obtuse behind. The right valve[1] (former figs. 18 *e*, *e'*) narrower than the other, slightly incurved ventrally. Valves united have an edge view long-acute-oval (fig. 61); end view oval (fig. 62).

This fabiform Ostracod was too readily referred in 1849 to von Münster's vaguely described species; and neither *lævigata*, Röm., nor *attenuata*, Reuss (both mentioned as synonyms at p. 26) corresponds with it, though supported by Reuss in the 'Elbthalgeb.,' &c., ii, p. 150; for it is much too obovate and too blunt posteriorly for either of the forms figured by Reuss, op. cit., pl. xxviii, figs. 1—3. Figs. 17 *f* (fig. 56) and 18 *e* are much too nearly obovate for the figs. 1—3 above mentioned; but they approach fig. 11 in pl. xxvi, op. cit., one of the forms of *Bairdia modesta*, Reuss. There are differences, however, even here.

Named after the late well-known palæontologist of Prague and Vienna, who worked so long and ardently at the elucidation of the fossil Ostracoda and other Microzoa.

Localities.—From the *Chalk* of Charlton, Kent (fig. 56); the *Detritus* at Charing, Kent (fig. 63); and the *Gault* of Folkestone (figs. 61 and 62).

[1] Fig. 63 (fig. 18 *c*) having been drawn obliquely does not show the true shape like fig. 56 (fig. 17*f*).

3. BYTHOCYPRIS SILICULA (*Jones*). Plate II, fig. 64, and Plate III, figs. 27—30.

BAIRDIA SILICULA, *Jones*. Monogr. Entom. Cret., 1849, p. 27, pl. vi, figs. 20 *a—c*, and *B. angusta* (*partim*), Jones (not Münster), ibid., fig. 18

Fig. 64 (left valve, outside). Length ·805; height ·417 mm.
Fig. 27 (left valve, inside). „ ·77; „ ·417; thickness ·33 mm.
Fig. 30 (left valve, female ?). „ ·75; „ ·4 mm.

Left valve subovate, obliquely rounded in front, and obliquely subacute behind; boldly arched on the dorsal, and nearly straight on the ventral border. Edge view of the valves, if united, long-acute-oval; end view subacute-oval.

Near to *Bythocypris Reussiana*, but more nearly oval, being much higher and more fully arched in the middle third.

Fig. 30 represents the external features of a left valve from the Chalk of Kent; the interior and outlines were roughly given in figs. 20 *a—c* (figs. 27—29 in Pl. III) from the Charing Detritus. Pl. II, fig. 64 (fig. 18 *d*), is also a left valve (from the Gault of Folkestone), matching fig. 20 *a*, though not so full at the dorsal margins as fig. 30.

Localities.—*Chalk*, Kent, Keady Hill (Londonderry); *Chalk-rock*, near Luton; *Detritus*, Charing; *Gault*, Folkestone.

3*. BYTHOCYPRIS SILICULA, var. *minor*, nov. Plate III, figs. 40, 41.

Length ·7; height ·325; thickness ·3 mm.

The left valve figured as above mentioned has much less height (from ventral to dorsal border) than Pl. III, figs. 27 and 30, and Pl. II, fig. 64, the back being less boldly arched. Otherwise the outlines are much alike; and the difference may be varietal, if not merely sexual.

Locality.—One specimen from the *Chalk-rock* of Dunstable.

4. BYTHOCYPRIS BROWNEI, sp. nov. Plate III, figs. 38, 39, and 42, 43.

Fig. 38. Length ·8; height ·4; thickness ·3 mm.
Fig. 42. „ ·7; „ ·35; „ ·3 „

Two subreniform or bean-shaped left-hand valves, from the Chalk-rock of Dunstable, have much in common as to their outline and contour.

One of them (figs. 38 and 39) is suboblong, broadly rounded in front, obliquely rounded behind, arched on the dorsal, and slightly incurved on the ventral edge. The other (figs. 42 and 43) is rather smaller, not so high in front, and straighter on the ventral edge than fig. 38. Both have the same moderate and uniform convexity. The united valves would show a long, sharp-ended, oval edge view, and an oval end view.

The difference between the two valves may be varietal, or even only sexual; fig. 38 being probably the female, and fig. 42 the male individual.

If these left valves are the largest, the genus *Bythocypris* takes them in.

We propose to name this species after Mr. A. J. Jukes-Browne, F.G.S., of H.M. Geological Survey, who has kindly supplied several interesting specimens, having taken much trouble in securing the Microzoa of the different strata of the Cretaceous series which he has had to examine during his work in the Geological Survey.

Localities.—From the *Chalk* of Londonderry (Mr. J. Wright); and the *Chalk-rock* of Dunstable (figs. 38, 39, 42, 43, Mr. A. J. Jukes-Browne).

5. Bythocypris ? Rœmeriana, sp. nov. Plate II, figs. 28—30.

Length ·6; height ·325; thickness ·25 mm.

This is a small, subtriangular, left valve, with an almost symmetrically arched back, straight ventral edge, and neatly rounded ends, of which the anterior is rather higher than the other. Convexity of the surface slight, lessening forwards, and rather less ventrally than towards the back; hence the edge view of the united valves would be narrow-lanceolate, and the end view narrow-obovate.

Altogether this little form reminds us of the somewhat Bairdia-like and larger *Bythocypris elongata*, Brady (' Challenger Report,' p. 47, pl. vi, fig. 1), although it is not so subtriangular above (dorsally), and not incurved below. It is from the Chalk-rock of Dunstable, and is named after the late Fr. Adolph Römer, of Clausthal, who pursued with advantage the study of the fossil Ostracoda of Germany.

Locality.—From the *Chalk-rock* of Dunstable.

6. Bythocypris ? Iernica (*Jones*). Plate III, figs. 31, 32.

Cythere Iernica, *Jones, MS.* System. Lists, &c., Belfast Nat. Field Club, vol. i, Appendix iii, 1875, p. 81.

Length ·775; height ·375; thickness ·3 mm.

Carapace almost symmetrically arcuate, with nearly equal and rounded ends;

curved dorsal, and concave ventral border; convexity moderate and uniform. Edge view long-oval; end view subcircular.

Locality.—Collected by Mr. Joseph Wright, F.G.S., from the powder of a hollow flint (*Chalk*) at Black Hill, co. Antrim; also at Slieve Gallion, co. Londonderry.

Cytherina lævigata, Römer, as figured by Reuss in Haidinger's 'Naturw. Abhandl.,' vol. iv, I Abtheil., p. 49, pl. vi, fig. 6, from the Chalk-marl of Lemberg, is also bent and equal-ended, but the outline is not nearly so convex above (dorsally), nor so concave below (ventrally), as in fig. 31. The figure of the Tertiary *C. lunata*, Römer, 'N. Jahrb.,' 1838, p. 517, pl. vi, fig. 18, has its ends very much too sharp for the species under notice.

II. CYTHERIDÆ.

I. Cythere, *Müller*, 1785.

See Supplem. Monogr. Tert. Entom., 1889, p. 12.

§ 1. Oblong forms, with nearly uniform convexity; punctate or reticulate.

1. Cythere ? Bosquetiana (*Jones*). Plate II, figs. 35—37.

Cytherella ? Bosquetiana, *Jones*. Monogr. Entom. Cret., 1849, p. 33, pl. vi, figs. 23 *a—c*.
Cythere Bosquetiana, *Jones*. Geol. Mag. 1870, pp. 76, 77.

Length ·66; height ·27; thickness ·22 mm.

The unique carapace from the Charing *Detritus* has not been represented by any other specimen, and we can add nothing to the former description.

2. Cythere Bairdiana, *Jones*. Plate I, figs. 30—32.

Cythere Bairdiana, *Jones*. Monogr. Entom. Cret., 1849, p. 13, pl. ii, figs. 5 *a—c*.
— transiens (?), *Jones*. Quart. Journ. Geol. Soc., vol. xli, 1885, p. 349, pl. ix, figs. 13—16.

Length ·63; height ·36; thickness ·33 mm.

This unique specimen of a right valve was from the *Greensand* of Faringdon, Berks; and, though somewhat obscured by fossilization, is so much like *Cythere transiens*, Jones, from the Lower-Purbeck beds at Swindon, and the Portland beds

at Brill, both as to shape and the punctation of the surface, that it is probably right to refer them both to the same species.

The recent *Cytherideis ? pulchra*, G. S. Brady, 'Trans. Zool. Soc.,' vol. v, 1866, p. 368, pl. lviii, figs. 3 *a*—*c* (a left valve, from the Arctic Sea), has a somewhat similar but more ovate shape, and a coarse linear punctation on a part of the surface; but its convexity lessens forwards, and its hingement is not that of a true *Cythere*.

§ II. Oblong forms, with three elevations or slight swellings.

3. CYTHERE HARRISIANA, *Jones*. Plate I, figs. 47—52.

CYTHEREIS INTERRUPTA, *Jones* (not Bosquet). Monogr. Entom. Cret., 1849, p. 16, pl. ii, figs. 6 *a*—*h*.
CYTHERE HARRISIANA, *Jones*. Geol. Mag., 1870, pp. 75, 76.
— — *Jones and Sherborn*. Geol. Mag., 1887, p. 452, woodcut, fig. 1; and Suppl. Monogr. Tert. Entom., 1889, p. 24, woodcut, fig. 2.

Fig. 47. Length ·66; height ·33 mm.
Figs. 48 and 49. Length ·72; height ·44 mm.
Fig. 50. „ ·66; thickness ·33 mm.
Fig. 51. „ ·61; „ ·305 „
Fig. 52. Height ·44; „ ·305 „

The many specimens representing this sub-oblong *Cythere* have several varietal features. Fig. 47 (formerly fig. 6 *a*) was taken as the type, and is probably a male individual. Figs. 48, 50, 51 (formerly 6 *b*, 6 *e*, 6 *f*), described as var. *α*, may be regarded as the larger and somewhat coarser female carapace. Figs. 49 and 52 (formerly figs. 6 *c* and 6 *g*), treated as var. *β*, belong probably to females less coarse in structure. The body of the valve above the suddenly depressed hinder margin is full, and often subtruncate, with the two angles somewhat swollen.

Pl. I, fig. 43 (var. *δ*, *setosa*) evidently matches fig. 48 in shape; and figs. 44 and 45 (var. *δ*) have some features of their own in their relative shortness, the low ridge along the middle of the valve (or, rather, the depressions on each side of the middle), and the strong pinching in of the posterior margin.[1] The prickles on the angles of the hinder quarter of fig. 45 are present also in fig. 51, and slight in fig. 48. Figs. 43—45 show small scattered spinules. Figs. 47—52 are more or less coarsely punctate,[2] the pits being in lines, mostly longitudinal. The var. *γ* ('Monogr.,'

[1] Figs. 43—45 are magnified more than figs. 47—52, as 25 : 18.

[2] The coarse pittings were exaggerated on figs. 6 *a* and 6 *b* into tuberculate roughness.

p. 17) had longitudinal lines of much smaller punctations, as shown by a broken specimen from the Sponge-gravel of Faringdon, Berks.

One of the recent forms nearest to *C. Harrisiana* is *C. favoides*, Brady, Annals, 'Mag. Nat. Hist.,' ser. 4, vol. ii, 1868, p. 222, pl. xv, figs. 5—7, from Tenedos. The male (fig. 5) is narrow; the female (fig. 6) is broader (higher). The carapace is not so angular, and it has a different style of ornament. The Cretaceous *C. interrupta*, Bosquet, with which it was at first confused, has some features even more similar, but its central ridge is too strong.

Young individuals are not uncommon in Mr. F. Chapman's collection from the Gault of Folkestone. They have a subquadrate outline like fig. 45, but each of the posterior angles of the body of the valve is produced as a spine.

Fig. 47 = 6 *a*. Detritus, Charing. (Type.)
Fig. 48 = 6 *b*. Gault, Leacon Hill, var. *α*.
Fig. 49 = 6 *c*. Gault, Folkestone, var. *β*.
6 *d*. Gault, Folkestone, var. *β*.
Fig. 50 = 6 *e*. Detritus, Charing, var. *α*.
Fig. 51 = 6 *f*. Gault, Leacon Hill, var. *α*.
Fig. 52 = 6 *g*. Gault, Folkestone, var. *β*.
6 *h*. Detritus, Charing, var. *β*.
Fig. 43. Gault, Folkestone, var. *δ*, *setosa*.
Fig. 44. Gault, Godstone, var. *δ*, *setosa*.
Fig. 45. Gault, Folkestone, var. *δ*, *setosa*.
Lower Greensand, Faringdon, var. *γ*.
Fig. 46. Gault, Folkestone, var. *ε*, *reticosa*.

Localities.—This species has been found in the *Chalk*, Woolwich, at several places in co. Antrim, and at Keady Hill, co. Londonderry; *Detritus*, Charing; *Gault*, Folkestone, Leacon Hill, and Godstone; *Greensand*, Cambridge and Blackdown; *Lower Greensand*, Faringdon. A similar form occurs in the *Portland Oolite* at Ridgway, Dorset.

3*. Cythere Harrisiana, Jones, var. *setosa*, nov. Plate I, figs. 43—45.

Fig. 43. Length ·84; height ·44 mm.
Fig. 44. „ ·72; „ ·4 „
Fig. 45. „ ·56; „ ·36 „

This form is much like that shown by fig. 48 (old Monogr., fig. 6 *b*), but it is more convex and inclined to have a ridge along the middle, and its posterior

angles are more marked. The punctation is weaker, and obsolete in some specimens. Numerous sharp spinules are observable on some parts of the surface. In a worn condition the valves are quite smooth, as in some from Woodburn, near Carrickfergus (Antrim), collected by Mr. J. Wright. There are gradations between this form and the type on one hand, and the next variety (*reticosa*) on the other.

Localities.—*Chalk*, Antrim; *Gault*, Folkestone and Godstone, coll. F. Chapman.

3**. Cythere Harrisiana, *Jones*, var. *reticosa*, nov. Plate I, fig. 46.

Length ·68; height ·4 mm.

This has subquadrate valves, straight above and below, but faintly sinuous at the anterior hinge; rounded in front, with a slightly raised and denticulate margin; angular at the depressed hinder margin below the main body of the valve, there rising with two definite posterior angles, dorsal and ventral. The latter of these is the end of a low straight ridge overhanging the nearly flat ventral face of the valve, and, continuing up round the anterior third of the valve, it bounds a curved furrow-like depression behind the margin. The surface has a low boss just in front of the centre, and is strongly punctate with almost regularly placed pits, making a coarse reticulation.

This is evidently related to *C. Harrisiana;* but its squareness, more definite central and lateral swellings, and very distinct pitting separate it as a variety.

Locality.—In the *Gault* at Godstone, Surrey (coll. C. D. Sherborn), and Folkestone, Kent (coll. F. Chapman).

4. Cythere gaultina, *Jones*. Plate I, figs. 35, 36.

Cytherеis gaultina, *Jones*. Monogr. Entom. Cret., 1849, p. 17, pl. ii, figs. 7 *a—c*.
Cythere gaultina, *Jones*. Geol. Mag., 1870, pp. 75, 77.

Length ·7; height ·3; thickness ·2 mm.

We have nothing to add to the description already given. We may remark, however, that Reuss's *Cythere pertusa* ('Denksch. Akad. Wiss. Wien,' vol. vii, 1854, p. 142, pl. xxvii, figs. 5 *a*, *b*, from the Cretaceous series of the Eastern Alps, may claim a relationship with *C. gaultina*, though the two differ in the arrangement of the elevations of the surface.

Localities.—The *Gault* of Folkestone, Kent, and of Godstone, Surrey.

§ III. Subquadrate forms[1] with marginal ridges and central swelling; often reticulate and spinose.

1. CYTHEREIS TRIPLICATA (*Römer*). Plate I, figs. 56—61.

CYTHERINA TRIPLICATA, *Römer*. Verstein. Kreidegeb., 1840, p. 104, pl. xvi, fig. 16.
CYTHERE AURICULATA, var. SEMIMARGINATA, *Cornuel*. Mém. Soc. géol. France, ser. 2, vol. i, pt. 1, 1846, p. 200, pl. viii, figs. 17, 18.
CYTHEREIS TRIPLICATA, *Jones*. Monogr. Entom. Cret., 1849, p. 18, pl. iii, figs. 9 *a—h*.

Fig. 56. Length ·88; height ·5 mm.
Fig. 57. „ ·83; „ ·44 „
Fig. 59. „ ·9; thickness ·47 mm.
Fig. 60. „ 1·0; height ·55 mm.
Fig. 61. Height ·58; thickness ·5 mm.

We may note that very probably *Cypridina Foersteriana*, Bosquet, 'Mém. Soc. R. Sci. Liège,' vol. iv, 1847, p. 364, pl. 2, figs. 4 *a—d*, though narrow in front and smoother, is essentially the same as *C. triplicata*, Römer. The bad drawing in the 'Verst. nordd. Kreid.' misled M. Bosquet, but our fig. 57 might seem at first sight to have only one furrow, as in Römer's figure. Bosquet's *Cythere pulchella*, var. B, also ('Mém. Comm. géol. Neerl.,' vol. i, p. 86, pl. ix, figs. 2 *a—d*) belongs to the same group.

Localities.—Chalk, Colchester and South-east England; *Chalk-rock*, Dunstable; *Chalk-marl*, Didcot; *Detritus*, Charing; *Gault*, Folkestone, Leacon Hill, and Godstone; *Greensand*, Cambridge.

Foreign.—Chalk, Maastricht; *Hils-clay*, North Germany; *Neocomian*, Haute-Marne, France.

2. CYTHEREIS AURICULATA (*Cornuel*). Pl. I, figs. 53—55.

CYTHERE AURICULATA, *Cornuel* (partim). Mém. Soc. géol. France, ser. 2, vol. i, pt. 1, p. 200, pl. viii, figs. 14—16.

Fig. 53. Length 1·08; height ·52 mm.
Fig. 54. „ ·96; „ ·48 „
Fig. 55. „ ·8; „ ·48 „

[1] As stated in the 'Supplemental Monograph of the Tertiary Entomostraca of England' (p. 6), we find it useful to retain the *quasi*-generic term *Cythereis* for these forms.

Specimens of this particular form have been obtained by Mr. F. Chapman from the Gault of Folkestone (Kent) and Godstone (Surrey). Figs. 53 and 54 are typically suboblong, broadly rimmed and denticulate in front, and bear the two longitudinal swellings characteristic of this species. The dorsal edge is tuberculate at and behind the anterior hinge; the hinder margin is contracted, depressed, and strongly toothed.

Fig. 55 is shorter and more ovate; the dorsal edge is more arched, and thickened into a third low ridge, and the front marginal rim is thick, smooth, obliquely curved, and set on (as if by accident) far back, close against the anterior ends of the three ridges. In some respects this valve loses the chief characteristics of figs. 53 and 54; but neither its three ridges nor the front and hind margins match the features of *C. triplicata*[1] (figs. 56 and 57). A somewhat similar abnormal individual is in Mr. Chapman's collection from Folkestone.

Localities.—*Chalk-rock*, Dunstable; *Gault*, Godstone and Folkestone; *Neocomian*, Haute-Marne, France.

3. CYTHEREIS QUADRILATERA (*Römer*). Plate I, figs. 69—75.

CYTHERINA QUADRILATERA, *Römer*. Verstein. norddeutsch. Kreidegeb., p. 105, pl. xvi, fig. 19.

CYTHERE HARPA, *Cornuel*. Mém. Soc. géol. France, ser. 2, vol. i, pt. 1, 1846, p. 199, pl. viii, fig. 13.

— AURICULATA, var. SIMPLEX,[2] *Cornuel*. Mém. Soc. géol. France, ser. 2, vol. iii, pt. 1, 1848, p. 243, pl. iii, figs. 10, 11.

CYTHEREIS QUADRILATERA, *Jones*. Monogr. Entom. Cret., 1849, p. 18, pl. iii, figs. 10 *a*—*f*; pl. iv, figs. 10 *g*—*j*'.

CYTHERE FILICOSTA ? *Marsson*. Mittheil. nat. Ver. Neu-Pommern und Rügen, Jahrg. 12, 1880, p. 43, pl. iii, figs. 12 *a*, *b*.

— (CYTHEREIS) QUADRILATERA, *Jones*. Quart. Journ. Geol. Soc., vol. xl, 1884, pp. 766, 772, pl. xxxiv, figs. 39—41.

Fig. 69, large valve. Length 1·16; height ·61 mm.
Fig. 70, small valve. „ 1·16; „ ·5 „
Fig. 71, adult. „ 1·05; thickness ·55 mm.
Fig. 72, adult. Height ·61; thickness ·55 mm.
Fig. 73, medium growth. Length 1·03; height ·52 mm.
Fig. 74, young individual. „ ·61; „ ·305; thickness ·27 mm.

[1] Figs. 53, 54, and 55 are magnified 25 diam., whilst figs. 56—61 are magnified only 18 diam.

[2] "*C. harpa*" is given up in favour of this variety by M. Cornuel at p. 243.

This is a well-defined suboblong species, with a median lobe or narrow swelling, club-shaped in the young forms (Pl. I, figs. 73—75,—formerly Pl. IV, figs. 10 *h*, 10 *j*, 10 *j'*), but becoming narrower and interrupted, or broken up into a chain-like line of tubercles (see the old Pl. III, fig. 10 *b*, and Pl. I, fig. 70), and ultimately it is obsolete or nearly dispersed (as in Pl. I, fig. 69 = old Pl. III, fig. 10 *a*). The older or more developed individuals become also more coarsely spinose at and near the margins. In some instances, as with the specimens from the deep boring at Richmond, Surrey, the clavate ridge is present, as loc. cit., figs. 39 and 40, but disappearing in fig. 41.

Dr. Marsson's *C. filicosta* has the medial clavate ridge of *C. quadrilatera*, but the body of the valve is more strongly squared posteriorly than in the typical form.

Localities.—*Chalk*, Norwich, Colchester, and South-east England; *Chalk-rock*, Dunstable; *Chalk-marl*, Dover; *Detritus*, Charing; *Gault*, Folkestone, Leacon Hill, and Godstone; *Greensand*, Cambridge. Very similar in the *Portland Oolite* of Ridgway, Dorset.

Foreign.—*Chalk-formation*, North Germany, Saxony, Bohemia, &c.

4. CYTHEREIS ORNATISSIMA (*Reuss*). Plate II, figs. 1—7, 15, 16; and Plate IV, figs. 7 and 8.

CYTHERINA ORNATISSIMA, *Reuss*. Verstein. böhm. Kreideform., pt. ii, 1846, p. 104, pl. xxiv, figs. 12 and 18 (icones malæ).

— CILIATA, *Reuss*. Ibid., fig. 17 (icon mala).

— ECHINULATA, *Williamson*. Trans. Manchester Lit. Phil. Soc., vol. viii, 1847, pl. iv, figs. 75, 76.

CYTHEREIS CILIATA, *Jones*. Monogr. Entom. Cret., 1849, p. 19, pl. iv, figs. 11 *a*—11 *h'*.

CYPRIDINA MURICATA, *Reuss*. Haidinger's Nat. Abhandl., vol. iv, pt. 1, 1851, p. 50, pl. v, figs. 12 *a—c*.

CYTHERE ORNATISSIMA, *Bosquet*. Mém. Comm. Carte géol. Neerlande, vol. ii, 1854, pp. 107—110, pl. ix, figs. 6 *a—d* (and var. *nodulosa*, pl. vii, figs. 7 *a—d*).

— — *Jones*. Geol. Mag., 1870, pp. 75, 76.

— (CYTHEREIS) ORNATISSIMA, *Williamson*. Mem. Lit. Phil. Soc. Manchester, ser. 3, vol. v, 1872, p. 136.

— ORNATISSIMA, *Reuss*. Elbthalgebirge in Sachsen, pt. 2, 1874, p. 146, pl. xxvii, figs. 5, 6 *a—c*.

— (CYTHEREIS) ORNATISSIMA, *Jones*. Syst. Lists, &c., Belfast Nat. Field Club, vol. i, Appendix iii, 1875, pp. 79 and 81.

Pl. II, fig. 1 = Pl. IV (1849), fig. 11 *a*. Length 1·05; height ·55 mm.
Pl. II, fig. 2 = Pl. IV „ fig. 11 *c*. „ 1·16; thickness ·82 mm.
Pl. II, fig. 3 = Pl. IV „ fig. 11 *d*. „ 1·0; „ ·55 „
Pl. II, fig. 4 = Pl. IV „ fig. 11 *e*. Height ·55; „ ·568 „
Pl. II, fig. 5 = Pl. IV „ fig. 11 *f*. Length 1·02; height ·568 mm.
Pl. II, fig. 6 = Pl. IV „ fig. 11 *g*. „ ·82; „ ·47 „
Pl. II, fig. 7 = Pl. IV „ fig. 11 *g'*. „ ·91; thickness ·41 mm.
Pl. II, figs. 15 & 16 } = Pl. IV (1849), figs. 11 *h*, *h'*. Young. Length ·72;
Pl. IV, figs. 7 & 8 } height ·35; thickness ·27 mm.

This common and strongly marked species is subject to many modifications of individual growth and varietal development.

Dr. A. E. von Reuss having shown the badly figured Bohemian specimens to Mr. J. Bosquet, of Maastricht, the latter decided (1854) that *C. ornatissima* and *C. ciliata* are the same.

Fig. 11 *f* of the old Pl. IV (Pl. II, fig. 5) was made, by optical illusion, to show its beautiful reticulate pattern like small tesselated blocks. This punctate ornament is obscured and mostly obliterated by the exaggerated growth of the mesh-walls in old and large individuals,[1] but many specimens of smaller growth preserve it very well.

Pl. II, figs. 15 and 16, and Pl. IV, figs. 7 and 8, represent the young *C. ornatissima*, differing from the adult forms in its subtriangular, instead of oblong, outline; and in its posterior region not having the relative thickness of the adult. An apparent subangular elevation of the coarsely punctate, but relatively smooth, surface has been exaggerated in both fig. 11 *h* and fig. 15 (see Pl. IV, figs. 7 and 8). The centre bears a definite tubercle, the anterior hinge is strongly marked, the dorsal edge is thickened and rough, the front and hind margins are strongly depressed, and the hind margin is angular. In these features it has the essential characters of *C. ornatissima*.

Rare: fig. 15 from the Gault of Folkestone; fig. 16 from the Chalk-marl (?) of Charing.

Localities.—Chalk, Gravesend and South-east England; *Chalk-rock*, Dunstable; *Chalk-marl*, Dover; *Detritus*, Charing; *Gault*, Folkestone, Leacon Hill, and Godstone; *Greensand*, Warminster and Ventnor.

Foreign.—Chalk-formation, Bohemia, &c. See Reuss, 'Elbthalgeb.,' p. 147.

[1] As also occurs with similar ornament in other Ostracoda, as *Cythereis Bowerbankii*, *Cytheropteron concentricum*, &c.

4*. CYTHEREIS ORNATISSIMA (*Reuss*), var. *paupera*, nov. (vel *ornatissima-paupera*). Plate II, figs. 10 and 11.

Fig. 10. Length 1·0; height ·55 mm.
Fig. 11. „ ·82; „ ·4 „

Small and poor varieties or ill-developed forms of *C. ornatissima*, with the normal subcentral tubercle and smaller irregular swellings behind it, also a well-marked front hinge and angular ventral ridge. The marginal edges are more or less spinose, and traces of spines occur here and there on the surface, as well as an imperfect reticulation on some specimens.

Locality.—Chalk-rock, Dunstable.

4**. CYTHEREIS ORNATISSIMA (*Reuss*), var. *nuda*, nov. (vel *ornatissima-nuda*). Plate I, fig. 76; Plate II, figs.[1] 9, 12—14; Plate IV, fig. 14.

CYTHEREIS CORNUTA (non *Römer*), *Jones*. Monogr. Entom. Cret., 1849, p. 21, pl. v, figs. 13 *a—e* (fig. 13 *a* is *nil*, having been wrongly drawn).
CYTHERE ORNATISSIMA, var. *Jones*. Geol. Mag., 1870, pp. 75, 76.

Pl. I, fig. 76.	Length ·76; height ·44 mm.
Pl. II, fig. 8, and Pl. IV, fig. 14.	„ ·94; „ ·5 „
Pl. II, fig. 9.	„ ·72; „ ·33 „
Pl. IV, fig. 12.	„ ·91; thickness ·38 mm.
Pl. IV, fig. 14.	Height ·5; „ ·33 „

A simple, suboblong *Cythereis;* obliquely rounded, rimmed, and denticulate in front; depressed and angular at the posterior margin; straight on the ventral edge, with a smooth ridge; the dorsal edge roughened, and having a terminal angle corresponding with that of the ventral border. A subcentral round knob has a smaller oval tubercle behind it, and the rest of the surface is naked and smooth. This might be taken, at first sight, for *C. quadrilatera*, but its greater height (breadth) at the anterior third, and the posterior angles of the upper and lower margins distinguish it.

In general characters this is near to *C. fullonica*, Jones and Sherborn, the

[1] Fig. 8 is to be disregarded. The old fig. 13 *a* was wrongly drawn and reduced by mistake. It is reproduced correctly in Pl. IV, fig. 14.

earliest known *Cythereis*. See 'Proceed. Bath N. H. and Antiq. Field Club,' vol. vi, 1888, p. 256, pl. iv, figs. 13 *a*—*c*.

Localities.—*Chalk*, Whiteabbey (Antrim) and Kent; *Chalk-marl*, Didcot; *Detritus*, Charing; *Greensand*, Cambridge.

4***. CYTHEREIS ORNATISSIMA (*Reuss*), var. *reticulata*, nov. (vel *ornatissima-reticulata*). Plate I, figs. 67, 68, 77; Plate IV, figs. 9—12.

Pl. I, fig. 67. Length ·72; height ·4 mm.
Pl. I, fig. 68. „ 1·0; „ ·55 „
Pl. I, fig. 77. „ ·88; „ ·52 „
Pl. IV, fig. 9. „ ·83; „ ·43 „
Pl. IV, fig. 10. „ 1·0; „ ·6; thickness ·6 mm.

Pl. I, fig. 68, has the general shape of *C. ornatissima*, with broad anterior margin, ventral ridge, well-developed front hinge, central tubercle, and variable medial lobe behind it, as well as a spinose condition of the front, back, and rear margins. The surface, however, is not spinose, but strongly and subconcentrically punctate. In one case the medial lobe shows a neat, linear series of granules (Pl. IV, figs. 10—12).

Pl. I, fig. 77, does not appear to be essentially different from the foregoing. The dorsal edge is coarsely dentate, and the medial post-central lobe is represented by one or two small tubercles. The punctation is stronger and neater in the specimens from Dunstable (figs. 67, 68) than in that from Ireland (fig. 77).

Pl. I, fig. 67, left-hand valve of a reticulate *Cythereis* near *ornatissima*, is contracted in height (breadth). The front marginal rim passes backward into a thin oblique ventral ridge; a subcentral lobe and a trace of a small tubercle behind it are visible.

The ornament in these three forms (Pl. I, figs. 67, 68, and 77, and Pl. IV, figs. 9—12) approaches that of *Cythere Koninckiana* and *ornata*, Bosquet (see 'Mém. Comm. géol. Neerlande,' vol. ii, pp. 110, 113, pl. ix, figs. 7 and 8); and the specific relationship is not distant. As the reticulate ornament is not foreign to, but is present in *C. ornatissima*, and as these under notice do not lose the reticulation by the overgrowth of its mesh-walls, we may regard this feature in these instances as sufficiently persistent to be a *varietal* character, and we place them as the var. RETICULATA.

Localities.—*Chalk*, Horstead, Gravesend, and Whiteabbey (Antrim); *Chalk-rock*, Dunstable and Luton; *Chalk-marl*, Didcot; *Detritus*, Charing; *Gault*, Folkestone.

4**** CYTHEREIS ORNATISSIMA (*Reuss*), var. *radiata*, nov. (vel *ornatissima-radiata*). Plate IV, fig. 13.

Length, 1·04; height, ·6 mm.

The right valve of a weakly developed variety of *C. ornatissima*, without a central boss and with very slightly indicated ventral ridge; the reticulation passing away, and leaving a local wrinkling of a few mesh-walls radiating from the centre towards the border. On the mid-dorsal region a set of the mesh-walls of the relatively faint reticulate ornament are strengthened so as to radiate upwards from the middle of the valve towards the dorsal edge. Hinder margin smooth, and not much depressed.

Locality.—*Greensand*, Cambridge. Collected by Mr. G. R. Vine.

4*****. C. ORNATISSIMA, var. *stricta*, nov. Plate I, fig. 63.

Length ·88, height ·41 mm.

A small *Cythereis*, with straight margins above and below; neatly rounded and denticulate in front; posterior margin depressed, and almost symmetrically angular, below the truncated end of the suboblong body of the valve, which is slightly wrinkled, and on which the subcentral boss and a subclavate lobe behind it are distinct. The hinder margin is also denticulate on its ventral edge, as is usual.

At first sight this looks like an abnormal *C. quadrilatera*. One of Mr. J. Wright's specimens from near Whiteabbey, Antrim, is like it; but relatively short, subtuberculate on the body, and strongly toothed in front and behind.

Locality.—*Chalk-marl*, Didcot Station, Berks.

5. CYTHEREIS WRIGHTII, sp. nov. Plate IV, fig. 18.

Length ·8; height ·46 mm.

A unique, neat, small, subtriangular *Cythereis*, rounded in front, with a strong and denticulate margin; angular and somewhat dentate behind; subcentral knob very distinct; dorsal edge bearing three or four distinct tubercles, and the ventral ridge spinose.

Locality.—*Chalk*, Keady Hill, co. Londonderry. Collected by Mr. Joseph Wright, F.G.S., with whose name we associate it.

6. Cythereis tuberosa, sp. nov. Plate III, figs. 2 and 3.

Length ·7; height ·36; thickness ·36 mm.

Suboblong, upper and lower margins nearly straight, but the dorsal is roughly tuberculate; rounded and denticulate in front; depressed, narrow, and jagged behind the raised body of the valve, which bears the unequal elevations of the strong subcentral boss and swollen posterior corners; the latter are very lumpy in some, but more angular in other individuals. Edge view subsagittate.

Locality.—Chalk, Horstead, Norfolk.

6*. Cythereis tuberosa, sp. nov., var. *symmetrica*, nov. (or young). Plate III, fig. 1.

Length ·52; height ·26 mm.

Small, subquadrate; neatly rounded, rimmed, and slightly denticulate in front; depressed, angular, and sharply toothed behind; straight above and below; place of the anterior hinge faintly marked. Body of the valve bearing a strong subcentral boss, two broad, subequal, sharp posterior angles, and two smaller equal angular tubercles, one in the middle of the dorsal and one opposite on the ventral edge. This is possibly the young of the foregoing.

Locality.—Chalk, Horstead, Norfolk.

7. Cythereis Icenica, sp. nov. Plate I, figs. 37—39.

Cythereis macrophthalma, *Jones* (not *Bosquet*). Monogr. Entom. Cret., 1849, p. 17, pl. ii, figs. 8 *a*, *b*, *b'*, *b''*, *b'''*.

Cythere macrophthalma, *Jones* (not *Bosquet*). Geol. Mag., 1870, pp. 75, 77.

Length ·55; height ·33; thickness ·33 mm.

The description of the two odd English valves (from the Chalk of Norwich) given in 1849 holds good, but certainly differs from that given by M. Bosquet of his equally rare specimens from the Maastricht Chalk of Sichen, as intimated by him in the 'Mém. Comm. géol. Neerlande, 1854, p. 97. The difference is chiefly in the greater height (breadth) and more obovate shape of the English form. We may here notice that Marsson's *Cythere chelodon* (from the Chalk of Rügen, 'Mitth. Neu-Vorpommern, &c.,' 1880, p. 43, pl. iii, figs. 13 *a—f*), is an ally of this species.

C. Icenica is named after the *Iceni*—the old inhabitants of Norfolk, whence alone as yet the type form of this species has been obtained.

Locality.—*Chalk*, Thorpe, near Norwich.

7* CYTHEREIS ICENICA, sp. nov., var. *quadrata*, nov. (vel *Icenica-quadrata*). Plate I, fig. 62; and Plate IV, figs. 15—17.

Pl. I, fig. 62. Length ·47; height ·27 mm.
Pl. IV, fig. 15 „ ·53; „ ·33; thickness ·3 mm.

Among the specimens collected from the siliceous meal in a Horstead flint are several specimens (some very small) referable to *C. Icenica*, but varying in breadth (height), and in the curvature of the dorsal and ventral margins. Some are subquadrate, rounded in front and angular behind, retain traces of a coarse punctation, and have the middle and marginal elevations much modified. Pl. I, fig. 62, and Pl. IV, fig. 15, show individuals having a strong, straight ventral ridge, ending with an angle. Another (not figured), instead of the low central and ventral elevations, has two parallel, thin, sharp ridges. These somewhat square forms may be grouped as variety QUADRATA.

Locality.—*Chalk*, Horstead, Norfolk.

8. CYTHEREIS LONSDALEANA, *Jones*. Plate I, figs. 40—42, 64—66.

CYTHEREIS LONSDALEIANA, *Jones*. Monogr. Entom. Cret., 1849, p. 20, pl. v, figs. 12 *a—c*.

Fig. 40. Length ·67; height ·35; thickness ·25 mm.
Fig. 64. „ ·72; „ ·38 mm.
Fig. 65. „ ·61; „ ·38 „
Fig. 66. „ ·83; thickness ·38 mm.

These suboblong, or obovate, valves are not very common. Individuals differ in details as to proportionate height of valve, and the thickness and extent of ridges, but the species is characteristically distinct. Thus figs. 40—42 are more oblong, and have the ridges thinner and less pronounced than in the individuals first figured, one of which (right valve, fig. 12 *b*) is much more obovate than the other (left valve, fig. 12 *a*).

Localities.—*Chalk*, Norwich and Horstead; *Chalk-rock*, Dunstable. A similar form occurs in the *Upper Oolite* (soft white limestone with flints), at Ridgway, Dorset.

9. CYTHEREIS VALLATA, *Jones*. Plate II, fig. 19.

CYTHERE (CYTHEREIS) VALLATA, *Jones*, MS. Syst. Lists, &c., Belfast Nat. Field Club, vol. i, Appendix iii, 1875, p. 81.

Length ·85; height ·37 mm.

Long, subtriangular, rounded in front, with flat margin (broken); tapering backwards, and suddenly contracted to a point at the depressed posterior margin. A raised ridge within the front margin curves backwards ventrally, and, before it ends bluntly at the postero-ventral angle, it gives off, or is replaced by, a thicker oblique ridge, which joins a short dorsal ridge, so that the body of the valve is surrounded by a nearly continuous wall-like ridge or vallum, of an ovate outline.

Locality.—*Chalk*, Island Magee, opposite Magheramorne, co. Antrim. (Unfortunately broken since it was figured.)

10. CYTHEREIS SPINICAUDATA, sp. nov. Plate II, figs. 17, 18.

Length ·7; height ·32; thickness ·2 mm.

A very neat, subtriangular, depressed form, rounded in front; nearly straight (but sloping) on the upper and lower margins, each of which ends with an acute angle, and has the depressed and sharply cuspidate posterior margin between them. A subcentral knob, smooth ventral ridge, and neat, but rather coarse, punctate ornament help to characterize this species.

Several individuals without the long caudal spine have been obtained from the washings of the Chalk-rock of Dunstable, with which Mr. A. J. Jukes-Browne, F.G.S., has favoured us. The long delicate spine has probably been broken off by trituration among the rough particles of the material washed.

It is not far removed from *C. vallata*, Pl. II, fig. 19; and may also be compared with *C. Geinitzi*, Reuss, 'Elbthal.,' p. 146, pl. xxvii, fig. 4, as having some features in common; also *C. insignis*, Reuss, 'Zeitsch. d. g. Ges.,' 1855, p. 281, pl. x, fig. 9; and Marsson's *C. acutiloba*, 'Mittheil., &c.,' 1880, p. 42, pl. iii, figs. 11 *a*, *b*.

Localities.—*Chalk*, Horstead, and Keady Hill, co. Londonderry; *Chalk-rock*, Dunstable.

II. Cytheridea, *Bosquet*, 1852.

See Supplem. Monogr. Tert. Entom., 1889, p. 36.

1. Cytheridea perforata (*Römer*). Plate I, figs. 1—4.

Cytherina perforata, *Römer*. Neues Jahrb. f. Min., &c., 1838, p. 516, pl. vi, fig. 11.
Cythere Hilseana, *Jones* (non *Römer*). Monogr. Entom. Cret., 1849, p. 10, pl. i, figs. 1 *a—g*.
Cytheridea Jonesiana, *Bosquet*. Mém. Cour. Acad. R. Sci. Belg., vol. xxiv, 1852, p. 38, and Mém. Comm. Carte géol. Neerl., vol. ii, 1854, p. 74, pl. viii, figs. 5 *a—d*.
— — *Reuss*. Denksch. Akad. Wiss. Wien, vol. vii, 1854, p. 141.
Bairdia perforata, *Bosquet*. Mém. Cour. Acad. Belg., vol. xxiv, 1852, p. 24, pl. i, figs. 8 *a—d*.
Cytheridea perforata, *Jones*. Monogr. Tert. Entom., 1857, p. 44, pl. iv, figs. 14 *a—e*.
— — — Geol. Mag., 1870, pp. 74 and 76.
— — *Jones and Sherborn*. Geol. Mag., 1887, p. 445; and Suppl. Monogr. Tert. Entom. 1889, p. 39, pl. i, fig. 14.

Fig. 1. Large valve (left). Length ·77; height ·5 mm.
Fig. 2. Small valve (right). „ ·695; „ ·415 mm.
Fig. 3. Right valve. „ ·83; „ ·5 „
Fig. 4. Left valve. „ ·916; „ ·55 „

This subtriangular *Cytheridea* is sufficiently well known from published descriptions and figures. Four of those in the Monograph of 1849 are reproduced as reductions, Pl. I, figs. 1—4. The tubercles in the former fig. 1 *a*, were illusory, and the black area in fig. 1 *e* was merely caused by the black wax of the mounting showing through the shell.

Localities.—*Chalk*, Horstead; *Chalk-rock*, Dunstable; *Chalk-marl*, Didcot and Dover; *Detritus*, Charing; *Gault*, Folkestone, Leacon Hill, and Godstone; *Greensand*, Cambridge and Blackdown. A similar form occurs in the *Upper Oolite* at Ridgway, Dorset.

Foreign.—*Chalk*, Balsberg, in Sweden. See also Reuss, 'Elbthelgeb.,' p. 149.

III. Pseudocythere, *G. O. Sars*, 1865.

"Shell thin, pellucid, compressed, rounded in front, produced behind; hinge-joint simple" (G. S. Brady, 'Challenger Report,' 1880, p. 144).

1. PSEUDOCYTHERE ? SIMPLEX, sp. nov. Plate II, figs. 58—60; and Plate IV, figs. 37 and 38.

Pl. II, fig. 58. Length ·8; height ·32 mm.
Pl. II, fig. 59. „ ·75; „ ·3 „
Pl. II, fig. 60. „ ·57; „ ·27 „
Pl. IV, fig. 37. „ ·9; „ ·33; thickness ·33 mm.

Figs. 58 and 59 represent two right-hand valves; they are suboblong, rounded in front, angular behind, and produced at the postero-dorsal angle; straight on the dorsal and very slightly arched on the ventral border; convexity slight, greatest posteriorly. Edge view of united valves narrow-ovate, sharp above; end view oval.

Fig. 60 is a smaller left-hand valve, similar to the foregoing except that it is more arched ventrally, and the postero-dorsal angle is but slightly produced (not quite sufficiently expressed in the drawing).

Many *Cytheruræ* and *Bythocytheræ* have a more or less obtusely conical posterior projection, but we think that this form agrees best with *Pseudocythere*.

Locality.—*Chalk*, Horstead, Norfolk.

IV. CYTHERURA, *G. O. Sars*, 1865.

See Monogr. Post-Tertiary Entom., 1874, p. 191.

1. CYTHERURA APPENDICULATA, *Jones*. Plate III, figs. 17, 18.

CYTHERELLA ? APPENDICULATA, *Jones*. Monogr. Entom. Crét., 1849, p. 32, pl. vi, figs. 21 *a*, *b*.
CYTHERURA APPENDICULATA, *Jones*. Geol. Mag., 1870, pp. 76, 77.

Length ·69; height ·36; thickness ·27 mm.

Unfortunately broken and lost, the unique specimen (from the *Gault* of Folkestone) has not been replaced by any fresh discovery.

V. CYTHEROPTERON, *G. O. Sars*, 1865.

G. S. Brady, 'Report Challenger Ostracoda,' 1880, p. 135.

This genus includes many species of diverse appearance, but with such characteristics as we find also in the Cretaceous specimens under notice. The valves are subrhomboidal and tumid, and variously sculptured. The ventral region is swollen, and may be quite smooth, or bordered by a ridge, or marked

with parallel wrinkles and furrows. The postero-ventral region of each valve is in some cases produced laterally into a narrow wing or a sharp spike.

§ I. The forms with full and rounded ventral region, either smooth, marked with riblets, or ridged.

1. CYTHEROPTERON CONCENTRICUM (*Reuss*). Plate I, figs. 5—10; Plate IV, fig. 19.

CYTHERINA CONCENTRICA, *Reuss*. Verstein. böhm. Kreideform., ii Abtheil., 1846, pp. 104 and 105, pl. xxiv, figs. 22 *a—c*.

CYTHERE SCULPTA, *Cornuel*.[1] Mém. Soc. géol. France, sér. 2, vol. i, pt. 1, 1846, p. 201, pl. viii, figs. 20—23; and vol. iii, pt. 1, 1848, p. 244.

CYTHERINA CONCENTRICA, *Williamson*. Trans. Manchester Lit. Phil. Soc., vol. viii, 1847, p. 79, pl. iv, fig. 77.

CYPRIDINA RŒMERIANA, *Bosquet*. Mém. Soc. Roy. Sci. Liége, vol. iv, 1847, p. 362, pl. ii, figs. 2 *a—f*.

CYTHERE PUNCTATULA, *Jones* (non *Römer*). Monogr. Entom. Cret., 1849, p. 11, pl. i, figs. 2 *a—m* (fig. 2 *n*, var.).

— CONCENTRICA, *Bosquet*. Mém. Com. Carte géol. Neerlande, vol. ii, 1854, p. 81, pl. viii, figs. *a—d*.

— — *Jones*. Geol. Mag., 1870, pp. 74 and 76.

— — *Williamson*. Trans. Manchester Lit. Phil. Soc., ser. 3, vol. v, 1872, p. 136.

— — *Reuss*. Elbthalgeb. Sachsen, 1874, p. 144, pl. xxvii, figs. 1 *a—c*.

— — *Kafka*. Crustaceen böhm. Kreideformation, 1887, p. 14, fig. 27.

Pl. I, fig. 5. Length ·66; height ·44 mm.
Pl. I, fig. 6. „ ·61; „ ·33 „
Pl. I, fig. 7. „ ·861; „ ·351 „
Pl. I, fig. 10. Height ·55; thickness ·833 mm.
Pl. IV, fig. 19. Length ·83; height ·56 „

The late M. Bosquet, of Maastricht, having carefully compared specimens of Römer's *C. punctatula* with *C. concentrica*, Reuss, decided that the former is the young state of *C. Hilseana*, Römer (see 'Mém. Comm. Neerlande,' vol. ii, p. 82). "*C. punctatula*, Römer," is therefore omitted from the synonymy.

Numerous gradations are observable in the many individual valves, whether from one or from different localities, as to the superficial ornament of this somewhat variable and yet very distinct species. The very delicate concentric reticulation, with or without spinous mesh-walls, becomes coarser and coarser

[1] M. Cornuel had mentioned his Neocomian species already in the 'Bullet. Soc. géol. France,' sér. 2, vol. ii, p. 52, 1844.

with age, as shown in the series of figs. 2*f*, *f'*, *g*, *h*, and *i*, in Pl. I of the former Monograph, 1849. When the surface is occupied by neat concentric wrinkles, somewhat more perfect even than shown in M. Bosquet's fig. 2, 'Mém. Liége,' vol. iv, pl. ii, these little valves are charmingly pretty (see Cornuel's figure, loc. cit., and Pl. IV, fig. 19). Considerable resemblance in contour and in style of ornament is to be seen between some individuals of *C. concentricum* and some recent forms, such as *C. depressum*, B. and N., 'Trans. R. Dublin Soc.,' 2nd ser., vol. iv, 1889, p. 219, pl. xxi, figs. 1, 2; also *C. latissimum* (Norman), 'Monogr. Post-Tert. Entom.,' p. 202, pl. viii, fig. 23; and particularly between *C. Montrosiense*, B. C. and R., as figured in the 'Ann. Mag. N. H.,' ser. 4, vol. ii, pl. v, figs. 4 and 5 (young), and 'Trans. R. Dublin Soc.,' 1889, p. 216, pl. xix, figs. 26 and 27 (adult), and Bosquet's figure above quoted. Some *Cytheræ*, such as *C. Speyeri*, Brady, as given in the 'Trans. R. Dubl. Soc.,' 1889, p. 141, pl. xvii, figs. 16, 17, have to some extent this kind of carapace; and Reuss's *C. texturata*, 'Zeitsch. d. g. G.,' vol. ii, p. 286, pl. x, figs. *a*—*d*, comes very near to this form.

Some figures selected from the former series are here reproduced on a smaller scale. Fig. 5 (the former fig. 2*j*) is an old very much worn valve, from the Greensand of Warminster. Fig. 6 (reduction of 2*f*) is a left valve, young, with the sculpturing of pits and spinous meshes unworn; and fig. 7 (fig. 2*b*) is a left old, though smaller, valve, with the ornament changed to interrupted corrugation or wrinkles (like "dot and dash" in telegraphy), rounded, smooth, and more or less concentric. Some individuals show the lines of punctations without the intermediate mesh-walls being prickly.

Localities.—*Chalk*, Horstead and S.E. England, Magheramorne (Antrim), and Keady Hill (Londonderry); *Chalk-rock*, Dunstable; *Chalk-marl*, Didcot and Dover; *Detritus*, Charing; *Gault*, Folkestone and Leacon Hill; *Greensand*, Cambridge and Warminster. Very similar in the *Upper Oolite*, Ridgway, Dorset.

Foreign.—*Chalk*, Maastricht, Rügen, Bohemia, &c.; *Neocomian*, Haute-Marne, France.

1*. CYTHEROPTERON CONCENTRICUM (*Reuss*), varietas *virginea*, Jones (vel *concentricum-virgineum*). Plate I, figs. 14—17.

CYTHERE PUNCTATULA (non *Römer*), var. VIRGINEA, *Jones*. Monogr. Entom. Cret., 1849, p. 12, pl. i, fig. 2 *n*.

CYPRIDINA (CYTHERINA on the plate) ALTHI, *Reuss*. Haid. Nat. Abhandl., vol. iv, pt. 1, 1850, p. 49, pl. vi, figs. 10 *a*—*c*.

CYTHERE PUNCTATULA et var. VIRGINEA, *Bosquet*. Mém. Cour., &c., Acad. Belg., vol. xxiv, 1852, pp. 73 and 74. pl. iii, figs. 10 *a*—*d*.

CYTHERE VIRGINEA, *Jones*. Syst. Lists, &c., Belfast Nat. Field Club, vol. i, Append. iii, 1875, pp. 81 and 92.
— CONCENTRICA, var. VIRGINEA, *Reuss*. Elbthalgeb., &c., 1874, p. 145.

Pl. I, fig. 14. Length ·5; height ·305 mm.
Pl. I, fig. 15. „ ·85; „ ·525 „
Pl. I, fig. 16. „ ·7; thickness ·45 mm.
Pl. I, fig. 17. height ·55; „ ·55 „

This form is very persistent in the Chalk of several localities, but the absence of ornament seems to be its only distinction from *C. concentricum*. The faint trace of reticulate structure in translucent valves, and some feeble ventral wrinkles or riblets in one of the Irish specimens, strengthen its position as a *variety*.

M. Bosquet (op. cit., 1854, p. 81) has indicated that Reuss's *C. Althi* may be the same as the var. *virginea* (1849), and Dr. Reuss in 1874 expressed his acquiescence in this determination. The Lemberg specimen shows some ventral riblets.

The recent *Cytheropteron læve*, Brady and Norman, 'Trans. R. Dubl. Soc.,' 1889, p. 210, pl. xx, figs. 29—31, is remarkably similar, but is broader (higher) in front, and quite destitute of ornament.

Localities.—*Chalk*, Horstead, Gravesend, Magheramorne (Antrim), and Keady Hill (Londonderry); *Detritus*, Charing; *Greensand*, Cambridge and Warminster.

Foreign.—*Cretaceous*, Gosau.

2. CYTHEROPTERON SPHENOIDES (*Reuss*). Plate I, figs. 18—20.

CYTHERE SPHENOIDES, *Reuss*. Denksch. Akad. Wiss. Wien, math.-nat. Class., vol. vii, 1854, p. 141, pl. xxvi, fig. 2.
— — — Elbthalgeb., &c., 1874, p. 147, pl. xxvii, fig. 7.

Length ·8; height ·45; thickness ·5 mm.

Subtriangular, tumid, but depressed or pinched in at the anterior, dorsal, and posterior margins. The thickness is greater and sudden just behind and below the middle (figs. 19 and 20). The front end is obliquely rounded; the ventral region is obliquely convex, with a thickened ridge above the flat ventral area of the margin. The dorsal line slopes downwards and backwards, and the hinge-teeth (fig. 19) are stronger than usual in the genus. The hinder end is narrow, depressed, and serrate with a few denticles.

In these features it differs from the Cretaceous and Tertiary *C. triangulare* (Reuss), 'Suppl. Monogr. Tert. Ent.,' p. 44, pl. ii, figs. 19 *a*—*c*, being more convex centrally, and more depressed at the ends and back; it is also more truly

triangular in outline and less so in section. There is, however, a close agreement with *C. sphenoides* (Reuss), although our specimen has a greater central convexity, is rather higher and more angular on the back, not quite so straight ventrally, and has a denticulate posterior margin. These differences in the development of details may be of only sexual, if not of varietal value.

Locality.—*Chalk-rock*, Dunstable, Bedfordshire.

Foreign.—*Cretaceous*, Strehlen and Gosau.

§ II. The forms with a postero-ventral wing or spine.

3. CYTHEROPTERON ALATUM (*Bosquet*).

CYPRIDINA ALATA, *Bosquet*. Mém. Soc. Roy. Sci. Liége, vol. iv, 1847, p. 369, pl. iv, figs. 1 *a—d*.

CYTHERE ALATA, *Bosquet*. Mém. Comm. Carte géol. Neerlande, vol. ii, 1854, p. 117, pl. ix, figs. 10 *a—d*.

Length 1·1 ; height ·7 ; thickness 1·2 (with the wings) mm., as stated l. c., p. 370.
„ 1·1 ; „ ·56 ; „ ·8 (with the wings) mm., approximate, as calculated.

There are many allied forms of *Cytheropteron* with a more or less expanded sharp ridge or wing projecting from the postero-ventral region of each valve, and the determination of specific and varietal value amongst these various modifications is very difficult. The following is a list of the most striking of these winged or alate forms.

Cretaceous. *Cypridina alata*, Bosquet, 1847 ; *Cythere*, 1854. Expanded form.
Cretaceous. — *serratula*, Bosquet, 1847 ; *Cythere*, 1854. Narrow form.
Tertiary. *Cypridina vespertilio*, Reuss, 1850 ; Egger, 1858. Expanded form.
Tertiary. — *hastata*, Reuss, 1850 ; Egger, 1858. Expanded form.
Cretaceous. *Cythere longispina*, Bosquet, 1854. Expanded form.
Cretaceous. — *laticristata*, Bosquet, 1854. „ „
Cretaceous. — *trigonoptera*, Bosquet, 1854. „ „
Cretaceous. — *macroptera*, Bosquet, 1854. „ „
Tertiary. *Cypridina papilio*, Egger, 1858. Expanded.
Tertiary ; Cretaceous ; Tertiary. *Cypridina cornuta*, Römer, 1838 (narrow) ; Bosquet, 1852 (narrow) ; Reuss, 1855 (narrow) ; Egger, 1858 (broad) ; Speyer, 1863 (broad).

Cretaceous and Tertiary. *Cypridina monoceros*, Reuss, 1855 (narrow); Speyer, 1863 (narrow).
Tertiary. *Cypridina undulata*, Speyer, 1863. Expanded.
Recent. *Cytheropteron gibbosum*, Brady, 1868. Expanded.
Recent. — *inornatum*, Brady and Robertson, 1872. Expanded.
Recent. — *alatum*, Sars, 1865; Brady and Robertson, 1872; Brady and Norman, 1889. Expanded form.
Post-tertiary. *Cytheropteron arcuatum*, Brady, Crosskey, and Robertson, 1874; Brady and Norman, 1889. Expanded form.
Tertiary. *Cytheropteron pipistrella*, Brady, 1878. ,, ,,
Recent. — *intermedium*, Brady, 1878. ,, ,,
Recent. — *crassispinatum*, Brady and Norman, 1889. Expanded.
Recent. — *hamatum*, Brady and Norman, 1889. Expanded.

Cytheropteron alatum (Bosquet) is one of the expanded forms, though not so widely expanded as some; and we are still inclined to take it as a convenient type for some varieties from the Chalk in our collections, because their differences do not appear to be of specific value. It was from the *Chalk* of Maastricht. We have seen a specimen very near to Bosquet's type in Mr. C. D. Sherborn's collection of fossil *Ostracoda* from a clay at the foot of the cliff at Havre, France.

3*. CYTHEROPTERON ALATUM (Bosquet), var. *robusta*, nov. (vel *alatum-robustum*). Plate II, figs. 24—27.

CYTHEREIS ALATA (*Bosquet*), *Jones*. Monogr. Entom. Cret., 1849, p. 21, pl. v, figs. 14 *a—d*.

Length ·833; height ·5; thickness ·61 mm.

This rather rare form, figured and described in the 'Monograph,' 1849, was referred to the *Cythere alata* of Bosquet; but its squarer outline, well-rounded and denticulate front margin, and spinose posterior edge of the wing characterise it as a variety, which we propose to term ROBUSTA.

Prof. Reuss referred a very similar but neater and weaker specimen[1] to *C. serratula*, Bosquet, the outer edge of the wings being slightly tuberculate.

Localities.—*Chalk*, Norwich; *Detritus*, Charing.

[1] 'Elbthalgeb.,' &c., 1874, p. 148, pl. xxvii, figs. 8 *a*, *b*.

3**. CYTHEROPTERON ALATUM (Bosquet), var. *fortis* (vel *alatum-forte*). Plate II, figs. 20, 21.

Fig. 20. Length 1·0; height ·48 mm.
Fig. 21. „ ·96; „ ·48 „

This differs from Bosquet's type in being rounder in front and having the wing further forward on the ventral region, with its posterior edge only slightly spinose; and the coarse denticles on both the front and hind margins of the valve complete the varietal differences. It is not represented in any figures yet published; but Kafka's figs. 36 *a*, *b*, at p. 16 of Fritsch's 'Crustac. böhm. Kreidef.,' 1887, described as Bosquet's *Cythere serratula*, is very near to it.

Localities.—*Chalk*, Horstead, and Whiteabbey and Magheramorne (Antrim).

3***. CYTHEROPTERON ALATUM (Bosquet), var. *cornuta* (vel *alatum-cornutum*). Plate IV, fig. 36.

CYTHERE CORNUTA (*Römer?*), *Bosquet.* Mém. Cour. Acad. Sci. Belg., vol. xxiv, 1852, p. 117, pl. vi, figs. 4 *a—d*; and Reuss, Zeitsch. d. g. G., 1855, p. 212, pl. x, figs. 10 *a*, *b*.

Length 1·1; height ·53 mm.

An elongate oblong valve, almost equally rounded and denticulate at the ends, rimmed in front, and bearing a short, angular, ventral wing, which reaches scarcely beyond the middle of the valve, leaving the posterior third depressed and bare.

Except in the shortness of the wing, this form comes close to Bosquet's figure of Römer's *Cytherina cornuta*.[1]

Localities.—*Chalk*, Kent; and ? *Chalk-rock*, Dunstable.

4. CYTHEROPTERON HIBERNICUM, sp. nov. Plate II, figs. 22, 23.

CYTHERE (CYTHEREIS) ALATA, *Jones.* Syst. Lists, &c., Belfast Nat. Field Club, vol. i, Appendix iii, 1875, pp. 81, 92.

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[1] *Cythereis cornuta* (Römer ?), Jones, 'Monogr. Tert. Entom.,' 1857, p. 39, pl. iv, fig. 19, and pl. v, figs. 15 *a*, *b*, is possibly a *Cytheropteron* near *C. alatum*; but the *Cythereis cornuta* of the 'Suppl. Monogr. Tert. Entom.,' 1889, p. 35, pl. i, fig. 22, is regarded by Dr. G. S. Brady as an undeveloped or young form of *Cythereis Jonesii*, Baird (see 'Trans. R. Dublin Soc.,' ser. 2, vol. iv, p. 169).

Length ·92; height ·6; thickness ·8 mm.

Carapace subrhomboidal in side view; broad, smooth, and convex, but sloping to the front and back; highest (widest) at the anterior third, and thickest behind the middle; bluntly sagittate and with sharp barbs in edge view; front rounded with a short prominent curve, which slopes off both above and below; back elliptically arched; ventral margin nearly straight, but overhung by the long, broad, angular wing, pointing downwards and backwards; hinder margin depressed, narrow, and truncate with sharp angles.

This is different from *Cytheropteron pipistrella*, Brady ('Trans. Zool. Soc.,' vol. x, 1878, p. 404, pl. lxix, figs. 2 *a*—*d*), in the outline of the valve, and the shape and backward position of the wing.

Locality.—*Chalk*, near the Gobbins, co. Antrim.

5. CYTHEROPTERON ? PHYLLOPTERUM (Bosquet). Plate III, figs. 9, 10.

CYTHERE PHYLLOPTERA, *Bosquet*. Mém. Comm. Carte géol. Neerlande, vol. ii, 1875, p. 116, pl. vii, figs. 10 *a*—*d*.

— (CYTHEREIS) SPICULATA, *Jones*, MS. Syst. Lists, &c., Belfast Nat. Field Club, vol. i, Appendix iii, 1875, pp. 81, 92.

Length ·825; height ·45; thickness (with spines) ·75 mm.

Mr. Wright's specimens from the Island of Magee, co. Antrim, and Keady Hill, Derry, nearly agree with M. Bosquet's species above quoted, for some have a smoother front margin and a more spinose projection on each valve than shown in our figs. 9 and 10. The position of the great spine varies somewhat, being more forward in some cases than in others, as shown by the figures; it is nearly mid-ventral in our fig. 9 and Bosquet's figs. 10 *b* and *c*, but further back in our fig. 10 and Bosquet's fig. 10 *a*. The similarity of these to *Cythereis ceratoptera* renders our determination uncertain.

Localities.—*Chalk*, Ballytober, Island Magee, co. Antrim, and Keady Hill, co. Londonderry.

Foreign.—*Chalk*, St. Pierre (Limbourg), and Ciply, near Mons.

6. CYTHEROPTERON CUSPIDATUM, sp. nov. Plate III, figs. 4 and 5.

Length ·65; height ·3; thickness (with spines) ·7 mm.

Long, low (narrow), subtriangular; straight on the dorsal, obliquely arched on the ventral border; rounded and denticulate on the front margin, but prominent at the antero-dorsal angle; contracted and subacute behind (broken in fig. 4). The

anterior part of the surface has a low narrow ridge curving from below to the antero-dorsal angle; the body of the valve has a broad swelling with a backward and downward (ventral) curve, ending in a long, sharp, tapering spine, pointing downwards and outwards. The hinder part of the valve is depressed, sloping and narrowing to the end. The dorsal edge, besides the tubercle at its front angle, already noticed, has a similar projection at or below the place of the anterior hinge, and a small tubercle behind it. There are also some irregular prickles on the upper and lower margins.

Localities.—*Chalk*, Horstead, Norfolk, and Keady Hill, co. Londonderry.

6*. CYTHEROPTERON CUSPIDATUM, sp. nov., var. *montuosa*, nov. (vel *cuspidatum-montuosum*). Plate III, figs. 14—16.

CYTHERE (CYTHEREIS) MONTUOSA, *Jones*, MS. Syst. Lists, &c., Belfast Nat. Field Club, vol. i, Appendix iii, 1875, pp. 81, 92.

Length ·75; height ·3; thickness (with spines) ·5 mm.

In this variety the curved swelling on the ventral region is not interrupted in front, and it bears two subcylindrical tubercles, or short blunt spines, the hinder of which is longer than the other. There are three isolated pointed tubercles on the dorsal edge, towards two of which the ends of the ventral swelling curve upwards.

Localities.—*Chalk*, Island Magee, co. Antrim; *Greensand*, Warminster.

6**. CYTHEROPTERON CUSPIDATUM, sp. nov., var. *tricuspidata*, nov. (vel *cuspidatum-tricuspidatum*). Plate III, figs. 6, 7.

Length ·65; height ·25; thickness (with spines) ·6 mm.

Here the ventral swelling of the valve's surface is developed into three strong, conical, unequal, and more or less divergent spines.

Locality.—*Chalk*, Horstead, Norfolk.

7. CYTHEROPTERON PEDATUM (*Marsson*). Plate IV, figs. 33—35.

CYTHERE PEDATA, *Marsson*. Mittheil. naturw. Ver. Neu-Vorpommern und Rügen, Jahrg. xii, 1880, p. 46, pl. iii, figs. 16 *a—c*.

CYTHERE (CYTHEREIS) CUSPIDIS, *Jones*, MS. System. Lists, &c., Belfast Nat. Field Club, vol. i, Appendix iii, 1875, pp. 81, 92.

Length 1·26; height ·53; thickness (with spines) 1·2 mm.

Suboblong, with oblique ends, rounded in front, acute behind; surface convex; depressed, margined, and denticulate in front; rising to a strong spine at the posterior third, and suddenly sinking behind to a contracted, flat hinder margin; bordered ventrally with a narrow raised rim. The surface is punctate, and, together with the dorsal edge, bears small irregular prickles. The large spine points backwards, but its angle varies. In the Irish specimens it stands out more boldly than in Dr. Marsson's figures, two of which (figs. 16 *b* and *c*) illustrate his smooth variety "*lævis*."

Localities.—*Chalk*, Horstead (Norfolk), near the Gobbins (Antrim), and Keady Hill (Londonderry); *Chalk-rock*, Dunstable.

7*. CYTHEROPTERON PEDATUM, *Marsson*, var. *salebrosa*, nov. (vel *pedatum-salebrosum*). Plate III, fig. 8; Plate IV, fig. 32.

Pl. III, fig. 8. Length ·87; height ·4 mm.

Pl. IV, fig. 32. „ 1·0; „ ·406 mm.

Subtriangular, rounded and denticulate in front, obliquely subacute behind, with a narrow, flattened end. The dorsal edge is straight, and the ventral nearly parallel with it. Margined with a raised rim all round except where it is tuberculate on the postero-dorsal edge. At the dorsal region the surface is impressed with three shallow, nearly equidistant, transverse furrows;[1] the middle one largest, and the foremost weakest. Thus the surface of the body of the valve undulates with four low transverse swellings and three corresponding valleys. The whole surface is rough with irregular granulations, interspersed with small tubercles, and the thick, short spine rises from the posterior of the two main transverse swellings.

This has the look of *Cytheropteron pedatum* as to outline, and possesses a short, thick spine, rising on the posterior moiety of a rough and undulating valve. It somewhat resembles Reuss's *Cythere oxyura* from the Cretaceous Baculite-clay at the Kanara Lake, near Kustenjeh in the Dobrutscha,[2] 'Sitzungsb. Akad. Wiss. Wien,' vol. lii, p. 24, pl. —, fig. 13.

[1] Not well shown in fig. 32.

[2] See also 'Quart. Journ. Geol. Soc.,' vol. xiv, p. 206, &c.

Also in its outline, roughness of surface, and want of wings, it resembles *Cytheropteron angulatum*, Brady, 'Ann. Mag. Nat. Hist.,' vol. ix, p. 62, pl. ii, figs. 7 and 8.

Localities.—*Chalk*, Whiteabbey, co. Antrim; *Chalk-rock*, Dunstable, Bedfordshire.

8. CYTHEROPTERON UMBONATUM (*Williamson*). Plate I, figs. 21—26.

CYTHERINA UMBONATA, *Williamson*. Mem. Manch. Lit. Phil. Soc., vol. viii, 1847, p. 79, pl. iv, fig. 78.
CYTHERE UMBONATA, *Jones*. Monogr. Entom. Cret., 1849, p. 12, pl. ii, figs. 3 *a—g*.
— LONGISPINA, *Bosquet*. Mém. Comm. Neerlande, vol. ii, 1854, p. 96, pl. vi, fig. 7.
CYTHEROPTERON UMBONATUM, *Jones*. Geol. Mag., 1870, pp. 74 and 76.
CYTHEROPTERA[ON] UMBONATA[UM], *Williamson*. Mem. Manch. Lit. Phil. Soc., ser. 3, vol. v, 1872, p. 136.
CYTHERE UMBONATA, *Marsson*. Mittheil. nat. Ver. Neu-Vorpommern und Rügen, Jahrg. xii, 1880, p. 45, pl. iii, figs. 15 *a—c*.

Fig. 21. Length ·55; thickness ·38 mm.
Fig. 23. „ ·6; „ ·35 „
Fig. 24. Height ·4; „ ·4 „
Fig. 26. Length ·583; height ·277 „

The figures formerly given in the 'Monograph,' 1849, and the present illustrations, Pl. I, figs. 11—13, 23, and 24, indicate such varying proportions in the height and thickness of the valves, the length and sharpness of the postero-ventral processes, and the extent and depth of the mid-dorsal furrow, that we are satisfied this species includes the forms mentioned in the list of synonyms above given. In examining several other specimens in our collections we find further extension of variability, not only in the features mentioned above, but even in the valves losing their subrhomboidal for a more oblong outline. The type (figs. 21—26) is neatly punctate.

Of the published forms of this kind, the recent *Cytheropteron acutum*, Brady, 'Ann. Mag. Nat. Hist.,' ser. 4, vol. iii, 1869, p. 49, pl. viii, figs. 1—4, is one of those most nearly approaching *C. umbonatum* of the Chalk.

Localities.—*Chalk*, Norwich and Woolwich; *Chalk-marl*, Dover; *Detritus*, Charing.

8*. CYTHEROPTERON UMBONATUM (*Williamson*), var. *acanthoptera* (Marsson), (vel *umbonatum-acanthopterum*). Plate I, figs. 11—13; Plate IV, figs. 22—29.

CYTHERE ACANTHOPTERA, *Marsson*. Mittheil. naturw. Ver. Neu-Vorpommern und Rügen, 1880, p. 45, pl. iii, figs. 14 *a—c*.

Pl. I, fig. 11. Length ·625; height ·35; thickness (with spines) ·55 mm.
Pl. IV, fig. 22. „ ·7; „ ·43; „ „ ·66 „
Pl. IV, fig. 25. „ ·66; „ ·36; „ „ ·66 „
Pl. IV, fig. 27. „ ·7; „ ·33 mm.
Pl. IV, fig. 28. „ ·7; „ ·3; „ „ ·73 „

In some specimens from the Chalk of Horstead, and of Island Magee, Ireland, we find the body of the valve much swollen, almost as much in front as behind, and the edges of this tumid area more or less ridged and prickled (slightly indicated in Pl. I, fig. 12), quite coarsely and irregularly in an Irish specimen; the dorsal furrow is deep; the antero-dorsal region sometimes bulges out into a low, irregular tubercle (Pl. IV, figs. 25—27); the postero-ventral spine is strong, and, having a depression at its base, is, as it were, set in a notch in some specimens, which have much stronger features than are shown in Pl. I, figs. 11—13. The punctation is coarse and mixed with prickles, mostly arising from the walls of the meshes. The valves are broader (higher) than those of the typical form, and vary in this feature as well as in the convexity of the ventral region.

Dr. Marsson's *acanthoptera* is very like our figs. 11—13 of Pl. I, but is figured with a smooth surface, and its medial depression reaches across the valve. These discrepancies, however, are slight, and we think that they are not sufficiently essential to separate the forms under notice.

Localities.—Chalk, Horstead (Norfolk) and Island Magee (Antrim); *Chalk-rock*, Dunstable.

Foreign.—Chalk, Isle of Rügen.

8**. CYTHEROPTERON UMBONATUM (*Williamson*), var. *longispinata*, nov. (vel *umbonatum-longispinatum*). Plate III, figs. 11—13; Plate IV, figs. 30 and 31.

CYTHERE UMBONATA, *Marsson*. Mitth. nat. Ver. Neu-Vorpommern und Rügen, 1880, p. 45, pl. iii, figs. 15 *a—c*.

Pl. III, fig. 11.
Pl. IV, fig. 30. } Length 1·0; height ·53; thickness (with spines) 1·1 mm.

This is larger and more convex than the type, with long and sharp ventral spines, themselves delicately spinose, and spreading out wide (Pl. III, fig. 12, and Pl. IV, fig. 31), and sometimes nearly straight (fig. 13). The mid-dorsal furrow is generally stronger than shown in figs. 11 and 12, and occasionally is repeated to some extent in the anterior region, so as to give rise to a small antero-ventral tubercle. In one case even a feeble antero-dorsal spine is present. The surface is punctate, with the meshes, in several specimens, becoming spinose, so that the whole surface is prickly. The front margin is strongly denticulate.

The figs. 15 *a*—*c* by which Dr. Marsson illustrates *C. umbonata*, Williamson, evidently belong to the same variety as our Pl. III, figs. 11—13, and Pl. IV, figs. 30 and 31, although in the latter the spines are longer, the valves more prickly, and slightly modified by the subsidiary furrow in front.

Localities.—*Chalk*, Horstead, and chalk-flint in gravel at Mitcham, Surrey (collected by Dr. G. C. Wallich).

Foreign.—*Chalk*, Isle of Rügen.

9. Cytheropteron Sherborni, sp. nov. Plate I, figs. 33 and 34; Plate IV, figs. 20 and 21.

Pl. I, fig. 33. Length ·725; height ·375; thickness ·35 mm.
Pl. IV, fig. 20. „ ·8; „ ·43; „ ·53 „

Several specimens from Horstead, Norfolk, although very tumid over the ventral border, have no postero-ventral spine; some, however, have a trace of a ventral ridge ending with a posterior angle. The surface has a variable concentric punctation, with the meshes in some instances becoming spinose, and thus making five or six concentric rows of small prickles (figs. 33 and 34). The valves are nearly oblong in outline; obliquely rounded and denticulate in front, and blunt or more or less angular behind. The mid-dorsal sulcus is present, and ends in a minute subcentral pit. Both in front and behind, the valve is depressed along the margin, sometimes considerably below the convex body of the valve.

The Post-tertiary *Cytheropteron complanatum*, Brady and Crosskey, 'Geol. Mag.,' 1871, p. 65, pl. ii, figs. 3 and 4, from Canada, has a distant resemblance to this form.

The concentric punctation is, to some extent, comparable with that of *Cythere vesiculosa*, Bosquet, 'Mém. Comm. Neerlande,' vol. ii, p. 94, pl. vi, figs. 2 *a*—*d*, but the arching of the semicircular lines is reversed, being towards the dorsal instead of the ventral region as in our specimens.

This species is named after Mr. C. Davies Sherborn, F.G.S., who has kindly given us great help in the preparation of this Supplemental Monograph.

Localities.—Chalk, Horstead, and Mill Bay, Island Magee, co. Antrim.

VI. Cytherideis, *Jones*, 1857.

Restricted and defined by G. S. Brady and A. M. Norman, 'Trans. Roy. Soc. Dublin,' ser. 2, vol. iv, 1889, p. 226. "Shell slender, elongate, subovate, tapering and depressed towards the front, not much compressed laterally. Hinge-margins nearly simple; shell smooth, finely punctate; right valve overlapping the left in the centre of the ventral surface." (The limbs are then described.)

1. Cytherideis parallela, sp. nov. Plate IV, figs. 5 and 6 (figured upside-down).

Length ·83; height ·33; thickness ·16 mm.

A unique valve of a small subcylindrical carapace. If the figure be looked at in the reversed position it is narrow-oblong, compressed and rounded at one (anterior) end, and obliquely subacute at the other; edge view (of the united valves) narrow-lanceolate, or compressed ovate, sharp anteriorly and blunt behind; surface smooth.

This may be a *Cytherideis*, although the anterior is more fully rounded than the posterior end. Excepting that the posterior end in this case is obliquely truncate, there are some comparable recent forms, such as *Cytherideis cylindrica*, Brady, 'Les Fonds de la Mer,' vol. i, part 1, livr. 8, 1869, p. 113, pl. xiii, figs. 11 and 12; and *C. lævata*, Brady, 'Challenger Report,' 1880, p. 146, pl. vi, figs. 5 *a—d*; also a Tertiary species (from the Antwerp Crag), *C. recta*, Brady, 'Trans. Zool. Soc.,' vol. x, 1878, p. 406, pl. lxiii, figs. 3 *a—d*. In some respects *C. lævata* is nearest in shape, but there is so much difference that we give our Irish specimen a separate name, *C. parallela*.

Locality.—Chalk, Keady Hill, co. Londonderry. Collected from the dust of a chalk-flint, by Mr. Joseph Wright, F.G.S.

2. Cytherideis acuminata (*Alth*). Plate IV, figs. 40, 41 (figured upside-down).

Cytherina acuminata, *Alth*. Reuss, in Haidinger's Nat. Abhandl., vol. iv, pt. 1, 1851, p. 49, pl. vi, fig. 8 (not 7), drawn upside-down.

Cythere? Wrightii, *Jones*, MS. Systematic Lists, &c., Belfast Nat. Field Club, vol. i, Appendix iii, 1875, p. 81.

Length 1·0; height ·4; thickness ·36 mm.

A carapace with one of the valves damaged. Right valve (figure seen in a reversed position) like a pea-pod; elongate, suboblong, rounded in front, obliquely curving to a subacute postero-ventral angle behind; slightly arched on the dorsal, and straight on the ventral edge; surface smooth, gently convex, thickest at the anterior, highest at the posterior third; edge view of the carapace narrow-oval, somewhat blunter behind than in front.

Carapaces approximately similar in shape may be *Cytherina recta*, Reuss ('Haid. Naturw. Abhandl.,' vol. iii, part 1, 1850, pl. viii, fig. 11), *C. heterostigma*, Reuss (ibid., fig. 23), and *Aglaia complanata*, Brady and Robertson (1869), 'Trans. Roy. Dublin Soc.,' ser. 2, vol. iv, 1889, p. 94, pl. xiv, figs. 28 and 29; but Alth's *Cytherina acuminata* (Cretaceous from Lemberg), as figured by Reuss in 'Haid. Naturw. Abhandl.,' vol. iv, part 1, 1851, p. 49, pl. vi, fig. 7 (not 8), is so similar in character that we must take it to be the same.

Localities.—In the flint-dust from the *Chalk* of Glenarm, Antrim. Coll. Mr. Joseph Wright, F.G.S.

III. CYTHERELLIDÆ.

I. Cytherella, *Jones*, 1849, and *Bosquet*, 1852.

For notes on the fossil species of this genus see the 'Monograph of the Brit. Foss. Biv. Entomostraca from the Carboniferous Formations,' by Jones, Kirkby, and Brady, part 1, No. 2, 1884, pp. 57—69; also the 'Supplem. Monogr. Tert. Entom.,' by Jones and Sherborn, 1889, p. 47.

1. Cytherella ovata (*Römer*). Plate III, figs. 48—54; and Plate IV, fig. 39.

Cytherina, *Lyell and Lonsdale.* Elem. Geol., 1838, p. 55, fig. 19.
— ovata, *Römer.* Verstein. nordd. Kreidegeb., 1840, p. 104, pl. xvi, fig. 21.
— complanata, *Reuss.* Verstein. böhm. Kreideform., pt. 1, 1845, p. 16, pl. v, fig. 34 (icon mala).
— ovata, *Reuss.* Ibid., pl. vi, fig. 35.
Cythere reniformis, *Bosquet.* Mém. Soc. Roy. Sci. Liége, vol. iv, 1847, p. 356, pl. i, figs. 1 *a—f.*
Cytherella ovata, *Jones.* Monogr. Entom. Cret., 1849, p. 28, pl. vii, figs. 24 *a—i.*

CYTHERE AMYGDALOIDES, var. BREVIS (?), *Cornuel.* Mém. Soc. géol. France, ser. 2, vol. ii, pt. 1, p. 199, pl. viii, fig. 12.

— OVATA, *Reuss.* Haidinger's Nat. Abhandl., vol. iv, pt. 1, 1851, p. 48, pl. v, fig. 2.

CYTHERELLA COMPLANATA, *Reuss.* Denksch. Akad. Wiss. Wien, vol. vii, 1854, p. 140, pl. xxviii, fig. 9.

— OVATA, *Bosquet.* Mém. Comm. Carte géol. Neerl., vol. ii, 1854, p. 45, pl. viii, figs. 1 *a—f.*

— — *Jones.* Geol. Mag., 1870, p. 76.

— — *Reuss.* Elbthalgeb., &c., pt. 2, 1874, p. 151, pl. xxviii, fig. 4 (fig. 5 ?).

Length ·85; height ·55; thickness ·35 mm.

This common and easily distinguished species has been variously referred to and mentioned by many geologists at home and abroad, and especially studied by Reuss and Bosquet, with mutual agreement as to details except that Reuss retains his *C. elongata* from the synonymy.

Several of the old figures are reproduced here on a reduced scale from the 'Monograph' of 1849.

Fig. 48 = fig. 24 *a*.

Fig. 49 = fig. 24 *b*.

Fig. 50 = fig. 24 *c*.

Fig. 51 = fig. 24 *e*. The notches at the ends are too large.

Fig. 52 = fig. 24 *f*.

Fig. 53 = fig. 24 *h*. This should not be perfectly oval, but slightly flattened on the right-hand margin, as looked at in the figure. M. Bosquet, who had seen such nearly oval specimens, suggested that they may be sub-adult individuals; perhaps they are varietal forms. See Pl. IV, fig. 39. Mr. J. Kafka figures an oval form from the Cretaceous strata of Bohemia in A. Fritsch's 'Crustaceen böhm. Kreidef.,' 1887, p. 18, fig. 40 *c*.

Fig. 54 = fig. 24 *i*. A small and probably young form.

Localities. — *Chalk;* Norwich, Horstead, Colchester, South-east England, Magheramorne (Antrim), Keady Hill (Londonderry); *Chalk-rock*, Dunstable, Chinnor, West Wycombe, Luton; *Chalk-marl*, Dover, Didcot; *Detritus*, Charing; *Gault*, Folkestone, Leacon Hill, and Godstone; *Greensand*, Cambridge.

Foreign.—*Chalk*, Maastricht, North Germany, Bohemia, Weinböhla (Saxony), Royan (South France), Dobrutscha, &c.; ? *Neocomian*, France.

This is a widely distributed Cretaceous species. The localities were carefully recorded by Bosquet in 1854, and by Reuss in 1874 ('Elbthalgebirge,' &c., pp. 151, 154).

2. CYTHERELLA OBOVATA, sp. nov. Plate III, figs. 46 and 47.

Length ·95; height ·57; thickness ·35 mm.

Obovate, but straighter on the ventral than on the dorsal margin, and even slightly incurved ventrally; the anterior more rounded than the posterior moiety, but not so thick. Edge view lanceolate; end view oval.

This carapace resembles that of *C. ovata* except in its being contracted in its posterior moiety, having less fulness both of outline and of contour in that region, and hence obovate instead of being ovate. Several published figures of *Cytherellæ* are more or less comparable with this form, but none exactly match it. *C. nitida*, Brady, is perhaps the nearest, but the postero-ventral margin is too convex; and *C. lævis*, Brady, is too high and too thick in the posterior region. *C. Leopolitana*, Reuss (as figured in 1850), differs in its ventral outline and its edge view. *C. fabacea*, Bornemann, is near it, but is not arched enough dorsally, and is too thick behind.

Locality.—*Chalk*, Kent.

3. CYTHERELLA MUENSTERI (*Römer*). Plate III, figs. 63—67.

CYTHERINA MUENSTERI, *Römer*. Neues Jahrb. f. Min., &c., 1838, p. 516, pl. vi, fig. 13.

— PARALLELA, *Reuss*. Verst. böhm. Kreidef., pt. 1, 1845, p. 16, pl. v, fig. 33.

CYTHERE TRUNCATA, *Bosquet*. Mém. Soc. Liége, vol. iv, 1847, p. 357, pl. i, figs. 2 *a—e*.

CYTHERINA LÆVIS, *Williamson*. Mem. Lit. Phil. Soc. Manchester, vol. viii, 1847, p. 79, fig. 80.

CYTHERELLA TRUNCATA, *Jones*. Monogr. Entom. Cret., 1849, p. 30, pl. vii, figs. 25 *a—e*.

— MUENSTERI, *Bosquet*. Mém. cour. Akad. Belg., vol. xxiv, 1852, p. 13, pl. i, figs. 2 *a—d* [the punctation is figured very much too coarse].

CYTHERINA PARALLELA, *Reuss*. Haidinger's Naturw. Abhandl., vol. iv, pt. 1, 1851, p. 47, pl. vi, fig. 1.

CYTHERELLA MUENSTERI, *Bosquet*. Mém. Comm. géol. Neerl., vol. ii, 1854, p. 58, pl. viii, figs. 2 *a—d*.

— PARALLELA, *Reuss*. Denksch. Akad. Wiss. Wien, vol. vii, 1854, p. 40; and Zeitsch. d. g. Ges., vol. vii, 1855, p. 18.

— MUENSTERI, *Jones*. Monogr. Tert. Entom., 1856, p. 56, pl. v, figs. (12?), 13; Geol. Mag., 1870, pp. 76, 77.

— — *Williamson*. Mem. Lit. Phil. Soc. Manch., ser. 3, vol. v, 1872, p. 136.

CYTHERELLA MUENSTERI, *Reuss*. Elbthalgeb., &c., pt. 2, 1874, p. 152, pl. xxviii, figs. 6 and 7.

— — *Jones and Sherborn*. Suppl. Monogr. Tert. Entom., 1889, p. 47, pl. ii, fig. 10.

Length ·75; height ·4; thickness ·32 mm.

In the 'Supplem. Monogr. Tert. Entom.,' 1889, an attempt was made to classify such of the *Cytherellæ* as occur in the Tertiary formations of England according to their shape, as to outline and the relative position of the greatest thickness in the carapace. In this grouping *Cytherella Muensteri* comes with its thickness at or near the hinder end, which in some cases, as in *C. Reussii* (op. cit., Pl. II, figs. 8 *a*, *b*), gives a thick and almost truncate end to the carapace, but not so sudden as in the cuneiform edge views of some varieties of *C. Beyrichi* (op. cit., Pl. II, figs. 1 and 9), nor indeed as in *Cytherella Muensteri* of the Chalk. These relative measurements were taken from perfect carapaces, but internal casts of the same species, such as in the present Monograph, Pl. III, fig. 65 (formerly Pl. VII, fig. 25 *a*), has a different and more truncate aspect. There are many specimens of *C. Muensteri* which are blunt posteriorly, but not actually truncate.

M. Bosquet in 1852 explained his reasons for referring this species to *C. Muensteri* (Römer). The coarse pitting of Römer's figure was regarded by M. Bosquet as being represented by the exceedingly linear punctation that he saw in his specimens from Maastricht. Our Cretaceous specimens are smooth.

Localities.—*Chalk*, Norwich, Horstead, Colchester, and South-east England; *Chalk-rock*, Dunstable; *Chalk-marl*, Dover and Didcot; *Detritus*, Charing; *Gault*, Folkestone, Leacon Hill, and Godstone; *Greensand*, Cambridge.

Foreign.—Maastricht, Balsberg (Sweden), &c. See also Reuss, 'Elbthalgeb.,' pp. 152 and 154.

4. CYTHERELLA SUBRENIFORMIS, sp. nov. Plate III, figs. 44 and 45.

Length ·85; height ·45; thickness ·3 mm.

Subreniform, arched dorsally and slightly incurved ventrally; ends rounded, the anterior more boldly than the other; edge view long, narrow-oval, rather blunter behind than in front; end view oval.

This *Cytherella* is nearly allied to several published forms, but matches none exactly. If it were not arched on the back it would be very near to Reuss's *C. parallela*, as figured by G. S. Brady, 'Trans. Zool. Soc.,' vol. x. In shape also it somewhat resembles Römer's not very satisfactory figure of *C. Muensteri*, but it is too hollow ventrally, too blunt posteriorly, and is not punctate. It is very near *C. pulchra*, Brady, but too reniform in shape for that species. In

this respect also it differs from Kafka's "*Bairdia*" *depressa*,[1] from Koschtitz in Bohemia.

Locality.—*Chalk*, Kent.

5. CYTHERELLA WILLIAMSONIANA, *Jones*. Plate III, figs. 55—62.

CYTHERINA SERRATA (?), *Williamson*. Mem. Lit. Phil. Soc. Manch., vol. viii, 1847, p. 79, fig. 74.
— PEDATA (?), *Geinitz*. Verstein. Kieslingwalda, &c., 1843, p. 6, pl. v (Nachtrag), fig. 13.
CYTHERELLA WILLIAMSONIANA, *Jones*. Monogr. Entom. Cret., 1849, p. 31, pl. vii, figs. 26 *a—h* (and fig. 26 *i* var.).
CYPRIDINA LEIOPTYCHA, *Reuss*. Haidinger's Naturw. Abhandl., vol. iv, pt. 1, 1851, p. 49, pl. vi, fig. 11.
CYTHERELLA WILLIAMSONIANA, *Bosquet*. Mém. Comm. géol. Neerlande, vol. ii, 1854, p. 62, pl. v, figs. 2 *a—d*.
— — *Reuss*. Elbthalgeb., &c., pt. 2, 1874, p. 153, pl. xxviii, figs. 9, 10 *a*, *b*.
— — *Marsson*. Mittheil., &c., 1880, p. 31, pl. ii, figs. 8 *a—c*.

Length ·6; height ·35; thickness ·25 mm.

The carapaces are subject to much modification in their relative thickness, and the valves as to their superficial ridges and furrows, which are sometimes coarse and low, and in other cases sharply defined (var. *stricta*); and in some more regular and less interrupted than in others. The surface also may be smooth (ordinary), or roughened with small tubercles and granulations (var. *granulosa*).

Localities.—*Chalk*, Horstead, Colchester, and South-east England, and Keady Hill (Derry); *Chalk-rock*, Dunstable; *Chalk-marl*, Dover; *Detritus*, Charing; *Gault*, Folkestone, Leacon Hill, and Godstone; *Greensand*, Ventnor.

Foreign.—*Chalk*, Limburg, Saxony, Isle of Rügen.

5*. CYTHERELLA WILLIAMSONIANA, *Jones*, var. *stricta*, nov. Plate III, fig. 71.

Length ·7; height ·4 mm.

Like the ordinary or typical form, but sometimes larger, and having the longitudinal and marginal swellings of the surface narrowed and defined as ridges.

[1] 'Kritisches Verzeichniss d. Ostracoden d. böhm. Kreidef.,' p. 2, pl. i, figs. 1 *a*, *b*; and in 'Die Crustaceen der böhm. Kreidef.,' by A. Fritsch and J. Kafka, 1887, p. 14, fig. 26.

Localities.—*Gault*, Godstone, Surrey, and Folkestone, Kent. Collected by Mr. F. Chapman.

5**. CYTHERELLA WILLIAMSONIANA, *Jones*, var. *granulosa*, Jones. Plate III, figs. 68, 69, 72.

CYTHERELLA WILLIAMSONIANA, var. GRANULOSA, *Jones*. Monogr. Entom. Cret., 1849, p. 31, pl. vii, fig. 26 *i*.
— — (?), *Bosquet*. Mém. Comm. géol. Neerlande, vol. ii, 1854, p. 62, pl. v, figs. 2 *a—d*.
— — var. BOSQUETI, *Marsson*. Mittheil., &c., 1850, p. 31, pl. ii, figs. 8 *d*, *e*.

Length ·72; height ·42 mm.

Larger than the type specimens, roughened with granules and small tubercles. The marginal elevations on the valves are subject to the same modifications of direction and extent as in the ordinary forms, and may be narrowed as ridges, with or without granulations.

The specimen figured by Bosquet, op. cit., 1854, appears to be var. *granulosa*. In his opinion, however, the granulations are present on adults, but are lost more or less on old individuals.

Dr. Marsson's figs. 8 *d* and 8 *e* almost supply the counterpart of fig. 26 *i* (not reproduced here).

Localities.—*Chalk*, Norwich, Horstead, Magheramorne (Antrim); *Chalk-rock*, Dunstable; *Gault*, Folkestone.

Foreign.—*Chalk*, Maastricht and Rügen. See also Reuss, 'Elbthalgeb.,' pp. 153 and 154.

6. CYTHERELLA CHAPMANI, sp. nov. Plate III, fig. 70.

Length ·52; height ·3 mm.

Small, short, stout, and flat, sub-oblong, slightly ovate; bearing just within the front, back, and rear margins a nearly continuous ridge, and within it a set of unequal longitudinal ridges or riblets, of which one is free, and the others apparently form a compressed spiral.

Some small *Cytherellæ* closely approaching *C. Chapmani* are in Mr. F. Chapman's Collection from the Gault of Folkestone.

Locality.—*Gault*, Godstone, Surrey. Collected by Mr. F. Chapman.

7. CYTHERELLA OBLIQUIRUGATA, sp. nov. Plate III, fig. 73.

Length ·42; height ·22 mm.

A neat, small, ovate-oblong *Cytherella*, bordered with a slight raised rim, and bearing some oblique, parallel, sinuous riblets, tapering at their ends. One (the middle and largest of the three) is bent on itself in the postero-ventral region, turning up to the little normal sub-central pit which interrupts this branch, and thus makes four tapering, oblique, and more or less parallel riblets.

Cytherella denticulata, Bosquet ('Mém. Comm. géol. Neerlande,' vol. ii, p. 51, pl. v, fig. 1), from the Chalk of Limbourg, has some oblique ridges, but it has also one straight marginal ridge and a truncated posterior edge.

Locality.—*Chalk*, Winchester. Collected by Mr. A. Angel, jun.

8. CYTHERELLA? MANTELLIANA, *Jones*. Plate III, figs. 19—21.

CYTHERELLA? MANTELLIANA, *Jones*. Monogr. Entom. Cret., 1849, p. 32, pl. vi, figs. 22 *a—c*; and Geol. Mag., 1870, pp. 76, 77.

Length ·5; height ·25; thickness ·15 mm.

We have nothing to add to the former description of this unique carapace from the Charing *Detritus*.

APPENDIX.

I.—List of the Genera and Species of Ostracoda described and figured in the 'Monograph,' 1849, and in 'Geol. Mag.,' 1870. (Names corrected.)

Figures of the Species in the Supplemental Monograph.		*Genera and Species.*	*In Monograph, 1849.*	
Pl.	Figs.		Pl.	Figs.
II	50	Paracypris gracilis (*Bosquet*) (olim *Bairdia siliqua*, var. β)	V	16 *h*.
II	65	Pontocypris Bosquetiana, *nov.* (olim *B. angusta*, part) . . .	VI	18 *f*, *f*″.
IV	2			
III	22—24 and 35—37	— triquetra (*Jones*) . .	VI	19.
II	31—34	Bairdia subdeltoidea (*Münster*) . .	V	15.
II	52—55	— Harrisiana, *Jones* . . .	VI	17 *a—d*.
II	38—41	Macrocypris siliqua, *Jones* . . .	V	16 *a—d*.
II	42 and 45—47	— Muensteriana, *nov.* (olim *Bairdia siliqua*, var. α) . . .	V	16 *e—g*.
II	56 and 61—63	Bythocypris Reussiana, *nov.* (olim *B. angusta*, part) . . .	VI	17 *f*. 18 *a—c* and *e*.
I	27—29	— simulata (*Jones*) (olim *Cythere fuba*).	II	4.
II	64	— silicula (*Jones*) . . .	VI	18 *d* and 20.
III	27—30 and 40, 41			
I	30—32	Cythere Bairdiana, *Jones* . . .	II	5.
I	47—52	— Harrisiana, *Jones* . . .	II	6.
I	35, 36	— gaultina, *Jones* . . .	II	7.
II	35—37	— ? Bosquetiana (*Jones*) . . .	VI	23.
I	56—61	Cythereis triplicata (*Römer*) . . .	III	9.
I	69—75	— quadrilatera (*Römer*) . .	III IV	10. 10.
II	1—7	— ornatissima (*Reuss*) . .	IV	11.
II	8, 9, 12, 14	— ornatissima-nuda, *nov.* . .	V	13.
IV	14			
I	64—66	— Lonsdaleana, *Jones* . .	V	12.
I	37—39	— Icenica, *nov.* (olim *C. macrophthalma*) .	II	8.
I	1—4	Cytheridea perforata (*Römer*) (olim *C. Hilseana*)	I	1.
III	17, 18	Cytherura appendiculata, *Jones* . .	VI	21.
I	5—10	Cytheropteron concentricum (*Reuss*) (olim *Cythere punctatula*) . .	I	2 *a—m*.
IV	19			
I	14—17	— concentricum-virgineum, *Jones* .	I	2 *n*.
I	21—26	— umbonatum (*Williamson*) .	II	3.
II	24—27	— alatum-robustum, *nov.* (olim *Cythere alata*) . . .	V	14.
III	48—54	Cytherella ovata (*Römer*) . . .	VII	24.
IV	39			
III	63—67	— Muensteri (*Römer*) (olim *C. truncata*) .	VII	25.
III	55—62	— Williamsoniana, *Jones* . .	VII	26 *a—h*.
III	68 and 72	— Williamsoniana-granulosa, *Jones* .	VII	26 *i*.
III	19—21.	— ? Mantelliana, *Jones* . .	VI	22.

In Mr. Topley's "Geology of the Weald" ('Memoirs Geol. Survey, 1875) fifteen of the above species and varieties are tabulated, at p. 426, from the Chalk, Gault, Upper Greensand, and Lower Greensand.

II.—The Genera and Species described in this Monograph.

	Page.	Occurrence in the Cretaceous Formations of England.[1]					
		Ch.	Cr.	Cm.	Detr.	Glt.	Gs.
I. CYPRIDIDÆ.							
I. Paracypris, *Sars.*							
1. Paracypris gracilis (*Bosquet*)	1	×	...	...	×	×?	
2. — siliqua, *sp. nov.*	2	×	...	...	...	×[2]	
II. Pontocypris, *Sars.*							
1. Pontocypris trigonalis, *sp. nov.*	3	...	...	...	...	×	
2. — triquetra (*Jones*)	4	×	...	..	×	×	
3. — Bosquetiana *sp. nov.*	4	...	...	×	...	×	
4. — attenuata ? (*Reuss*). F. Chapman's Collection	...	...	...	...	...	×	
III. Bairdia, *M'Coy.*							
1. Bairdia subdeltoidea (*Münster*)	5	×	×	×	×	...	×
2. — Harrisiana, *Jones*	8	×	×	...	×	×	×
2*. — — var. amplior, *nov.*	8	×					
IV. Macrocypris, *Brady.*							
1. Macrocypris siliqua, *Jones*	9	×	...	...	×	...	×
2. — Wrightii, *sp. nov.*	10	×					
3. — Muensteriana, *sp. nov.*	10	×	...	...	×		
4. — concinna, *sp. nov.*	11	...	×				
V. Bythocypris, *Brady.*							
1. Bythocypris simulata (*Jones*)	11	...	...	...	×		
2. — Reussiana, *sp. nov.*	12	×	...	...	×	×	
3. — silicula (*Jones*)	13	×	×	...	×	×	
3*. — — var. minor, *nov.*	13	...	×				
4. — Brownei, *sp. nov.*	13	×	×				
5. — Roemeriana, *sp. nov.*	14	...	×				
6. —? Iernica, *sp. nov.*	14	×					
II. CYTHERIDÆ.							
I. Cythere, *Miller.*							
1. Cythere ? Bosquetiana, *Jones*	15	...	...	...	×		
2. Cythere Bairdiana, *Jones*	15	...	...	...	...	...	×[3]
3. — Harrisiana, *Jones*	16	×	×	×	×	×	×[4]
3*. — — var. setosa, *nov.*	17	...	...	...	...	×	
3**. — — — reticosa, *nov.*	18	...	...	...	...	×	
4. — gaultina, *Jones*	18	...	...	...	...	×	
5. — Koninckiana, *Bosquet.* F. Chapman's Collection	...	...	...	...	...	×	

[1] Ch. = Chalk; Cm. = Chalk-marl; Cr. = Chalk-rock; Detr. = Detritus (Cm., &c.), Charing, Kent; Glt. = Gault; Gs. = Greensand. [2] Mr. Chapman's Collection. [3] Lower Greensand. [4] And Lower Greensand.

	Page.	Occurrence in the Cretaceous Formations of England.					
		Cb.	Cr.	Cm.	Detr.	Glt.	Gs.
I*. CYTHEREIS, *Jones.*							
1. Cythereis triplicata (*Römer*)	19	×	×	×	×	×	×
2. — auriculata (*Cornuel*)	19	...	×	...	...	×	
3. — quadrilatera (*Römer*)	20	×	×	×	×	×	×
4. — ornatissima (*Reuss*)	21	×	×	×	×	×	×
4*. — — var. paupera, *nov.*	23	...	...	...	×		
4**. — — — nuda, *nov.*	23	×	...	×	×	...	×
4***. — — — reticulata, *nov.*	24	×	×	×	×	×	×
4****. — — — radiata, *nov.*	25	...	...	...	...	...	×
4*****. — — — stricta, *nov.*	25	...	×				
5. — Wrightii, *sp. nov.*	25	×					
6. — tuberosa, *sp. nov.*	26	×	×?				
6*. — — var. symmetrica, *nov.*	26	×					
7. — Icenica, *sp. nov*	26	×					
7*. — — var. quadrata, *nov.*	27	×					
8. — Lonsdaleana, *Jones*	27	×	×				
9. — vallata, *Jones*	28	×					
10. — spinicaudata, *sp. nov.*	28	×	×				
II. CYTHERIDEA, *Bosquet.*							
1. Cytheridea perforata (*Römer*)	29	×	×	×	×	×	×
III. PSEUDOCYTHERE?, *Sars.*							
1. Pseudocythere? simplex, *sp. nov.*	30	×					
IV. CYTHERURA, *Sars.*							
1. Cytherura appendiculata, *Jones*	30	...	...	...	...	×	
V. CYTHEROPTERON, *Sars.*							
1. Cytheropteron concentricum (*Reuss*)	31	×	×	×	×	×	×
1*. — — var. virginea, *Jones*	32	×	...	...	...	...	×
2. — sphenoides (*Reuss*)	33	...	×				
3. — alatum (*Bosquet*)	34						
3*. — — — var. robusta, *nov.*	35	×					
3**. — — — — fortis, *nov.*	36	×					
3***. — — — — cornuta (*Bosquet*)	36	...	×	...	×?		
4. — Hibernicum, *sp. nov.*	36	×					
5. — phyllopterum (*Bosquet*)	37	×					
6. — cuspidatum, *sp. nov.*	37	×					
6*. — — var. montuosa (*Jones*)	38	×					
6**. — — — tricuspidata, *nov.*	38	×					
7. — pedatum (*Marsson*)	38	×	×				
7*. — — — var. salebrosa, *nov.*	39	×	×				
8. — umbonatum (*Williamson*)	40	×	...	×	×	...	
8*. — — — var. acanthoptera (*Marsson*)	41	×	×				×
8**. — — — var. longispinata *nov.*	41	×	...	...	...	×	
9. — Sherborni, *sp. nov.*	42	×	...	...	...	×	
VI. CYTHERIDEIS, *Jones.*							
1. Cytherideis parallela, *nov.*	43	×					
2. — acuminata (*Alth*)	43	×					

	Page.	Occurrence in the Cretaceous Formations of England.					
		Ch.	Cr.	Cm.	Detr.	Glt.	Gs.
III. CYTHERELLIDÆ.							
I. Cytherella, *Jones.*							
1. Cytherella ovata (*Römer*)	44	×	×	×	×	×	×
2. — obovata, *sp. nov.*	46	×					
3. — Muensteri (*Römer*)	46	×	×	×	×	×	×
4. — subreniformis, *sp. nov.*	47	×					
5. — Williamsoniana, *Jones*	48	×	×	×	×	×	×
5*. — — var. stricta, *nov.*	48	...	...	...	...	×	
5**. — — — granulosa, *Jones*	49	×	...	...	...	×	
6. — Chapmani, *sp. nov.*	49	...	...	...	...	×	
7. — obliquirugata, *sp. nov.*	50	×					
8. — ? Mantelliana, *Jones*	50	...	...	...	×		

III.—Ostracoda from the Upper Chalk, Thorpe, near Norwich. Collected by T. Rupert Jones.

Bairdia subdeltoidea (*Münster*).
Cythereis quadrilatera (*Römer*).
— Icenica, *nov.*
— Lonsdaleana, *Jones.*
Cytheropteron umbonatum, *Jones.*
— alatum-robustum, *nov.*
Cytherella ovata (*Römer*).
— Muensteri (*Römer*).
— Williamsoniana-granulosa, *Jones.*

IV.—Ostracoda from Flint-meal. Collected by Dr. G. J. Hinde, F.G.S., from a Chalk-flint at Horstead, Norfolk.

Paracypris siliqua, *nov.* Not rare.
Bairdia Harrisiana, *Jones.*
Macrocypris Muensteriana, *nov.*
Cythereis ornatissima (*Reuss*). Not rare.
— ornatissima-reticulata, *nov.* Not rare.
— tuberosa, *nov.*
— tuberosa-symmetrica, *nov.*

Cythereis Icenica-quadrata, *nov.* Common.
— Lonsdaleana, *Jones.*
— spinicaudata, *nov.*
Cytheridea perforata (*Römer*).
Pseudocythere ? simplex, *nov.* Not rare.
Cytheropteron concentricum (*Reuss*). Common.
— concentricum-virgineum, *Jones.* Common.
— Sherborni, *nov.* Common.
— umbonatum-longispinatum, *nov.*
— alatum-forte, *nov.*
— cuspidatum, *nov.*
— cuspidatum-tricuspidatum, *nov.*
— pedatum (*Marsson*). Common.
Cytherella ovata (*Römer*). Common.
— Muensteri (*Römer*). Not rare.
— Williamsoniana, *Jones.*
— Williamsoniana-granulosa, *Jones.*

V.—Ostracoda from the Flint-meal of the Chalk, Antrim. Collected by Mr. Joseph Wright, F.G.S.

Paracypris siliqua, *nov.*
Bairdia subdeltoidea (*Münster*). Common.
Macrocypris siliqua, *Jones.*
— Wrightii, *nov.*
Bythocypris? Iernica, *nov.*
Cythere Harrisiana, *Jones.*
Cythereis ornatissima (*Reuss*).
— ornatissima-reticulata, *nov.*
— ornatissima-nuda, *nov.*
— vallata, *nov.*
— spinicaudata, *nov.*
Cytheropteron concentricum (*Reuss*). Rather common.
— concentricum-virgineum, *Jones.*
— umbonatum-acanthopterum (*Marsson*).
— alatum-robustum, *nov.*
— alatum-forte, *nov.*
— phyllopterum (*Bosquet*).
— cuspidatum-montuosum, *nov.*

Cytheropteron pedatum (*Marsson*).
— pedatum-salebrosum, *nov.*
Cytherideis acuminata ? (*Reuss*).
Cytherella ovata (*Römer*). Common.
— Williamsoniana-granulosa, *Jones*. Common.

VI.—Genera and Species from the Flint-meal from the Chalk of Keady Hill, Co. Londonderry. Collected by Mr. Joseph Wright, F.G.S.

(Systematic Lists, &c., Belfast Nat. Field Club, vol. i, Appendix iii, pp. 80 and 93.)

Paracypris gracilis (*Bosquet*).
Bairdia subdeltoidea (*Münster*). Common; and a variety.
— Harrisiana, *Jones*.
Macrocypris siliqua, *Jones*.
Bythocypris Brownei, *nov.*
— silicula, *Jones*.
Cythereis Wrightii, *nov.*
— ornatissima-reticulata, *nov.*
— ornatissima-nuda (?), *nov.*
— spinicaudata, *nov.*
Cytheropteron concentricum (*Reuss*).
— alatum-forte, *nov.* (with high thin ridge).
— umbonatum-longispinatum (*Marsson*).
— pedatum (*Marsson*).
— phyllopterum (*Bosquet*).
Cytherideis ? parallela, *nov.*
— ? acuminata (*Reuss*) (*fide* J. W.).
Cytherella ovata (*Römer*). Common.
— Muensteri (*Römer*).
— subreniformis, *nov.*
— Williamsoniana, *Jones*.

VII.—Ostracoda from the Chalk in a Well at Colchester, Essex. Collected by T. Rupert Jones.

Bairdia subdeltoidea (*Münster*).
Cythereis triplicata (*Römer*).
— quadrilatera (*Römer*).[1]

[1] The figs. 39—41 in pl. xxxiv, 'Quart. Journ. Geol. Soc.,' vol. xl (1884), described at pages 766 and 772 as *Cythereis quadrilatera*, from the Upper Jurassic beds (?) in the Richmond boring, probably represent *C. auriculata*, Cornuel.

Cytherella ovata (*Römer*).
— Muensteri (*Römer*).
— Williamsoniana, *Jones*.

('Ann. Mag. Nat. Hist.,' ser. 2, vol. xii, 1853, pp. 240—242.)

VIII.—Additional Ostracoda from the Chalk of the South-east of England (Kent). Collected by T. Rupert Jones.

Cythereis ornatissima (*Reuss*).
Cytherella obovata, *sp. nov.*
— subreniformis, *sp. nov.*

IX.—Ostracode from a Chalk-flint in the Mitcham Gravel. Collected by Dr. G. C. Wallich.

Cytheropteron umbonatum-longispinatum, *nov.*

X.—Ostracoda from the Chalk, North-west of Kemsing, near Sevenoaks, Kent. Collected by Mr. F. Chapman.

Bairdia subdeltoidea (*Münster*).
Cytheropteron alatum (*Bosquet*), var.
Cytherella ovata (*Römer*).
— Muensteri (*Römer*).

XI.—Ostracoda from the Chalk-rock of Bedfordshire, Buckinghamshire, and Oxfordshire; from Material supplied by Mr. A. J. Jukes-Browne, F.G.S., and Mr. J. Rhodes.

1. Chalk-rock; Dunstable (Bedfordshire).
Bairdia subdeltoidea (*Münster*). Common.
— Harrisiana ? (*Jones*).
Macrocypris concinna, *nov.*
Bythocypris silicula (*Jones*), and var. Not uncommon.
— Brownei, *nov.*
— Rœmeriana, *nov.*
Cythere Harrisiana, *Jones.*

Cythereis triplicata (*Römer*).
— auriculata (*Cornuel*).
— quadrilatera (*Römer*). Common.
— ornatissima (*Reuss*). Common.
— — *var.* reticulata, *nov.* Common.
— — — stricta, *nov.*
— Lonsdaleana, *Jones*. Common.
— spinicaudata, *nov.*
— tuberosa, *nov.*
Cytheridea perforata (*Römer*).
Cytheropteron alatum-cornutum (*Bosquet*).
— sphenoides (*Reuss*).
— concentricum (*Reuss*).
— umbonatum-acanthopterum (*Marsson*).
— pedatum (*Marsson*). Common.
— pedatum-salebrosum, *nov.*
Cytherella ovata (*Römer*). Common.
— Muensteriana (*Römer*).
— Williamsoniana, *Jones*. Common.

2. Chalk-rock; Midland Railway cutting between Luton (Beds) and New Millend Stations, Ordnance Map, Sheet 46 S.E. Ostracoda from the top of the Basement-bed. New Millend is just north of Harpenden (Herts).

Bairdia subdeltoidea (*Münster*).
Bythocypris silicula (*Jones*).
Cythereis ornatissima-reticulata, *nov.*
Cytherella ovata (*Römer*).
— Williamsoniana, *Jones*.

3. Chalk-rock; West Wycombe, by the entrance to a cave in the hill above the village (Bucks).

Bairdia subdeltoidea (*Münster*).
Cytherella ovata (*Römer*).

4. Chalk-rock; pit above the Lower Rock, Chinnor.[1]

Bairdia subdeltoidea (*Münster*).
Cytherella ovata (*Römer*).

[1] "The Chinnor locality is in Oxfordshire. It is a pit on the Oxford Road, on the slope of Chinnor Hill. The 'Lower Rock' is the main mass of the Chalk-rock, probably *the* rock itself; for, although there is a thinner bed of similar rock some fifteen feet higher, I think this upper bed is *in* the zone of Micrasters. The section is a very good one."—A. J. Jukes-Browne. December 28th, 1889.

XII.—Ostracoda from the Chalk-marl at Didcot Station, Berks. Collected by T. Rupert Jones.

Pontocypris Bosquetiana, *nov.*
Bairdia subdeltoidea (*Münster*).
Cythereis triplicata (*Römer*).
— quadrilatera (*Römer*).
— ornatissima-reticulata, *nov.*
— ornatissima-nuda, *nov.*
Cytheridea perforata (*Römer*).
Cytheropteron concentricum (*Reuss*).
Cytherella ovata (*Römer*).
— Muensteri (*Römer*).

(See 'Proceed. Geol. Assoc.,' vol. xi, 1889, p. 198, for a geological notice of the neighbourhood of Didcot by Mr. A. J. Jukes-Browne, F.G.S.)

XIII.—Additional Ostracoda from the "Detritus" at Charing, Kent. Collected by T. Rupert Jones.

Cythereis ornatissima-reticulata, *nov.*
— ornatissima-paupera, *nov.*

XIV.—Ostracoda from the "Upper Greensand" (Phosphate-bed), Cambridge. Enumerated by Dr. W. J. Sollas, F.R.S. ('Quart. Journ. Geol. Soc.,' vol. xxviii, 1872, p. 398.)

Bairdia subdeltoidea (*Münster*).
Cythereis triplicata (*Römer*).
— quadrilatera (*Römer*).
— ciliata (*Reuss*)[= ornatissima (*Reuss*)].
Cythere punctatula, *Römer* [= Cytheropteron concentricum (*Reuss*)].
— umbonatum, *Williamson* [= Cytheropteron].
Cytherella truncata (*Bosquet*) [= C. Muensteri (*Römer*)].

XV.—Ostracoda from the "Upper Greensand" (Phosphate-bed), Cambridge. Collected by Mr. G. R. Vine, 1889.

Bairdia subdeltoidea (*Münster*).
— Harrisiana, *Jones.*

Cythere Harrisiana, *Jones.*
Cythereis triplicata (*Römer*).
— quadrilatera (*Römer*).
— ornatissima (*Reuss*).
— ornatissima-reticulata, *nov.*
— ornatissima-nuda, *nov.*
Cytheridea perforata (*Römer*).
Cytheropteron concentricum (*Reuss*).
— concentricum-virgineum, *Jones.*
Cytherella ovata (*Römer*).
— Muensteri (*Römer*).

XVI.—Ostracoda from the Upper Greensand at Ventnor, Isle of Wight. Collected by Dr. G. J. Hinde, F.G.S.

Macrocypris siliqua, *Jones.*
Cythereis ornatissima (*Reuss*).
Cytherella ovata (*Römer*).
— Muensteri (*Römer*).
— Williamsoniana, *Jones.*

And others.

XVII.—Ostracoda from the Upper Greensand at Warminster, Wiltshire. Collected by Dr. G. J. Hinde, F.G.S.

Bairdia subdeltoidea (*Münster*).
Cythereis ornatissima (*Reuss*), var.
Cytheropteron concentricum-virgineum, *Jones.*
— cuspidatum, *nov.* ?

And others.

XVIII.—Ostracoda from the Upper Greensand of Meux's Well, London. C. Moore, F.G.S. ('Quart. Journ. Geol. Soc.,' vol. xxxiv, 1878, p. 917).

Cythere, *sp. nov.*
— virginea, *Jones* = Cytheropteron concentricum (*Reuss*), var. virginea, *Jones.*
— concentrica, *Reuss* = Cytheropteron.
Paracypris, *sp. nov.*

XIX.—Ostracoda from the Gault of Folkestone. Mr. Fred. Chapman's Collection, 1880.

Pontocypris trigonalis, *nov.*
Bairdia Harrisiana, *Jones.*
Cythere Harrisiana, *Jones.*
Cythereis triplicata (*Römer*).
— ornatissima (*Reuss.*)
— ornatissima-reticulata, *nov.*
Cytheridea perforata (*Römer*).
Cytheropteron concentricum (*Reuss*).
Cytherella ovata (*Römer*).
— Muensteri (*Römer*).
— Williamsoniana, *Jones.*

XX.—Ostracoda from the Gault of Folkestone, Kent. Mr. Fred. Chapman's Collection, 1888.

Paracypris gracilis (?) (*Bosquet*).
— siliqua, *nov.*
Pontocypris trigonalis, *nov.* Not uncommon.
— triquetra, *Jones.*
— attenuata (?) (*Reuss*).
— Bosquetiana, *nov.* Not uncommon.
Bairdia Harrisiana, *Jones.*
Cythere Harrisiana, *Jones.* Common.
— Harrisiana-setosa, *nov.*
— Harrisiana-reticosa, *nov.*
— gaultina, *Jones.*
— Koninckiana, *Bosquet.*
Cythereis triplicata (*Römer*). Common.
— auriculata (*Cornuel*). Common.
— quadrilatera (*Römer*). Young and adult; common.
— ornatissima (*Reuss*). Young and adult.
— ornatissima-reticulata, *nov.* Common.
Cytheridea perforata (*Römer*). Common.
Cytheropteron concentricum, *Reuss.* Common.
— umbonatum-longispinatum, *nov.*
Cytherella ovata, *Römer.* Common.

Cytherella Muensteri, *Römer*.
— Williamsoniana, *Jones*.
— Williamsoniana-granulosa, *Jones*.
— Williamsoniana-stricta, *nov.*
— Chapmani, *nov.*

Besides one or more new species.

XXI.—Ostracoda from the Gault of Folkestone (Kent). Enumerated by Mr. F. G. Hilton Price, F.G.S. (in his Memoir 'The Gault,' 1879, p. 50).

Cythere concentrica, *Reuss* = Cytheropteron concentricum (*Reuss*).
— (Cythereis) gaultina, *Jones* = Cythere.
— — Harrisiana, *Jones* = Cythere.
— — ornatissima, *Reuss* = Cythereis ornatissima (*Reuss*).
— — — var. cornuta, *Jones* = Cythereis ornatissima (*Reuss*), var. nuda, *nov.*
— — quadrilatera, *Römer* = Cythereis quadrilatera (*Römer*).
— — triplicata, *Römer* = Cythereis triplicata (*Römer*).
Cytherella Muensteri (*Römer*).
— ovata (*Römer*).
— Williamsoniana, *Jones*.
Cytheridea Jonesiana, *Bosquet*
— perforata, *Römer* } = Cytheridea perforata (*Römer*).
Cytherideis (Bairdia) angusta, *Münster* = Bythocypris Reussiana, *sp. nov.*
Cytherura (Cytherella) appendiculata, *Jones* = Cytherura.

XXII.—Ostracoda from the Gault of Godstone, Surrey. Mr. Fred. Chapman's Collection, 1880.

Bairdia subdeltoidea (*Münster*).
Cythere Harrisiana, *Jones*.
Cythereis triplicata (*Römer*).
— auriculata (*Cornuel*).
— quadrilatera (*Römer*).
— ornatissima (*Reuss*).
— ornatissima-reticulata, *nov.*
Cytheridea perforata (*Römer*).
Cytherella ovata (*Römer*).
— Muensteri (*Römer*).

Cytherella Williamsoniana, *Jones*.
— Williamsoniana-stricta, *nov.*
— Chapmani, *nov.*

XXIII.—Ostracoda from the Gault at Godstone, Surrey. Collected by Mr. C. Davies Sherborn, F.G.S.

Cythere Harrisiana, *Jones*, var. setosa, *nov.* Young.
— — var. reticosa, *nov.*
— gaultina, *Jones*.
Cythereis triplicata (*Römer*).
— auriculata (*Cornuel*).
— quadrilatera (*Römer*).
— ornatissima (*Reuss*).
Cytherella ovata (*Römer*).
— Muensteri (*Römer*).

XXIV.—List of Ostracoda from the Gault in Meux's Well, London. Charles Moore, F.G.S. ('Quart. Journ. Geol. Soc.,' vol. xxxiv, 1878, p. 918), and F. G. H. Price, F.G.S. ("The Gault," 1879, p. 43).

Cythere ornatissima, *Reuss* = Cythereis.
— quadrilatera, *Römer* = Cythereis.
Polycope, sp. = (?).
Macrocypris ? arcuata (*Münster*) = Macrocypris Muensteriana, *sp. nov.*
? Cytheridea perforata (*Römer*).
Cytherella ovata (*Römer*).
— Muensteri (*Römer*).
— Beyrichi, *Reuss*.
— Williamsoniana, *Jones*.
Cythere concentrica, *Reuss* = Cytheropteron.
— quadrilatera ? *Römer* = Cythereis.
Paracypris ? gracilis, *Jones*.

XXV.—Ostracoda from a Cream-coloured Limestone (without Flints) overlying the Bluish-grey, Sandy, Micaceous Clay at the Lighthouse, Havre, France. Collected by Mr. C. D. Sherborn, F.G.S.

Cythereis triplicata (*Römer*).

Cythereis ornatissima (*Reuss*).
Cytheropteron concentricum (*Reuss*).
Cytherella ovata (*Römer*).
— Muensteri (*Römer*).

XXVI.—Ostracoda from the Blue-grey, Sandy, Micaceous Clay (referred to the Aptian Formation by Lapparent) at the Base of the Cliff at the Havre Lighthouse, France.

Cythereis triplicata (*Römer*).
— auriculata (*Cornuel*).
— quadrilatera (*Römer*).
— ornatissima (*Reuss*).
— — var. reticulata, *nov.*
Cytheridea perforata (*Römer*).
Cytheropteron concentricum (*Reuss*).
— alatum (*Bosquet*).
Cytherella ovata (*Römer*).
— Muensteri (*Römer*).
— Williamsoniana, *Jones.*

XXVII.—Ostracoda from the Lower Greensand [?] of Meux's Well, London. C. Moore, F.G.S. ('Quart. Journ. Geol. Soc.,' vol. xxxiv, 1878, p. 919).

Bairdia Harrisiana, *Jones.*
— subdeltoidea (*Münster*).
— angusta (*Münster*) = Bythocypris Reussiana, *sp. nov.*
Cytherella compressa (*Münster*).
— Beyrichi, *Reuss.*
Cythere interrupta, *Bosquet* = Cythere Harrisiana, *Jones.*
— concentrica, *Reuss* = Cytheropteron.

LIST OF THE PRINCIPAL MEMOIRS ON CRETACEOUS OSTRACODA PUBLISHED SINCE 1849.

1850. ALTH, A. Geogn.-palæont. Beschreibung der nächste Umgebung von Lemberg. *Haidinger's Naturw. Abhandl.*, vol. iii, pt. 2, 1850, pp. 197, 198, pl. x.

1851. REUSS, A. E. VON. Die Foraminiferen und Entomostraceen des Kreidemergels von Lemberg. *Haidinger's Naturw. Abhandl.*, vol. iv, pt. 1, 1851, pp. 46—52, pl. vi.

1854. BOSQUET, J. Monographie des Crustacés fossiles du Terrain Crétacé du Duché de Limbourg. *Mémoires de la Commission pour la Description et la Carte géologique de la Neerlande*, 4to Haarlem, 1854, pp. 53—126, pls. iv—x.

1854. REUSS, A. E. VON. Beiträge zur Charakteristik der Kreideschichten in der Ostalpen. *Denkschrift. k. Akad. Wissensch. math.-nat. Cl.* (*Wien*), vol. vii, 1854, pp. 139—142, pls. xxvi, xxvii, xxviii.

1855. ——— Ein Beitrag zur genaueren Kenntniss der Kreidegebilde Meklenburgs. *Zeitschr. deutschen geol. Gesellsch.*, vol. vii, 1855, pp. 277—283, pls. x and xi.

1865. ——— Die Foraminiferen und Ostracoden der Kreide am Kanara-See bei Küstendsche. *Sitzungsb. d. kais. Akad. der Wissenschaften math.-nat. Cl.* (*Wien*), vol. lii, 1865, pp. 21—26, pl. i.

1870. JONES, T. RUPERT. Notes on the Cretaceous Entomostraca. *Geological Magazine*, vol. vii, 1870, pp. 74—77.

1871. PAVAY, ALEXIS VON. Kolozsvár környékéneh földtani viszonyai. A Magyar királyi földtani intezet évkönyve. *Pest*, 1871, pp. 350—356. (Cretaceous species in the Eocene Strata of Transylvania.)

1875. WRIGHT, JOSEPH, and T. RUPERT JONES. Systematic Lists illustrative of the Flora, Fauna, Palæontology, and Archæology of the North of Ireland, by Members of the *Belfast Naturalists' Field Club*, vol. i, Appendix III, 1875. *A List of the Cretaceous Microzoa of the North of Ireland*, by Joseph Wright, pp. 81 and 92.

1880. Marsson, Th. Die Cirripedien und Ostracoden der weissen Schreibkreide der Insel Rügen. *Mittheilungen aus dem Naturwissenschaftlichen Vereine von Neu-Vorpommern und Rügen in Griefswald*, 1880, pp. 1—50, pls. ii and iii.

1887. Kafka, J., in A. Fritsch's Die Crustaceen der bohmischen Kreideformation. 4to., *Prague*, 1887. Woodcuts. (Nearly half of Kafka's 20 Bohemian species are also British.)

INDEX.

The names in CAPITALS are adopted; those in *italics* are synonyms; those in common type are genera and species which are referred to.

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PLATE I.

Fig.		
1.	*Cytheridea perforata* (Römer). (Page 29.)	Left (larger) valve.
2.	— — —	Right (smaller) valve.
3.	— — —	Right valve, inside.
4.	— — —	Left valve, inside.
		× 18 diam.
5.	*Cytheropteron concentricum* (Reuss). (Page 31.)	Worn, old carapace, showing left valve.
6.	— — —	Left valve, rather young, prickly.
7.	— — —	Left valve, older, wrinkled. (See also Pl. IV, fig. 19.)
8.	— — —	Left valve, dorsal edge.
9.	— — —	Left valve, inside.
10.	— — —	Anterior view of a carapace.
		× 18 „
11.	— *umbonatum* (Will.), var. *acanthoptera* (Marsson). (Page 41.)	(See also Pl. IV, figs. 22—24.) Left valve.
12.	— — — — —	Dorsal view.
13.	— — — — —	Posterior view.
		× 18 „
14.	— *concentricum* (Reuss), var. *virginea*, Jones. (Page 32.)	Carapace, oblique. × 18 „
15.	— — — — —	Left valve.
16.	— — — — —	Ventral view.
17.	— — — — —	End view.
		× 20 „
18.	— *sphenoides* (Reuss). (Page 33.)	Right valve.
19.	— — —	Dorsal view.
20.	— — —	Anterior view.
		× 20 „
21.	— *umbonatum* (Will.). (Page 40.)	Carapace, ventral view.
22.	— — —	Carapace, dorsal view.
		× 18 „
23.	— — —	Carapace (thin), ventral outline.
24.	— — —	Carapace (large), posterior view.
		× 20 „
25.	— — —	Carapace, ventral view, oblique.
26.	— — —	Carapace, dorsal view.
		× 18 „
27.	*Bythocypris simulata* (Jones). (Page 11.)	Carapace (damaged at the posterior end), showing the right valve.
28.	— — —	Dorsal aspect.
29.	— — —	Anterior aspect.
		× 18 „
30.	*Cythere Bairdiana*, Jones. (Page 15.)	Right valve, inside.
31.	— — —	Dorsal aspect.
32.	— — —	End outline.
		× 18 „
33.	*Cytheropteron Sherborni*, sp. nov. (Page 42.)	Left valve.
34.	— — —	Right valve, ventral edge and inside.
		× 20 „
35.	*Cythere gaultina*, Jones. (Page 18.)	Right valve.
36.	— — —	Dorsal aspect.
		× 18 „
37.	*Cythereis Icenica*, sp. nov. (Page 26.)	Right valve.
38.	— — —	Right valve.
39.	— — —	Dorsal aspect.
		× 18 „
40.	— *Lonsdaleana*, Jones.	(Page 27.) Right valve.
41.	— — —	Edge outline.
42.	— — —	End outline.
		× 20 „
43.	*Cythere Harrisiana*, Jones, var. *setosa*, nov. (Page 17.)	Right valve.
44.	— — — — — —	Left valve.
45.	— — — — — —	Left valve.
		× 25 „
46.	— — — var. *reticosa*, nov. (Page 18.)	Right valve.
47.	— — — (Page 16.)	Ordinary form. Left valve.
48.	— — —	Var. *α*. Left valve.
49.	— — —	Var. *β*. Left valve.
50.	— — —	Var. *β*. Carapace, dorsal aspect.
51.	— — —	Var. *α*. Carapace, ventral aspect.
52.	— — —	Var. *β*. Carapace, anterior aspect.
		× 18 „
53.	*Cythereis auriculata* (Cornuel). (Page 19.)	Right valve.
54.	— — —	Right valve.
55.	— — —	Right valve (deformed).
		× 25 „
56.	— *triplicata* (Römer). (Page 19.)	Left valve.
57.	— — —	Right valve.
58.	— — —	Right valve, inside.
59.	— — —	Carapace, dorsal aspect.
60.	— — —	Left valve, inside.
61.	— — —	Carapace, anterior aspect.
		× 18 „
62.	— *Icenica*, sp. nov., var. *quadrata*, nov. (Page 27.)	(See also Pl. IV, figs. 15—17.) Left valve. × 20 „
63.	— *ornatissima* (Reuss), var. *stricta*, nov. (Page 25.)	Right valve. × 20 „
64.	— *Lonsdaleana*, Jones. (Page 27.)	Left valve.
65.	— — —	Right valve.
66.	— — —	Dorsal edge of right valve.
		× 18 „
67.	— *ornatissima* (Reuss), var. *reticulata*, nov. (Page 24.)	Left valve.
68.	— — — — — —	Left valve.
		× 20 „
69.	— *quadrilatera* (Römer). (Page 20.)	Left valve.
70.	— — —	Right valve.
71.	— — —	Carapace, dorsal aspect.
72.	— — —	Carapace, anterior aspect.
73.	— — —	Left valve, not full grown.
74.	— — —	Right valve, young.
75.	— — —	Carapace, young; dorsal aspect.
		× 18 „
76.	— *ornatissima* (Reuss), var. *nuda*, nov. (Page 23.)	Left valve.
77.	— — — var. *reticulata*, nov. (Page 24.)	Left valve.
		× 25 „

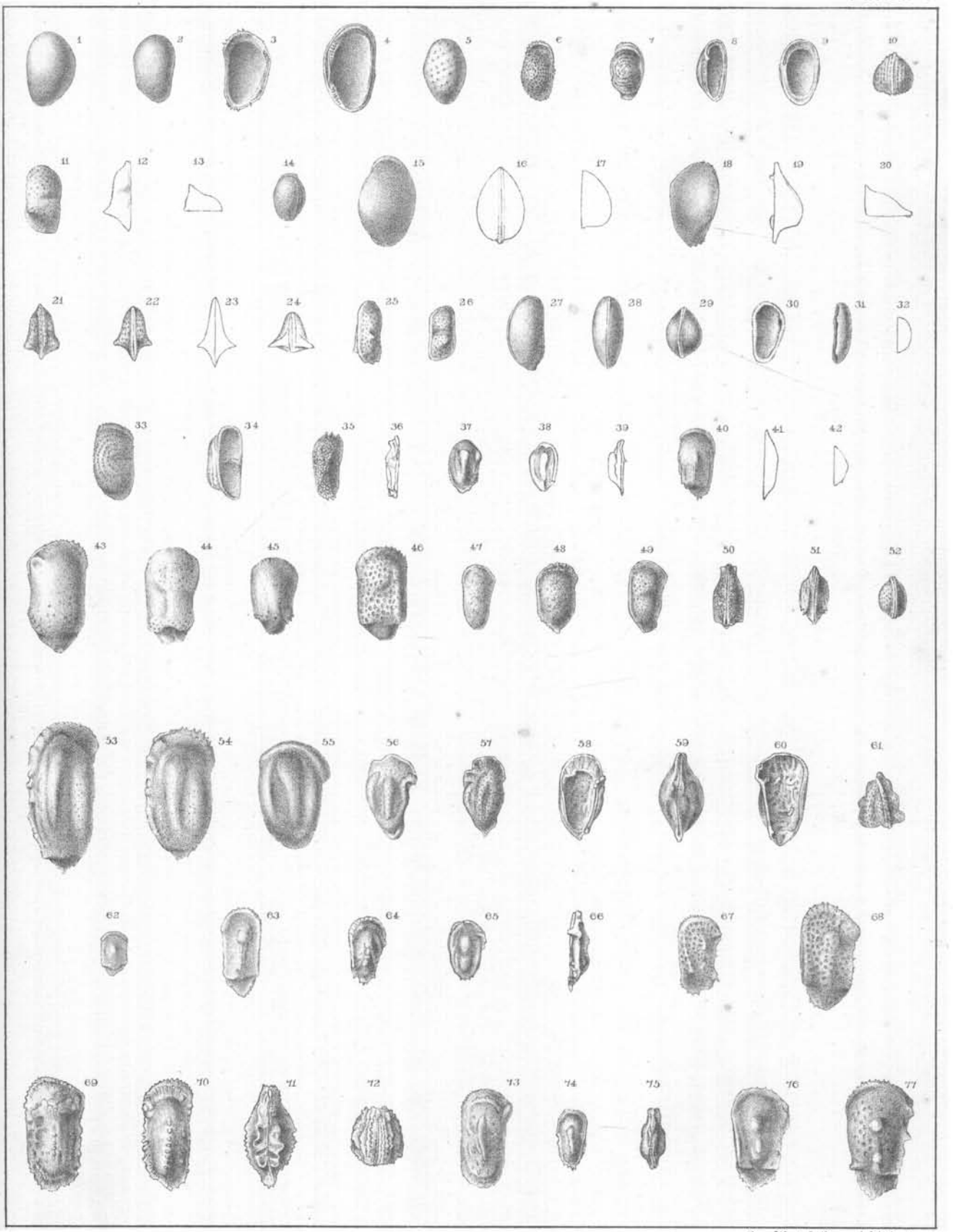

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PLATE II.

Fig.			
1.	*Cythereis ornatissima* (Reuss). (Page 21.)	Left valve.	× 18 diam.
2.	— — —	Carapace, dorsal aspect.	
3.	— — —	Carapace, ventral aspect.	
4.	— — —	Carapace, anterior aspect.	
5.	— — —	Left valve, not fully developed, though large.	
6.	— — —	Left valve, rather young.	
7.	— — —	Carapace, rather young; dorsal aspect.	
8.	— — — var. *nuda*, nov. (Page 23.)	(Bad figure. See Pl. IV, fig. 14.)	
9.	— — — — —	Left valve.	
10.	— — — var. *paupera*, nov. (Page 23.)	Left valve.	× 20 „
11.	— — — — — —	Right valve.	
12.	— — — var. *nuda*, nov. (Page 23.)	Carapace, dorsal view.	× 18 „
13.	— — — — — —	Carapace, ventral view.	
14.	— — — — — —	Carapace, anterior end.	
15.	— — — (Page 21.)	Young. Left valve. (Pl. IV, fig. 7.)	× 18 „
16.	— — — Young.	Carapace, dorsal view. (Pl. IV, fig. 8.)	
17.	— *spinicaudata*, sp. nov. (Page 28.)	Left valve.	× 20 „
18.	— — —	Edge outline.	
19.	— *vallata*, Jones. (Page 28.)	Left valve.	× 20 „
20.	*Cytheropteron alatum* (Bosquet), var. *fortis*, nov. (Page 36.)	Left valve.	× 25 „
21.	— — — — — —	Right valve.	
22.	— *Hibernicum*, sp. nov. (Page 36.)	Left valve.	× 25 „
23.	— — —	Ventral view.	
24.	— *alatum* (Bosquet), var. *robusta*, nov. (Page 35.)	Right valve.	× 18 „
25.	— — — — — —	Carapace, dorsal view.	
26.	— — — — — —	Carapace, ventral view.	
27.	— — — — — —	Carapace, anterior view.	
28.	*Bythocypris Rœmeriana*, sp. nov. (Page 14.)	Left valve.	× 20 „
29.	— — —	Edge view.	
30.	— — —	End view.	
31.	*Bairdia subdeltoidea* (Münster). (Page 5.)	Carapace, dorsal view.	× 18 „
32.	— — —	Carapace, anterior view.	
33.	— — —	Left (large) valve.	
34.	— — —	Right (small) valve.	
35.	*Cythere? Bosquetiana*, Jones. (Page 15.)	Carapace, showing right valve.	× 18 „
36.	— — —	Carapace, dorsal view.	
37.	— — —	Carapace, end view.	
38.	*Macrocypris siliqua*, Jones. (Page 9.)	Carapace, dorsal view.	× 18 „
39.	— — —	Carapace, end view.	
40.	— — —	Right valve.	
41.	— — —	Right valve, inside.	
42.	— *Muensteriana*, sp. nov. (Page 10.)	Right valve, inside.	× 25 „
43.	— *Wrightii*, sp. nov. (Page 10.)	Left valve (imperfect), edge outline.	× 12 „
44.	— — —	Left valve.	
45.	— *Muensteriana*, sp. nov. (Page 10.)	Carapace, left valve shown, oblique.	× 18 „
46.	— — —	Carapace, dorsal view.	
47.	— — —	Carapace, anterior view.	
48.	*Paracypris siliqua*, sp. nov. (Page 2.)	Right valve, edge outline.	× 25 „
49.	— — —	Right valve	
50.	— *gracilis* (Bosquet). (Page 1.)	Carapace, right valve seen.	× 18 „
51.	— *siliqua*, sp. nov. (Page 2.)	Right valve.	× 25 „
52.	*Bairdia Harrisiana*, Jones. (Page 8.)	Carapace, dorsal aspect.	× 18 „
53.	— — —	Carapace, anterior aspect.	
54.	— — —	Carapace, left valve shown.	
55.	— — —	Right valve.	
56.	*Bythocypris Reussiana*, sp. nov. (Page 12.)	Left valve.	× 18 „
57.	*Bairdia Harrisiana*, Jones, var. *amplior*, nov. (Page 8.)	Right valve.	× 25 „
58.	*Pseudocythere? simplex*, sp. nov. (Page 30.)	Left valve. (See also Pl. IV, figs. 37 and 38.)	× 20 „
59.	— — —	Left valve.	
60.	— — —	Right valve. Young, or variety.	
61.	*Bythocypris Reussiana*, sp. nov. (Page 12.)	Carapace, dorsal aspect.	× 18 „
62.	— — —	Carapace, anterior aspect.	
63.	— — —	Carapace, right valve shown.	
64.	— *silicula* (Jones). (Page 13.)	Left valve.	× 20 „
65.	*Pontocypris Bosquetiana*, sp. nov. (Page 4.)	Right valve.	× 25 „
66.	*Macrocypris concinna*, sp. nov. (Page 11.)	Left valve, edge outline.	× 20 „
67.	— — —	Left valve.	

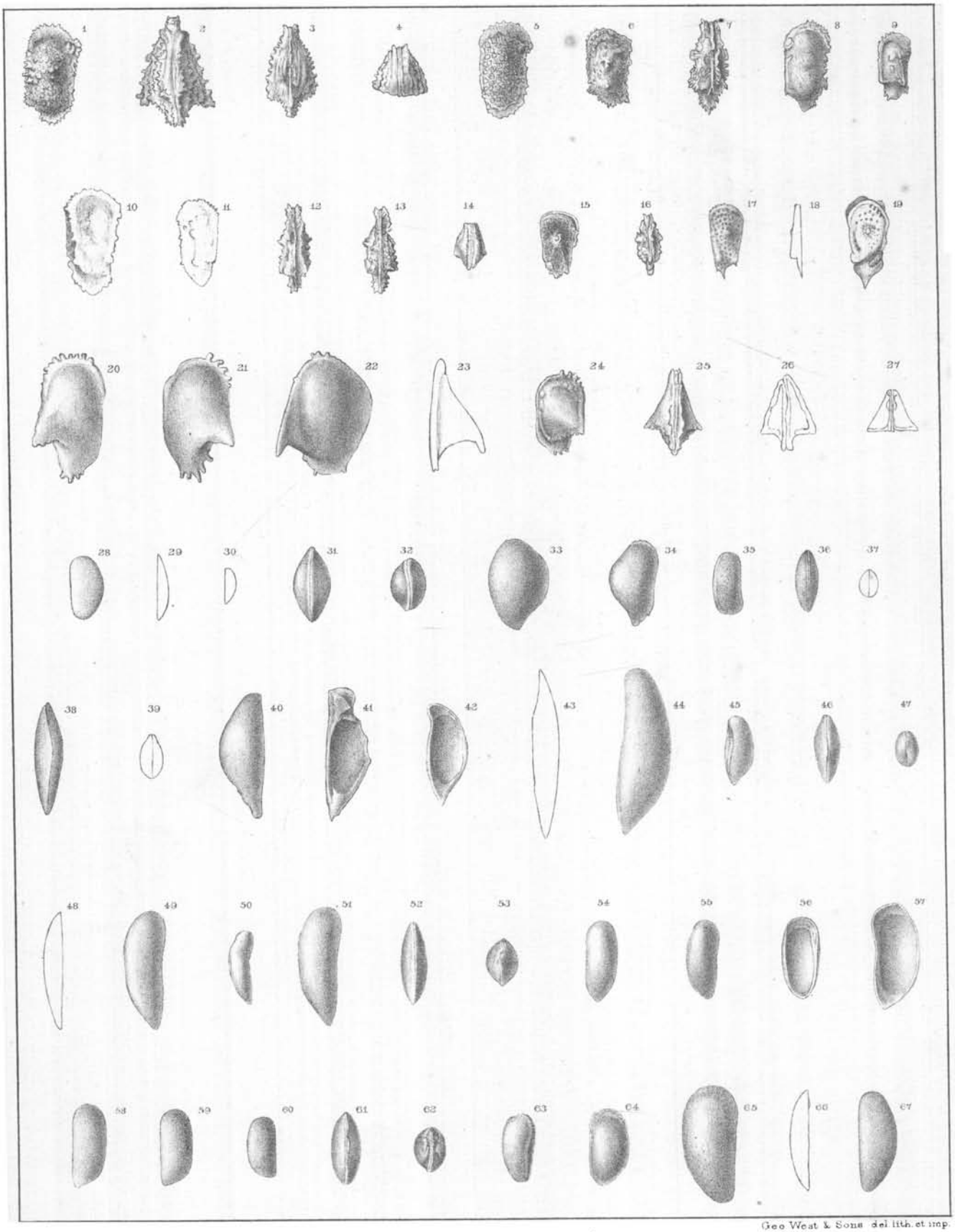

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PLATE III.

Fig.		
1.	*Cythereis tuberosa*, sp. nov., var. *symmetrica*, nov. (Page 26.) Right valve.	× 20 diam
2.	— — — (Page 26.) Carapace, showing right valve.	× 20 „
3.	— — — Carapace, ventral outline.	
4.	*Cytheropteron cuspidatum*, sp. nov. (Page 37.) Left valve.	
5.	— — — Left valve, dorsal edge.	× 20 „
6.	— — — var. *tricuspidata*, nov. (Page 38.) Right valve.	
7.	— — — — — Right valve, dorsal edge.	
8.	— *pedatum* (Marsson), var. *salebrosa*, nov. (Page 39.) Left valve. (See Pl. IV, fig. 32.)	× 20 „
9.	— *phyllopterum* (Bosquet). (Page 37.) Left valve.	× 20 „
10.	— — — Left valve, ventral view.	
11.	— *umbonatum* (Will.), var. *longispinata* (Marsson). (Page 41.) Right valve. (See Pl. IV, figs. 30, 31.)	× 20 „
12.	— — — — — — Carapace, ventral outline.	
13.	— — — — — — End outline of valve.	
14.	— *cuspidatum*, sp. nov., var. *montuosa* (Jones). (Page 38.) Right valve.	
15.	— — — — — — Edge outline.	× 20 „
16.	— — — — — — End outline.	
17.	*Cytherura appendiculata*, Jones. (Page 30.) Carapace, showing right valve.	× 18 „
18.	— — — Carapace, edge view.	
19.	*Cytherella Mantelliana*, Jones. (Page 50.) Carapace, showing right valve.	
20.	— — — Carapace, edge view.	× 18 „
21.	— — — Carapace, end view.	
22.	*Pontocypris triquetra* (Jones). (Page 4.) Left valve (damaged).	
23.	— — — Edge view.	× 18 „
24.	— — — End outline.	
25.	— *trigonalis*, sp. nov. (Page 3.) (See also Pl. IV, figs. 1 and 2.) Carapace, showing right valve.	× 20 „
26.	— — — Carapace, edge outline.	
27.	*Bythocypris silicula* (Jones). (Page 13.) Left valve, inside.	
28.	— — — Edge view.	× 18 „
29.	— — — End view.	
30.	— — — Left valve.	× 20 „
31.	— ? *Iernica* (Jones). (Page 14.) Carapace, showing right valve.	× 20 „
32.	— — — Carapace, edge view.	
33.	*Paracypris siliqua*, sp. nov. (Page 2.) Right valve.	× 20 „
34.	— — — Right valve.	
35.	*Pontocypris triquetra* (Jones), var. (? female). (Page 4.) Carapace, showing left valve.	
36.	— — — — — Carapace, edge outline.	× 20 „
37.	— — — — — Carapace, end outline.	
38.	*Bythocypris Brownei*, sp. nov. (Page 13.) Left valve.	× 20 „
39.	— — — Edge outline.	
40.	— *silicula* (Jones), var. *minor*, nov. (or male ?) (Page 13.) Left valve.	× 20 „
41.	— — — — — — — — Edge outline.	
42.	— *Brownei*, sp. nov. (? male). (Page 13.) Left valve.	× 20 „
43.	— — — Edge outline.	
44.	*Cytherella subreniformis*, sp. nov. (Page 47.) Carapace, showing right valve.	× 20 „
45.	— — — Carapace, edge outline.	
46.	— *obovata*, sp. nov. (Page 46.) Carapace, showing right valve.	× 20 „
47.	— — — Carapace, edge outline.	
48.	— *ovata* (Römer). (Page 44.) Left (small) valve.	
49.	— — — Right (large) valve.	
50.	— — — Right valve, inside.	
51.	— — — Carapace, dorsal aspect.	× 18 „
52.	— — — Carapace, anterior aspect (oblique).	
53.	— — — Oval variety. Right valve. (See also Pl. IV, fig. 39, corrected.)	
54.	— — — Young. Right valve.	
55.	— *Williamsoniana*, Jones. (Page 48.) Left (small) valve.	
56.	— — — Right (large) valve.	
57.	— — — Right valve, inside.	
58.	— — — Young. Right valve.	
59.	— — — Carapace, dorsal view.	× 18 „
60.	— — — Carapace (younger), dorsal view.	
61.	— — — Carapace, ventral view.	
62.	— — — Carapace, anterior aspect.	
63.	— *Muensteri* (Römer). (Page 46.) Carapace, showing left valve.	
64.	— — — Carapace (young), showing right valve.	
65.	— — — Left valve, inside.	× 18 „
66.	— — — Carapace (cast), dorsal view.	
67.	— — — Carapace (cast), anterior aspect (oblique).	
68.	— *Williamsoniana*, Jones, var. *granulosa*, Jones. (Page 49.) Right valve.	
69.	— — — — — — Dorsal view.	
70.	— *Chapmani*, sp. nov. (Page 49.) Right valve.	× 20 „
71.	— *Williamsoniana*, Jones, var. *stricta*, nov. (Page 48.) Right valve.	
72.	— — — var. *granulosa*, Jones. (Page 49.) Right valve.	
73.	— *obliquirugata*, sp. nov. (Page 50.) Left (?) valve.	

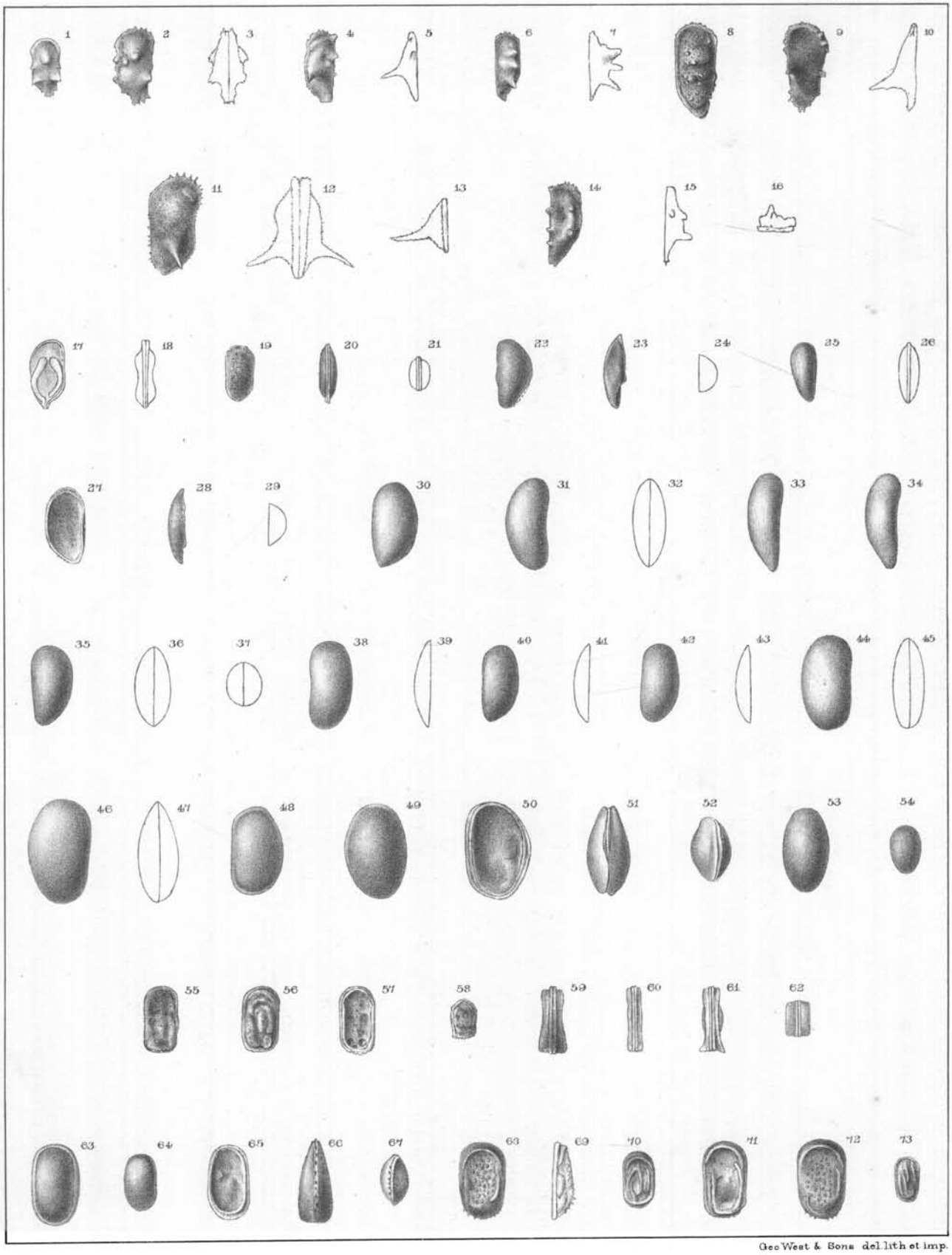

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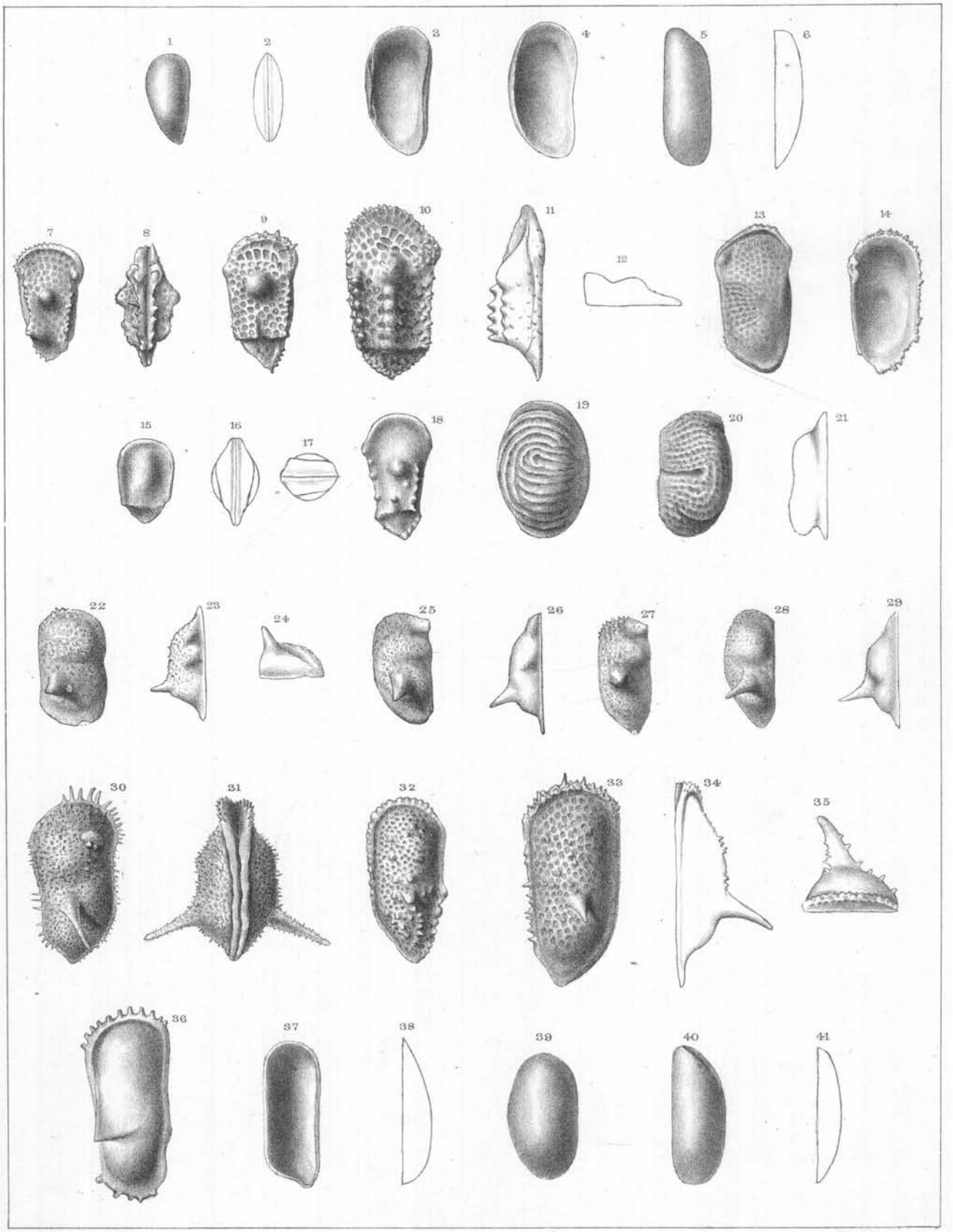
PLATE IV.

Fig.			
1.	*Pontocypris trigonalis*, sp. nov. (Page 3.) Carapace; right valve seen. (See also Pl. III, figs. 25 and 26.)	× 30 diam.	
2.	— — — Edge outline. The translucent edges show the lines of the internal flanges.		
3.	— *Bosquetiana*, sp. nov. (Page 4.) Left valve, inside. Reproduced from pl. vi, fig. 18 *f*.	× 30	„
4.	*Bairdia Harrisiana*, Jones, var *amplior*, nov. (Page 8.) Left valve, inside.	× 30	„
5.	*Cytherideis parallela*, sp. nov. (Page 43.) Right valve.[1]	× 30	„
6.	— — — Edge outline.[1]		
7.	*Cythereis ornatissima* (Reuss), Young, in the *reticulate* stage. (Page 21.) Carapace; left valve shown. Reproduced accurately instead of pl. iv, fig. 11 *h*.	× 30	„
8.	— — — Dorsal edge. Reproduced for fig. 11 *h'*.		
9.	— — var. *reticulata*, nov. (Page 24.) Right valve.	× 30	„
10.	— — — — Beaded. Left valve.	× 25	„
11.	— — — — Dorsal view.		
12.	— — — — Posterior outline.		
13.	— — var. *radiata*, nov. (Page 25.) Right valve.	× 25	„
14.	— — var. *nuda*, nov. (Page 23.) Inside of left valve. To replace pl. v, fig. 13 *a*.	× 30	„
15.	— *Icenica*, sp. nov., var. *quadrata*, nov. With low ridges. (Page 27. See also Pl. I, fig. 62.) Carapace, showing left valve.	× 30	„
16.	— — — — Ventral view.		
17.	— — — — Posterior view.		
18.	— *Wrightii*, sp. nov. (Page 25.) Right valve.	× 25	„
19.	*Cytheropteron concentricum* (Reuss). (Page 31.) Showing the ornament in the advanced state with continuous ridges. (See also Pl. I, figs. 6—10.)	× 30	„
20.	— *Sherborni*, sp. nov. (Page 42.) Right valve.	× 25	„
21.	— — — Ventral view.		
22.	— *umbonatum* (Will.), var. *acanthoptera* (Marsson). (Page 41.) Left valve. (See Pl. I, figs. 11—13.)	× 25	„
23.	— — — — (Marsson). Dorsal view.		
24.	— — — — — Posterior view.		
25.	— — — — — Narrow form. Left valve.		
26.	— — — — — Narrow form. Dorsal view.		
27.	— — — — — Narrow form. Left valve.		
28.	— — — — — Narrow form. Left valve.		
29.	— — — — — Narrow form. Dorsal valve.		
30.	— — var. *longispinata* (Marsson). (Page 41.) Right valve. (The antero-ventral lump is adventitious. See also Pl. III, figs. 11—13.)	× 25	„
31.	— — — (Marsson). Carapace, ventral view.		
32.	— *pedatum* (Marsson), var. *salebrosa*, nov. (Page 39.) Left valve. (See also Pl. III, fig. 8.)	× 25	„
33.	— — — (Page 38.) Right valve.	× 25	„
34.	— — — Ventral view.		
35.	— — — Anterior view.		
36.	— *alatum* (Bosquet), var. *cornuta* (Bosquet). (Page 36.) Left valve.	× 50	„
37.	*Pseudocythere ? simplex*, sp. nov. (Page 30. See also Pl. II, figs. 58—60.) Inside of left valve.	× 25	„
38.	— — — Edge outline.		
39.	*Cytherella ovata* (Römer). (Page 44.) Oval variety. Right valve. Corrected for pl. vii, fig. 24 *h*.	× 25	„
40.	*Cytherideis acuminata* (Reuss). (Page 43.) Carapace (damaged at posterior end).[2]	× 25	„
41.	— — — Edge outline of a single valve.[2]		

[1] Figured with posterior end upwards by mistake.

[2] Figured with the hinder end upwards by mistake.



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