ZOOTAXA

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Lovell Augustus Reeve (1814–1865): malacological author and publisher

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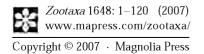
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Abstract

Lovell Reeve was a major figure in 19th Century malacology in England. In addition to his monumental *Conchologia Iconica*, he wrote, among other works, *Elements of Conchology*, the *Conchologia Systematica*, and *The Land and Freshwater Mollusks Indigenous to, or Naturalized in, the British Isles*. He co-authored with Arthur Adams the Mollusca parts of *The Zoology of the Voyage of H.M.S. Samarang*. Reeve established a printing and publishing firm and produced not only his own works but numerous other natural history books, many finely illustrated. Biographical data are given and his introduction to the study of shells is discussed. That is followed by a short history of his printing and publishing firms which had several name changes over the years. Several contemporaries involved with Reeve in various ways are profiled and his business relationships are briefly treated. Reeve's early interest in stereographic photography is described. Comments about his descriptions of new species are offered as are the opinions of others on Reeve's descriptive methods. A few unusual problems involving some of Reeve's taxa are described as is the manner in which authorship of taxa is treated herein. The major portion of the paper then follows, listing and describing his conchological publications and dating and collating those that were serially published, some never before accurately collated and/or dated. Non-molluscan serial publications that he owned and edited are listed with annotations. A complete bibliography of Lovell Reeve is given for the first time.

Key words: Lovell Reeve, biography, bibliography, Arthur Adams, G.B. Sowerby, J.E. Gray, Hugh Cuming, R.B. Hinds, G.P. Deshayes, *Samarang, Conchologia Iconica*, book publishing, stereophotography, nomenclature, dates of publication, Mollusca

Introduction

Lovell Augustus Reeve (19 April 1814 – 18 November 1865) is known to malacologists and shell collectors primarily as author of the monumental *Conchologia Iconica* and other works on Mollusca and as a publisher of numerous works, especially illustrated works on natural history. The original purpose of this paper was to provide accurate detailed collations of his published works. In the process it was found that some information on Lovell Reeve has been confused in the literature, especially as regards certain chronologies. To correct the record, biographical information is added as well as notes on his various business enterprises. Collations of his publications that were printed in parts are given as accurately as possible and difficulties involved in their collation are discussed. An attempt has been made to correctly date and attribute taxa previously misdated and/or misattributed. Finally, a complete bibliography of Reeve is provided.

Conventions and abbreviations

Society abbreviations appearing frequently are: A.L.S. = Associate of the Linnean Society of London; F.L.S. = Fellow of the Linnean Society of London; F.Z.S. = Fellow of the Zoological Society of London; F.G.S. = Fellow of the Geological Society of London; F.R.S. = Fellow of the Royal Society of London.

Often cited are articles of the Code of the International Commission on Zoological Nomenclature, abbreviated as I.C.Z.N.

Journal and other reference abbreviations appear immediately before they are used. Two journals that are commonly cited are: PZS = Proceedings of the Zoological Society of London and AMNH = Annals and Magazine of Natural History.

Serial publications were issued in parts. Herein "part" is capitalized when referring to a specific part or considered necessary for clarity, but is in lower case in other instances.

As most of the quotations used were written in Britain, the spelling is British, often antiquated. Such non-standard spellings are not marked with [sic] which is only used for errors or perceived errors. In quotations all spelling, punctuation, capitalization, and stress is as in the original unless noted.

Commas separate author and date only in the citation of a taxon (e.g., *Dentalium longitrorsum* Reeve, 1842). Commas are not used between author and date in references to literature (e.g., Gray 1868: 726).

For those not familiar with 19^{th} Century British currency, there were 12 pence (d.) to a shilling (s.) and 20 shillings to a Pound (£). Amounts were sometimes rendered in the form £/s/d, but most prices referred to herein were written in the form £5. 4s. 3d. (5 Pounds, 4 shillings and three pence). Five Pounds was often printed as 51.

The Reeve family

Lovell Reeve was the son of Thomas Reeve (1758–1833). In an obituary of Lovell, Thomas Reeve was stated to be:

"a mercer and draper on Ludgate-hill, a man of eminence and respectability; a contemporary and friend of Mr. Alderman Waithman, in whose memory a monument was erected in New Bridge-street, and whose wife and Mrs. Reeve were sisters." – (Anonymous 1865)

This was a most unfortunate statement as it was Thomas Reeve's first wife, Elizabeth Davis of Wrexham whose sister, Mary Davis, was married to the Alderman. Lovell Augustus Reeve's mother, Thomas Reeve's second wife, was still living at the time of Reeve's death. This grievous error has been perpetuated by subsequent writers.

Thomas Reeve and his first wife, Elizabeth Davis, had four children: Thomas (1788–post-1879), Elizabeth (1790–1879; married James Silver; married Joseph Doxsey), Harriet (1795–1872; married Richard Hilliard) and John (1799–1838). John became an actor of some note at the Adelphi Theatre, London, mostly in comedy roles.

In 1812 Thomas Reeve married his second wife, Fanny Lovell (1783–1869). They had nine children: Frances Charlotte (1813–1886; married George Berry Pritchard, 1808?–1876), Lovell Augustus (1814–1865), Mary Ann (1815–?), William (1817–1902), Richard (1818–?), Frederic (1821–post-1885), Clara Rosa (1824–1887; married James Good, 1821?–?), Louisa Jane (1825?–1887) and Maria Whilby (1828–post-1907). The dates of birth shown with a query are taken from census reports which give age but not actual year of birth and thus the date can be off by a year.

Lovell Reeve married Eliza Baker (1811–1852), daughter of Thomas and Elizabeth Baker of Ludgate Hill on 12 October 1837. They had four children: Eliza (1839?–?), Alice (1845?–?), Jessie (1847?–?) and John Lovell (1848–1928). It is known that the three girls, Eliza, Alice and Jessie lived together in South Walden in

1901. James Cosmo Melvill met Miss Jessie Reeve around 1898 at Folkstone and she made available to him portions of Reeve's diaries and other material (Melvill 1900). Few other details are known about them. The son, John Lovell Reeve, married Alice May Lambert in 1872 and they lived in Wallington, Surrey. Of the diary entries printed by Melvill the only mention of Lovell's children is in one letter to his wife that ends "with kisses to yourself and bairns."

Lovell Augustus Reeve married his second wife, Martha Reeve, in Docking, Norfolk on 9 January 1854. She was the daughter of Stephen Reeve of Heacham. There were no children from their marriage. Martha Reeve (1810?–1891) had four sisters, at least two of whom lived with her at Gilston Cottage, near Harlow, in the County of Hertford after Lovell's death. Those two were Esther (1813?–1886) and Elizabeth Anne (1826?–1889). The other two sisters were Sophia Mary Anne (1826?–?) and Caroline (1821?–?) who married the Reverend George Clement. The Clements lived in Jersey where he was Rector of St. Ouens. Sophia Mary Anne Reeve moved there between 1871 and 1881 and lived there until her death. All the sisters except Esther, who died before Martha wrote her will on 23 May 1888, are listed in Martha's will and each were left silver, jewelry, books and other items as well as "everything at Gilston Cottage bequeathed to me by my said sister Esther Reeve..." The sisters were also left Gilston Cottage, sums of money and the residual estate "after funeral and testamentary expenses." The two sisters who predeceased Martha, although spinsters, were far from impoverished as they each left estates probated at over £4,000.

Martha also left to her four step-children, listed as Eliza Reeve, Alice Reeve, Jessie Reeve, and John Lovell Reeve "everything at Gilston Cottage which was the property of my said late husband Lovell Reeve, and the plate which was his property before his marriage with me, his books pictures clocks china glass earthenware furniture and pianoforte ... [and] the sum of one thousand pounds which is in the business of Messrs. Reeve & Co. now at 5 Henrietta Street Covent Garden such sum to be shared between them." She also left them jointly £1,440 invested in the London and South Western Railway Company that "was left to me by the mother of my late husband Lovell Reeve."

Some of the siblings of Lovell and Martha lived with them before Lovell's death. His will, dated 27 August 1864, was witnessed by Esther Reeve (sister-in-law) and Frances Reeve (sister). Esther had been with them at least since the census of 1861 at which time her sister, Sophia Mary Anne Reeve, was also living there. It is possible that Frances, who lived with her mother in 1861, may have moved in to help in 1864, when it was obvious that Reeve was terminally ill.

Interesting information about Martha Reeve appears in a letter from Lovell Reeve to John Stevens Henslow (1796–1861) now in the archives of the American Philosophical Society. The letter concerns a work of topography on which she had worked for many years while living at Heacham Hall, the residence of Rev. S.C.E. Neville Rolfe. A work on the Rolfe family reveals that Rev. S.C.E. Neville Rolfe (1789–1852) was indeed a collector of both natural and archeological items,

"especially of Norfolk, the most valuable of which were portraits of Norfolk celebrities, and the original drawings, topographical and antiquarian, with which he extra-illustrated a copy of Blomefield's History of the County of Norfolk."—(V. Berry 1979: 16)

When the collections of Neville Rolfe were sold at Sotheby's "the Blomefield was offered but was bought back in for £158" (V. Berry 1979: 239). Reeve's letter mentions that Mrs. Reeve had worked for sixteen years on the Bloomfield [sic] work which, when completed, "made up thirty-three folio volumes." However, the letter here discussed deals with the donation of another work on which, "at the time of the death of Mr. Rolfe Mrs. Reeve had been engaged for some two or three years collecting materials for the illustration of Suffolk."

Neville Rolfe had a large carriage constructed in which he carried the artists on excursions to draw and paint buildings or features of interest (V. Berry 1979: 239). One of the artists listed was Elizabeth Reeve, probably Martha's sister. Martha's status at Heacham Hall, the famous Neville Rolfe residence, said by Reeve to have been "her house," is unknown. Martha, Caroline and Sophia were all listed at Heacham Hall as "visitors" in the 1841 Census. In the 1851 Census, Martha and Esther were each listed as "visitor" and "gentle-

woman."

All of the witnesses who signed the marriage certificate of Lovell and Martha were members of the Neville Rolfe family.

Lovell Augustus Reeve

Lovell Reeve was evidently a very private person and little is known of his childhood, his apprenticeship or his family life. As Reeve was involved in so many activities, much of what little is known about him is spread throughout this paper in what are deemed the most appropriate places.

Based on the obituary notices and memorials that appeared in journals, none of his contemporaries seem to have known Reeve well or had details of his background. There is no mention of Reeve's family in any of them, excluding the unfortunate misidentification of his mother as his father's first wife. Most of these memorials are short, superficial, and contain incorrect details. The longest, and by far the best, was in *The Bookseller* (Anonymous 1865). All contemporary biographical material appears to have been either written by the same person or flagrantly plagiarized. Even the short biography in *Portraits of Men of Eminence* (Hunt 1865), written while Reeve was still alive, contains a number of errors and half-truths. It contains much of the language of the other notices and it is probable that Hunt had a hand in the preparation of many. That these authors were not on really intimate terms with Reeve is obvious.

These notices and memorials impacted later biographical articles and misinformation about Reeve abounds. The 1896 edition of the *Dictionary of National Biography* contains a long article on Reeve by Bernard Barham Woodward (1853–1930). Woodward listed several of these memorials as sources and acknowledged the assistance of Reeve's son, Mr. J. L. Reeve. Unfortunately the son's help did not eliminate several misstatements that have continued to be repeated.

The fragments of autobiography quoted by Melvill (1900) present our best insight into Reeve's thoughts and actions and add substantially to our limited knowledge of him. It is plausible that these autobiographical notes were prepared for use by Hunt as some wording is identical. Efforts made during this study to locate the diary quoted by Melvill, or any parts that Melvill may have had but not published, were unsuccessful.

Portraits of Reeve show him to be rather short, of stern and solemn countenance and convey an impression of arrogance. Five portraits of Reeve have been located and are reproduced herein. All have previously appeared in other works. The earliest known portrait is the excellent lithograph by Thomas Herbert Maguire (1821–1895) dated 1849, reproduced as Figure 1 herein. This was one of a series of some 60 portraits in a series entitled "Honorary Members of the Ipswich Museum" commissioned by the Ipswich Museum. These Maguire portraits almost always appear in biographies of those portrayed. The series is variously stated to be "Portraits of scientific members of the Ipswich Museum," "drawn for the Ipswich meeting of the British Association for the Advancement of Science and published in 1851," or, as advertised by George Ransome in 1855, "Portraits of Eminent Naturalists, &c." The history of this series would make an interesting paper. This Maguire lithograph has previously been published by Lewis (1992: 9) and Harley (2004: 80).

The portrait reproduced here as Figure 2 is in the archives of the Senckenberg Museum. Dr. Ronald Janssen of that institution advises that they have no record of its date or provenance. It was reproduced by Dance (1966: pl. XXXII). Figure 3 is from a photograph by Herbert Watkins (born 1829) in the private collection of S. Peter Dance and reproduced by him (1986: pl. XXVI). Dance considers it to date from the early 1860s.

Cleevely (1995: 401) reproduced the photograph in Figure 4 attributing it to "*Conchologia Iconica*, Vol. 1." Something evidently happened to Cleevely's plate explanation. Although the photograph happens to be housed in Volume 1 of the *Iconica* in the Mollusca Section Library of The Natural History Museum, London, it could not have been published there, a fact well known to Cleevely. The portrait is inscribed "Presented by Miss Jessie Reeve. January 1892" in the lower margin. This photograph, of unknown date, was apparently

made at or about the same time as the one in Figure 3—the lapel on Reeve's coat appears to be identical in the two pictures.



FIGURE 1. Lithograph portrait of Lovell Reeve by T. H. Maguire, dated 1849. Reproduction courtesy of the Ewell Sale Library, Academy of Natural Sciences, Philadelphia.

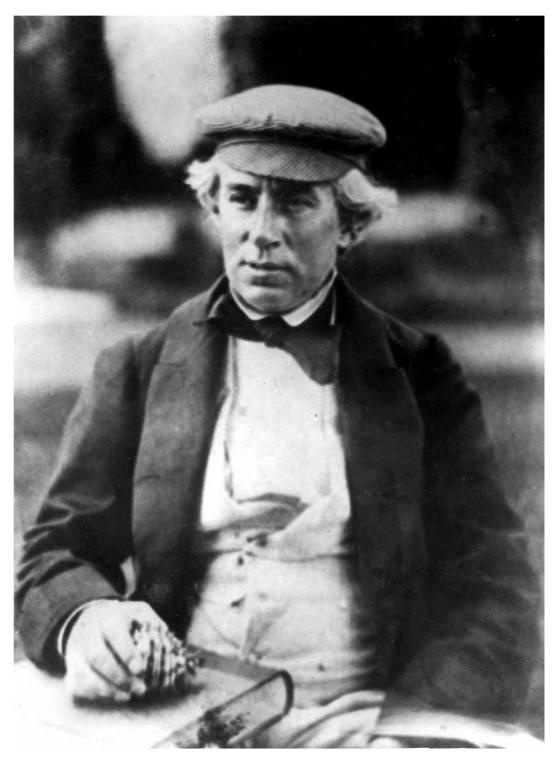


FIGURE 2. Portrait of Reeve in the possession of the Senckenberg Museum. Date unknown. Reproduced through the courtesy of Dr. Ronald Janssen, Senckenberg Museum, and Mr. S. Peter Dance.

The fifth photograph, Figure 5, was taken by Ernest Edwards (1837–1903) in 1865 for inclusion in *Portraits of Men of Eminence*. It is obvious that Reeve was extremely ill and he died before the biographical article to accompany the portrait was printed. It was reproduced by Harley (2004: 91) who wrote:

"The photographic portrait shows a man old before his time. Though only 51 years old, his hair has turned white and he looks withdrawn and ill, almost resigned to death. There is not a glimmer of the vitality which characterizes the earlier portrait." —(Harley 2004: 88):

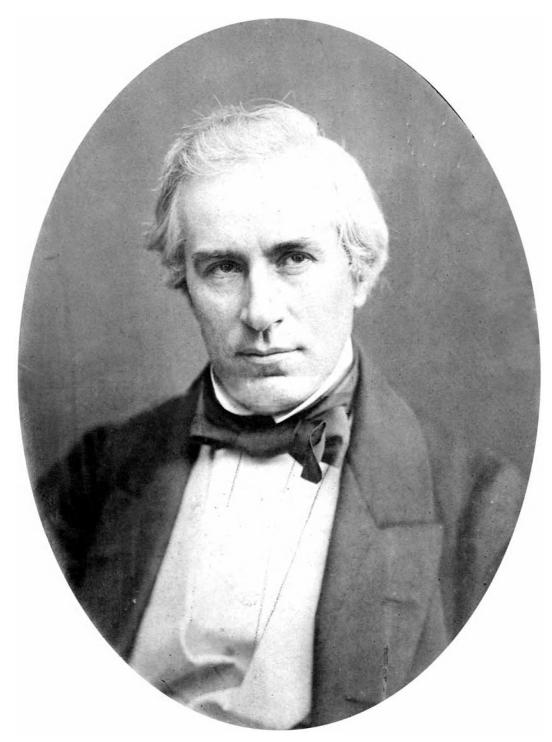


FIGURE 3. Photographic portrait of Reeve taken by Herbert Watkins. In the private collection of Mr. S. P. Dance and reproduced with his permission. Date unknown.

Reeve's propensity for pretentiousness is shown in a full column ad in *The Athenaeum* (27 April 1850) listing only works written by him. His name was followed by the usual F.L.S., below which were his other affiliations, listed as:

"Soc. Hist. Nat. Wirtemb.[sic] Corresp. Lyc. Hist. Nat. Nov-Ebor. Corresp. &c."

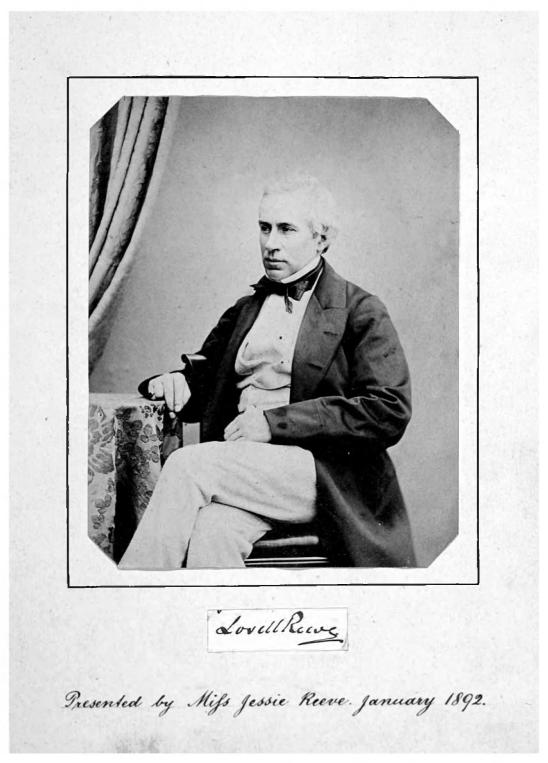


FIGURE 4. Undated and unattributed photographic portrait of Reeve. Reproduced through the courtesy of the Department of Library Services, The Natural History Museum, London.

These two listings indicate that he was a Corresponding Member of the Society of Natural History of Württemberg and a Corresponding Member of the Lyceum of Natural History of New York. This is the only instance found where Reeve chose to render New York as "Nov-Ebor," evidently based on the fact that the ancient name for York (England) was Eboracum. As this usage never appeared again it must have come to Reeve's attention that such usage was not only pedantic but incorrect. Württemberg is misspelled on many of the title pages of the *Conchologia Iconica*. Also listed were two works on which Reeve was junior author

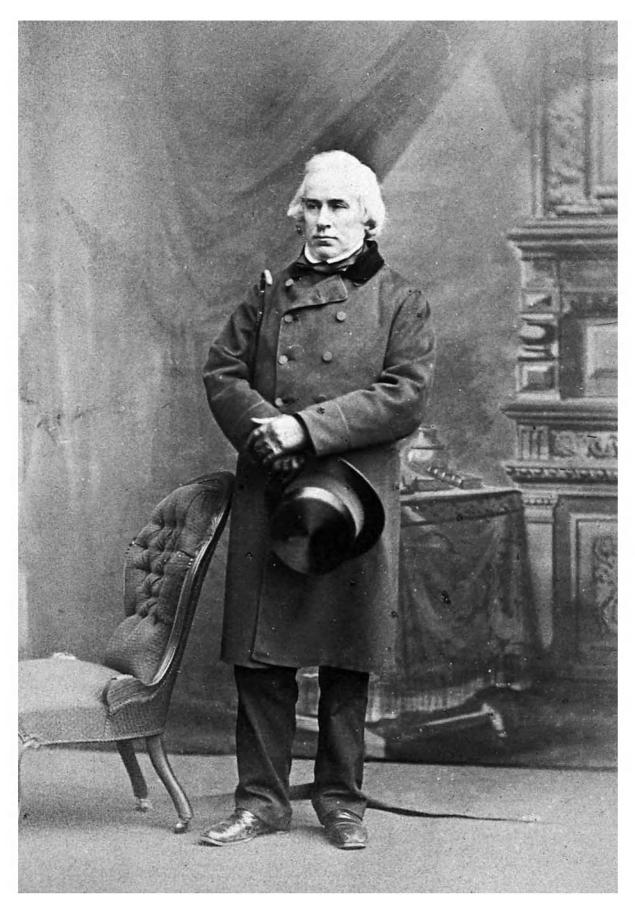


FIGURE 5. Photographic portrait of Reeve taken by Ernest Edwards in 1865. Reproduced through the courtesy of Mr. Basil Harley and Guildhall Library, City of London.

although the term used in the ad is "associated with." One of them is *The Conchologist's Nomenclator*, the title page of which indicates that it was written by Agnes Catlow "with the assistance of" Lovell Reeve. Some volume title pages of the *Iconica* show Reeve as author without any mention of Catlow. The other work listed is the *Mollusca of the Voyage of H.M.S. Samarang* "associated with Arthur Adams." The relationship between Reeve and Adams is discussed under the *Voyage of H.M.S. Samarang*.

In April 1846 Reeve seemingly had his affairs in good order as he was publishing papers regularly, had three years of the *Iconica* behind him, had coauthored *The Conchologist's Nomenclator*, and had just started publication of the *Initiamenta*. All of that was in addition to his becoming established as a publisher of works by other authors. The Zoological Society of London was not faring as well. Every week *The Athenaeum* published a column headed "The Literary and Learned Societies" where reports of meetings of the various societies were recorded. On 11 April 1846 the Editor (Anonymous 1846) wrote a long column expounding on problems faced by the societies. The next week the subject was continued in an even longer article at the end of which were appended several "Letters to the Editor" resulting from the previous week's column. One of those letters signed simply "F.Z.S." ended with:

"The Zoological Society, as at present constituted, is not worthy to rank with 'The Literary and Learned,' and unless some efficient change be introduced, the sooner it is dissolved, and the farce ended, the better. F.Z.S." – (Reeve 1846d)

That letter was followed by a singular document, a letter to The Earl of Derby, President of the Zoological Society of London, in the form of a 27 page printed pamphlet (Reeve 1846g). Reeve's manner of presenting his arguments and proposed solutions was not diplomatic. On the cover is the phrase "Confirmat usum qui tollit abusum" [Established practice is no argument for abuse]. The "letter" opened with a paragraph in which he acknowledges that he wrote the aforementioned letter to *The Athenaeum*. Throughout the letter are phrases such as:

"to exhibit the woeful state of inanition into which [the Society] has fallen in consequence of the indolence or inability of those in office", "the Council ludicrously congratulated themselves", "the morbid anxiety of the Council", and "this wretched abortion in the Gardens."

At the end there is another Latin phrase, "Valeat quantum valare potest" [Let it pass for what it is worth].

Reeve did not hesitate to denigrate others as witnessed by his well-known attacks on George Perry, a man he never met. As his attacks on Perry and his *Conchology* have been oft-quoted, only one will be repeated here as an example for those not familiar with them:

"Since Mr. Sowerby described this species [*Cypraea melanostoma* Sowerby] in the Tankerville Catalogue, under Mr. Leathes' manuscript name of *Cypraea melanostoma*, it has been published by one or two authors under that of *Cypraea camelopardalis*, from its having thus been originally named by one Mr. Perry; the writings of this person have, however, been censured a mass of buffoonery wholly unworthy of credit. So much has already been said on this subject by Mr. Sowerby, (Zoological Journal vol. iv, p. 218) that it only remains to state how fully I concur in the opinion there recorded. If every charlatan who sets himself up for a naturalist, with brush in one hand, and writing-tool in the other, is to be regarded as an authority on scientific matters; all the zoological sign-boards in the kingdom might be quoted as figures of reference. For my own part, I consider that the 'Camelopard of Perry' should no more enter the nomenclature of zoology, than the 'Red Lion of Brentford.'" – (Reeve 1845, *Conchologia Iconica* Monograph of *Cypraea*, Sp.17)

For additional examples of his denigration of Perry see Petit (2003: 12–13).

Reeve did not seem to care who he alienated. In the final part of the *Systematica* in the section on Pteropoda he had written that "observations were added by De Blainville, involving much important information." By the time that part was being readied for the press it was obvious that the Commissioners appointed by the French Academy, with Blainville as chairman, were not going to publish an opinion on his *Tabula Methodica* [see discussion herein] in time for him to use it to advantage. Reeve added a footnote stating that

"De Blainville's crude notion of the *Argonaut* appears to have somewhat influenced his methodical distribution of the Pteropods." – (Reeve 1842, *Systematica* 2: 273)

He alluded to Kiener's iconography (Kiener 1834–1879) both favorably and unfavorably, with the latter being predominant. In some cases it was not what he took exception to, but how he phrased his criticism, that displayed his contempt for others. As one minor example, about the figure of *Columbella harpaeformis* Sowerby he wrote:

"Our representation of this shell displays it in the natural and proper size; the figure given of it by Duclos, and copied by Kiener, is most absurdly magnified." – (Reeve 1842, *Systematica* 2: 217) He also chided Montford [sic; = Montfort] and wrote:

"De Montford seems to have fairly exhausted his encyclopedia of nomenclature by the time he brought his multigeneric notion to a conclusion. His genus *Ultimus* was so called because it happened to be last in the book." – (Reeve 1842, *Systematica* 2: 265)

In listing the species of *Oliva* in the *Initiamenta* he remarked that:

"The species of *Oliva* have been so inefficiently described, and so many nonsensical names have been introduced by M. Duclos, that a complete monograph of the genus with a change of nomenclature, would, I think, be an admissible and most acceptable contribution." – (Reeve 1846, *Initiamenta* 1: 58)

In the *Initiamenta* he mentioned Swainson with these comments:

"Mr. Swainson had a notion that every character in Zoology, however unimportant, is represented in complete analogy throughout the different classes of animals ... These flights of analogy he proposed to exhibit in circles; and they revolved in his imagination in such mystical order as to reveal the most incomprehensible affinities." – (Reeve 1846, *Initiamenta* 1: 44)

Reeve seemed to take pleasure in finding fault with others. His publications are rife with disparaging remarks about J.E. Gray, who helped and encouraged him when he was a novice shell collector, actions for which he rather belatedly and only partially apologized in dedicating his last book to Gray (Reeve 1863a). Gray was not the only person to feel the point of his pen as he cast aspersions at, or ridiculed, many authors with whom he did not completely agree.

While Reeve was Editor of *The Literary Gazette* and presumably was responsible for, and wrote, editorial matter therein, the "Gossip of the Week" column for 21 March 1857 contained the following:

"The list of candidates for the Fellowship of the Royal Society, which has just been closed for this year, presents a motley group of aspirants for the highest scientific honour which this country has in its power to bestow. Scarcely a third are qualified according to the reformed standard of merit which has been acted upon during the last few years, and the pretensions of some are simply ridiculous. Fortunately the selection of the Council is limited to fifteen, and we trust to be able to record at the proper time that it has been exercised with independent judgment and discretion."

As if that was not enough comment, the names of all of the candidates were then listed!

Reeve appears to have been a deeply religious person and, while in Birmingham in 1849 attending a meeting of the British Association, wrote his wife a letter detailing the Bishop of Oxford's sermon. In a letter to W.H. Harvey of 30 December 1845, J.D. Hooker wrote that

"[Reeve] attends Bickersteths Sermons at the Magdalen & sends him critical letters on them signed L.R.!" – (Price 1988: 118)

When he learned that his neighbor, the Rev. John Mounteney Jephson (1819–1865), was planning a walking tour of Brittany, Reeve suggested that he write a journal of the trip illustrated with stereoscopic photographs. That being agreeable, Jephson went off on his trip and Reeve followed in a coach with a photographer and the necessary equipment. Reeve more or less followed Jephson, meeting up with him at various places. Reeve and the photographer, Mr. Taylor, visited 30 towns and villages within a 30-day period taking some 200 pictures, 90 of which were selected for publication (Reeve 1859b: 6–7). Those 90 stereographs, available as a supple-

ment to Jephson's book (Jephson 1859), are itemized in The British Library's on-line Catalogue of Photographically Illustrated Books. The stereographs are predominately of churchs and cathedrals, only a few are of people.

In the preface to *A walking tour in Brittany*, Rev. Jephson discussed the necessity of taking a vacation after "the exhausting contests of busy English life." It will just be noted that Rev. Jephson departed on his five-week tour on 9 August 1858 leaving behind, of course, his wife, who was expecting their tenth (of twelve) children. Incidentally, this child, Arthur Jermy Mounteney Jephson (1858–1908), born 8 October 1858, became a noted traveler and accompanied Stanley up the Congo River. When Reeve gave up *The Literary Gazette* Rev. Jephson took over as editor.

Amy Stark, in writing about Reeve's role in the development of stereographic printing, pointed out that in producing the *Stereographic Magazine*

"Reeve's stated goal was to right the injustice he saw in the marketing of stereo views as 'vulgar' and 'unmeaning' bits of cardboard that litter drawing room-tables" - (Stark 1981: 11)

She continued, pointing out that

"Reeve commissioned scholarly texts to, in a sense, chaperone each image."

The announcement for the *Stereographic Magazine* indicated that photographs of celebrated persons would occasionally be included, but Reeve started a separate publication for that purpose.

Stark also pointed out that missing from the pages of the *Stereographic Magazine* are any genre or humorous views. She mentioned that there are not even any views of shells, though there is one view of a group of shells and a cameo. In her words about Reeve's magazine:

"... the effect of text and image juxtaposition is greater than the sum of the parts. By putting a heavy moralistic essay opposite a stereo view not allegorical in intent, the publisher imposed an additional layer of meaning. Even leaving aside the values and ideas of expressed by the publisher, this method of presenting photographs has at its root the concept of manipulation of the viewer." – (Stark 1981: 12)

Reeve's prudery caused him to comment adversely on Chitty's selection of eponyms for some of his subgenera and species of *Stoastoma*. After listing the species, he wrote:

"The gushing enthusiasm with which Mr. Chitty has complimented his "bosom friends" in the foregoing harlequinade of proper names, identifying their memory not only with the titles of species but of genera, renders the list of *Stoatomata* rather grotesque. However much Mrs. Metcalfe may be delighted at hearing Mr. Metcalfe dilate upon the beauty of his *Metcalfeia Metcalfeiana*, we can fancy the astonishment of Mr. Wilkinson at being presented by Mrs. Wilkinson with two lovely *Wilkinsonaeae Wilkinsonianae*; and the familiarity with which Mrs. Wilkinson is brought into generic association with Sir Robert Schomburgk, Dr. Gould, and Mr. Hanley in the names *Wilkinsonaea Schomburgkiana*, *Gouldiana*, and *Hanleyana*, is suggestive of flirtations that can scarcely be tolerated with propriety in the conchological nomenclature." – (Reeve 1859, *Initiamenta* 1: 191)

In his critical review of Part XI where the above quote appeared, Leifchild (1859) found little to praise. He quoted Reeve's remarks "as an amusing instance of nomenclature run mad." If Reeve had a sense of humor, it was limited to biting sarcasm, always as denigration, not as amusement.

This facet of Reeve's character was also exhibited in his acceptance of the species name *Cytherea semila-mellosa* Delessert, 1841 over the earlier *C. lupanaria* Lesson, 1830, stating:

"For reasons which are obvious I think it better to abandon the foul name given to this lovely species by Lesson." – (Reeve 1863, *Conchologia Iconica*, Monograph of the genus *Dione*, text to plate 6) In fairness it should be mentioned that the choice of names for mollusks was addressed by several members of the clergy in the 1800s, this particular case being addressed by Carpenter (1864b: 571) who accepted Reeve's usage and asked:

"?Would not the same reasons lead to the alteration of *meretrix*, *impudica*, &c."

However, Capenter made no attempt to make any of those changes.

It appears that Reeve may have been somewhat lacking in compassion. In The Natural History Museum, London, there are several transcribed Reeve letters. The unknown recipient of the following missive was obviously someone who had sent a lithographic stone to Reeve for a publication. It is rather revealing:

"Dear Sir,

Aug. 13, 1853

It is quite immaterial whether the stone was packed face <u>upwards</u> or <u>downwards</u>. Whichever way it was, the face was <u>exposed to friction</u>; and you will see at once that the damage has resulted from a <u>long course</u> of friction. No amount of carelessness in unpacking could produce this kind of damage, of which the tissue paper covering bears evidence; and even if it did not show this proof, I will undertake to say that the box was simply un-nailed, and the parcel as simply opened.

You will see at once that the damage has resulted from not lifting the face, from <u>either</u> top <u>or</u> bottom, as I have now done in returning it.

I do not know how to furnish you with another artist.

I am sure you will see at once that we are \underline{quite} unaccountable for this accident. I am, dear Sir,

Yours faithfully,

Lovell Reeve"

– (transcribed letter, reprint collection, Mollusca Library, The Natural History Museum, London) It will be noted that nowhere in this letter did Reeve mention that he was sorry that the stone was damaged beyond use. Also, it is highly unlikely that Reeve could not have arranged for a lithographer to copy it. Although we are not privy to the preceding correspondence, this letter seems rather harsh in tone.

Data from censuses indicates that most of Lovell's siblings enjoyed long life spans for the time. This was unfortunately not true for Lovell who died in his 51^{st} year. The exact cause of his death is not known but some obituaries noted that he had an exceedingly painful lingering illness. Reeve's illness was addressed by Harley who wrote:

"He was clearly very ill by 1864. In a letter to Dr. Joseph Hooker written on 24 October 1864 he told him that he and his wife had decided to give up his establishment at Sutton, near Hounslow and move back to live in Henrietta Street so as not to neglect the business. He had, he said, 'that day, managed to get into work for an hour or two, the first time for nearly a month,' but he added that he had 'little hope for recovery.'" – (Harley 2004: 88)

Melvill (1900: 344) recalled seeing him at the Dennison shell auction in April 1865 where he was "wheeled in, in a bath chair." On 14 May 1866 Reeve's widow, Martha, wrote a letter to Professor Frederick McCoy (1823–1899) in which she stated:

"I don't know if the tidings of the death of my beloved husband ... have reached you; if not I feel you will be sorry to learn that after a most suffering illness of 18 months he died the 18th November last. The malady was internal cancer so that from the first we were not led to hope for recovery. The patience and fortitude with which he bore up to the last were wonderful to witness, and he continued to work away at his 'Conchologia Iconica' almost to the last." – (transcribed letter, reprint collection, Mollusca Library, The Natural History Museum, London)

Societies

Lovell Reeve lived in an extremely class-conscious era. Membership in learned societies was a mark of not only station but of acceptance. Society members missed no chance to append a society's initials, denoting membership, after their names. The societies themselves were subject to class stratification with the Royal

Society of London being at the top. Membership in all of the societies was accomplished only through a process of nomination, recommendations, and voting. One did not just walk into a society office and pay a membership fee!

Reeve was elected a Fellow of the Zoological Society of London (F.Z.S.) in 1835. That was the currency that bought him admission to the meetings of the learned societies in Paris in 1841. At various times in later years Reeve dropped "F.Z.S." from his list of affiliations. The reason is not known as G. B. Sowerby I was a powerful force in that organization, and Reeve was working closely with the Sowerbys. However, it is noted that G. B. Sowerby II also did not use that designation on the title page of some of his books. It was Reeve's custom to indicate every membership and corresponding membership on his works. His scathing comments about the Zoological Society (Reeve 1846g) would not have been the reason for his dropping the designation as Reeve continued to publish in the *Proceedings* for many years. This was, however, not necessarily by choice as Cuming required publication in the *Proceedings* of all new species described from his collection, whether or not they were also described elsewhere.

Reeve was elected as a Member of the Société Cuvierienne in July 1841 while in Paris and in August the Société printed a long announcement describing the soon to be published *Systematica* (Anonymous 1841e). On the covers of the first five parts of the *Systematica* Reeve listed himself as "Lovell Reeve, F.Z.S." and below that in smaller block letters, "member of the Cuvierian Society of Paris, etc." Beginning with the cover of Part 6 "F.Z.S." is replaced with "A.L.S." and the Paris society is replaced with "corresponding member of the Lyceum of Natural History of New York." This was less than a year after his election to membership in the Société Cuvierienne.

Reeve was elected an Associate of the Linnean Society of London (A.L.S.) in 1842 and was elected a Fellow (F.L.S.) in December 1846. At that time the Associates were an honorary category of membership for workers who might not be able to afford the fees.

Reeve hoped to become a member of the prestigious Royal Society of London and Darwin wrote him on 14 March 1849 stating that he would endorse his application (Harley 2004: 85). On 3 August 1852 Reeve wrote to Thomas Joseph Pettigrew (1791–1865), Hon. Treasurer of the British Archaeological Association stating that *The Literary Gazette*, then owned and edited by Reeve, would report all of that society's meetings, and would print whatever information was furnished by the Secretaries and other officers, and advising that if he were sent a

"report of the forthcoming meeting at Norwalk, it will afford me pleasure to give prompt publicity to it."

On 20 March 1853 Reeve wrote Pettigrew about another matter and ended his letter with this paragraph: "I shall be much gratified to find your signature attached to my certificate at the Royal Society if you think me qualified for the honour of the Fellowship."

A postscript was added stating:

"I need scarcely add that if you have any friends of [illegible], fellows of the R.S., the addition of their signatures would also be appreciated, though I have little chance of being selected among so many eminent naturalists as are this year [illegible]." – (Pettitgrew Papers, Beinecke Rare Book and Manuscript Library, Yale University)

Reeve never received the coveted F.R.S. designation. He was elected a Fellow of the Geological Society of London on 23 March 1853.

Two additional corresponding memberships were added by 1850 as listed in the 27 April 1850 *Athenaeum* advertisement mentioned above. They are also shown on the title page of *Elements of Conchology* (1860) as "Corresponding member of the Lyceum of Natural History of New York and of the Natural History Society of Wurtemberg [sic]."

Reeve was elected a Correspondent of the Academy of Natural Sciences of Philadelphia on 28 January 1862. He wrote the Academy on 14 April 1862 expressing his gratitude, adding:

"Should it be the custom to grant any sort of diploma, perhaps you will be good enough to forward it to the foregoing address, together with any Proceedings of the Academy that this honour may entitle me to. / I am, Sir, / Your very obedient Servant / Lovell Reeve. / F.L.S., F.G.S., and Corrsp. Memb. of the Lyceum Nat. Hist. / New York, Nat. Hist. / Soc. of Wirtemburg [sic] &c." – (Archives of the Ewell Sale Stewart Library, Academy of Natural Sciences of Philadelphia)

As shown by the title page for Volume 11 of the *Iconica*, Reeve was also made a Corresponding Member of the Zoologico-Botanical Society of Vienna. Dated 1859, this title page could not have been printed before 1862 as it also shows the Academy of Natural Sciences affiliation.

Reeve's introduction to conchology

Although doing well in school where he reportedly received prizes for proficiency in Latin and Greek, Lovell was removed from school at the age of thirteen and bound apprentice to Francis Graham, a grocer of Ludgate Hill. Most accounts of Reeve's life mention what was supposedly his first encounter with shells. This story was circulated by Reeve in his lifetime as it is mentioned in Hunt's memorial written while Reeve was still living. It is given in Reeve's own words in the fragmentary autobiography published by Melvill (1900: 348) and is repeated here for reasons that are hoped will become evident:

"Were these shells ever alive?" I remember once asking a sailor who had sauntered into our shop where I was apprentice, with a little bundle of cowries. 'Alive!' said he, 'I believe you my boy, every one on [sic] them.' How distinctly I recall to mind the chuckle with which he opened out his double knotted blue calico handkerchief on the counter. Whether any doubts lingered in the sailor's mind as to their once living existence I did not stop to consider. His answer and the sight of the brilliantly enamelled shells made a strong impression on me, and the purchase of them for a few pence was the starting point of my conchological pursuits—"

One of the people to whom he showed his new treasures was George Walker, a compositor at the printing firm of Spottiswoode and Co., whose age is not known. Walker may have been slightly older than Reeve as he was already well-versed in conchological matters, and undertook to further Reeve's education on the subject. According to Reeve they

"spent many future evenings, pleasantly together, over a cabinet richly laden with conchological rarities, collected by stealth, as opportunity served, among the shell dealers and sailors' homes in the vicinity of the docks."

According to a chronology that can be drawn from Reeve's dedication to Gray (Reeve 1863a: v-vi), he came under Gray's tutelage in 1831. This was Dr. John Edward Gray about whom we will hear more later.

Walker and Reeve had progressed to the point where Gray, in September 1832, planned to name a species for each in the *Cypraea* monograph of a planned *Descriptive Catalogue of Shells* to be published by G.B. Sowerby I, with shells drawn G.B. Sowerby II. In a printed draft only *Cypraea walkeri* appears. There is a holograph notation by Gray to name another species *Cypraea "reevesii,"* the spelling being changed to *reevei* by Sowerby. Unfortunately Gray does not always get credit for naming these species for his "students" as the authorship of the *Cypraea* monograph was taken from Gray by Sowerby. The planned *Descriptive Catalogue of Shells* in which the *Cypraea* monograph was to appear was canceled and replaced by the Sowerbys' *Conchological Illustrations* (Sherborn 1909: 331–332; Petit 2003: 11). As Sowerby stated that the species were described by Gray, and Gray's type-set manuscript with Sowerby's annotations is still extant, they should be attributed to Gray in Sowerby.

Unfortunately nothing else is known of Walker, who was in part responsible for Reeve's interest in mollusks. In December 1845 Reeve, in the *Cypraea* monograph of the *Conchologia Iconica*, in discussing *C. walkeri* Gray [in Sowerby], referred to him as a

"zealous and intelligent collector of shells, now no more, to whom I am indebted with many kind remembrances for my first introduction to conchological pursuits."

Although in his partial autobiography (Melvill 1900: 348) Reeve opined that naming a species for a colleague was a "goodly practice among naturalists thus to preserve reminiscences of each other," he never deigned to name a species for Walker himself.

Reeve became active in natural history societies and obtained a week off in 1833 to attend a meeting of the British Association at Cambridge. That meeting gave him the opportunity to meet and mingle with numerous well known naturalists.

The length of Lovell Reeve's apprenticeship is not known, but it is reasonable to assume that he became a freeman on his 21st birthday, 19 April 1835. An advertisement, discussed in detail below, showing the "superintendence" of a "Member of several Learned Societies" appeared on 16 May 1835. Reeve read a short paper at the 26 May 1835 meeting of the Zoological Society that became his first published work (Reeve 1835). There is little record of his activities between 1835 and his trip to Paris in 1841. All that is certain about that period is that he got married in 1837 and started a family; lived at 73 York-road, Waterloo-bridge (Surrey side); wrote the *Conchologia Systematica* which included his *Tabula Methodica*; bought a large shell collection in Rotterdam; and was dealing in natural history objects. In view of his comments about the Ryder collection, discussed in the next section herein, it is possible that he traveled. Also, in a discussion of *Cypraea guttata* he stated:

"We have seen only two specimens of this beautiful Cowry, one in the British, and the other in the Leyden, Museum" – (Reeve 1842, *Systematica* 2: 264)

This will be a good place to introduce and discuss the sale by Reeve of his inheritance. Almost all biographical articles on Reeve aver that the cost of producing the *Systematica* exhausted his resources, and that in order to pay for it, he had to sell his interest in his father's estate. His inheritance was a one-ninth reversionary interest in property from which the nine siblings were to each receive, after the father's death, an annual sum, upon attaining the age of 21, during the lifetime of their mother. After that point Thomas Reeve's complex will becomes even more difficult to understand. It is unfortunate that the sale of his interest was not a recorded transaction, and it is not known when it was sold or the price realized. The annual income would have been sufficient for Lovell Reeve to live on, but not to live as a "Gentleman." The long-term value of the inheritance must have been considerable as some of his siblings mention their shares in their wills. In case any readers have noticed that it was a one-ninth interest when there were 13 children, the elder Reeve stated in his will that the four children from his first marriage were not included as their inheritance was to come from Mr. James King. Their association is not known, but the elder children were indeed well taken care of in Mr. King's will.

It is possible that the need to sell his inheritance was not entirely due to the cost of the *Systematica*. In the discussion of that work it will be seen that it was written to be published *in toto*, not in twelve monthly parts.

Reeve the shell dealer

Usually thought of as an author and publisher, Reeve was also a major shell dealer. In his diary for 17 March 1849 he wrote a paragraph about how busy he was, stating that he had:

"Belcher's duplicate specimens to arrange and dispose of to help in part to procure the means whereby I live."

His start as a dealer is here traced back as far as is possible, including the previously unnoted involvement of his apprentice-master. Reeve's statement, quoted earlier herein, concerning the sailor with the kerchief full of shells concluded with:

"—I had already begun to be a collector of objects of virtu. My apron-hook, which I will keep as a reminiscence of the sweets of my early life, was made with a choice coin, an Oliver Cromwell shil-

ling. My master, the eccentric G----, was also a 'collector,' along with the business of grocer." Reeve was indicating that the grocer to whom he was apprenticed, Francis Graham (1782?–1854), was also a collector of "objects of virtu."

The question then arises, was Graham also a dealer as well as a collector? The 1841 *Post Office London Directory* lists: "Francis Graham, 37 Ludgate Hill, grocer, tea, Italian wa[re]." Why would a sailor wander into a tea and china shop carrying a kerchief full of shells? It is likely that Mr. Graham was known to the sailor as a purchaser of such articles. Graham was indeed a dealer in shells, at least by 1834, as shown by this advertisement:

TO CONCHOLOGISTS and Others. – An excellent opportunity now offers itself to any person desirous of enriching his Collection of SHELLS, which may be done to considerable advantage, by applying to F. GRAHAM, 37, LUDGATE HILL, corner of the Belle Sauvage Inn, who, having devoted the last few years exclusively to the study of Conchology, is now enabled to offer a splendid and well-selected ASSORTMENT of RARE SHELLS, for public inspection, at VERY REDUCED PRICES. Amongst the most remarkable are the following: Cypraea aurora, scottii, picta, capensis, aperta, melanostoma – Conus cedo-nulli, regius, zebra, purpureus, monilifer, ammiralis, timorensis, araneosus – Murex princeps, regius, radix, brassica, imperialis, tenuis spinosa – Harpa multicostata, crenata – Bulimus gallina-sultana, Listeri, Taunaisii, Broderipii, princeps, goniostoma – Achatina bicarinata – Cucullaea auriculifera – Crassatella gibbosa, Kingicola – Trigonia pectinata – Aetheria elliptica – Strombus peruvianis – Voluta nivosa, lapponica, hebraea – Galatea radiata – Gnathodon cuneatus – Cyrena childrena, violacea – Purpura planospira – Spondylus ducalis – Unio Grayi – Helix magnifica, Cassis ringens – Ampularia rugosa, perversa; and many new and undescribed species. Any orders sent in the Linnaean or Lamarckian names, punctually attended to. A variety of large Shells for ornament, and others, from Sixpence upwards. [Spelling, punctuation and capitalization follow original as closely as possible.] – *The Athenaeum*, 26 April 1834, No. 339, page 317.

The above ad appeared only once. The following year, beginning on 16 May and continuing, usually every week, through August 1835, a different, slightly larger, advertisement appeared in *The Athenaeum*. Definitely bearing Reeve's stamp, it begins with:

"Conchology now being universally acknowledged as the most delightfully interesting, as well as the most fashionable study of the day. The Nobility and Gentry are most respectfully invited to inspect the valuable Stock of F. Graham"

Then follows a list of rare and showy shells, ending with "cum multis aliis." The ad ends with:

"N.B. The whole is under the immediate superintendence of a person well versed in the Science, Member of several Learned Societies."

Let us jump in time to the first known major purchase of shells by Reeve, a collection amassed by the Dutch Governor-General of the Moluccas, Van Ryder. No advertisements for the Ryder sale have been located. The collection was sold in Rotterdam, where Reeve purchased it, reportedly at a most favorable price, the sellers having no knowledge of the value of the shells. Authors differ on the time of acquisition, most placing it in 1841. Fortuitously the collection included three specimens of *Carinaria* which make it possible to more precisely date the purchase. In a short paper published on 1 November 1840, Gray referred to the species as *Carinaria vitrea* Lamarck [=Gmelin, 1791], and stated that:

"Three specimens of this very rare shell have lately been brought to this country by Mr. Reeve, who purchased them at a sale in Holland." – (Gray 1840a)

This was reiterated by Reeve when he decided the species was not *C. vitrea* and named it *C. gracilis* Reeve, 1842e. Reeve stated:

"In the course of a recent journey through Holland, I was fortunate enough to become the purchaser of a valuable collection of shells that had been formed with considerable taste by the late Dutch Governor, General Ryder, stationed at the Moluccas." —(Reeve 1842e: 140)

Reeve's purchase of the Ryder collection took place no later than October 1840, much earlier than has been

reported.

We now come to an unusual publication, a 12 page (covers included in page count) pamphlet with the title Key to a valuable collection of recent shells, containing many of extreme rarity, arranged and named in illustration of Reeve's Systematic Conchology, and now exhibiting at the Royal Polytechnic Institution, 309 Regent Street, (in the Upper Gallery, at the further end of the hall.) 1841. Seemingly a guide to an educational exhibit, it was much more. It was, cleverly, two advertisements posing as an educational exhibit. The prefatory material on the inside of the front cover, dated 1 December 1841, begins with:

"By permission of Mr. Francis Graham, 37 Ludgate-hill, this interesting Collection has been selected from his extensive Stock by the Author of the Conchologia Systematica, for the purpose of exhibiting to the Public at one view his new method of classifying the Lepades and Conchiferous Mollusca. ... Mr. Lovell Reeve, the Author of the Conchologia Systematica, or Complete System of Conchology, will be happy to show the Work to any one who may favour him with a call at his residence, 73 York-road, Waterloo-bridge (Surrey side)." – (Reeve 1841a)

The booklet follows the classification of the *Systematica*, but the species listed and exhibited are not always the same as those in the book. Listed are 433 species, some of them, marked with an asterisk, represented in the exhibit only by drawings. Other species, marked with an obelisk, are stated to be very rare, or have other footnotes. There are no names validly introduced in this booklet but there may be a few *nomina nuda*. One of those annotated is *Carinaria vitrea*, discussed above, about which is written:

"This very rare and extraordinary shell has only been brought to this country within these few months; a model of it in wax has been exhibited in the British Museum for many years. The price of this specimen which is now for sale is £25."

The inside back cover is unabashedly entitled "Advertisement" and states:

"Mr. F. Graham, 37 Ludgate-hill (corner of La Belle Sauvage Inn), begs to inform those who may be desirous of adding to their Collections of Shells, that he has now on sale an extensive series of Specimens, including many of esteemed rarity and beauty, arranged as far as possible in systematic order. They have been accumulated with much care during the last ten years, and are now offered to purchasers at very reduced prices.

N.B. Series of genera, illustrative of the entire *System of Conchology*, made up to any price, according to the value of the shells assorted." – (Reeve 1841a)

The "last ten years" over which time these shells had been accumulated, coincides roughly with the time that Reeve first became seriously interested in mollusks and was in contact with Gray. It also roughly matches Graham's "last few years [devoted] exclusively to conchology" mentioned in his 1834 advertisement. We know that the *Carinaria* in the Royal Polytechnic Institution "exhibition" was purchased by Reeve in the Ryder acquisition, but it is shown as being the property of Graham. This brings up a great many questions which cannot be answered.

It appears certain that some type of relationship continued after Reeve's apprenticeship was over. By December 1841 whatever relationship existed may have ended and Graham was finally disposing of his accumulated stock. Did Graham permit Reeve to use his name and shop to dispose of some of the Ryder material? Reeve's wife, Eliza, was Francis Graham's niece and this may have been an accommodation. However, there is no apparent reason for Reeve to attempt to hide the fact that it was his material, if indeed it was, as he was already holding himself out as a "dealer in objects of natural history" and the exhibition specimens were stated to come from Graham's stock. Did Graham finance the trip to Rotterdam and the purchase of the collection? Note that Reeve offered to show samples of the *Systematica* at York-road, but the specimens for sale were at Ludgate Hill on the opposite side of the Thames. All that is known with certainty is that only six weeks later Reeve announced the opening of a shop at 8, King William Street, Strand. The announcement was in the form of a letter that was in with Part V of the *Systematica* and was also mailed, perhaps slightly earlier, to members of various societies. The exact date of mailing is unknown as the only posted copy known, in the

collection of Scott Jordan, has an undated postmark. The notice, dated 15 January 1842, is headed: London, 8, King William Street, Strand. It stated, in part:

"Having for some time contemplated the advantages that might be afforded to Naturalists by an establishment in a central situation for the sale of *Specimens* and *Books*, I have this day opened the above extensive premises with a select assortment of Shells, Birds, Minerals, and Insects, together with most of the *English and Foreign Works and Periodicals* on the various branches of the Natural Sciences.

... I have great pleasure in announcing that a magnificent Collection of Shells has already been received, as also a very choice and extensive display of *Minerals*; both contain many species of rarity, none of which have been yet offered to the public. ..."

It will be noted that this is not a "going into business" announcement but that "an establishment in a central location" had been opened. Reeve was already engaged in the selling of natural history objects as shown by the Census of 1841 in which he is listed as a "Dealer in objects of Natural History."

This writer considers it most probable that Graham was a dealer in shells, in a rather small way, before Reeve's arrival. The story about the "kerchief full of shells" may recount the first time Reeve saw really fresh *Cypraea*. It is also possible that as Reeve learned more about shells, some of that knowledge was imparted to Graham who then went into the shell business in a larger way. The purchase of the Ryder collection may have involved a partnership of sorts. The stock at Graham's store may have been moved to Reeve's new location as in 1842 Reeve owned at least one *Carinaria*. Unless new information is found, the true scenario will never be known.

Tabula Methodica

In July 1841 Reeve was in Paris seeking recognition for a new system for classifying and arranging the Mollusca he had devised for his *Conchologia Systematica*. It was simply a Lamarckian system modified with changes made by Cuvier, Blainville, Deshayes, and Gray, with some rearrangement and a few new terms. Although the *Systematica* was already written, but not yet printed, Reeve did not first present his new system in England but instead submitted it to the *Académie Royale des Sciences* in Paris, presumably to gain publicity and thus impress potential customers and, in turn, assure his acceptance by British workers. Of course, expectation of a favorable response from the French was extremely naive.

Most biographical notes about Reeve state that he read a paper on his system at a meeting of the "Academy of Sciences of Paris," based on his own statement to that effect (Reeve 1863a: v). An exception is the *Portraits* biography (Hunt 1865), which stated only that it "was read." However, papers read at the *Académie* were by Academicians themselves or endorsed by an Academician, and the archives of the meeting do not suggest that Reeve's "communication" was anything other than a submission for review. The original submitted document entitled *Conchiologia Systematica*, handwritten and bearing his signature, is still in the archives of the *Académie* attached to a printed cover sheet normally used for submitting manuscripts for review. On this sheet the printed word *Memoire* is crossed out, and *Tableau* written in. Appointed as *Commissaires* to study it were MM. Henri M. D. de Blainville (1777–1850), Pierre Flourens (1794–1867), Isidore Geoffroy-Saint-Hilaire (1805–1861) and Henri Milne-Edwards (1800–1885). The fact that Reeve's *tableau* had been submitted to the *Académie* was announced, together with the names of the *Commissaires*, in the *Compte Rendu* of the meeting of 5 July 1841. It is considered significant that the correspondent who reported meetings of the *Académie* to the London *Literary Gazette* did not mention Reeve or his system in the published report of the 5 July meeting (Anonymous 1841b). Surely if a Londoner had read a paper it would have been reported to the London paper.

The Commissaires wrote Reeve questioning placement of the cirripeds (barnacles). Reeve's reply, cited

in the *Compte Rendu* of 19 July (Anonymous 1841c), was vague. He stated that although he was considering their request, he was leaving them in Mollusca, but would possibly establish a separate phylum before publishing his book. Nothing further was ever heard from the *Académie* although Reeve wrote in August asking that their report be hastened (Anonymous 1841d). The matter was seemingly ended there until Reeve wrote again after the *Systematica* was published in its entirety, requesting that the *Académie* promptly issue a verbal report on a work (the *Systematica*) that had been submitted to them as published. Reeve's message was printed in the *Compte Rendu*:

"M. L. Reeve prie l'Académie de vouloir bien se faire faire, le plus promptement possible, un rapport verbal sur un ouvrage de conchyliologie dont il lui a addressé les diverses parties au fur et à mesure de leur publication." – (Anonymous 1843a)

Reeve had indeed sent the *Académie* parts of the *Systematica* as issued, and reports of their receipt in the *Compte Rendu* make it possible to date some of the parts. There was never any formal review by the *Académie* of either Reeve's system or the book. Guérin-Méneville (Félix Édouard Guérin-Méneville, 1799–1874) did review the system, under the title *Distributio methodica molluscorum testaceorum*, in the *Revue Zoologique*. Although the review appeared in the "analyses d'ouvrages nouveaux" section of that journal, there is no evidence that Guérin-Méneville (1841: 229) had seen anything but Reeve's manuscript submitted to the *Académie*. In the review he mentioned that the system was to be used in the forthcoming *Conchiliologia* [sic] *systematica*. In any event, Guérin-Méneville's review was quite critical, taking exception not only to the inclusion of the cirripeds, but especially to the inclusion of the Foraminifera, treated by Reeve as Cephalopoda Polythalamia.

Guérin-Méneville's severely critical review may have been a polite way for the *Académie* to dispense of a formal response to Reeve and was likely the reason for Reeve's failure to continue his association with the *Société Cuvierienne* and to drop that association from his list of "honors."

On 28 September 1841, Reeve presented his system to the Zoological Society of London under the title *Tabula Methodica* (Reeve 1842a) without any mention of France. The paper states that it is "a plan he intended to adopt in his forthcoming *Conchologia Systematica*." That paper appeared both in the *Proceedings of the Zoological Society* and the *Annals and Magazine of Natural History* and a third time, verbatim except for the actual table, in *The Polytechnic Journal* for March 1842 in the form of a review with the addition of a footnote that was effectively an advertisement for the *Systematica*. With the exception of the opening sentence and the footnote, it is identical to the other two papers.

In the *Tabula* Reeve did change his classification of the cirripeds. They were placed at the top of the table as Lepades under the heading Subregna. The Lepades included two Orders each with one Family. As in the system presented in France the cirripeds comprised Class 1 with two Orders, only the terminology needed to be changed. In the more detailed classification only the numbers of the molluscan Classes were affected. In addition to the Lepades, the final *Tabula* contained only the Mollusca Conchifera, which was subdivided into five Classes, twelve Orders, 44 families and 225 Genera. The Foraminifera remained under the Cephalopoda.

The *Tabula* was published as a double-fold table in the front of the *Systematica*. It was also published as a table in the front of Catlow & Reeve (1845) under the heading *Molluscorum Distributio Methodica* with the Lepades omitted.

Reeve, in an effort to achieve "equivalency of terms" for the Classes of Mollusca, coined the term Tropiopoda for what we today call the Bivalvia, divided into the Bimusculosa and Unimusculosa, based on two or only one conspicuous adductor muscle. In his *Initiamenta* and *Elements* (1846 and 1860, 1: 4, footnote) Reeve stated that Prof. Owen (Richard Owen, 1804–1892) had shown that the foot cannot be used for classification and he therefore reverted to the use of Lamellibranchiata, the term then current.

It must be remembered that at the time the *Tabula* was introduced, Reeve had published only one paper, describing two species. It was, at best, pretentious of Reeve. The *Tabula* was certainly not in substance a new system. It was ignored by George Johnston (1797–1855) in *An Introduction to Conchology* (1850) which

included a descriptive summary of various arrangements from Aristotle to Cuvier, Gray and Savigny. In his last chapter Johnston discussed "Recent improvements in the classification of Mollusca." It included arrangements by Gray, Milne-Edwards, Deshayes, and others, without mention of either Reeve or his *Tabula*. Reeve noticed this as in a review he criticized that portion of Johnston's book as

"a tedious history of systems, which increases the weight of the book without adding to its usefulness." - (Reeve 1850e: 761)

Printing and publishing firms

Reeve's publishing ventures began with the publication of the first numbers of the *Conchologia Iconica* in January 1843. As shown on the title page, it was "printed for, published, and sold by Lovell Reeve, Naturalist" The name of the printer of the early parts is not known. Richard and John E. Taylor, who had just finished printing the *Systematica*, might have produced the letterpress but they are not listed by Twyman (1976) as lithographic printers. At some point Reeve acquired "a lithographic press as well as a Stanhope hand-printing press with cases of type" (Hunt 1865: 87). The earliest *Iconica* plates did not bear the name of the printer having only the name of the artist on the left and the lithographer on the right, or artist/lithographer on the left and nothing on the right.

There are 48 *Iconica* plates, the accompanying texts for which bear dates from August 1843 to December 1844, on which the imprint is "prel. lith. Linn. impr." This imprint also appears on other plates published by Reeve during that time. Twyman (1976: 45) read this imprint as "Prelium Lithographicum Linneanum" and commented that there is no record of any formal connection with the Linnean Society. There was certainly no connection with the Linnean Society, and it is here considered that Twyman's extension of the abbreviation is incorrect. The word "prelium" means "battle" and cannot have any application here. The word intended is "prelium" which originally meant an olive press. Early printing presses were converted from olive presses and the term came into use for them. A 1520 woodcut of Josse Bade's (1462–1535) printing shop, the Prelium Ascensianum, has the name clearly on the press. It seems likely that Reeve envisioned a grandiose name, if not in Latin, then something like "The Linnean Lithographic Press."

Reeve, presumably wishing to establish some connection with Linnaeus, after abandoning the short-lived Latin name for his press, adopted a logo featuring a left-facing bust of Linnaeus, reminiscent of the right-facing bust on the Linnean Society of London's medallion, derived from a portrait by C.F. Islander. Reeve's logo consists of the bust within a double circle with "*Nulla dies sine linea*" inscribed within the circles (Figure 6). The motto, "No day without a line," is appropriate for a writer and publisher, and the use of the Latin word *linea* is a nice pun on Linnaeus. This type of word-play was common to the time.



FIGURE 6. Logo used by Lovell Reeve for his printing and publishing company through several changes in the name of the business.



FIGURE 7. Logo used by Reeve in later years when he was publishing simply as Lovell Reeve or Lovell Reeve and Co.

Sometime in the late 1850s Reeve adopted a different logo consisting of elaborate interlaced initials LR in the center of a decorated quatrefoil (Figure 7). This logo was stamped in gilt on the front cover of some of the works he published. It sometimes appeared on title pages without the surrounding quatrefoil, leaving the initials within a shield-shaped outline.

The Reeve Brothers imprint first appeared on *Conchologia Iconica* plates for which the text is dated November 1844, although the partnership existed as early as May 1844 when ads appeared under that name. The title page for *Conchologia Iconica* Volume 1 is dated 1843 and is imprinted "Reeve, Brothers." As demonstrated elsewhere, these volume title pages are meaningless for dating. In October and November of 1847 several front page ads in *The Athenaeum* announced:

"To authors. – Messrs. Reeve, Brothers, respectfully inform their scientific friends that, having fitted up a more commodious Printing Office, they have much increased their facilities of execution; employing, in the letterpress department, the new Elzevir founts of type, and in Lithography, beside the usual varieties of Chalk Drawing, the mode of Line-Engraving adopted in Germany for Dissections of Objects, Maps, Plans, Writing, &c., little inferior to steel. [then followed this quoted notice] 'Messrs. Reeve have certainly got their establishment, as folks say, 'up to the mark' for the publication of works of this class; for we are informed that from the same factory are produced the labours of the Artist, Colourist, Printer, Engraver, Lithographer, and all the componency of an illustrated scientific book.' – *Literary Gazette*, in review of Badham's 'Esculent Funguses.'

Publishing Warehouse, 8, King William-street, Strand.

Printing Office, 5, Heathcock-court, Strand."

The "Brother" in the firm of Reeve Brothers was Lovell Reeve's youngest brother, Frederic. Until January 1848 the imprint on the firm's work was "Reeve, Brothers" or "Reeve imp." Six plates with text dated January and February 1848 have the imprint of "Reeve & Co." These plates were probably printed several months before the dated text was printed.

In November 1847 a new partner, Benham, (Ebenezer Benham, 1795?–1857) was brought in and the firm became Reeve, Benham, and Reeve [variously as Reeve, Benham & Reeve]. This was surprising considering the recent enlargement as evinced by the ads above, the last of which ran on 6 November 1847. In an ad announcing the forthcoming *Narrative of the Voyage of H.M.S. Samarang* on 20 November 1847 the firm name was Reeve, Benham & Reeve and the only address listed was the publishing office, King William-street, Strand. The addition of a partner surprised several people as expressed by Harvey in his letter of 27 November 1847 to Hooker (see under Business Relationships herein). Salisbury (1945: 155) attempted to date Benham's entry into the firm as early in 1847 based on a title page for *Conchologia Iconica* Volume IV. As discussed under that work herein, those "volume title pages" are not correctly dated, and that particular title page lists genera not completed until 1848.

It must have been decided that "Reeve, Benham, and Reeve" was a better name than "Reeve & Co." and it is that name that continued in use until the printing and publishing portions of the business were separated in 1850. The Reeve, Benham, and Reeve partnership dissolved between 22 June 1850 and 6 July 1850 at which time it became simply Reeve and Benham, a publishing firm no longer printing.

It has been stated that in 1854 Lovell Reeve sold his lithographic press to Vincent Brooks, who became the principal supplier and that all printing was contracted out to other printing houses so that the company could concentrate on publishing (Desmond 1987: 86; Harley 2004: 85). That sale is discussed below. The actual separation of the printing and publishing businesses was made in 1850 as it was in that year that Reeve, Benham, and Reeve disbanded, and the publishing and printing operations were separated. The firm Reeve and Benham, now devoted to publishing, moved to 5 Henrietta Street. Frederic Reeve continued in business as a printer and produced plates and letterpress printing for Reeve and Benham until late 1853. This is affirmed not only by advertisements but also by the imprints in the *Zoology of the Voyage of H.M.S. Samarang*. The title pages to *Samarang* parts dated 1848 and 1849 were printed and published by Reeve, Benham, and Reeve,

King William Street, Strand. The title page for the entire volume, dated 1850, shows that it was published by Reeve & Benham, 5 Henrietta Street, Covent Garden. The verso of the title page bears the imprint of Frederic Reeve, Heathcock Court, Strand as does the verso of the index to the Mollusca part, also published in 1850. As can be seen in the above narrative, an earlier break of some sort occurred in late 1847. From mid-1850s most letterpress printing was done by John Edward Taylor, Little Queen Street, Lincoln's Inn Fields although some books bearing the Reeve and Benham imprint, and later that of Reeve and Co, were printed by various London printers.

Even after relinquishing the presses Lovell Reeve retained the stones on his premises for future use. More will be said about the lithographic stones in the discussion of the *Conchologia Iconica* herein.

A few months after establishing his own business as a printer of copperplate and lithographic plates as well as letterpress, Frederic acquired a partner named Nicols. Frederic was the "Reeve" in Reeve & Nicols, a short-lived association that lasted only until early 1852, at which time he resumed doing business under his own name. The breakup of that partnership had no effect on production of the *Iconica* as *Helix* plates 1–78 (March 1851 – February 1852) were printed by Reeve & Nicols and 79–174 were printed by Frederic Reeve (March 1852 – October 1853). In late 1853 the plate printing was taken over by Vincent Brooks, a successful printer who was just starting to produce lithographs. Again, the reason for the change is unknown. It is possible that Frederic Reeve was injured or was for some reason unable to continue printing as in 1861, and until his death (post-1891), he was shown on censuses as a clerk and a stationer.

It is not known exactly when Vincent Brooks began printing the plates for the *Iconica* and other Reeve publications as only the text of the *Iconica* is dated. The plates were printed earlier than the text, sometimes several months earlier. The plates for December 1853 bear Frederic Reeve's imprint. There were no January or February issues. The March and April 1854 parts contained plates by both firms.

There is evidence indicating that Lovell Reeve retained title to the presses and they were operated by his brother Frederic, either on lease or some purchase plan, and then were sold to Brooks after Frederic ceased printing. Whatever the arrangement may have been, Lovell Reeve and Vincent Brooks did not get off to an auspicious start. On 27 November 1853 Lovell Reeve wrote to Vincent Brooks about the book *Popular Geology* (not published until 1855) that:

"I cannot be any longer trifled with about these plates; and beg to give you notice that unless you furnish me with proofs from new drawings within one week from this day I shall make arrangements with another house for our lithographic work. To send me proofs from the old [transfer?] after what has passed is patently dishonest as well as insulting to my judgement." - (LRP/1/23: 267, Royal Botanic Gardens, Kew)

The problem was resolved as Vincent Brooks printed Reeve's lithographic plates for decades. It is conjectured that "after what has passed" related to the sale of the presses.

In March 1852 Benham, about whom little is known, disappeared from the scene and the publishing firm then operated variously as "Reeve and Co.," "Lovell Reeve" or "Lovell Reeve & Co." In 1862 Reeve brought in Francis Lesiter Soper (1818?–1910) as a partner. Soper was a relative of Reeve according to Lewis (1992: 22). Their relationship is not known to this writer. After he retired, his son, A.L. Soper, continued to run the firm (Desmond 2003: 113). The publishing firm continued, at different locations, until at least past the middle of the 20th Century. Melvill (1900: 347) did not believe any members of the Reeve family were still involved in the business in 1900.

In 1845, while actively seeking works to publish, Reeve wrote to Sir William Jardine, an Edinburgh publisher, that:

"The letterpress composing, printing, etc., and the litho preparing, transferring, printing, etc., we do on the premises. ... for original drawings we employ different artists according to the nature of the subject... For the colouring we employ different hands for each branch." – (William Jardine papers 5/106, National Museums Scotland Library)

It is possible that the combination of printing and publishing was simply too much for one establishment. Reeve had been successful in obtaining works to print and publish almost from the beginning. While still printing and publishing, he produced many fine colored lithographic works, mostly on botany, often obtaining contracts through Joseph Dalton Hooker (1817–1911), for whom he published numerous works. One of the first was *The Flora Antarctica*, which Reeve began advertising in May 1844. Some of the works produced during his early days as printer/publisher are classics, such as Hooker's 1849–1851 *Rhodendrons of Sikkim-Himalaya* which has 30 folio plates, now an extremely valuable item. Several plates from this latter work, and other botanical plates published by Reeve, are reproduced by Lewis (1992). The publishing business continued to thrive. An 1863 list of "Lovell Reeve & Co.'s publications in natural history, science, travels, antiquities, etc." is 16 pages in length with only one page being taken up by the listing for the *Iconica*.

Coloring

The hand-coloring of plates, particularly as concerns Reeve, has been discussed in some degree by both Price (1988) and Desmond (1987, 2003), whose works should be consulted. Some correspondence in which coloring is discussed is reproduced under Business Relationships herein.

Coloring was done on the premises. It is unfortunate that the colorers, whose labors add so much to the beauty, usefulness and value of these old works, are largely forgotten. It is known that a Mr. William Graves was a colorist for Reeve as was one of his daughters. Such work was often undertaken as a family venture. Under the discussion of the *Iconica* herein is a quote from Reeve concerning "a family of colorists." It is only by comparing multiple copies of these older hand colored works that it can be noted that the color, and the quality of the coloring, often differs considerably from one copy to another. There are many reasons for this, one being that later printings were often produced in haste without attention to detail.

Reeve and Co. was one of the few publishing companies to retain colorers into the 20th Century. The method and output of the colorists is shown in this document:

"A regular colourer prefers to work in hundreds of the same plate, one colour at a time and one plate after another, in a purely mechanical way. An expert colourer working full time may perhaps colour 200 8^{vo} plates a week, more or less, according to the number of colours and the amount of surface and detail: but their rate varies very much with their personality." – (Publisher's notes on the production of *Curtis's Botanical Magazine*, 11 January 1922, Royal Botanic Gardens, Kew; quoted from Desmond 1987: 37; 2003: 21)

When Reeve and Co. abandoned *Curtis's Botanical Magazine* in December 1920, its plates were still being hand colored. Due to that cost, publication was halted by the firm. It resumed in 1922 under the editorship of Kew Gardens. Some 30 people were at one time employed just for coloring the plates of that magazine (Desmond 1987: 37; 2003: 22).

Available monographs of the *Conchologia Iconica* were still being colored at least as late as 1958 (Johnson 1970: 288).

Gray, Cuming and the Sowerbys

Most of the people involved with Reeve and his work are discussed in appropriate sections. There are two individuals, John Edward Gray and Hugh Cuming, whose presence is felt in so many areas that background information on them will be given here as will a brief review of the Sowerby family.

John Edward Gray (1800–1875). As already mentioned, soon after becoming interested in mollusks Reeve met Dr. John Edward Gray (1800–1875), who was later Keeper of Zoology at the British Museum

(Natural History) from 1840 until 1874. Gray helped him with his conchological education and Reeve (1863: v-vi) in dedicating his book on land and freshwater mollusks of the British Isles to Gray acknowledged his "many pleasant days over your collection of shells in the society of yourself and Mrs. Gray." This exhibits considerable mellowing on Reeve's part as in his publications he had little good to say about Gray. In addition to any specific differences they may have had about the classification on mollusks, the fact that G.B. Sowerby I had serious disputes with Gray on more than one occasion did not help matters (Petit 2003: 10–11). Also, Gray had a poor opinion of G.B. Sowerby II as his review of Sowerby's *Conchological Manual* was scathing. After praising the illustrations, Gray continued with:

"We wish we could speak in the same terms of the text, but the author appears to be quite incompetent for the task he has undertaken, and we fear is more likely to mislead than assist the student. In the few generic characters, words are used in a different sense than which is given in their explanation; and such is the carelessness shown in the compilation of the work, that the genera established by the author's grandfather, father, and uncle, are assigned to other persons." – (Gray 1839: 153)

Although Gray was not mentioned by name, in Reeve's diary for 8 January 1849 he wrote about the collection of [Rev.] Thomas Lombe Taylor (1802–1874) that:

"his cabinet will be one of the most complete in this country. How sad it is that the collection of shells in the British Museum is not characterized by the same critical identification of species as in this and numerous other less important collections. Although containing many interesting specimens and presenting an imposing aspect in its general arrangement it cannot be consulted as an authority for names."

Such comments were not confined to his diary as Reeve was openly critical of Gray in his published work. Reeve alluded to his frequent differences of opinion in his diary for 23 January 1849 when he stated that at a meeting of the Zoological Society attended that evening Gray had made a presentation on the Turbinidae, adding that he

"thought it necessary to state to the chairman, owing to the many occasions in which I had to differ from Mr. Gray's juggling of the genera, that in the present instance I fully concurred with him." – (quoted from Melvill 1900)

In the following sentence he mentioned another supposition advanced by Gray and which Prof. Owen and others "showed to be extremely absurd." His often expressed disagreement with Gray about genera and molluscan physiology did not prevent Reeve from utilizing Gray's recognition of new species. While writing the *Conchologia Iconica*, Reeve would visit the British Museum to examine shells in the genera being monographed. If Gray had placed a manuscript name on a new species in the collection, Reeve simply had the shell illustrated and published the species as "Gray MSS." The "Gray MSS" in the text is the only credit Gray gets as the species name has to be attributed to Reeve. In a discussion of *Chiton* genera, Reeve lashed out at Gray with:

"Note. During the progress of this monograph, a Paper has appeared in the Proceedings Zool. Soc. May, 1847, by Mr. J. E. Gray, in which the author proposes to divide *Chiton* and *Chitonellus* into fifteen genera, according to variations of form, colour, and sculpture, and the length and position of the gills." – (Reeve 1848, *Iconica* Monograph of the genus *Chiton*, verso of text to plate 28)

Reeve then proceeded to discuss the work of Blainville, "the learned author" whose arrangement Gray presumed to enlarge. Reeve listed the fifteen genera and stated that it will be observed that none are of "very unequal rank" and that there is no basis for Gray's arrangement. He closed his tirade with:

"It is much to be regretted that a desire to taste prematurely of the pleasures of generalization should so frequently elicite [sic] the sudden apprehension of characters for generic purposes, which, in reality, are no more than the simplest modifications of specific affinity."

Of the fifteen genera listed by Gray, thirteen are in current usage.

Reeve was in an awkward position as he could not afford to antagonize G.B. Sowerby II upon whom he

depended for the production of plates for the *Conchologia Iconica* but he also needed to retain access to the British Museum collection. Most importantly, Reeve had to cater to Cuming upon whom he relied for new species to describe and to sell. The approbation of Cuming and Sowerby was necessary and sometimes sought at Gray's expense. Given the circumstances of Gray's relationship with Cuming (Gray 1868), the Sowerbys and his treatment by the Linnean Society (Petit 2003: 9–10), it is surprising that Gray even tolerated Reeve looking at material he had labeled, to say nothing of using it to describe species for commercial gain. Regardless of circumstances, given their early relationship Reeve's later denigration of Gray at every opportunity, as evinced in his writings, was inexcusable. The dedication of his book to Gray in 1863 was a weak apology. After a paragraph and a half of self-praise and directly following a sentence in which Reeve stated that he was bringing his (Reeve's) experience to bear on the subject of the British molluscan fauna, he remarked:

"Our opinions on what constitutes a genus and a species have been greatly at variance; but with a maturer knowledge of the general organization of the animal, and a clearer perception of the variableness of specific characters of shells, I have come to entertain many of the views which I formerly disregarded. No man has contributed so assiduously, through a long course of years, to our knowledge of the Land and Freshwater Mollusks of the British Isles as yourself. It is in recognition of this service, and in grateful remembrance of some of the happiest days of my life, that I do myself the pleasure of dedicating to you the present volume." – (Reeve 1863a: v-vi)

There is no mention in the dedication of Gray's work other than on non-marine mollusks.

The dedication did not deter Gray from voicing his opinion of Reeve and some of his colleagues in a paper presented in 1867 (Gray 1868). Gray's paper primarily concerned specimens from the Cuming collection and will be more fully quoted in the discussion about Cuming herein. About the Cuming collection in general he stated:

"A very large number of species in the collection have been separated on very slight characters, or on the slightest variation of form, state, and colour. This has greatly arisen from the description and figuring of shells lately made known chiefly falling into the hands of dealers, like Mr. Reeve and Mr. Sowerby, or of persons employed by dealers, who select for their purposes those who are ready to fall into their views and make as many new species as possible; and the dealers are ready to repay such work with specimens to increase the describer's collection, or in other ways. A shell with a new name is much more valuable in a pecuniary point of view than one with an old and well-known name." – (Gray, 1868: 728)

Grav also observed that:

"The iconographers, such as Lovell Reeve and Mr. Sowerby, have published illustrated monographs of many genera of shells on the modern system; but unfortunately they do not seem to think it is enough to figure each species, but they figure even slight varieties under the name of species. This has rendered their works so expensive that they are only to be regarded as works of luxury for the libraries of the rich; while the number of the varieties they figure, and the want of system in the arrangement of the species, render them very difficult to use by the scientific conchologist. You may almost buy a good collection of shells for the price of these works; and every one would learn more from the shells themselves than from works on them of such an unscientific character." – (Gray, 1868: 732)

Hugh Cuming (1791–1865). A few basic details about Hugh Cuming and his life are given here for the benefit of those readers to whom he may be unknown. References to published biographical papers on Cuming may be found in Coan et al. (2007). Much of the information herein was taken from Dance (1980, 1986).

Hugh Cuming was born in England. It has been suggested that he may have had contact with George Montagu (1753–1815), the well-known conchologist. After an apprenticeship with a sail maker he went on a voyage to South America in 1819. There he established a business as a sail maker in Valparaiso. He also

developed an intense interest in natural history. By undetermined means he was able to retire from business in 1826 at which time he constructed a boat especially designed for the storage of natural history specimens. He made his first voyage in his boat, the *Discoverer*, to Polynesia in 1827–28 and then made a second voyage along the west coast of South American in 1828–30. After that voyage he returned to England for a few years, making the acquaintance of conchologists and botanists both in England and on the continent. On 28 February 1832 at a meeting of the Zoological Society, G.B. Sowerby I and Broderip (William John Broderip, 1789–1859) displayed Cuming specimens and gave the first of many papers describing his material. The Sowerbys' *Conchological Illustrations* was begun in 1832 primarily as a vehicle for describing Cuming specimens. Cuming was made a Fellow of the Linnean Society of London in 1832. Cuming gave at least some of his shell books to the Linnean Society (S. Peter Dance, personal communication January 2007).

Knowing the demand for new natural history material and now well-established and armed with letters of introduction from the Earl of Derby, President of the Zoological Society of London, and other dignitaries, Cuming set off on his third voyage, to the Philippines, in 1836. He returned in June 1840 with a boat-load of new zoological and botanical specimens.

Lovell Reeve started monthly publication of *Conchologia Systematica* in October 1841. As shown herein, it was completely written before publication started and was to be illustrated mostly with plates previously published by Sowerby in other works. By February 1842 Reeve had become acquainted with Cuming, and Reeve's life was changed forever. In the *Systematica* (2: 31) Reeve printed a long letter from Cuming containing his observations on living Calyptraeidae. From that point on Reeve rewrote parts of the *Systematica* in order to name and illustrate new species obtained from Cuming. Their association was such as to encourage Reeve to begin the *Conchologia Iconica* in 1843 primarily for description of Cuming material. Many of the Part covers for the *Iconica* carry the wording "Illustrated chiefly from the Cumingian Collection."

The Sowerbys abandoned the octavo *Conchological Illustrations* and began the quarto *Thesaurus Conchyliorum*, probably intending it to be, at least in part, a forum for the illustration and description of Cuming species. It must be remembered that the Sowerbys were also shell dealers and sold Cuming's material. For decades Cuming specimens continued to be described in the *Proceedings of the Zoological Society of London*, where he insisted they be published, by such authors as the Sowerbys, Broderip, Reeve, Arthur Adams, Henry Adams, and a few others. This Cuming mandate that all new species based on his specimens be described in the *Proceedings* is the reason so many descriptions of species appear in that journal even after they had already been illustrated and named in the *Thesaurus* or the *Iconica*.

Numerous authors have commented on Cuming's locality data as some specimens were demonstrably mislocalized. Dance vigorously defended Cuming stating that:

"Additions to Cuming's shell collection and his treatment of them after 1846 probably account for most of the erroneous information which crept into the literature dealing with parts of that collection. Published information on shells *he collected personally* [emphasis in original] is largely free of significant errors relating to cited localities." —(Dance 1980: 495)

The year 1846 was mentioned as it was then that Cuming suffered a stroke that affected his health for the remainder of his life (Dance 1980: 494). The fact that some shells have incorrect data hardly lessens the importance of the Cuming collection or the unique role he played in 19th Century conchology. Workers do have to realize that the collection is not free of errors, and available evidence suggests that Dance was overly kind to Cuming. Cuming's manner of storing and identifying his specimens as recounted by contemporaries is revealing.

Gray's comments (Gray 1868) were considered important enough to warrant reprinting in the *American Journal of Conchology* (Gray 1869). Among other remarks, Gray stated:

"I certainly should have considered the following observations unnecessary if most exaggerated statements had not been published respecting the collection, which are likely to mislead the public—such, for example, as that each specimen had not only its name and its special locality attached to it,

but also the depth in the ocean at which it was found, and that the specimens are in all instances the actual types of the species from which the descriptions have been taken. As this is not the case, it is necessary that some account of the collection as it was received by the British Museum should be given, in order that it may be properly understood by the scientific conchologists who may hereafter consult it. I have not the least intention by the following remarks to deprecate the value of Mr. Cuming's labours as a collector, or of his collection; for every conchologist, both scientific and amateur, is very greatly indebted to him for having collected one of the largest and most perfect collections of shells ever brought together; for he not only collected extensively himself, but he excited others to collect, and he left no stone unturned to obtain from other collections in all countries such specimens as he wanted, or from which, as types, species had been described; and he also, in the most free and liberal manner, opened the collection to the use of such conchologists and iconographers as would fall into his views as to the describing and naming of species.

When I first saw the collection, fifteen or sixteen years ago, as may be seen by my report to the Trustees of the British Museum, which is published in some of the Parliamentary Papers relative to the Museum, the collection was without any names or habitats to the species. The names have been added since Mr. Cuming's recovery, and gummed to the mouth of one of the specimens of each preserved species. These names were not affixed by the original describers and figurers of the species, but by two well-known conchologists; and as they must be considered to rest on identification by the latter and not by the original describers, this rather detracts from their authenticity as absolute types of the species described. ... I am informed that as soon as any specimens were described Mr. Cuming was in the habit of destroying the habitats sent with them, as he said that they could be discovered by looking at the work in which they were described..." - (Gray 1868: 726-727)

However, that many shells in the Cuming collection do have Cuming labels is attested to by Mr. S. Peter Dance who spent much time working with Cuming specimens during the years 1957–1966 when he was on the staff of the British Museum (Natural History). He has advised that:

"Many of the shells contained labels, clearly written by Cuming, stuffed into their apertures, or between their valves. Many of these labels had detailed information about locality and often mentioned the depth at which the shells had been found."—(S. Peter Dance, personal communication, January 2007)

Other comments by Gray about the Cuming collection will be found in the discussion of Dr. Gray herein. A few more of his comments may be appropriate here:

"No one knew better than Mr. Cuming the value of a new name to his specimens, as shown by his enmity to any one who doubted the novelty of the species described. He would not allow me to see his collection for many years after his return from South America, because I had pointed out that some of the shells which Messrs. Sowerby and Broderip had described as new were well-known species, and well figured by Chemnitz. Indeed, I was not allowed to see any part of his collection until it was first offered to the British Museum for sale, during his illness about sixteen years ago. Since that period Mr. Cuming refused a well-known conchologist, who had previously described several shells from his cabinet, any further use of his collection, because he refused to admit that certain speci-

mens which he sent to him to be described were new to science, or different from species already described.

The system that Mr. Cuming adopted of selecting three specimens of each variety or species most alike tended to prevent the number of nominal or presumed species from being observed during a casual examination of the collection, as it excluded those specimens which showed the transition from one variety to another which occurs in any given species—more especially as the species were not arranged in the drawers so that the most allied or presumed species were near to each other, but, on the contrary, the two or more variations of the same species were often placed in distant parts of the series." - (Gray 1868: 729)

These statements are reinforced by several observers. Layard stated, in part:

"I have often heard collectors complain of the inaccuracy of some of the localities given by Cuming, and I think I can account for this. ... I never saw a note book in his hand, nor were his shells in *separate labelled boxes* [emphasis in original]. He trusted entirely to his wonderful memory, not only for localities, but for the names of the shells and *their authors*." – (Layard 1895: 74)

Charles Hedley, in a discussion of the shells collected by John MacGillivray (1821–1867) during various expeditions in Australian waters, had his say about Cuming. He wrote:

"The shells of MacGillivray seem to have passed into the hands of Cuming ... a man of strong character, a master organiser, and one born to success. He aimed to have the finest collection of shells in the world, and he reached it. Unfortunately his plans did not regard the advancement of science, and the strong man wastes no energy on aught but the attainment of his object.

For purposes of sale or exchange an unnamed shell was of less value to him than one named, so names were needed for his wares. More time for determination and description was required by careful writers. But worse authors quickly supplied names good or bad, and doubtless better submitted to Cuming's dictation as to what constituted a different species.

So the leading conchologists of his generation in England, Gray, Woodward, Forbes, Hanley, and Carpen ter had little or no dealings with Cuming. Gray, indeed, seems to have quarrelled outright. The naming of Cuming's huge collection fell to weaker men—Reeve, the Sowerbys, and the Adams. It has happened that these renamed the same species twice or thrice. The least amount of work necessary to carry the name satisfied them.

Though 'the exact locality, depth, and character of habitat of each species of mollusk taken' by MacGillivray 'were carefully noted at the time of capture,' these valuable field notes were despised by the dealer into whose hands they passed, and failed to attain publication." – (Hedley 1910: 335)

In fairness to Cuming it must be pointed out that "seem to have passed" was Hedley's phrase as this is not known with certainty. It is known that when MacGillivray went to Australia for the last time he had an agreement with Cuming to collect shells for him and then failed to even correspond with Cuming. In addition to having "fitted him out" for the trip, Cuming gave the impecunious Mrs. MacGillivray and her family £6 a month for over three years without having any word from her husband (Ralph 1993).

In the preface to a paper describing new material from Cuming, Broderip praised the available locality data, stating that:

"It is not very long since, that the localities ascribed to shells could, in very few instances be depended upon. The cupidity of dealers, some years ago, not unfrequently prompted them wilfully to deceive those who gave extravagant prices for new shells on this point, and carelessness was generally the order of the day. Mr. Cuming, by his accurate notes, and the open publication of the places where every one of the multitudinous species and varieties collected by him was found, has mainly assisted in making a complete revolution in this department of the science, and has done more towards giving us data for the geographical distribution of the testaceous mollusca than any person who has yet lived." – (Broderip 1841a: 83–84)

In the paper just cited, Broderip expressed the intention of him and Sowerby to "submit descriptions to the Society from time to time till the whole of Mr. Cuming's stores are exhausted." It is here considered that Broderip was not allowed to describe additional specimens as he recognized varieties, in this paper alone naming one species with 10 varieties and another with 14, each denoted by a letter, not a different name.

In April 1848 in Part 61 of the *Conchologia Iconica* Reeve inserted a full page portrait of Cuming. There also exists a dedication page, which may have been issued at a different time, on which Cuming is the first of the six persons mentioned. The long detailed review of Part 61 in *The Literary Gazette* (Anonymous 1848a) did not mention its presence.

Cuming died on 10 August 1865, only three months before Reeve died. Several accounts of Reeve's life mention that he was remembered in Cuming's will. Clarification is in order as Reeve did not receive a substantial bequest. Cuming's will is somewhat involved as he not only made provision for his daughter and her children, but also for a son, with whom he had lost contact and whose whereabouts were unknown. In order to retain funds in trust for those purposes, and also to dispose of his collection, Cuming appointed four Executors and Trustees. They were: John Joseph Bennett, Keeper of the Banksian Herbarium at the British Museum; Richard Benson of Bristol, identified on the Probate as "tobacconist"; Lovell Reeve; and Henry Adams, elder brother of Arthur Adams and a frequent describer of Cuming specimens. The absence of Arthur Adams would be remarkable except that when the Will was written he was away on another long voyage. Although the four Executors had equal authority, it is clear that Cuming expected the best businessman to actually handle the money as after listing them he wrote:

"I request and desire that in all matters relating thereto in which one of my said Trustees can act for the others and other of them the said Richard Benson may be the Acting Trustee and Executor of this my Will."

The following sentence constituted the "bequest" to them:

"And I give to each of them the said John Joseph Bennett Richard Benson Lovell Reeve and Henry Adams the sum of Ten guineas as a slight mark of my esteem and affection for them and to enable them to purchase some memorial of me."

The idea of leaving a small sum to purchase a "memorial" was then customary. The amount of Ten guineas [= £10 10 s.] would not have been insignificant to most people, but to these Trustees it would have had little meaning other than its intent as a remembrance. It is curious that G.B. Sowerby II, who drew illustrations of thousands of Cuming's specimens and described hundreds, was not so remembered. When the will was probated on 23 October 1865, Bennett, Benson and Adams were appointed with "power being reserved of granting Probate" to Lovell Reeve. Of course Reeve never served as an Executor as he died only a few weeks later.

The Sowerbys. The Sowerby name is pervasive in the molluscan literature. Two members of the family figure in the Reeve saga: George Brettingham Sowerby I (1788–1854) and his son George Brettingham Sowerby II (1812–1884). The son was "Jr." but Roman numerals are conventionally used to distinguish father, son and a grandson with the same name. In addition to G.B. Sowerby I, II and III, also publishing as "Sowerby" were James Sowerby (1757–1822) and James De Carle Sowerby (1787–1871). James De Carle Sowerby, brother of G.B. Sowerby I, drew a few plates for Reeve but was not otherwise involved.

It is difficult to determine which of the Sowerbys wrote certain papers and monographs. They often made no effort to differentiate themselves as discussed elsewhere (Petit 2006a: 73). In a list of abbreviations of authors' names, G.B. Sowerby II lumped all together as:

"Sow. Sowerby. The late James. Author of "Mineral Conchology," &c. George Brettingham, Senr., "Genera of Shells," "Species Conchyliorum," &c. G.B. Jun. "Conchological Manual," "Conchological Illustrations," "Thesaurus Conchyliorum," Descriptions of New Shells in the Zoological Proceedings, &c." – (G.B. Sowerby II 1842: unnumbered page following page vi)

Other comments about the Sowerby family and references to them may be found in Cleevely (1974a, 1974b, 1976), Coan (1975), and Coan et al. (2007).

It is equally difficult to date Sowerby taxa as they rarely dated their publications, even such major works as the *Thesaurus Conchyliorum*.

G.B. Sowerby I and his brother J.D.C. Sowerby were original members of the Zoological Society of London. Reeve's early acceptance into that society was important as it afforded him some degree of credibility.

Reeve used plates from two Sowerby works, *The Conchological illustrations* and *The Genera of recent and fossil shells*, in his *Conchologia Systematica*. Terms and conditions for that usage are not known. G.B. Sowerby II was originally to furnish 50 new plates for the *Systematica* in addition to 250 copied from the two

Sowerby works. As will be seen, the number of original plates was increased to 80.

Reeve and G.B. Sowerby II had a long relationship that began in 1841 with Reeve's first major publication, the *Systematica*, followed immediately by the start of the *Iconica*. Sowerby produced plates for the *Iconica* from its beginning, continuing even after Reeve's death until the series was terminated in 1878. The *Iconica* alone has 2,727 plates, containing an uncounted number of individual illustrations of shells. During the same period he illustrated additional works for Reeve and other authors as well as several of his own.

G.B. Sowerby I self-published his own works, many of them not even bearing the name of the printer. In the *Thesaurus*, the imprint "Printed by Reeve, Brothers, King William Street, Strand" appears at the bottom of the last page of the list of plates in the *Voluta* monograph, published in 1845. It appears that this may be the only part printed by Reeve as the type font differs slightly from the other monographs. There is no indication that Reeve printed the plates.

The only G.B. Sowerby works published by Reeve were *Popular British conchology* in 1854 and *Popular history of the aquarium of marine and fresh-water animals and plants* in 1857. In 1850 Reeve published *Popular mineralogy*, the only book written by Henry Sowerby, the younger brother of G.B. Sowerby II. However, in 1859 when G.B. Sowerby II wrote *Illustrated index of British shells*, it was not published by Reeve. It is strange, given their relationship, that Reeve would not have been favored with more of their printing and publishing.

Whatever their relationship, at least for some time Reeve had the confidence of G.B. Sowerby I as well as the pen and brush of G.B. Sowerby II. It was certainly through one of the Sowerbys that Reeve met Hugh Cuming, a circumstance that had a profound effect on the remainder of Reeve's life. The Sowerbys and Reeve are usually thought of as authors and publishers. Often overlooked is the fact that they were major shell dealers and as such were competitors. It seems that everyone involved recognized that Cuming had more than enough material for them all!

In an oddly titled paper on the *Iconica* and the *Thesaurus*, Crosse (J.C.H. Crosse, 1826–1898) gave a critique of the *Thesaurus*. In closing he made a pertinent statement about G.B. Sowerby II. A few words of that statement, translated by Dance (1966: 152; 1986: 116), have been repeated rather often. Somewhat more is here translated to put it in broader perspective:

"Faced with such ignorance, combined with such superficiality, should we not take inspiration from the celebrated words of Voltaire, which we will take the liberty of modifying a little to suit the present circumstances? We say, therefore, to Mr. G.B. Sowerby, who although a mediocre naturalist and a detestable Latin scholar, is on the other hand a good artist: Draw plates! Draw plates! ... but for the love of God, do not describe shells! *Ne sutor ultrà crepidam!*" – (Crosse 1870: 259–260)

The last four words are also the title of Crosse's article. It is an old saying meaning literally "Shoemaker, not above the sandal" which would today be said as "Stick to what you know how to do." Crosse's article was published while Sowerby was still actively producing the *Iconica*, not after his death as usually stated.

Business relationships

Evidence of some of Reeve's opinions, business relationships, and the opinions of others are to be found in extant letters. Dance stated that

"he did not always enjoy the confidence of his authors, however, for some of them regarded him as a bad businessman who was often parsimonious and who tended to over-commit himself with his publishing projects." – (Dance 2004: 343)

The first part of that statement can be demonstrated with excerpts from correspondence, a few bits of which will be quoted. The last part is readily evident in the collations of Reeve's publications, all those produced in parts falling behind schedule. Although he made a few bad choices, Reeve was an entrepreneur and not afraid

to take a new direction if he saw a potential profit. He tried to insure, and increase, profits by buying many of the books that he published so he would not have royalties to pay. That he drove hard bargains is seen in a letter from Reeve to a prospective author for a book on British fossils for his "Popular" series (Popular Scripture Zoology, Popular British Conchology, Popular Physical Geology, Popular British Ferns, Popular Mollusca, etc.):

"Our terms for the purchase of these works are twenty pounds, and ten pounds more if the work reaches a second edition. We do not bind ourselves to pay anything beyond this. If we consider the subject requires further revision at any future time, we make an arrangement with the author for that purpose." – (transcribed letter dated 19 March 1850, in reprint collection, Mollusca Library, The Natural History Museum)

All books in the *Popular* series sold for 10s. 6d. Assuming a production cost of 50% of retail, a sale of 80 copies would recoup the author's fee with no future royalties! Reeve regretted his early contracts, where he did not purchase books outright, as evinced by this extract from a long letter to Agnes Catlow of 14 August 1851:

"... with regard to your work "The Popular Field Botany" we have paid you already <u>more</u> money, while retaining only a <u>halfshare</u> of the copyright, than we have paid in all, including the <u>entire</u> copyright, for any other of the series" [emphasis in original] – (LRP/1/23: 166, Royal Botanic Gardens, Kew)

Both the important *Phycologia Britannica* (1846–1851) by William Henry Harvey (1811–1866) and J.D. Hooker's *Antarctic Flora* (1844–1847) were printed and published by Reeve. An in-depth paper on the *Phycologia* was written by James H. Price (1988) in which correspondence between Harvey and Hooker was quoted, much of it concerning Reeve. A few excerpts only are included here and Price's paper is recommended reading. The punctuation, stress, and variations of the spelling of color/colour in all quotations herein are as published by Price.

In December 1845 J.D. Hooker wrote Harvey with some comments about dealing with Reeve. In that letter after pointing out errors that Reeve had made, he stated:

"The conceited ass has just printed a paper full of confounded nomina in the Annales [Reeve, 1845c], declaring some naval friend of his has found that Cypraea change their shells: a very old story & mistake arising from the great similarity between a certain naked Mollusc, & the animal of the Cypraea."

Later that month (30 December 1845) J.D. Hooker wrote Harvey about [lithographic] stones:

"I have directed inquiries to be made about the Trade price of stones & will inform you when I receive the answers, I should think Reeves will be reasonable but can't tell, he is a curse & there's an end on it. he has *not printed one line of my flora all this month* & annoys me in fifty ways. What do I hear now?, not content with his business he makes an ass of himself as a lecturer on Nat. Hist. in some Surry institution; Further he attends Bickersteths Sermons at the Magdalen & sends him critical letters on them signed L.R.! No wonder he has too much on hand; if this is the way things are to go I must cope to air open Rumpus with the blockhead."

Coloring was the main subject of a letter from Harvey to J.D. Hooker on 12 April 1846:

"... how can you overlook the abominably careless colouring—on which I have been lecturing Reeve, & getting others to lecture him. It pains me to look at the 4^{th} number, which is turned out more like a child's 6^d toy book—Goody two shoes or the like—than like an "opus magnum" as it ought to be. ... How do you compel Graves to obey you? ... I fear Reeve is cutting him down to some very low figure at which colouring cannot be decently done. The sale is only 166 he tells me—& I suppose this does not quite pay him—& that he is screwing tight. ... I fear to trust Reeve—he is so ignorant."

The following is from a letter dated 7 August 1846 from J. D. Hooker to Harvey which is, in Price's words, "anent Reeve's general meanness as it affected the *Phycologia*":

"That man Reeve; every one calls him the most stingy chap in London. In less than 6 months without

advertising he has a sale of 200 copies: what in all the world do either he or you expect?—Do remember that it is not *Punch...*.Reeve wants us all to puff to save him the expense of advertising....What a pretty fortune he hopes to make if a book extend to 60 parts, commences to pay before 8 are well out. Reeves meanness is beyond all bounds.... Forbes....is equally convinced with myself that Reeve is not doing your book justice, it is indeed a common matter of discussion with us & Reeve's avarice a Proverb."

The letter continues with comments about Graves, a colorist employed by Reeve, concerning the coloring in Harvey's work. The Magazine mentioned is *Curtis's Botanical Magazine*.

"His treatment of Graves is disgraceful, he has cut 1/8 of the Magazine plates so that poor Graves does the work as much for his own interest as from pecuniary profit. It is Gs. daughter, poor starving thing I fear, that has taken up your colouring, Graves says that he would not take it up at all without doing it full justice & for that he must at his lowest estimate have double what is paid, Reeve had the impudence I believe to offer $\frac{1}{4}$!"

The letter continued with suggestions as to how Harvey should deal with Reeve, especially on the coloring. Other interesting correspondence between the Hookers, Harvey and Reeve is quoted by Price (1982 and 1988). One item is a letter reducing, without itemization, a previous itemized estimate for a proposed book, the early itemized proposal not being competitive! Also there are comments about the Hookers' contact with the colorist Graves and his comments and prices.

According to Price (1988: 140–141) Harvey was concerned about "Reeve's situation." A letter from Harvey to W.J. Hooker, dated 27 November 1847 inquires:

"Do you know whether Reeve is going back in the World?—His taking a partner looks odd.—And he has not paid me for *two* months—a circumstance which never occurred before. Moreover, a friend told me to look after him. These are trying times to business folk, and I fear he may have been engaging in too many concerns."

The next month Harvey wrote Hooker for his opinion of the terms and conditions of an offer from the publisher Van Voorst. As stated by Price, "It was perhaps fear of Reeve's situation, as well as the attractiveness of Van Voorst's offer regarding publication of *The Sea-side Book*, that made Harvey seriously consider the latter and correspond on the matter with J. D. Hooker." The book when written was published by Van Voorst.

In early 1849 Reeve must have once again, or still, had financial problems. Melvill (1900: 351–352) quotes telling passages from Reeve's diary:

January 24, 1849: "My poor 'Elements of Conchology' advances but slowly. Business absorbs my whole day, day after day, and the little leisure I have from 'C. Iconica' has been occupied with the shells and molluscs of the voyage of the 'Samarang,' add to which an occasional love of relaxation in which I find the chief elements of health and spirits."

February 17, 1849: "Renewed my acquaintance with the 'Elements of Conchology,' of which I hope to publish a number on the 1st proximo. I very much regret having so long neglected this work, especially as it sold so well, and must really try and finish it. The difficulty I have to contend with is to find any time in which to think; it is not easy to write the description of a new shell amid the interruptions of daily life, but having no closet to 'shut the door about me' and little time to go into one if I had it, I must be content with what can be."

March 17, 1849: "I am so bewildered with work, in addition to the demands of business, I scarcely know how best to employ my time, 'Iconica' on the one hand, 'Elements' on another, 'Samarang' mollusca on a third, and Belcher's duplicate specimens to arrange and dispose of to help in part to procure the means whereby I live. Thank God, however, all are progressing."

March 20, 1849: "Feeling unwell, obliged to withdraw from business."

That his problems were at least in part financial is evinced by this letter he wrote to G.B. Sowerby II on 27 February 1849:

"I regret to inform you that I find it necessary to make a general reduction in the cost of C. Iconica and cannot afford to pay <u>after this</u> more than a pound a plate for the drawings. Must either reduce the figures in number <u>when we have hard subjects to deal with</u>, or be content with less labour in lithography. Will endeaver to make up the loss to you in other work and after this month will again turn my attention to the Samarang plates." – (LRP/1/23: 58, Royal Botanic Gardens, Kew)

Sowerby's reply is lost. On the 28th Reeve wrote him again:

"If you will agree to continue with the same quality of work I will pay you £1 per plate net on delivery of each stone; so that when the Achatina are finished you can proceed with the work, or not, as you please at the same price." [All underlining as in originals.] – (LRP/1/23: 59, Royal Botanic Gardens, Kew)

The last sentence is not clear but it appears that if Sowerby did not continue, Reeve really did not care. Was Reeve so distraught that he was seriously considering discontinuing the *Iconica*? The words "proceed … or not, as you please" indicates disinterest. These letters, coupled with the diary entries above, show that Reeve was under considerable stress.

More is said about 1849 in the discussion of the Samarang Zoology herein.

Photography

It is not generally known in molluscan circles that Reeve was a major player in the different world of photography. He developed an interest in photography and became especially interested in stereoscopic photographs. In 1858 he published the first book illustrated with stereoscopic pictures, Charles Piazzi Smyth's *Teneriffe, an astronomer's experiment.* The problems involved in this "first" were enormous. Aside from the logistical problem of hand mounting the 40 photographs needed for 20 views there was first the problem of production. Piazzi Smyth (1861) detailed some of the problems and their resolution.

Reeve persevered and in that same year started production of *The Steroscopic Magazine*, a monthly magazine devoted to stereoscopic pictures. In 1859 he began offering packets of stereoscopic photographs. Also in 1859 Reeve published Jephson's *A walking tour in Brittany* which he annotated and for which he furnished a packet of stereophotographs.

Reeve's shell collection

In 1882 the United States National Museum acquired the collection of John Gwyn Jeffreys (1809–1885). Prior to the acquisition Jeffreys wrote a letter (29 May 1882) to William H. Dall describing his collection. Item 4 of the description is:

"A collection of Arctic shells, including types of Mr. Reeve, Prof. Torrell, Mr. Albany Hancock, and others" – (letter quoted in Bartsch et al. 1946: 9–10).

This letter was sufficient for Salisbury (1949: 56), who reprinted it, to state that:

"From all of the above it would seem that Jeffreys had much of the collections of men such as Lovell Reeve, the destination of whose collection has been in doubt...."

In his work on taxa described by Jeffreys, Warén (1980: 60) confirmed that some Reeve type material is in the Jeffreys collection in the U.S.N.M. He did not list those types and gave no indication of how many are present. No effort has been made to identify or list such types for the present study.

Despite Salisbury's comment Jeffreys did not have all of Reeve's collection. Jeffreys was probably referring to specimens named by Reeve, not shells from his collection. It is also unlikely that Reeve had a substantial collection or a large stock of shells for sale. From available correspondence and published comments it

appears that when customers asked for specimens Reeve would go to Cuming and select material from his collection.

In an 1858 receipt sent to Pease (William Harper Pease, 1824–1872) for parcels of shells sent to Reeve and Cuming for exchange, Reeve explained that he could not exchange as he did not collect shells, but he would sell them. It appears that Pease also wanted the *Iconica* in exchange, as Reeve wrote that 175 numbers were out at 10 shillings each (letter in LRP/1/23: 253, Royal Botanic Gardens, Kew).

Reeve's collections, stated to have been small, were auctioned by J.C. Stevens on 24–25 May 1864 and 23 January 1866 (Chalmers-Hunt 1976: 102, 104). Those sales could have been the source of some material in the Jeffreys collection.

Reeve the systematist

It would certainly have pleased Reeve to be referred to as a systematist as he had hoped that his *Tabula Methodica* would bring him fame.

Gray (1868) commented about the pecuniary value of shells with new names and decried the practice of naming species based on slight variation. A few excerpts from his paper are quoted under the discussion of John Edward Gray herein. Certainly pressure was placed upon Reeve by Cuming to introduce as many new names as possible and it was to the financial advantage of both to do so. It was even more important for Reeve to maintain good relations with Cuming as he depended upon him not only for specimens to sell, but for new material for the *Conchologia Iconica*.

Reeve, certainly guilty of naming varieties as species, took umbrage at others doing so. He seemed to have a special dislike for Rev. P. P. Carpenter (1819–1877) who named numerous species from the Cuming collection. When Carpenter (1864a) described new species found by Mr. Xàntus (J. Xàntus, 1825–1894) Reeve could comment without involving Cuming specimens. He wrote:

"May I be permitted ... to record my humble protest against the unscientific practice (now very much on the increase) of describing in portentous detail, varieties of well-known species as 'New Forms of Mollusks?' I ought not cavil at Dr. P.P. Carpenter giving the new name of *Callista pollicaris* to a shell which I had minutely examined and declared to be a variety of Dione prora (Callista prora, Carpenter), because it involves a question of opinion, but I may be allowed to object to his printing, as a statement of my views, a hasty conversational concurrence with an opinion to which, when I came to print my monograph, I refrained from giving publicity. ... Dr. P.P. Carpenter brought me some shells, showing that he had named them *Callista puella*. I told him that they were simply varieties of *Dione* pannosa (Callista pannosa, Carpenter). But his name of puella was not then published: it appears in your last Number (p. 312) printed thus: -'Callista (?pannosa) puella.' Dr. P.P. Carpenter gives the shell a new name while at the same time denoting his fear that it may be a variety of one named already; and he goes on to remark, with reference to some white specimens of it, 'The colourless subtrigonal shells were regarded by Mr. Reeve as a separate species, but he did not allude to them in his monograph.' The reason of my not alluding to them is obvious. Should even [sic] the soft parts of the shells under consideration ever come into Dr. P.P. Carpenter's hands, I venture to predict that he will find difficulty in showing them to be 'New Forms of Mollusks.'" - (Reeve 1864a: 440)

The above diatribe is amusing as the first sentence describes, to some extent, Reeve's own actions. Contrary to Reeve's prediction, both of the Carpenter taxa discussed are now treated as valid (Keen 1971) as *Pitar pollicaris* (Carpenter, 1864a) and *Transennella puella* (Carpenter, 1864a). Reeve's snide comment about "the soft parts of the shells" is particularly ridiculous. If the animal of either species had been placed before Reeve he probably could have stated that it was neither an oyster nor a cockle as he would have been familiar with those animals based on culinary experience, but it is highly unlikely that he could have identified the animal even to

family without seeing the shell. Aside from color and sculpture these two species are separable on hinge characters and are not even congeneric.

Earlier Carpenter had noted Reeve's inattention to previously published work. In listing and discussing west American limpets based on examinations of various works and collections, including "examination of the types of Mr. Reeve's species in the Cumingian collection," he wrote:

"It is a subject of great regret that Mr. Reeve, in describing the Limpets of the West N. American coast, did not avail himself of the previous labours of Eschscholtz, Middendorff and Menke in the same direction." – (Carpenter 1857a: 173–174)

Carpenter later wrote about some west coast species that had been treated in the *Iconica* since his earlier reports. Apart from his notes concerning synonymy that accompanied many listings, he included a footnote:

"Several species occur in the recent monographs [*Iconica*] without locality, which are well known to inhabit the W. Coast. This is partly due to the writer not thinking it necessary to refer to published books for information, and partly to the changes which have of late years been made in the principal authority, viz. the Cumingian collection. By the redistribution of species into the modern genera, the student is greatly aided in his search for special forms; but for the sake of uniformity, the autograph labels of collectors or describers of species are generally rejected, the names being either in the handwriting of the clerk or from the printed index in the monograph, and representing only the judgment of the latest worker, which may or may not be correct. Synonyms, whether real or supposed, are rejected altogether. Thus shells sent to Mr. Cuming, with authentic name and locality attached, may appear soon after without any, or with erroneous, quotation. The error is rendered graver by appearing with the weighty authority of 'Mus. Cum.'" – (Carpenter 1864b: 563–564)

He appended another footnote referring to shells from Mazatlan, stating:

"The species described in the Brit. Mus. Cat. [Carpenter 1857b] seldom appear in the monographs [*Iconica*], unless there happens to be a specimen in the Mus. Cum. [=Cuming collection]" – (Carpenter 1864b: 564)

Regarding Reeve's lack of differentiation at the genus level, Carpenter commented about Reeve's remark on placement of *Trochus undosus* Wood:

"Mr. Reeve states that, although this species is most like *gibberosus*, 'Messrs. Gray and Adams contrive to place them in different genera.' It is still more remarkable that, while excluding *Ziziphinus* (=*Calliostoma*), Mr. Reeve 'contrives to place' in *Trochus* animals shown by the opercula to belong to different subfamilies, as though we knew no more than in Lamarck's days; his motley group containing *Imperator* (=*Stella* H. and A. Ad.) + *Lithopoma* + *Guildfordia* + *Chrysostoma* + *Bolma* + *Modelia* + *Polydonta* + *Tectus* + *Pomaulax* + *Astralium* + *Pachypoma* + *Uvanilla*. Also in a family the genera and species of which are mainly recognized by the base and mouth, most of the shells are only figured on the back. Very often the characters of the aperture are not even stated." – (Carpenter 1864b: 567–568)

Crosse (1870) praised the depiction in the *Iconica* of medium and large shells at natural size but stated that the representation of small shells left much to be desired. He found serious fault with what he termed obviously incorrect and inadequate diagnoses of species. This he attributed to Reeve's lack of education in science. He then noted that in addition to incorrectness that Reeve too often did not take into account the work of malacologists foreign to England such as "Deshayes, Pfeiffer, d'Orbigny, Gould, etc." or to misinterpret them when he did. This was followed by specific critiques of a few *Iconica* monographs.

Woodward (1896: 412) wrote that the *Iconica*

"will always remain a standard work, although many of the species which Reeve created are now held to be invalid."

Woodward was indicating that many of Reeve's names are junior synonyms, not "invalid" as defined by the International Commission on Zoological Nomenclature (I.C.Z.N.).

Authorship of taxa

Before the various works by Reeve can be discussed in detail, the manner in which authorship of some included taxa is treated herein must be addressed. There are many cases in the older literature where attribution of taxa is not as clear, or fair, as it should be. Attributions are not treated alike by all authors, then or now.

During the time Reeve was publishing the *Conchologia Systematica* and the *Conchologia Iconica*, the *Proceedings of the Zoological Society of London* was running months, even years, behind. As a result, often a paper describing new species would be read at a meeting but not published until after Reeve had treated the species in one of his works. In most such instances Reeve would cite the name of the person who presented the paper as author and refer to the *Proceedings* as authority. Authorship is treated under Article 50.1.1 of the Code (I.C.Z.N. 1999) which states, in part:

"if it is clear from the contents that some person other than an author of the work is alone responsible both for the name or act, and for satisfying the criteria of availability other than actual publication, then that other person is the author of the name ..."

That Article is followed by an example in which a new name was proposed in a letter that was later published verbatim, in which case the author of the name is the person who wrote the letter, not the person who published it. This unfortunate example first appeared in the Third Edition of the Code (I.C.Z.N. 1985) after having been promoted by Dr. Curtis W. Sabrosky (1910–1997). Sabrosky contended that:

"differences of opinion arise when author 'A' publishes author 'B's' manuscript name and attributes it to him but characterizes it in his own ('A's') words or so treats it that one cannot say with certainty which author is actually responsible for the other 'conditions that make it available' (i.e., the description or diagnosis). I believe that there will be so many variations and degrees of details that for simplicity and objectivity we should recognize as 'the author' of a name that author who publishes the name *and* the qualifying conditions (Articles 12 and 13), except only in cases of clearcut attribution of *both* name and description (and of course the specific exception provided for names in minutes, cf. Article 50a)." – (Sabrosky 1974: 206)

It should be noted that the Code does not *require* direct quotation, using one only as an example.

Dr. W. N. Eschmeyer, a long time member of the Commission, in a discussion of the Code little-known to non-ichthyologists, quoted part of Sabrosky's comments cited above, followed by his statement that:

"In fact, in a few cases it is very difficult to determine authorship. In the Catalog [i.e., Eschmeyer 1998] I used the following guidelines (a-e), so that at least my interpretation of the Code is somewhat objective and consistent." – (Eschmeyer 1998, 3: 2847–2881)

The five types of usage listed and discussed by Eschmeyer do not exactly match those under discussion here. It appears that the entomology (Sabrosky) and ichthyology (Eschmeyer) literature is not encumbered with large numbers of the cases to be discussed here. Evidently insect and fish species were not being described by a group of authors while another author was compiling an iconography including those same species. Sabrosky not only inculpated affected authors but displayed an unawareness of the magnitude of the problem in malacology when he stated that:

"... indeed authors should realize that problems and seeming injustices commonly arise from their own carelessness in the dissemination of manuscript names, or the innocent assumptions in good faith by correspondents that the names sent them have of course been published. Unfortunate as such cases are for the individual concerned, there really are not many [emphasis added], and they should not influence automatic application of a consistent rule." (Sabrosky 1974: 208)

Overlooked here was the fact that reading a paper before the Zoological Society was not "careless dissemination" as it was a requisite for publication. The presenter had no control over the date of publication of the Proceedings.

It is worth noting that if a name is validated in the report of a meeting, it is attributed to the person who introduced it at the meeting, not the reporter, whether or not it was a verbatim quote that made it available (Article 50.2). Why should it be different for species "reported" in a work describing other species?

Eschmeyer went further in accepting names adopted from manuscripts than this writer is prepared to do as will be noted later. Eschmeyer's position was stated as:

"A paper published by Putnam ... illustrates the complexity of authorship citation. In this work some new taxa were credited to 'Putnam, MS' and others to 'Agassiz, MS' and most give the year in which the manuscript was prepared, such as 'Agassiz. MS. 1860.' Descriptions of new taxa were very brief. I have no reason to doubt the authorships as given, and in the Catalog some authorships are Putnam and others are given as Agassiz in Putnam. I assume that the manuscripts were available to Putnam, such that he could take his descriptions from them. Clearly the intended authorship was given. One can also look at contemporary use [for similar attributions]." – [all emphasis added] – (Eschmeyer 1998: 2850)

In none of the 19th Century publications cited herein is there any mention of a problem with authorship. For many years, even late into the 19th Century in the U.S., some systematists considered the date a paper was read to be the date of the included taxa. While it is reasonable and necessary for taxa to date from their first valid publication, imposing the stringent restrictions of Article 50.1.1 upon recognition of the actual author at such a late date is neither. As succinctly stated by Eschmeyer, we should be allowed to take a publishing author's statement for the source of a name and the description.

Different types of cases will be treated in detail under the publications where they occur. As a general philosophy the following conventions will be observed. As Reeve is the primary author involved in most cases his name will be used here for simplification.

If Reeve described a new species and at the same time referred to another author and publication (e.g., "Deshayes, Proc. Zool. Soc.") it is considered that Reeve had access to Deshayes' manuscript, previously read at a Zoological Society meeting, and utilized his knowledge even if he did not quote Deshayes' description verbatim. As will be seen, in some cases he did copy Deshayes' descriptions verbatim, in other cases he copied parts, and in some cases little if any was copied. One problem with insisting on verbatim quotation is that manuscripts were often changed between the time they were read and the time they were published. This is evinced in many ways herein. Rather than decide where to draw the line, it is deemed better not to have a line and to accept Reeve's word that the species should be attributed to Deshayes. As Eschmeyer wrote, "clearly the intended authorship was given."

If an author to whom a species is attributed by Reeve is known to have been, at about the same time, closely associated with him and it is apparent that there were contemporary interactions between the authors, authorship is attributed as cited by Reeve. Not to do this would result in some rather strange situations such as species described and figured by Adams & Reeve in the *Samarang*, that had been published by Reeve earlier in the *Conchologica Iconica* with reference to the *Samarang*. It seems much more equitable and reasonable to cite these species as "Adams & Reeve in Reeve, 1849" than as simply "Reeve, 1849." There are numerous similar cases and certainly Arthur Adams considered himself to be a coauthor as he listed the species in that manner (H. Adams & A. Adams 1853–1858).

It is not reasonable to mandate the use of *Bulimus adamsii* A. Adams 1848 instead of *Bulimus adamsii* Reeve in Adams, 1848. Adams clearly stated that the species had been described by Reeve. In this particular instance the species is attributed to Reeve in the current literature with the wrong publication cited, the earlier work by Adams being little-known. The only change in citation will be the inclusion of "in Adams" which is certainly better than changing authorship entirely.

To put the above in simpler, more general terms, if the author of a work indicates collaboration, it must be accepted that there was collaboration. Such collaboration need not be evinced by a subsequent publication. Although that is often proof that a description was copied, the author of a taxon may have revised his treat-

ment subsequent to reading the manuscript at a meeting or providing it to his collaborator, or the collaborator may have revised it. In some instances species attributed by Reeve to "Adams & Reeve, *Samarang*" were never described there but would nevertheless be attributed to "Adams & Reeve in Reeve."

Species attributed by Reeve to labels and manuscripts (e.g., "Gray, Br. Mus." or "Gould, MSS") are treated as being authored by Reeve.

Some species that will be discussed are correctly attributed (lacking the "in Reeve") in current literature due to Sherborn's (Charles Davies Sherborn, 1861–1942) methodology. In working with these nomina, it became clear that when confronted with a species shown as previously described (i.e., cited by Reeve as of Adams & Reeve in the *Samarang*), Sherborn did not make an entry for it, assuming that he would pick up, or had already picked up, the "original description" from the other work. The other work sometimes happened to be later, not earlier as it would have appeared.

Reeve's taxa

It is beyond the scope of this paper to list all of the names introduced by Reeve. Some names presenting unusual and/or unnoted problems, many involving attribution of authorship, will be treated in the discussions of the works in which they appear. Some names and nomenclatural actions appearing elsewhere also merit attention, three of which are treated below.

Mitra stainforthii Reeve, 1841b. Usually attributed to Reeve 1842c, this species was prematurely introduced in *The Literary Gazette* in a report of the 23 November 1841 meeting of the Zoological Society. It is stated that Reeve exhibited and described the shell, and his description is repeated in some detail. Notably mentioned are "the series of square red spots, which at once serve as a distinguishing character of the species."

Bulimus denickei Gray, 1852. The strange case of Bulimus denickei begins with a paper in the Proceedings of the Zoological Society of London for 1851 in which J.E. Gray (Gray 1852) described a new species of Bulimus, B. denickei, named for Mr. Erneste Denicke, a German sailor, who brought the specimen to the British Museum. Gray mentioned that during the sailor's visit to London his "only holidays" were spent at the British Museum, at Mr. Cuming's collection, and in the gardens of the Zoological Society. He praised Denicke's knowledge of the Mollusca and proposed to name the species for him for that reason. The shell is adequately described by Gray, in English, and the locality stated to be "Chala, near Callao, on the Whitesand Hills." This short article appears on the bottom portion of page 92 in the Proceedings.

At the top of page 93 there is the heading "To the preceding communication by Mr. Gray, the following details were added by Mr. Lovell Reeve: —." This is followed by a new description of *Bulimus denickei*, as if the one on the prior page did not exist. The description is in Latin and locality is stated to be

"Found imbedded in sand at the top of a lofty hill near the Port of Chala, Peru, by Mr. Erneste Denicke."

Nothing of substance is added to either the description or the locality by Reeve, and the reason for his action is unknown.

Ruhoff (1980) attributed both the *Proceedings* article and the species to "Gray & Reeve," an untenable position perpetuated in some of the popular literature. Reeve's description and comments contributed nothing to that already given by Gray and his statements must be considered as comments upon a previously described species. Also, it is clear from the heading that it was "details" that were added, not a joint description.

The Index to the *Proceedings* for 1851 attributes the article to Gray without mention of Reeve, and Reeve's addendum is not separately listed. In the Index for 1851 the species is listed as *Bulimus denickei* Gray, n.sp.

Pfeiffer (1853: 372, 652) attributed the species to Gray. It is correctly listed as Bulimus denickei Gray,

1852 by Breure (1979: 53) in a list of names attributed to Bostryx. Breure noted syntype(s) in BMNH (= The Natural History Museum).

As treatment of this name is not uniform, it is considered to be subject to First Reviser action under Article 50.6 (I.C.Z.N. 1999). Under that Article the name *Bulimus denickei* Gray, 1852 is selected to have priority over *B. denickei* Reeve, 1852b.

A new genus of Melanianae. The report of the 25 May 1847 meeting of the Zoological Society in the *Literary Gazette* includes the following item:

"'On a new genus of Melanianae,' by Mr. Lovell Reeve. The name proposed is *Charonia*, and under it he classes twenty species, with *C. loricata* for the type. Their geographic range is limited to the streams of India and Ceylon." – (Anonymous 1847c: 401–402)

No paper by Reeve describing a new genus or new species of Melaniidae between May 1847 and the *Melania* monograph (1859–1861) in the *Conchologia Iconica* can be located. Reeve's reason for withdrawing his paper before publication is not known. Had there been any sort of description in the newspaper report that would validate the species group name, as sometimes happened, in turn validating the genus group name, Reeve's usage would probably predate the well-known *Charonia* Gistel, 1847.

In the *Iconica* monograph of *Melania* there is a new species, *Melania loricata* Reeve, from an unknown locality qualified with "little doubt of its being from Brazil." It is possible that this could be the "*Charonia loricata*" supposedly from Ceylon.

Molluscan books and serial publications

Conchologia Systematica

Reeve's first major publication was the *Conchologia Systematica*, or complete system of conchology: in which the lepades and conchiferous Mollusca are described and classified according to their natural organization and habits (1841–1842; hereafter the *Systematica*). The initial announcement for the *Systematica* was in the *Revue Zoologique par la Société Cuvierienne* in August 1841 (Anonymous 1841e). There it was announced that the work would consist of two volumes containing 300 plates in monthly parts, each containing 25 plates and text. The first number was to come out on 1 October 1841. Volume 1 contains the bivalves and brachiopods; Volume 2 the scaphopods and gastropods.

In the *Systematica* there is no "Introduction" as such. There is instead a two-page "Address" dated 7 September 1841. It opens with Reeve's statement that:

"On the 5th of July last I had the honour of laying before the Academy of Sciences at Paris, the outline of a classification for the arrangement of the Lepades and Conchiferous Mollusca; and I now submit my 'Conchologia Systematica' to the attention of naturalists, in the hope that it may, at least, contribute something to our imperfect knowledge of these remarkable animals."

The above wording is further evidence that Reeve did not "read" a paper to the *Académie*. The "Address" contains this partial description:

"... The illustrations have been kindly contributed by the Messrs. Sowerby: two hundred plates are selected from the 'Genera of Shells,' fifty from the 'Conchological Illustrations,' and fifty are entirely new and original."

The *Systematica* was dedicated to Sigismund Rucker (1809/10–1876), a prominent East and West India broker who was on the Council of the Royal Horticultural Society. His connection with Reeve is unknown. He is mentioned only once in the *Systematica* where two species of *Cytherea* are said to have been "drawn from two magnificent specimens in the possession of Sigismund Rucker, Esq."

An advertisement on the back cover of Part 1 states:

"The *Conchologia Systematica*, which is the result of a long and arduous study, is intended to diminish what may be justly considered an immense hiatus in the literature of this country. In no branch of Natural History are we so deficient in complete works as in that of Conchology; and it is therefore hoped, that the present attempt to establish a universal system of classification will be found a desideratum not only to the beginner but to the man of science.

The general views and intentions of that great Conchologist Lamarck have in this work been carried out as closely as possible, and it embodies a vast amount of new and important matter from the memoirs and monographs of later writers: the author has carefully abstained from introducing any new genera of his own, and his alterations in the arrangement and nomenclature have been made with caution.

The whole of the manuscript being ready, it was the author's intention to have published his *Conchologia Systematica* entire: the present method has, however, been adopted by the advice of his Publishers, in order to facilitate the circulation. There will consequently be no delay. The work will be continued in systematic order, and completed in Twelve Parts, each containing about Twenty-five Plates, with the corresponding text; that is to say, the Three Hundred Plates will be distributed in their places as near that average as the arrangement of the Letter-press will allow."

This original plan and the latter part of the manuscript were largely forgotten after Reeve gained access to Cuming's material in early 1842 and many new and recently described species were figured. A positive result of that change was the use of a greater number of original plates than originally planned.

Reeve's $Tabula\ Methodica$ has been treated in a previous section herein. The back cover of Part X of the Systematica is devoted to a Prospectus, although it was rather late for one. It is devoted to extolling the arrangement and utility of the Systematica and averring that no one else has bothered with the relative arrangement of the genera. The prose is unusually convoluted, as may be seen by this sentence:

"A *Tabula Methodica*, showing the distribution of the genera at one view, is given at the commencement; every genus, which is then faithfully described in detail, is accompanied with one or more plates of as many species of shells as are considered of interest; whilst its origin and distinguishing characters, the various situations to which it has been assigned in the system by different authors, and the peculiarities of habit and organization of the animals referred to it, are at the same time fairly discussed."

That is one of the simpler sentences. The *Tabula Methodica* is on a double fold table, making 4 pages when unfolded. It was presumably issued with Part I. The "System" is also arranged in columnar form occupying 8 pages! The Prospectus continued at length with statements such as:

"... nearly *one hundred new plates* have been engraved for the purpose of illustrating those genera which have been more materially enriched by modern discovery; they include *several hundred species comparatively new to science*, and are of the greatest interest to collectors." [Italics as in original.]

The initial reception of the *Systematica* was understandably cool. A review of the first four parts (Anonymous 1842a) mentions that "it must be observed that many of the plates have appeared before." This was a justified criticism as of the 130 plates in Volume 1 only 16 were original.

Even more critical comments were made about the lack of descriptions of the species, as Reeve did not even mention colors. On the verso of the cover of Part 5, after the usual advertisement, there is another paragraph inserted under the heading "To an anonymous correspondent":

"The Author begs to acknowledge the receipt of a letter from an anonymous Correspondent, complaining that the present Work consists merely of a series of *generic* descriptions in the Latin and English language: and that, as a "System of Conchology" ought to include descriptions and references of all the known species, the title does not indicate its contents. The writer, however, is

reminded, that the intention of the 'Conchologia Systematica' is simply to establish an arrangement of the Lepades and Conchiferous Mollusca, in conformity with our present knowledge of their organization and habits; the author has nothing to do with describing species, he merely cites and figures so many examples as he thinks necessary for the illustration of the genera. A "System of Conchology" does not necessarily imply an enumeration of species. By referring to Johnson's 'Dictionary.' our Correspondent will find the word "system" thus rendered – "a scheme which unites things in order," which definition is illustrated by the following quotation from Watts: "The best way to learn any science, is to begin with a regular system, or short and plain scheme of that science, drawn up into a narrow compass," – the precise object of the present Work.

The author may therefore add, that, should be be fortunate in establishing his *System of Conchology*, he hopes (d.v.) [= *deo volente*; God willing] to devote a few years to the preparation of a 'Descriptive Catalogue of Species.'"

In writing about the American West Coast mollusks of Sowerby's *Genera of recent and fossil shells*, Carpenter commented on the demise of that series adding that:

"The loss of the original work has been in some respects supplied by the completion of the extremely similar 'Conchologia Systematica' by L. Reeve, vol. i. 1841, vol. ii. 1842. It might almost be considered a second edition of the 'Genera' of which some of the plates occur in the quarto form." – (Carpenter 1864b: 561)

Carpenter then listed the West Coast species with references to both the Genera and the Systematica.

Not all of the reviews were entirely negative. A review of the entire two volumes congratulated Reeve on the completion "of this beautiful work." The reviewer continued, referring to his previous reviews (Anonymous 1842e, 1842f), that the work had borne out his expectations that it would be a work "of standard excellence." The reviewer then proceeded with his criticisms, stating:

"We regret, however, that there are no specific characters given of the species figured; nor is there any list of the habitats; thus, for instance, we find not a word about the geographical distribution of the Eburnae... ... On the subject of species we find some few detached observations materially at variance with the generally received opinions respecting their permanence and limits: as however, the work does not profess to be the elucidation of species of shells in general, but only to a selection, in order to illustrate the genera, we willingly pass them over. Respecting the groups adopted by Mr. Reeve as genera, we are not always inclined to agree with him, considering that he has in many instances rejected groups, proposed by others, which possess a generic rank, or at least a set of conventional characters, as important as those which distinguish many of the groups which he has adopted. ... But we are convinced that in numerous cases Lamarck himself would have adopted genera which are sunk in the 'Conchologia Systematica.' At all events, the species which have been deemed of sufficient importance to have generic names given to them by other conchologists, ought to have been figured, which is not always the case—*Cypraea capensis* for example,—the type of Gray's genus *Cyprovula* [sic; = *Cypraeovula*; not really an error as it was so spelled by Gray himself at times]." – (Anonymous 1843d)

After pointing out a few errors and stating that there were others, both typographical and grammatical, the review ends on a positive note, praising the quality of the illustrations and the many figures of species never before published.

There were two "reviews" published in the *Polytechnic Journal*. The first (Anonymous 1842c) is mostly a verbatim copy of the letter from Cuming in Part VI of the *Systematica* on page 31 of Volume 2. The second (Anonymous 1842d) is supposedly a review of Parts VII and VIII. It is difficult to believe that it is not a paid advertisement although it is equally difficult to believe that even Reeve could be so effusive about himself. This review was printed on the back of the cover of Part IX and appeared again on the back cover of Part XI translated into French, together with translations of parts of reviews from *The Athenaeum* and *The Literary*

Gazette. This "review" states:

"The progress of the natural sciences is marked by the labours of two distinct classes of men: the first includes those who are most athirst for novelty, - who bustle about with enthusiasm and zeal, and register a new fact with the mighty ambition of being the first to record it: the second includes those who, profiting by the labours of the first, sit down soberly to systematize, caring little for priority; who handle the recorded facts with the most prodigious caution; and by weighing one against the other, are enabled to judge of their merits and defects before they determine the rank and position which each should hold in the system. To the first of these divisions, in that branch of science to which our attention is now directed, belong Adanson, Müller, Sowerby, Lesson, Quoy, Broderip, Gray, &c.: to the second, Linnaeus, Cuvier, De Blainville, Deshayes, and lastly, the author of the 'Conchologia Systematica.' Mr. Reeve, indeed, appears to be the first English author who has successfully accomplished the very difficult task of classifying the testaceous mollusks according to the true nature of their organization and habits. It must not, however, be supposed that we would disparage the labours of this first-named division of writers, for verily either is the support of the other; we are only impressed with the importance of those of the latter, because the scattered records of discovery, which would otherwise be of none effect, are presented to the senses in a form by which all may profit. We are especially pleased with the progress of Mr. Reeve's 'Conchology;' nothing that is worth noting seems to have escaped him. The plan which he is carrying out in his arrangement of the molluscous division of the animal kingdom appears, as far as we are enabled to judge, to be a welldirected, conscientious distribution of them; and their history and characters are described in that simplicity of style which makes the study as pleasing as it is full of scientific interest. We look with interest for its conclusion, now near at hand, and shall then have the pleasure of congratulating Mr. Reeve upon having produced a perfect epitome of conchological science: no one with the slightest pretension to a conchologist can be without it. The new figures, which are beautifully drawn, do the artist (Mr. G. B. Sowerby, Jun.) an infinite deal of credit; and not less Mr. Reeve for the judgement displayed in selecting the species for illustration, a large portion of which have never been figured before." - (Anonymous 1842d)

Reeve himself was less than ecstatic about the *Systematica*. He wrote in his diary for 20 January 1849: "Engaged in looking over my stock of 'Conchologia Systematica,' of which four or five copies have been sold during the last four months, though it is six years since it was published; it is a poor work, would that I had to do it now!" – (quoted from Melvill 1900: 350)

The *Systematica* was priced at twelve shillings per part for plain copies and twenty-one shillings [a guinea; = £1 1 s.] per part for colored copies. That was the price announced in Paris and never changed as it appeared on the covers of all 12 parts. In the 1850s Reeve was advertising the two volumes, cloth bound, for £10, a price reduced by 1865 to £8 8s. In an 1867 list of Reeve and Co. publications it was priced at "£10 10s. coloured" with the comment that "only a few copies remain."

The plain copies are virtually useless for reference purposes as no colors are given in the text and the plates, having been drawn for color, do not have much shading. Aesthetically, the word that comes to mind to describe them is "grim." Despite the lack of either utility or beauty, a surprising number of uncolored copies appear to have been sold. Of 34 libraries and individuals surveyed, 24 hold colored copies and 10 hold uncolored copies. These data cannot be obtained from library catalogues as the majority of libraries use generic citations, and all of the 10 plain copies mentioned here are shown in their library catalogues as being colored.

In some later copies there is an unnumbered page following blank page [338] which is headed: "Index to the species omitted in Specierum Catalogus." It lists plate references for nine genera and their included species that were omitted from the original catalog.

The *Systematica* was published by the London firm Longman, Brown, Green and Longmans and printed by Richard and John E. Taylor, Red Lion Court, Fleet Street. Reeve's arrangement with them is unknown, but

it must have been unusual. "A catalogue of new works printed for Longman, Brown, Green and Longmans" dated October 1842 lists Vol. 1 as available and Vol. 2 as "Shortly." In an advertisement in the *Literary Gazette* on 8 October 1842 in which the *Iconica* was first announced, Reeve also listed the *Systematica* stating that Part XI was ready for delivery. The ad, which started off advertising shells, was for: "Lovell Reeve, Author, Artist, Dealer, and Publisher, 8 King William Street, Strand." Reeve continued to advertise the *Systematica*. It is not known when it was removed from Longman's catalogue.

Reeve must have retained possession of the copper engravings as he reprinted plates for the *Systematica* when needed as will be shown.

Almost all biographical articles on Reeve allege that in order to pay for the *Systematica* he had to sell his share of the property left to him and his siblings by their father, a matter discussed elsewhere herein.

Systematica publication dates and covers

There has been no consensus on the dates of publication of the *Systematica* nor has there been a published division into parts. As many names first appear in the *Systematica*, the establishment of publication dates is important. Published dates range from 1840–1841 (Melvill 1900: 346; Desmond, 1987: 85; Harley 2004: 79) to 1841–1843 (Engelmann 1846: 464). The title page of Volume 1 is dated 1841. The introductory material takes up pp. i–vi plus a large folding table, the *Tableau Methodica* treated elsewhere herein. The title page for Vol. 2 is dated 1842, there is no introductory material and text starts with Signature B.

The work was issued in 12 parts. The only set of covers known to exist is in the library of John Chesler. The covers have been bound into the volumes. Covers for this work have not previously been noted in the literature. Although the covers are not dated, they contain much information not found elsewhere such as the "letter to an anonymous correspondent" quoted earlier and the *Iconica* ad on the back of the last cover. The importance of covers, often considered to be of litle or no value, was the subject of a paper by Callery (1981). A tentative collation made before the covers came to the writer's attention closely matches the placement of the covers in the bound volumes. An error in placement at binding resulted in one cover being placed in the middle of a signature. With one exception (Guérin-Méneville 1842b) reviewers did not list pagination and plate numbers. A collation is given in Table 1, together with dates, based primarily on reports of receipt by the Académie des Sciences in their *Compte Rendu* [CR] and reviews in the *Literary Gazette* [LG].

A review of Volume 1 in *The Literary Gazette* (Anonymous 1842b) discussed the first volume and continued with a discussion of "the first part of the second volume which has appeared since the foregoing was written." The letter from Cuming on page 31 of Vol. 2 is quoted in its entirety, including the date "February 20th, 1842." Reeve evidently got that part in print quickly as the scheduled publication date would have been 1 March.

Most of the parts contain 5 signatures. The final part is larger with 12% signatures including 2% signatures of index. There are few places in the text where there is a clear break and parts were sometimes divided in the middle of a genus. There is a clear break in Vol. 2 as Signature 2H consists of only 4 pages (233–236) instead of 8.

In Vol. 1 signature 2C consists only of pages 193-195 (last of the index). Plate 114^* is the extra plate that makes the total 301. There is no signature "A" in Vol. 2, only 4 pages in signature 2H and only 5 pages in signature 2X.

Part 1 was probably issued on 1 October 1841 as promised, as the introductory "Address" is dated 7 September 1841 and it was stated to be "forthcoming" by Reeve on 28 September 1841 when he read his paper on the *Tabula Methodica* to the Zoological Society (Reeve 1842a). Unfortunately Reeve's inability to produce publications on schedule began with this, his first serial publication.

Part 5 contained an announcement of the opening of Reeve's shop at 8, King William Street. It concluded with an ad for the *Systematica* which stated that:

"The publication of this Work will continue as usual in Monthly Parts. Vol. II. '*The Univalve Mollusca*,' illustrated with 170 quarto Plates of Shells, will be completed on the 1st September."

Part 10 contained a Prospectus in which it was stated that:

"Ten Parts out of the twelve are already published; the remaining two, which are in active preparation, will appear at intervals of a month; completing the entire work of two thick quarto volumes in October."

In Part 12 of the work, Reeve described a dispute between Owen and Gray as to the proper position of a *Nau-tilus* within its shell in life. The animal had been described by Owen from a specimen that had been removed from the shell. His orientation of the animal was objected to by Gray and a few others. However, a specimen delivered to Owen "only two days since" had the shell and animal intact and proved his conjecture to be correct. At the end of that discussion there is a lengthy footnote in which Reeve remarked:

"We shall not readily forget the glorious delight of the Hunterian Professor [Owen], as he hurried past our door only yesterday on his way to the Zoological Society; his treasure proudly suspended in an anatomical jar; himself loaded with the controversial theories of his contemporaries, that he was about to level at a breath."—(Reeve 1842, *Systematica* 2: 299)

The meeting in question was held on 25 October 1842 and Owen's remarks were published in the *Proceedings* (Owen 1843a). In context it is considered that "only yesterday" can be taken literally. Part 12, therefore, cannot have been published prior to the end of October 1842 thus placing the work almost two months off schedule.

TABLE 1. Conchologia Systematica publication dates. These dates have been established primarily on reports of receipt by the Académie des Sciences in their Compte Rendu [CR] and reviews in the Literary Gazette [LG].

Vol.	Part	Signatures	Pages	Plates	Earliest date	Source	Probable date
1.	1	[A]-E	Title-40	1-22	22 November 1841	CR	1 October
	2	F-K	41 - 72	23-50	22 November 1841	CR	November
	3	L-P	73-104	51-80	1 December 1841	Reeve, 1841a	1 December
	4	Q-U	105 - 144	81-104	31 January 1842	CR	January
	5	X-2C	145–195	105–129, 114*	12 March 1842	LG	February
2.	6	B-F	1-40	130–149†	12 March 1842	LG	March
	7	G-L	41 - 80	150 - 172	16 May 1842	CR	April
	8	M-Q	81-120	173–193	27 June 1842	CR	June
	9	R-X	121-168	194-221	18 July 1842	CR	July
	10	Y-2C	169-200	222-245	20 August 1842	LG	August
	11	2D-2H	201-236	246-269	8 October 1842	LG (advert.)	October
	12	2I-2W	237 - 337	270-300	[December 1842]		December

Notes: As explained in the text, the earliest date is the earliest date verifiable by printed evidence such as a review while the probable date is determined from indirect evidence.

In the front of Volume 1 the *Tabula Methodica* is a double fold-out table (i.e., when unfolded it is the size of four leaves). In some later copies there is an unnumbered page headed "Index to the species omitted in Specierum Catalogus" following page 337. It lists plate references for nine genera, and their included species, that were omitted from the original catalog.

Plate 114* is an added Plate and is the extra plate accounting for the total of 301 plates.

Plate 147 was delayed and delivered in Part 7.

There is no reason to dispute the 1842 date on the title page. Part 12 was not noted in the *Compte Rendu* until 30 January 1843—there could be many explanations for a one month delay in receiving/reporting it. In *The Literary Gazette* for 14 January 1843 there is an advertisement for the *Iconica* in which Reeve is shown as "Author of the 'Conchologia Systematica.'" Also, the back cover of Part 12 is an advertisement for the *Conchologica Iconica* in the form of a reproduction of the title page of the *Iconica* with the notice "On the Seventh of January 1843, to be continued Weekly." The first part of the *Iconica* was published in January 1843.

The presence of 30 plates in Part 12 is confirmed by a notice (Anonymous 1843b: 297) of its receipt. The pagination is not stated. It is noted that this part completes the work, and the price for both plain and colored copies is mentioned. Although this notice is in the March issue of *The Gentleman's Magazine*, listed immediately following the *Systematica* is a work by Richard Owen that appeared in 1842.

It is fortunate that although authorship of some taxa depends upon year of publication, there are no known priority problems requiring a date to months any closer than those established by reviews which were mostly issued some time after the probable publication date. Two sets of dates are listed in Table 1, one being the earliest date that can be established by written evidence and the other based on what is considered to be a reasonable interpretation of the evidence.

The Australian Museum, Sydney, has a copy of the *Systematica* in which there is a page of notes written by Tom Iredale (1880–1972) referring to the *Revue Zoologique* article announcing the work (Anonymous 1841e) and to two additional notices (Guérin-Méneville 1842a and 1842b). Iredale's notes state that:

"In the Mar. no. of the Revue 1842 is a note that the 5th part has appeared and completed the 1st volume, and Reeve is to be congratulated upon the regularity of the appearance and states the 2nd volume will be complete in September. In the Sept. no. of the Revue the issue of the 10th part is recorded and again remarks are made as to the punctual appearance of the work. Therefore it can be accepted that the work was published in 12 parts to 25 pls. as follows: Pt. 1. Oct. 1 1841; 2 Nov; 3 Dec., 4 Jan. 1 1842; 5 Feb., 6 March, 7 April 1 1842; 8 May, 9 June, 10 July, 11 Aug. 12 Sept." (pers. comm., W.F. Ponder 5 February 2006)

It was uncharacteristic of Iredale to make or accept such a speculative collation. However, his collation fails only in the latter parts where it was assumed that production remained on schedule.

Systematica plates

It is stated on the cover that the plates are "highly-finished copper-plate engravings." Even when the number of plates is correctly cited, their provenance seems never to have been disputed. As stated above, of the planned 300 plates [301 actually issued], 200 were to be reproduced from the *Genera*, but the actual number used was 186, representing 70% of the 265 *Genera* plates. These have been itemized by Petit (2006a). Only 35 plates from the *Conchological Illustrations* were used, probably as the small size of the figures did not work well in quarto. There are 80 original plates instead of the planned 50. The great majority are of high quality, and some might be considered among the best produced by G.B. Sowerby II. One of the *Xenophora* plates (plate 314), is reproduced by Dance & Heppell (1991: 72–73). The figures from that plate are reproduced in the *Conchologia Iconica* as are many other figures that first appeared in the *Systematica*.

Contrary to the statement in Nissen (1969: 333), no plates from Sowerby's *Thesaurus Conchyliorum* were used in the *Systematica*.

Reeve never corrected the total number of plates. In an 1863 publisher's list it was still listed as: "With 300 plates of Shells by J.D.C. and G.B. Sowerby, Two vols., 4to, £8. 8s." The plate numbers are printed in Roman numerals. Herein, following modern convention, they will be converted to Arabic numerals except where the discussion of differences requires original orthography.

Many of the *Genera* plates used in the *Systematica* were greatly improved by being printed on a quarto-size page. In the *Genera* some figures occupied the entire plate, leaving little margin and much to be desired esthetically. Although the figures remained the same size the addition of a wide margin made a dramatic change in their appearance and many of them, in their new format, are the equal of plates newly drawn for the *Systematica*. Most of the plates in the *Genera* had the genus name engraved near the top of each plate, usually in an italic style. When reprinted for the *Systematica*, the *Genera* plates had the genus name placed at the top in all capital letters by letterpress printing together with the *Systematica* plate number in Roman numerals, both sometimes outside of, or partly across the edges of, the original impression area.

A list of the *Genera* plates reproduced in the *Systematica* with plate/part numbers was recently published (Petit 2006a).

The *Systematica* was available for many years and at some point many of the plates had to be reengraved. This would normally be of little interest, but in the *Systematica* changes were made to the plates when reengraved, and errors were made in the plate numbering. Two distinct states of the *Systematica* have been noted and compared. Although the copies compared agree in their differences, there are almost certainly intermediate versions as it is unlikely that all plates of a given number would have been exhausted at the same time. Some of these differences are here noted.

In the late state, printed headers (genus names) were omitted from some plates, usually in blocks, such as on plates LXXVIII to XCIII. These have plate numbers. That they have one and not the other indicates that each plate went through the letterpress once for the header and again for the number, a seemingly unnecessary exercise. In the late state errors were made in plate numbers. Among these have been noted: CXL and CXLI rendered as CLX and CLXI; CXLII as CLXII; and CXLVI–CXLIX as CLXV–CLXIX. A number of plates had figures moved from one position to another. The figures are the same but in different relative positions. A few examples are: Plate CXXXI figures 3 and 6 are switched; CXXXII–CXXIV all have figures in different positions; CC, CCXXI, CCLXXXIX and CCXCII all have figures moved to different positions; and CCC, the *Argonauta*, is turned 90°. These changes had no adverse effect, nor did other minor changes and errors that occurred in the reengraving process.

The most striking change is *Cancellaria* Plate CCXXX. In the first state this was a plate from the *Conchological Illustrations*. In the later state it was entirely redrawn using, for some unstated and unknown reason, different specimens. This is especially noticeable in the largest specimen, *Cancellaria tritonis* Sowerby [=*Cancellaria (Sydaphera*) *spengleriana* Deshayes, 1830]. In the later state the figure of this species has been moved to the bottom of the center column of figures and is represented by a specimen with a rather flat sutural ramp with noticeable nodes on the shoulder whereas the original figure is of a relatively slender shell with a sloping sutural ramp devoid of shoulder nodes. The other figures on the plate are also of different specimens.

That numerous plates from the *Genera* and the *Conchological Illustrations* were reengraved is clearly seen when they are compared but no others have been found that were redrawn from different specimens. There were numerous changes such as to the *Siliquaria* plate from Part 26 of the *Genera*. Originally drawn by J. Fahey and printed by C. Hullmandel, it was reengraved and used as Plate CLI in the *Systematica* with the artist's name, and the name of the original printer, omitted.

There are many problems with works published in parts and Reeve's serial publications were afflicted with almost all of them. Price's (1982) paper on publication in parts of botanical works detailed the pitfalls. Price illustrated one with a letter involving Reeve and a botanical work he was publishing. It is a letter from W.H. Harvey to W.J. Hooker dated 25 May 1847 concerning one of Harvey's works and states:

"Are you aware that *two* of the plates in the 1st Number had lately to be *re-drawn* by some one that Reeve employed [originals were drawn by Harvey], and are *not* well copied. Pl. 2 & 5 are the subjects. The early subscribers have therefore better copies than can now be had of the 1st Number. I hope none other may perish in a similar manner."

The Systematica shows signs of haste and carelessness in its preparation. In one copy examined there is a slip

bound into Volume 2 at page 27 that is imprinted: "In consequence of an accident having occurred with Plate CXLVII, *Velutina*, it will be given with Part VII." Aside from his failure to give descriptions or colors of the figured specimens, Reeve sometimes failed to apply names to some of the figures taken from the *Genera* and in other cases should have had names on the *Genera* plates corrected or deleted. That this was possible is shown on Plate V which originally appeared in the *Zoological Journal* before being used in the *Genera*. It has the heading "*Zoological Journal. t. XIII. Sup.*" which remains on plates in early issues. This was later removed and does not appear in copies of the late state. Some odd items are:

- Plate 18 This plate from the *Genera* depicts 2 species of *Clavagella* in five figures. The second species, represented by figure 5, is not mentioned in the *Systematica*.
- Plate 27 On this plate from the *Genera* figure 1 bears the legend "*Panopea Faujas* [sic]." In the text the name *Panopaea Faujasi* Sowerby is placed in the synonymy of *P. aldrovandi* Ménard. The name could have been deleted from the plate but was not.
- Plate 37 Although this is a *Genera* plate no reference is made to that work. The two species of *Pandora* figured are listed as being in "*Species Conchyliorum*, pl. 2. f. 7 to 9" and "pl. 3. f. 13 to 15" respectively. No *Pandora* monograph was published in Sowerby's *Species Conchyliorum*.
- Plates 57 & 58 Both listed in text as having numbered figures, but there are no numbers.
- Plate 66 *Astarte danmoniensis* on plate; *damnoniensis* [sic] in text (three times). This text is on page 91, which is misnumbered as 73. A Montagu species, it is attributed to Sowerby, presumably as he was first to place it in *Astarte*. Figure 4 on this plate is of a fossil, *Astarte modiolaris* [(Lamarck)], not mentioned in the text.
- Plate 113 On this *Genera* plate Sowerby had "n." after *Pecten fuscus* to indicate that it was new (it was not in his text); it should have been removed for the *Systematica* printing. Reeve refers to *Genera* Part 31, where the species is figured without a description. Sowerby also was extremely lax.
- Plate 145 The *Hipponyx* plate was the only numbered *Genera* plate, having a small 3 in the upper right (Petit 2006a: 82). The 3 was not removed and appears adjacent to the number CXLV.
- Page 159 "Pl. CXIII. Fig. 4" is an error for "Pl. CXIV. Fig. 4."
- Plate 223 Text for figure 3 states "A fossil species of *Littorina*, inserted inadvertently." The plate is from the *Genera* so its inclusion is hardly inadvertent!
- Plate 226 *Cerithium clava* on plate is identified as *C. souverbii* Kiener in the text with a footnote stating that "*clava* was preoccupied by Lamarck." The legend on the plate from the *Genera* was not changed.
- Plate 260 Text for figure 9 states "A species of *Turbinellus* inserted inadvertently." The plate is from the *Genera* and figure 9 is *Purpura callosa* [Sowerby], with that name on the plate. This species is now *Cymia tecta* (Wood, 1828).
- Plate 275 The single figure on the plate is shown thereon as *Terebra muscaria* [Lamarck]. On page 245 the text correctly identifies the figure as *Terebra subulata* Lamarck. The plate does not bear artist's initials.
- Plate 278 The *Marginella* plate from the *Genera*. Figure 3, *M. marginata* [(Born)] on plate legend, is not mentioned in the text.
- Plate 295 *Vaginula daudinii* [Sowerby], figure 5, is not mentioned in the text but is in the index.
- Plate 299 A fossil nautiloid, *N. simplex?* on plate, is not in text.

The above list of errors and omissions is far from complete. Two spelling errors persist throughout the work as Reeve consistently referred to Montfort as Montford and to Siebold as Siebald.

Systematica new taxa

Many species appeared almost simultaneously in the *Systematica*, Sowerby's *Thesaurus Conchyliorum*, and the *Proceedings of the Zoological Society of London*. Even the venerable C.D. Sherborn made errors of attribution. For those not familiar with the *Proceedings* it must be pointed out that literature references to new species in the PZS, as it is here abbreviated, are almost always to the year in which the paper was presented. The actual publication was usually many months later. A number of species dating from the *Systematica* are correctly dated as 1842 as authors accepted a stated PZS date of 1842 instead of an actual PZS date of 1843. In those cases only the source of the name is in error.

In most cases where Reeve cited another author's work for a species, or another source for one of his own species, even if that work had not been published, the name was skipped by Sherborn. As discussed under Authorship, it is evident that Sherborn's methodology was to skip any name for which a reference was cited, evidently assuming that such work had already been published and the name would be abstracted from that original source. This applied to PZS papers that had not yet been published and are listed without pagination as well as to works that were never published such as Sowerby's *Species Conchyliorum* monograph on *Cyclostoma*. About this latter work, Reeve wrote:

"Mr. Sowerby has kindly permitted us to refer to his figures of Cyclostomata in Part 2 of the 'Species Conchyliorum,' which we are happy to announce is now ready for publication. This beautifully illustrated monograph of this genus, upon which he has been for so long employed, will certainly be a most elaborate contribution to our catalogue of species." – (Reeve 1842 *Systematica* 2: 97 footnote)

The *Cyclostoma* monograph in *Species Conchyliorum* was never published. Sowerby was at that time just starting his *Thesaurus Conchyliorum* and probably decided that it would be a better forum for the *Cyclostoma* monograph. It is notable that as early as 1839 Sowerby attributed species of *Cyclostoma* to himself as being in the 'Species Conchyliorum' (G.B. Sowerby I 1839: 146–147). Those species described in 1839 are dated by Sherborn as being of 1843 in the *Thesaurus*.

Some of Sherborn's actions are not easily explained as may be noted in his treatment of the *Systematica* species of *Pleurotoma*. Of the five species tagged as "Nobis" and treated alike by Reeve in the *Systematica*, Sherborn dated three to the *Systematica* 1842, one to PZS 1843, and one to the *Iconica* 1842. He omitted a sixth for which a Beck MSS, name was used.

In the *Systematica* there are problems of authorship not encountered elsewhere and not addressed in the section on Authorship herein. Reeve did not include descriptions of species in the *Systematica* so the names rest entirely on the figures. In the *Systematica* there are numerous instances where Reeve has included a figure, stating that it has been, or is soon to be, named by Sowerby in the *Thesaurus*, the *Proceedings*, or some other work (e.g., references to "Sowerby P.Z.S. 1842" where Sowerby's paper did not appear until months after the *Systematica*).

As Reeve clearly cited Sowerby's work and gave him credit for authorship, it is implicit that the work was available for his use. For those species Reeve credited to Sowerby, with reference to the *Proceedings* and later described there or elsewhere, the author is here being shown as Sowerby in Reeve. Due to the manner in which they were treated by Sherborn, many are currently attributed to Sowerby. Ascribing them to "Sowerby in Reeve" better satisfies stability, the first object of the Code (I.C.Z.N. 1999: 2), than would changing authorship in current usage, usually simply Sowerby, to Reeve, the only change being the addition of "in Reeve." It will be noted that some of the species listed below are in current use attributed to Sowerby in Reeve.

The species attributed by Reeve to Sowerby in the *Species Conchyliorum* are also shown here as of Sowerby in Reeve as Reeve was furnished Sowerby's work and referred to it. These species are in the current literature attributed to Sowerby.

Species shown as "Sowerby MSS." or "Gray MSS." indicating that the name was taken from a label and not from a work ready for publication are attributed only to Reeve. It is only when Reeve clearly refers to another author's work is the name attributed to that author.

All of the taxa newly introduced in the *Systematica* are here listed with earliest applicable established date and author listed first, using the above criteria, followed by other citations. Nomina are listed in order of appearance. No attempt has been made to place taxa in currently accepted genera or to show synonyms; although such data found in the course of checking usage are included, they may not be the latest. For the sake of brevity, several references are abbreviated hereunder. They are: Sherborn's *Index Animalium*, IA; Sowerby's *Thesaurus Conchyliorum*, TC; the *Proceedings of the Zoological Society of London*, PZS; and Reeve's *Systematica*, CS.

Volume 1

- Corbis soverbii Reeve, 1841, CS 1: 81, pl. 58, figs. 4–6. Dated to PZS March 1842 in IA. Illustrated as Fimbria soverbii (Reeve, 1841) by Abbott & Dance (1989: 322).
- *Pecten exoticus* Reeve, 1842, CS 1: 160, pl. 114*, fig. 5 with reference to "Chemnitz, Conch., vol. ii, p. 262, f. 2037, 2038." This was not the first validation of Chemnitz' name as that had been done earlier by Lamarck and by Dillwyn, with the latter having priority. Now known as *Lissochlamis exotica* (Dillwyn, 1817) (fide H. H. Dijkstra, pers. comm. 19 January 2005).
- Pecten asper G.B. Sowerby II in Reeve, 1842, CS 1: 161, pl. 114*, fig. 6 with reference to TC, pt. 2. This name is preoccupied and the species is = Serratovolva rubicunda (Récluz in Chenu, 1843) (fide H. H. Dijkstra, pers. comm. 19 January 2005).
- Pecten superbus G.B. Sowerby II in Reeve, 1842, CS 1: 161, pl. 114*, fig. 8 with reference to TC, pt. 2. The species on Plate 114*, figure 8, is *P. bifrons* Lamarck, not *P. superbus*. Although there is no errata sheet, this lapsus was noted. In the index with CS Vol. 2, *Pecten superbus* is listed as being on Plate 114*, fig. 9 and *P. bifrons* as fig. 8. In current literature as *Anguipecten superbus* (G.B. Sowerby II in Reeve, 1842) (fide H. H. Dijkstra, pers. comm. 19 January 2005).
- *Spondylus nudus* Reeve, 1842, CS 1: 165, pl. 119, fig. 10; ex Chemnitz, vol. xi, p. 235, pl. 203, figs. 1989 and 1990. "We are much indebted to Mr. Sowerby for pointing out to us the description and figure of this species in Chemnitz; it appears to have escaped the notice of Lamarck and subsequent authors." IA lists a later usage of this combination by Chenu 1844–5 and also lists a *Spondylus nudus* Sowerby, 1847 [= *Thesaurus*] but does not list Reeve's usage. Lamprell (1986: 36) placed *S. nudus* Reeve, 1856 [sic; = *Iconica*] in the synonymy of *S. anacanthus* Mawe, 1823.
- *Lingula tumidula* Reeve, 1842, CS 1: 180, pl. 125, fig. 4. A brachiopod. Treated as a valid species, but dated as 1841, by Emig & Hammond (1981).

Volume 2

- Dentalium longitrorsum Reeve, 1842, CS 2: 6, pl. 130, fig. 6. Dated to PZS February 1843 in IA. Illustrated as Dentalium longitrorsum Reeve, 1842 by Abbott & Dance (1989: 283).
- Patella variegata Reeve, 1842, CS 2: 15, pl. 136, fig. 1. Not in IA. Listed as a synonym of *Cellana radiata capensis* (Gmelin, 1791) by Powell (1973: 148).
- Patella stellaeformis Reeve, 1842, CS 2: 15, pl. 136, fig. 3. Not in IA. Listed as a synonym of Patella flexuosa Quoy & Gaimard, 1834 by Powell (1973: 130).
- *Siphonaria characteristica* Reeve, 1842, CS 2: 20, pl. 138, fig. 3. Dated to PZS November 1842 in IA. Present placement not determined.
- *Parmophorus corrugatus* Reeve, 1842, CS 2: 21, pl. 139, fig. 1. Dated to PZS November 1842 in IA. Listed in synonymy of *Scutus unguis* (Linnaeus, 1758) by Abbott & Dance (1989: 24).
- Parmophorus intermedius Reeve, 1842, CS 2: 22, pl. 139, fig. 5, 6. Dated to PZS November 1842 in IA.

- Listed by Pilsbry (1890: 290) as an unrecognized Tugalia.
- *Emarginula panhiensis* Reeve, 1842, CS 2: 23, pl. 140, fig. 1. Attributed to "Quoy," this is an unjustified emendation of *Emarginula panhi* Quoy & Gaimard, 1834 now placed in the genus *Hemitoma*.
- *Emarginula conoidea* Reeve, 1842, CS 2: 23, pl. 140, fig. 7. Listed in synonymy of *Montfortula rugosa* (Quoy & Gaimard, 1834) by Wilson (1993: 57).
- Calyptraea cinerea Reeve, 1842, CS 2: 33, pl. 144, fig. 4. Dated to PZS November 1842 in IA. Placed in synonymy of Crucibulum scutellatum var. tubiferum Lesson by Tryon (1886a: 118); this Lesson variety listed in synonymy of Crucibulum spinosum (Sowerby [= G.B., I], 1824) by Keen (1971: 463).
- Calyptraea lithedaphus Reeve, 1842, CS 2: 33, pl. 144, figs. 5, 6, 7. Attributed to "Owen in Reeve" in IA. There is a footnote on page 33 giving the derivation of the name, stating that it "is proposed by Professor Owen as characteristic of the singular habits of this mollusk; we therefore use it provisionally as a *specific* name, until we hear the result of his anatomical examination." This does not permit attributing the name to Owen but it hardly matters. Owen (1843b) named a genus *Lithedaphus*, now considered a synonym of *Cheilea*. Neither of these two species described as *Calyptraea* by Reeve were mentioned in his *Iconica* monograph of the genus although he did place Owen's genus, and his species *L. longirostris* Owen, in the synonymy of *Calyptraea* [=Cheilea] equestris (Linnaeus).
- Vermetus eburneus Reeve, 1842, CS 2: 46, pl. 152, fig. 2. Dated to PZS February 1843 in IA. Illustrated as Vermicularia pellucida eburnea (Reeve, 1842) by Keen (1971: 396, fig. 449).
- Carinaria gracilis Reeve, 1842e, [1 April]; CS 2: 57, pl. 158, figs. 1–5 [not positively dated earlier than 16 May]. Placed in synonymy of *C. vitrea* Lamarck by Reeve, 1859, *Elements* 2: 43.
- Helicophanta falconeri Reeve in Gray, 1834. In Reeve, 1842, CS 2: 63, pl. 163, fig. 4 as "Helix falconari [sic] Nobis MSS." Helicophanta falconeri Gray, 1834 was listed in synonymy with a footnote that it had been published "some years since, at our request, in honor of David Falconar." Gray described the species as of "Reeve, MSS." and the PZS index for that volume attributes to Reeve. Illustrated by Abbott (1989: 89) as Hedleyella falconeri (Gray, 1834) with H. falconari (Reeve) in synonymy.
- Helix mindana Reeve, 1842, CS 2: 69, pl. 164, fig. 8. In text only as "Sowerby MSS." Listed in IA as "Sowerby in Reeve, 1842." This is same as *Helix mindanaensis* which is listed in IA as of "Sowerby in Pfeiffer, Symb. Helic. II. 1842." Pfeiffer's work appeared after the *Systematica* as he cited it. This, and the following two nomina, were not treated alike in IA as one is referenced only to the Pfeiffer PZS paper. Both Pfeiffer 1842 works postdate the CS. References to "Sowerby, 1842" for these three species should have been "Sowerby in Pfeiffer, 1842." Illustrated as *Calocochlia mindanaensis* (Sowerby, 1842) by Abbott (1989: 171).
- Helix zonifera Reeve, 1842, CS 2: 70, pl. 165, fig. 17. In text only as "Sowerby MSS." Listed in IA as "Sow.; Pfeiffer, PZS X, (113) Dec. 1842"; CS, which is earlier, is not mentioned. See comments under *H. mind-ana* above. Illustrated as *Calocochlia zonifera* (Sowerby, 1842) by Abbott (1989: 172).
- Helix Iuzonica Reeve, 1842, CS 2: 70, pl. 165, fig. 20. In text only as "Sowerby MSS." Listed in IA as "Sowerby in Reeve, 1842" and also as "Sow.; Pfeiffer, Symb. Helic. II. 1842." See comments under *H. mindada* above. Illustrated, as "Iuzonica (Sowerby, 1842)," as a form of Calocochlia pulcherrima (Sowerby, 1841) by Abbott (1989: 169).
- Helix valtoni Reeve, 1842, CS 2: 71, pl. 166, fig. 23. Dated to PZS November 1842 in IA. Illustrated as Oligospira valtoni (Reeve, 1842) by Abbott (1989: 92).
- Carocolla fibula Reeve, 1842, CS 2: 72, pl. 167, fig. 5. In text only as "Broderip MSS." Listed in IA as "Broderip in Reeve, 1842." Illustrated by Abbott (1989: 167) as *Chloraea fibula* (Reeve, 1842).
- Helicobulimus Reeve, 1842, CS 2: 80. In a footnote referring to Bulimus reevii (Broderip, 1841d), Reeve stated that it "might be considered the type of the new subgenus of Helices, suggested by Mr. Broderip, under the title of Helicobulimus. This is an error or unjustified emendation of Helicobulinus Broderip, 1841b which had its type determined by monotypy as Helix sarcinosa Broderip, 1841b. This emendation

- has not been previously noted. The same spelling was used by Möllendorff in 1890 (fide IA).
- Bulimus eximius Reeve, 1842, CS 2: 81, pl. 173, fig. 2. This was a replacement name for *Plekocheilus gracilis* Broderip, 1840 [sic; =1841c] *non Bulimus gracilis* H.C. Lea, 1838. Reeve's name was, in turn, preoccupied by *Bulimus eximius* Perry, 1811 and there is also an earlier synonym, *B. fulguratus* Jay, 1842 (March). Broderip's name has been resurrected and the species was illustrated by Abbott (1989: 103) as *Placostylus (Callistocharis) gracilis* (Broderip, 1840 [sic; =1841c]).
- Bulimus smaragdinus Reeve, 1842, CS 2: 81, pl. 173, fig. 6. Dated to PZS November 1842 in IA. Illustrated by Abbott (1989: 176) as *Helicostyla smaragdina* Reeve, 1842.
- Partula inflata Reeve, 1842, CS 2: 83, pl. 175, figs. 11, 12. Dated to PZS February 1843 in IA. Illustrated by Abbott (1989: 70) as Partula inflata Reeve, 1842.
- Achatina lactea Reeve, 1842, CS 2: 86, pl. 177, fig. 6. Dated to PZS November 1842 in IA. Illustrated as Achatina lactea Reeve, 1842 by Bequaert (1950: 94, pl. 24, fig. 3; pl. 48, fig. 2).
- Achatina picta Reeve, 1842, CS 2: 87, pl. 178, fig. 10. Dated to PZS November 1842 in IA. Illustrated as a form of *Liguus fasciatus* (Müller, 1774) by Abbott (1989: 114).
- Achatina tincta Reeve, 1842, CS 2: 88, pl. 179, fig. 18. Dated to PZS November 1842 in IA. Illustrated by Abbott (1989: 80) as Achatina tincta Reeve, 1842.
- Achatina kransii Reeve, 1842, CS 2: 88, pl. 179, fig. 19. Dated to PZS November 1842 in IA where Sherborn (1927: 3325) listed as *krausii* [sic]. Reeve's incorrect original spelling, *kransii*, unfortunately was intentional. No etymology is given in CS. In the PZS Reeve (1842j: 56) wrote "I have named this species, at the request of Mr. Cuming, in honour of Dr. Krans [sic] who presented it to him on his arrival from Cape Natal." This is a reference to Ferdinand Krauss who thought the species had been named for him as he listed and figured it (Krauss 1848: 81, pl. 5, fig. 4) as *Achatina kraussii* Reeve with reference to both the CS and PZS. It was listed by Abbott (1989: 80), as *kraussi*, as a synonym of *A. zebra* (Bruguière, 1792). As *kraussi* is the only spelling in use, it can be retained under Article 33.3.1.
- *Truncatella ventricosa* Reeve, 1842, CS 2: 94, pl. 182, fig. 2. In text only as "Sowerby MSS." Listed in IA as "Sowerby in Reeve, 1842." Present status not determined.
- *Truncatella striata* Reeve, 1842, CS 2: 94, pl. 182, fig. 4. Attributed by Reeve to "Sowerby (J.D.C.), Philosophical Magazine," it was never described by Sowerby. Not in IA. Listed as *Coxiella striata* (Reeve 1842) by Smith et al. (2004).
- *Truncatella scalariformis* Reeve, 1842, CS 2: 94, pl. 182, fig. 6. Dated to PZS February 1843 in IA. Present placement not determined.
- *Truncatella caribaeensis* Reeve, 1842, CS 2: 94, pl. 182, fig. 7. In text only as "Sowerby MSS." Listed in IA as "Sowerby in Reeve, 1842." Illustrated as *Truncatella caribaeensis* Reeve, 1842 by Andrews (1977: 85).
- Cyclostoma nitidum G.B. Sowerby I in Reeve, 1842, CS 2: 97, pl. 183, fig. 2. Attributed by Reeve to "Sowerby PZS 1842", a paper not published until November 1843. Dated by IA as of Sowerby 1843 in TC. Listed by Smith et al. (2004) in synonymy of *Leptopoma perlucida* [sic; =...um] (Grateloup, 1840) as Cyclostoma nitidum G.B. Sowerby I, 1843.
- *Cyclostoma goniostoma* G.B. Sowerby I in Reeve, 1842, CS 2: 97, pl. 183, fig. 3. Attributed by Reeve to "Sowerby PZS 1842", a paper not published until November 1843. Dated by IA as of Sowerby 1843 in TC. No modern usages located. A species of *Leptopoma* (H.G. Lee, pers. comm., 12 February 2006).
- *Cyclostoma stainforthii* G.B. Sowerby I in Reeve, 1842, CS 2: 97, pl. 183, fig. 6. Attributed by Reeve to "Sowerby PZS 1842." In IA as of Sowerby in PZS, December 1842. Illustrated as *Leptopoma stainforthi* [sic] (Sowerby, 1842) by Abbott (1989: 37).
- *Cyclostoma acutimarginatum* G.B. Sowerby I in Reeve, 1842, CS 2: 98, pl. 183, fig. 7. Attributed by Reeve to "Sowerby PZS 1842." In IA as of Sowerby in PZS, December 1842. Illustrated as *Cyclophorus acutimarginatus* (Sowerby, 1842) by Abbott (1989: 39).

- *Cyclostoma pyrostoma* G.B. Sowerby I in Reeve, 1842, CS 2: 98, pl. 183, fig. 9. Attributed by Reeve to "Sowerby, *Species Conchyliorum*," a work never published. In IA as of Sowerby 1843 in TC. In current usage as *Tropidophora pyrostoma* (Sowerby) (H.G. Lee, pers. comm., 12 February 2006).
- *Cyclostoma tigrinum* G.B. Sowerby I in Reeve, 1842, CS 2: 98, pl. 183, fig. 10. Attributed by Reeve to "Sowerby, *Species Conchyliorum*," a work never published. In IA as of Sowerby 1843 in TC. Placed in synonymy of *Cyclophorus zebra* (Grateloup, 1840) by Kobelt 1902 (fide H.G. Lee, pers. comm., 12 February 2006).
- Cyclostoma oculuscapri Wood, 1828, CS 2: 98, pl. 184, fig. 11. Listed by Reeve as "C. oculus-capri Gray MSS." Included here as it was attributed in IA to "Gray in Reeve, CS 2: 98." Sowerby, in the TC, properly credited to Wood. Wood's usage is preoccupied and the species is now Cyclophorus rafflesii (Broderip & Sowerby, 1829) (H.G. Lee, pers. comm., 12 February 2006).
- Cyclostoma harveianum G.B. Sowerby I in Reeve, 1842, 1842, CS 2: 98, pl. 184, fig. 13. Attributed by Reeve to "Sowerby, Species Conchyliorum," a work never published. In IA as of Sowerby 1843 in TC (as harveyanum). Listed as a synonym of *C. asper* Potiez & Micaud, 1838 by Pfeiffer (1852: 213). A species of Tropidophora (H.G. Lee, pers. comm., 12 February 2006).
- Cyclostoma giganteum G.B. Sowerby I in Reeve, 1842, CS 2: 99, pl. 184, fig. 17. Listed by Reeve as "Gray MSS. British Museum, Sowerby, Species Conchyliorum." In IA as of Sowerby (ex Gray) 1843 in TC. Considered by Sykes to be one of a three species complex, one of which he named as Asperostoma confusum (Sykes, 1901). Sykes, albeit indeed confused about the usages of C. giganteum, made his references clear, and his paper should be consulted.
- *Cyclostoma evolutum* Reeve, 1842, CS 2: 99, pl. 185, fig. 18. Attributed by Reeve to "Sowerby, *Species Conchyliorum*," a work never published. The only *Cyclostoma* in the CS tagged "*Nobis*." Not listed by Sherborn and not in the TC. Listed as *Licina evoluta* (Reeve, 1842) by Watters (2006: 256)
- Cyclostoma fulvifrons G.B. Sowerby I in Reeve, 1842, CS 2: 99, pl. 185, fig. 20. Attributed by Reeve to "Sowerby, Species Conchyliorum," a work never published. Not listed by Sherborn. Attributed to Sowerby by Abbott (1989: 49) in synonymy of Tropidophora tricarinata forma unicarinata (Lamarck, 1822 [sic; =1816]).
- Cyclostoma vittatum G.B. Sowerby I in Reeve, 1842, CS 2: 99, pl. 185, fig. 22. Attributed by Reeve to "Sowerby, Species Conchyliorum," a work never published. In IA as of Sowerby 1843 in TC. Figured as Tropidophora vittata (Sowerby, 1843) by Abbott (1989: 49).
- *Cyclostoma cariniferum* G.B. Sowerby I in Reeve, 1842, CS 2: 99, pl. 185, fig. 23. Attributed by Reeve to "Sowerby, *Species Conchyliorum*," a work never published. In IA as of Sowerby 1843 in TC. Attributed to Sowerby 1843 by Abbott (1989: 49) in synonymy of *Tropidophora moulinsii* (Grateloup, 1840).
- Navicella atra Reeve, 1842, CS 2: 135, pl. 199, fig. 4. Reference is to "PZS 1842" but no paper by Reeve on Navicella was published. Placed in synonymy of N. tessellata Lamarck, 1822 [sic; =1816] by Tryon (1888: 81). Not included in Reeve's 1856 Monograph of Navicella in the Iconica.
- Navicella recluzii Reeve, 1842, CS 2: 135, pl. 199, fig. 6. Reference is to "PZS 1842" but no paper by Reeve on Navicella was published. Placed in synonymy of N. tessellata Lamarck, 1822 [sic; =1816] by Tryon (1888: 81). Not included in Reeve's 1856 Monograph of Navicella in the Iconica.
- Navicella radiata Reeve, 1842, CS 2: 135, pl. 199, fig. 7. Reference is to "PZS 1842" but no paper by Reeve on Navicella was published. Placed in synonymy of N. tessellata Lamarck, 1822 [sic; =1816] by Tryon (1888: 81). Not included in Reeve's 1856 Monograph of Navicella in the Iconica.
- *Tornatella insculpta* Reeve, 1842, CS 2: 147, pl. 206, fig. 2. Dated to PZS November 1842 in IA. Present placement not determined.
- *Tornatella tessellata* Reeve, 1842, CS 2: 147, pl. 206, fig. 3. Dated to PZS November 1842 in IA. Illustrated as *Pupa tessellata* (Reeve, 1842) by Kay (1979: 418, fig. 135A).
- Tornatella virgata Reeve, 1842, CS 2: 148, pl. 206, figs. 8, 9. Dated to PZS November 1842 in IA. Listed as

- Acteon virgatus (Reeve, 1842) by Higo et al. (1999: 384).
- Tornatella coccinata Reeve, 1842, CS 2: 148, pl. 206, fig. 10. Dated to PZS November 1842 in IA. Listed as *Pupa coccinata* (Reeve, 1842) by Higo et al. (1999: 386).
- *Tornatella glabra* Reeve, 1842, CS 2: 148, pl. 206, fig. 12. Dated to PZS November 1842 in IA. Listed in synonymy of *Pupa sulcata* (Gmelin, 1791) by Higo et al. (1999: 385).
- Pyramidella glans Reeve, 1842, CS 2: 149, pl. 207, fig. 1. Dated to PZS February 1843 in IA. Listed as Otopleura glans (Reeve, 1843) by Higo et al. (1999: 386).
- Pyramidella cincta Reeve, 1842, CS 2: 149, pl. 207, figs. 2, 4. Dated to PZS February 1843 in IA. Illustrated as Milda cincta (Reeve, 1842) by Springsteen & Leobrera (1986: 283, pl. 81, fig. 6).
- Delphinula tyria Reeve, 1842, CS 2: 157, pl. 211, figs. 1, 6. Dated to PZS January 1843 in IA. Illustrated as Angaria tyria (Reeve, 1843) by Wilson (1993: 96, pl. 11, figs. 21a-b).
- Delphinula nodosa Reeve, 1842, CS 2: 157, pl. 211, fig. 2. Dated to *Iconica* June 1843 in IA. Listed as *Angaria nodosa* (Reeve, 1843) by Higo et al. (1999: 45).
- Delphinula melanacantha Reeve, 1842, CS 2: 157, pl. 211, fig. 4; pl. 212, fig. 10. Not listed in IA. Illustrated as *Angaria delphinus* form *melanacantha* (Reeve, 1842) by Springsteen & Leobrera (1986: 37, pl. 6, fig. 1a).
- *Delphinula aculeata* Reeve, 1842, CS 2: 157, pl. 212, fig. 8. Dated to PZS January 1843 in IA. Listed in synonymy of *Angaria delphinus* (Linnaeus, 1758) by Higo et al. (1999: 45).
- Delphinula formosa Reeve, 1842, CS 2: 157, pl. 212, fig. 9. Dated to PZS January 1843 in IA. Listed as Angaria delphinus formosa (Reeve, 1843) by Higo et al. (1999: 45).
- *Delphinula incisa* Reeve, 1842, CS 2: 157, pl. 212, fig. 11. Dated to PZS January 1843 in IA. Listed in synonymy of *Angaria delphinus* (Linnaeus, 1758) by Higo et al. (1999: 45).
- *Delphinula atrata* Reeve, 1842, CS 2: 158, pl. 212, fig. 12. Dated to *Iconica* June 1843 in IA. Listed in synonymy of *Angaria delphinus* (Linnaeus, 1758) by Higo et al. (1999: 45).
- *Phorus onustus* Reeve, 1842, CS 2: 160, pl. 214, fig. 3; 215, fig. 8. Dated to PZS February 1843 in IA. Placed in synonymy of *Xenophora conchyliophora* (Born, 1780) by Ponder (1983: 20).
- *Phorus pallidulus* Reeve, 1842, CS 2: 160, pl. 214, fig. 4. Dated to PZS February 1843 in IA. Holotype figured as *Xenophora pallidula* (Reeve, 1842) by Ponder (1983: 41, figs. 20a-c).
- *Phorus corrugatus* Reeve, 1842, CS 2: 160, pl. 214, fig. 5. Dated to PZS February 1843 in IA. Holotype figured as *Xenophora corrugata* (Reeve, 1842) by Ponder (1983: 38, figs. 25a-c).
- *Phorus calculiferus* Reeve, 1842, CS 2: 160, pl. 214, fig. 7. Dated to PZS February 1843 in IA. Placed in synonymy of *Xenophora chinensis* (Philippi, 1841) by Ponder (1983: 55).
- *Phorus exutus* Reeve, 1842, CS 2: 160, pl. 215, figs. 9, 10. Dated to PZS February 1843 in IA. Illustrated as *Xenophora exuta* (Reeve, 1842) by Ponder (1983: 62, figs. 31i–k).
- *Trochus asteriscus* Reeve, 1842, CS 2: 164, pl. 217, fig. 3. Dated to PZS February 1843 in IA. Listed as *Astralium stellare* variety *asteriscus* (Reeve) by Tryon (1888: 233). Present placement not determined.
- *Trochus pileolum* Reeve, 1842, CS 2: 165, pl. 217, fig. 5. Not listed in IA. Illustrated as *Astralium pileolum* (Reeve, 1842) by Wilson (1993: 108, pl. 13, figs. 5a-b).
- *Trochus cariniferus* Reeve, 1842, CS 2: 165, pl. 218, fig. 8. In text only as "Beck MSS.?" Listed in IA as "Beck in Reeve, 1842." Illustrated as *Trochus cariniferus* Reeve by Kaicher (1979: 2096).
- *Trochus gemmosus* Reeve, 1842, CS 2: 165, pl. 218, fig. 9. Dated to PZS February 1843 in IA. Listed as *Calliostoma gemmosum* (Reeve, 1842) by Leal (1991: 45).
- *Trochus hanleyanus* Reeve, 1842, CS 2: 165, pl. 218, fig. 11. Dated to PZS February 1843 in IA. Illustrated as *Trochus hanleyanus* Reeve, 1842 by Abbott & Dance (1982: 45).
- *Trochus eximius* Reeve, 1842, CS 2: 165, pl. 218, fig. 12. Dated to PZS February 1843 in IA. Illustrated as *Calliostoma eximium* (Reeve) by Kaicher (1986: 4589).
- Trochus modestus Reeve, 1842, CS 2: 165, pl. 218, fig. 14. Dated to PZS February 1843 in IA. Illustrated as

- Bolma modesta (Reeve, 1843) by Abbott & Dance (1982: 45).
- *Trochus melanostoma* Reeve, 1842, CS 2: 166, pl. 218, fig. 16. Dated to PZS February 1843 in IA. Present placement not determined.
- *Trochus guildfordiae* Reeve, 1842, CS 2: 166, pl. 218, fig. 17. Dated to CS 1842 in IA. Listed in synonymy of *Guildfordia triumphans* (Philippi, 1841) by Abbott & Dance (1982: 49).
- Turbo variabilis Reeve, 1842, CS 2: 167, pl. 219, fig. 1, 2. Dated to PZS February 1843 in IA. Name preoccupied; = Turbo reevii Philippi, 1847. Syntypes figured by Kaicher (1988: 5309) as Turbo reevei [sic] Philippi.
- Turbo pulcher Reeve, 1842, CS 2: 167, pl. 219, fig. 3. Dated to PZS February 1843 in IA. Listed in synonymy of Turbo crassus Wood, 1829 [sic; =1828] by Abbott & Dance (1982: 47).
- Turbo ticaonicus Reeve, 1842, CS 2: 167, pl. 219, fig. 6. Dated to PZS February 1843 in IA. Listed in synonymy of *Turbo bruneus* (Röding, 1798) by Abbott & Dance (1982: 46).
- Turbo squamiger Reeve, 1842, CS 2: 167, pl. 220, fig. 7. Dated to PZS February 1843 in IA. Illustrated as Turbo squamiger Reeve by Kaicher (1988: 5266).
- *Turbo rubicundus* Reeve, 1842, CS 2: 168, pl. 220, fig. 10. Not in IA. Reeve referred to "Proceedings Zool. Soc. 1842" but it never appeared there. Holotype illustrated as a synonym of *Turbo granosus* (Martyn, 1784) by Kaicher (1988: 5295).
- Turbinellus vexillulum Reeve, 1842, CS 2: 180, pl. 229, fig. 1. Dated to PZS February 1843 in IA. Placed in synonymy of *Latirus amplustris* (Dillwyn, 1817) by Vermeij & Snyder (2002: 37).
- *Turbinellus imperialis* Reeve, 1842, CS 2: 181, pl. 229, fig. 4. Dated to PZS February 1843 in IA. Listed in synonymy of *Vasum tubiferum* (Anton, 1839 [sic; =1838]) by Abbott & Dance (1982: 209).
- Fusus lanceola Reeve, 1842, CS 2: 185, pl. 232, fig. 2. Not in IA. Listed by Snyder (2003: 124) as Fusus lanceola Catlow & Reeve, 1845. A species of *Dolicholatirus*. Present placement not determined.
- *Pleurotoma speciosa* Reeve, 1842, CS 2: 187, pl. 233, fig. 5. Dated to *Iconica* January 1843 in IA. Illustrated as *Gemmula speciosa* (Reeve, 1843) by Abbott & Dance (1982: 238).
- Pleurotoma regia Reeve, 1842, CS 2: 187, pl. 233, fig. 7. Dated to CS 1842 in IA. Listed as Paradrillia regia (Reeve, 1842) by Higo et al. (1999: 307).
- Pleurotoma zonulata Reeve, 1842, CS 2: 187, pl. 234, fig. 10. Dated to CS 1842 in IA. Illustrated as Zonulispira zonulata (Reeve, 1843) by Keen (1971: 731).
- Pleurotoma beckii Reeve, 1842, CS 2: 188, pl. 234, fig. 11. Dated to PZS March 1843 in IA. Listed as Clavus beckii (Reeve, 1843) by Powell (1966: 71).
- Pleurotoma neglecta Reeve, 1842, CS 2: 189, pl. 235, fig. 2. IA lists only Reeve's 1845 (*Iconica*) transfer of Clavatula neglecta Hinds, 1843 to Pleurotoma. They are different taxa. Listed in synonymy of Lophiotoma indica (Röding, 1798) by Higo et al. (1999: 302).
- Pleurotoma obesa Reeve, 1842, CS 2: 189, pl. 235, fig. 5. Dated to CS 1842 in IA. Illustrated as Perrona obesa (Reeve, 1842) by Abbott & Dance (1982: 237).
- *Murex pinnuliferus* Reeve, 1842, CS 2: 195, pl. 240, figs. 10, 11. Dated to CS 1842 in IA. Unnecessary new name for *Typhis pinnatus* Broderip, 1833. Illustrated as *Pterotyphis pinnatus* (Broderip, 1833) by Abbott & Dance (1982: 157).
- Pterocera crocea Reeve, 1842, CS 2: 204, pl. 248, fig. 2. Not listed by Sherborn. Name was listed by Reeve as in TC, although tagged as "Nobis." CS appeared first. In TC Sowerby used the older name *P. elongata* Swainson, 1821. Reeve's figure is listed in the CS index (p. 333) as *P. elongata*. The oldest available name is *Lambis digitata* (Perry, 1811); figured by Abbott & Dance (1982: 82).
- Strombus novaezelandiae Reeve, 1842, CS 2: 206, pl. 250, fig. 2. Not listed by Sherborn. Listed by Reeve as "Strombus Novae Zelandiae Chemnitz." Placed in synonymy of Strombus vomer (Röding, 1798) by Abbott (1960: 131).
- Oniscia strombiformis Reeve, 1842, CS 2: 211, pl. 253, fig. 1. Dated to PZS January 1843 in IA. Holotype fig-

- ured by Kaicher (1983: 3740) as Morum strombiformis (Reeve). Synonymy uncertain.
- *Oniscia dennisoni* Reeve, 1842, CS 2: 211, pl. 253, figs. 5, 6. Dated to PZS January 1843 in IA. Holotype figured by Kaicher (1983: 3739) as *Morum dennisoni* (Reeve).
- Columbella philippinarum Reeve, 1842, CS 2: 218, pl. 257, fig. 9. Dated to PZS February 1843 in IA. Illustrated as *Parametaria philippinarum* (Reeve, 1843) by Abbott & Dance (1982: 160).
- Buccinum pyrostoma Reeve, 1842, CS 2: 234, pl. 268, fig. 1. Dated to PZS February 1843 in IA. Placed in synonymy of *Phos textum* (Gmelin, 1791) by Tryon (1881: 217).
- Buccinum elegans Reeve, 1842, CS 2: 234, pl. 268, fig. 3. Dated to PZS February 1843 in IA. The name is preoccupied. Earliest available name was shown to be Buccinum fossatum Gould, 1850 [=Nassarius fossatus (Gould, 1850)] by Tryon (1882: 55).
- Eburna japonica Reeve, 1842, CS 2: 239, pl. 271, fig. 1. Dated to PZS February 1843 in IA. Illustrated as Babylonia japonica (Reeve, 1842) by Abbott & Dance (1982: 173).
- *Terebra pretiosa* Reeve, 1842, CS 2: 245, pl. 274, fig. 2. Dated to PZS February 1843 in IA. Illustrated as *Terebra pretiosa* (Reeve, 1842) by Abbott & Dance (1982: 374).
- *Marginella splendens* Reeve, 1842, CS 2: 249, pl. 277, fig. 2, 3. Not listed in IA. This name is preoccupied and this species was renamed *Marginella reeveana* Petit de la Saussaye, 1851. The largest syntype of *M. splendens*, the figured specimen, was designated lectotype and figured by Boyer et al. (2004).
- Lachryma Gray in G.B. Sowerby I, 1832. In Reeve, 1842, CS 2: 261, as "Lachryma trifasciata, Humphrey, MSS." in the synonymy of Erato lachryma Gray [in Sowerby, 1832]. Listed by Neave (1939, 2: 846) as of Reeve, without mention of Sowerby, although Reeve cited its earlier usage in The Conchological Illustrations (Sowerby 1832). Lachryma next appeared, without comment, in the name Lachryma bisinventa Iredale, 1931. Cate later described Alacrato Cate, 1977 with Lachryma Iredale, 1931 in synonymy with the comment "name not validly established," presumably as no type species had been designated. Under Article 11.6.1 of the current Code, Iredale's use of Lachryma in association with a valid species makes the genus name Lachryma Gray in Sowerby, 1832 available. Although Cate placed Lachryma in the synonymy of Alacrato, he clearly described a new genus and the two have different type species. This is a problem best left to taxonomists familiar with the Triviidae.

Conchologia Iconica

Whatever else Reeve did, or did not do, he will be forever remembered in conchological and malacological circles for the *Conchologia Iconica*. The term *magnum opus*, often misapplied, is most appropriate here, and the *Iconica* was so termed by Melvill (1900: 357). Reeve started the *Iconica* in January 1843 immediately after he finished production of his *Systematica*. A full page announcement for the *Iconica* appeared on the back cover of the last number of the *Systematica*.

The first announcement for the *Iconica* that has been located is in *The Literary Gazette* for 8 October 1842 where there is a 2 5/16" 1-column ad advertising Reeve's shells for sale, the *Conchologia Systematica* and the *Conchologia Iconica*. The first issue of the *Iconica* is promised:

"[For] delivery on the first Saturday of the ensuing year and the publication will be continued weekly. Each number will consist of three quarto plates of shells, accompanied with a descriptive text, and got up in the very first style. ... Lovell Reeve, Author, Artist, Dealer, and Publisher."

The price is listed as 2s. 6d. coloured and 1s. plain. This agrees with the full page ad that appeared in the final number of the *Conchologia Systematica*, which states that No. 1 will be issued on "the Seventh of January 1843" as that date was a Saturday. One difference is that on the large ad there is no reference to plain plates. However, there is at hand a printed Part cover dated 1848 that is for an "[Uncoloured Edition.]." An ad in *The Literary Gazette* (27 January 1849, 1671: 71) lists the available monographs of the *Iconica* stating that it is

issued in monthly parts each containing eight coloured plates, price 10s. Below that listing is another for the "*Cheap Uncoloured Edition*. For the use of Geologists. In monthly numbers, each containing Six Plates, price 2s.6d." Why there would be fewer plates in the uncoloured parts is not explained. It is certain that after a short period plain sets were no longer offered. No uncoloured set or part has come to this writer's attention nor has one ever been encountered by any of the many persons and institutions contacted during the course of this investigation.

The issue of three plates per week quickly proved untenable. Unfortunately no early Part (then Number) covers have been found, and available information is confusing. Evidently Number 1 was issued on schedule as an ad published on 14 January 1843 advising that:

"This day is published (to be continued Weekly) price 2*s*.6*d*. coloured, size 4to, No. II of the Conchologia Iconica"

The next ad that has been located was published on 18 February 1843. It states:

"On the 1st of February was published, price 10s. coloured (size 4to) No. I of the Conchologia Iconica: to include Drawings and Descriptions of every known Species of Shells, British and Foreign. To be continued Monthly. Lovell Reeve, Book-seller and Naturalist..."

It is impossible to determine what Reeve intended with this change in numbering and is possibly a typesetter's error. As there were 9 plates dated January it would appear that three numbers appeared that month. Only 6 plates are dated to February, and it is possible that he grouped early weekly numbers to match the larger monthly numbers. Note that in the ad that there is no promised number of plates per month. Although the new monthly price of 10s was the same as 4 weekly issues at 2s. 6d., it was not long before advertisements began showing that each monthly part contained 8 plates. This was a very favorable change for Reeve as his cost of producing part covers, one per month instead of four, was reduced 75%. At the same time, the cost per plate rose from 10d. to 1s. 3d., a 50% increase.

No ad for Numbers II or III has been located. There are 8 plates that are dated to March 1843. On 29 April 1843 appeared an ad in which it was announced that:

"This day is published, to be continued Monthly, price 10s. coloured, No. IV. (size quarto) of the Conchologia Iconica."

The species in No. IV are listed in the ad, and the text to all 7 plates is dated April 1843. An 8th plate (*Pollicipes*), also listed, is not available as it was later withdrawn, and no copy has been located. It will be discussed later. This ad identifies Reeve simply as "Lovell Reeve, Conchologist." There is still no mention of a set number of plates per month. In typical Reeve fashion the above ad appeared again on 13 May changed only to state:

"On the 1st inst. was published, to be continued monthly ..."

Were they actually published in April or on 1 May? It is really immaterial as the text for the plates is dated April. This is a minor difference compared to other problems with the dating of this work as will be seen. On 22 July an ad announced that No. VII would be published "on Saturday next" but no set number of plates per number is listed. An ad published 4 November 1843 announced that:

"The November Number (No. 10) of this popular work on Species of Shells, which proceeds with marked regularity and improvement published this day, [with list of species included]."

The list of species makes it possible to know that there were 8 plates in this number, all dated October 1843. This ad styles our author as "Lovell Reeve, Naturalist and Scientific Lithographer."

In an August 1843 review, Guérin-Méneville mentioned 4 plates per part, certainly an error. His review is worthy of mention as he began with a comparison of the latest parts with the first. He stated that he had feared that Reeve's economies with the plates would harm the work. This was, of course, a reference to Reeve's having lithographed some of the plates himself. Guérin-Méneville heaped praise on Sowerby for his plates.

The *Iconica* was designed to be a series of monographs on Mollusca, purporting to illustrate all of the known species of shells, whether previously described or not. It was a formidable undertaking and resulted in

a mammoth work. During Reeve's lifetime he produced 14 volumes and wrote some monographs published in Volume 15. He also wrote some species descriptions that did not appear in volume format until Volume 16. The iconography was completed, at the request of Mrs. Reeve, by G. B. Sowerby II, who had drawn and lithographed almost all of the plates for the entire work. The work was terminated in 1878, thirteen years after Reeve's death, with the completion of Volume 20. Few institutions, and even fewer individuals, hold complete sets of the *Iconica* although it was available over an unusually long period.

The *Iconica* remained in print until the middle of the 20th Century, with plates being relithographed as necessary. This is demonstrated by the fact that the name Vincent Brooks appears on some plates that were originally published many years before his firm began printing them. The lettering on those plates was probably left to an apprentice who was used to inscribing only Vincent Brooks' name. As mentioned in the section on Coloring, some *Iconica* plates were colored as late as 1958. In February 1959 the remaining stock of the *Iconica* was sold to A. Asher & Co. in Amsterdam. The fate of the lithographic stones is not known.

The total number of plates in the 20 volumes is 2,727 of which only five are not hand colored. With hand colored quarto plates of this quality commanding \$25 each at a minimum, with the exception of plates composed of small or unattractive shells, and up to several hundred dollars each for the showier plates of popular shells, the value and scarcity of the work is obvious.

The genera in Volume 15 that were authored by Reeve are: *Ancillaria, Carinaria, Erato, Marginella, Ovulum, Pyrazus, Sigaretus, Solarium, Telescopium* and *Tornatella*. Those authored by Sowerby are: *Cerithidea, Cerithium, Eulima, Lampania, Leiostraca, Niso, Potamides, Pyramidella, Tympanotonos* and *Vertagus*. In Volume 16, species of *Unio* on Plates 1–30 were described by Reeve and the rest by Sowerby. There are errors in the *Unio* index indicating that names on later plates are attributable to Reeve, which they are not. This monograph in particular is fraught with error. It was singled out for opprobrium by both Tryon, in his reviews in the *American Journal of Conchology* as the parts arrived, and by Crosse (1870).

Iconica artists

The large ad in the *Systematica*, a copy of the proposed part covers, shows the *Iconica* as

"By Lovell Reeve" \dots "the figures being drawn by him upon stone from original pencil sketches by G.

B. Sowerby, Jun."

That same statement appears on the series cover, described and discussed below. That artistic arrangement did not last long as Reeve actually lithographed only 34 plates himself, and he and Sowerby jointly lithographed one. No later mention is made of Lovell Reeve as an artist. He quickly realized that his considerable business abilities were of more value than his artistic talents.

For some reason Sowerby, who was certainly not a novice artist or lithographer, could not decide how he wanted to show his name on the plates. It is probable that Reeve wanted something more in keeping with the short-lived Latin name for his printing firm than the usual "G.B.S. Jr. del. et lith." In the first eight months the attribution, which is placed in the lower left corner of plates, went from *del*. (delineator; artist), for the plates lithographed by Reeve from Sowerby's drawings, to *del*. et lith. (artist and lithographer) for plates that Sowerby both drew and lithographed. Sowerby then used *del*. lith. et pinx' (lithographer and artist) and fecit (he made it). After this flurry of changes he finally settled down to *del*. et lith. or *del*. et sculpt. (artist and lithographer).

In 1858 a few *Iconica* plates were drawn by Walter Hood Fitch (1817–1892), the preeminent botanical illustrator of the time. For many years he was employed by Sir W.J. Hooker at Kew Gardens to illustrate his monographs and also to produce illustrations for *Curtis's Botanical Magazine* that was owned and published by Lovell Reeve from 1845 and edited by Hooker. Fitch left Hooker after a dispute over pay that certainly involved Reeve, who did not want to have to pay more for the material published in *Curtis' Botanical Magazine*. After leaving Hooker, Fitch continued to be active as a botanical artist until 1888. A biography of Fitch

in which numbers of his works are reproduced was published by Jan Lewis (Lewis 1992). Sellers of prints sometimes attribute Walter Hood Fitch's lithographs to his nephew, John Nugent Fitch (1840–1927), also a leading botanical artist.

One plate, *Hemipecten*, was drawn by J.D.C. Sowerby. It is discussed in detail under the *Voyage of H.M.S. Samarang* herein.

Iconica title page and covers

Title page. The well-known title page with a five-inch colored figure of *Conus gloriamaris* is here considered to be the series title page for the *Conchologia Iconica* (Figure 8). The title thereon is *Conchologia Iconica*; / a / complete repertory of species (hereafter referred to simply as the *Iconica*). The descriptors *Pictorial* and *Descriptive* appear to the left and right of the spire of the *Conus* respectively. Below the figure is *Conus gloria-maris* in small-print italics, the other text being all capital letters of various sizes. Below the *Conus* is: by Lovell Reeve, A.L.S., F.Z.S., Etc., / author of the 'Conchologia Systematica.' / the figures being drawn by him upon stone from original pencil sketches / by G. B. Sowerby, Jun. At the bottom are four lines: London: / Printed for, published, and sold by / Lovell Reeve, Naturalist, 8 King William Street, Strand: / sold also by G. B. Sowerby, 50 Great Russell Street: Fortin, Masson and Co., Paris: Asher and Co., Berlin. The date 1843 is centered at the bottom. This is here considered to be the correct title as it is the earliest. Others of the alternate titles described below appear in some library catalogues and citations. This is of little import as *Conchologia Iconica* is sufficient identification.

This series title page first appeared in almost its final form as an advertisement on the back cover of the final issue of *Conchologia Systematica*. It has the ornate border of the *Systematica* parts with "No. I." in the top of the border. In the upper right corner below the border appears "Price 2s.6d. coloured," and, above the title, "On the Seventh of January 1843, to be continued Weekly." The title itself and authorship, affiliations, and other printed data are identical to that described above.

Aside from the series title page the *Iconica* has other title pages and covers. These include volume title pages, monograph title pages, monograph covers issued with monographs sold as such and part (originally number) covers issued for each of the parts. In later years there were usually two parts issued together in one cover.

Part covers. The *Iconica* was published in parts. Ideally a part (originally a Number), after the first month or so of production, consisted of 8 plates, representing two, sometimes three, genera, with accompanying text. Generally at least three genera were in process at any one time and production usually continued on them until they were complete at which time a new genus was started. These plates and text were placed in part covers for identification and delivery. Unfortunately, few of these covers have survived. The early covers mimicked the title page and one was reproduced as the ad in the *Systematica*. Early covers had a space for writing in the part number (Figure 9). At some later date it became possible to subscribe to two parts every two months instead of one part per month, presumably to reduce costs. These later part covers had a different decorative border and were imprinted with two numbers and the names of the genera included. Even later, all parts were issued two at a time.

As discussed above, the method of issue of the *Iconica* evolved with time. The original plan to have weekly parts of three plates was quickly changed to monthly parts of eight plates.

Later part covers were imprinted with the names of the included genera. An 1856 cover for Parts 159, 160 containing plates of *Cancellaria* and *Ampullaria* has the extended title: *Conchologia Iconica; / or, / figures and descriptions / of the / shells of molluscous animals, / with critical remarks on their synonymes, affinities, and / circumstances of habitation; by Lovell Reeve, F.L.S. & G.S.* Below Reeve's name is a list of his societal affiliations. That is followed by a line under which appears, in an Old English font, "*Illustrated chiefly from the Cumingian Collection.*" Between that line and the logo showing the bust of Linnaeus are the names of the two genera in heavy bold, all capital, letters.

CONCHOLOGIA ICONICA;

A

COMPLETE REPERTORY OF SPECIES.

PICTORIAL.



DESCRIPTIVE.

By LOVELL REEVE, A.L.S., F.Z.S., ETC.,

AUTHOR OF THE CONCHOLOGIA SYSTEMATICA.

THE FIGURES BEING DRAWN BY RIM UPON STONE FROM ORIGINAL PENCH, SKETCHES

By G. B. SOWERBY, Jun.

LONBONE

PRINTED FOR, PUBLISHED, AND SOLD BY

LOVELL REEVE, NATURALIST, 8 KING WILLIAM STREET, STRAND:

SOLD ALSO BY G. R. SOWERBY, 50 GREAT RUSSELL STREET; FORTIN, MASSON AND CO., PARIS; ASHER AND CO., RERLIN, 1843.

FIGURE 8. The series title page for the *Conchologia Iconica*. It shows Reeve's original plan for him to draw the figures on lithographic stone from sketches made by G. B. Sowerby.

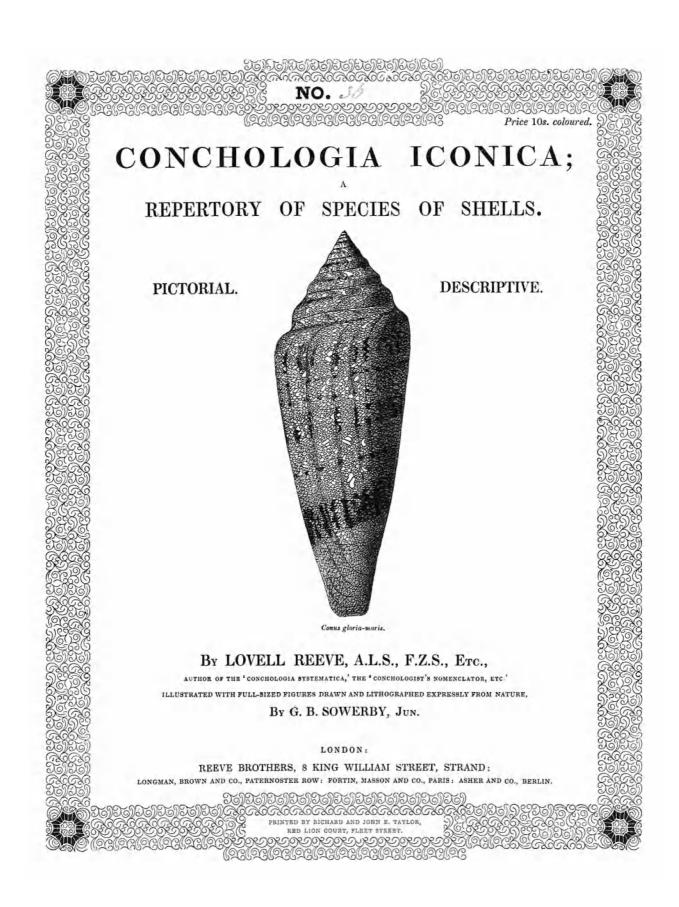


FIGURE 9. An early Part cover for the *Conchologia Iconica*. This one was issued in 1846.

There is one known part cover for the uncolored edition which had different part numbers. An ad for *Iconica* Part 71, colored edition, includes notice that Parts 10 and 11 of the uncolored edition will be available on the same date. The extant cover is Part 9, the 9 being hand written. The title is the same extended title listed above. As it is dated 1848 Reeve's name is followed only by F.L.S., and surprisingly no other societal affiliation or publication is listed. The names of the included genera are not shown, and in their place is printed "[Uncoloured Edition.]."

Monograph covers. Although the *Iconica* was published and sold to subscribers in parts, the basic sale unit was the monograph. After a genus was completed it became no longer available in parts. The plates and text for the genus were then gathered together and sold as a monograph. Pricing was based on the number of plates. More monograph covers exist than do part covers as many monographs were never bound into volumes and still appear on antiquarian book lists. A number of cover styles are known, three of which are here described:

- 1. An early cover (1843) has elaborate lettering and a genus name that may have been outlined in pencil and filled in by brush as it does not appear to be typeface (Figure 10).
- 2. Later monograph covers had a decorative border and a line for writing in the genus name (Figure 11). On hand are examples printed by Saville, Edwards and Co. and by Spottiswoode and Co. These covers bear the Reeve logo (a bust of Linnaeus).
- 3. Even later covers lack borders. They are known with a variety of type styles as well as different forms of the firm name. It is rather startling to see a monograph printed in the 1850s with a cover bearing the imprint "L. Reeve & Co. Ltd., The Oast House, Brook, Nr. Ashford, Kent" as the firm did not move to that address until the middle of the 20^{th} Century.

Salisbury (1948: 306) discussed the difference in title pages for monographs between those published in volumes and those sold as separate monographs. As stated by Salisbury, early monographs issued as such had elaborate covers with ornamental lettering, the outer covers of thick blue paper and an inner title on white paper. His paper is difficult to understand. It appears that he had at least one monograph with an inner title page having the same imprint as the outer cover. No such title page has been found. Later covers, less decorative, were on heavy stock in various shades of blue or gray.

The presence of the heavy covers may account for the slight "surcharge" for the monographs when sold as such. The monographs were advertised at prices 3d. or 6d. higher than the total cost of the plates at the subscription rate of 1s. 3d. each (e.g., the *Buccinum* monograph of 14 plates was sold as a monograph at 18s.; at subscription rates it would have cost 17s. 6d.).

None of the monograph covers are dated.

Monograph title pages. No elaborate monograph title pages as described by Salisbury have been seen. All monograph title pages, both in entire volumes and in separate monographs, are on the same paper as the text pages and are undated. They are imprinted, in all capital letters of different sizes, "Monograph of the genus [genus name]." Below that imprint there is a quotation from the classics, prose or poetry, each monograph having its own quotation. These monograph title pages are not dated.

Volume title pages. A new mode of sale, the volume, was introduced in 1847 or 1848. The first advertisement that has been located for the *Iconica* in volumes appeared on the cover of Mollusca Part I of the *Zoology of H.M.S. Samarang* in 1848. At that time four volumes were available. A volume was formed when sufficient monographs were available to make a volume of about 130 to 150 plates. *Helix*, consisting of 210 plates, required its own volume and the last two volumes, 19 and 20, consisted of 160 and 177 plates respectively. As will be shown elsewhere, the composition of the volumes was only minimally chronological. Of course, volumes require volume title pages. Volumes were offered *half bound*. In the book trade, half-bound means that the spine and about a fourth of the covers are bound in one material, usually leather, and the balance in another material, usually cloth. Surprisingly, their price was based on the number of plates with no increase over the cost of the monographs if purchased separately.

CONCEOLOGIA ICONTEA.

MONOGRAPH

OF THE GENUS

CYPRICARDIA

 $\mathbf{B} \mathbf{Y}$

Lovell Reeve

FIGURE 10. A Monograph cover for the *Conchologia Iconica*. This cover, in the library of Dr. M. G. Harasewych, was issued in 1843 and is the only one of its design noted.

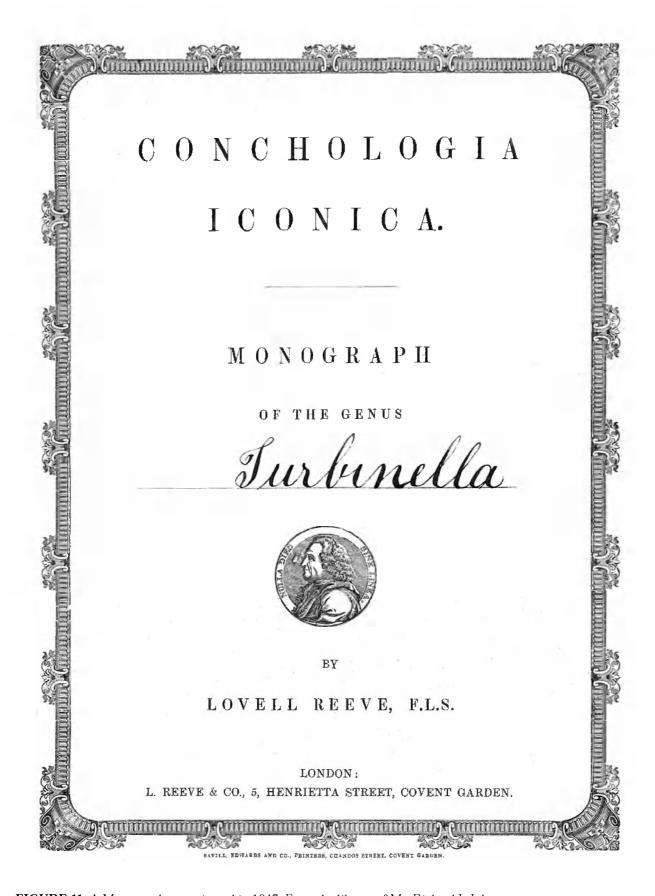


FIGURE 11. A Monograph cover issued in 1847. From the library of Mr. Richard I. Johnson.

The volume title pages, with the title *Conchologia Iconica:* / or, / illustrations / of the / shells of molluscous animals, have a Volume number (in Roman numerals) below which is a list of the included genera. Below that is: by Lovell Augustus Reeve, F.L.S., F.Z.S. / author of 'Conchologia Systematica', 'Elements of Conchology', &c. Centered in the lower half of the page is a quotation from Cowper. At the bottom is: London: / Reeve, Brothers, King William Street, Strand / 1843. The author's society affiliations and publications above and the date are taken from the title page for Volume I. Although dated 1843 it was printed no earlier than December 1846 and probably in August 1847 as that month the firm reverted to the name "Reeve, Brothers," a trade name used after 1846 only in that month. The format of later title pages is the same with a different quotation from a classical book or poem on each.

There are several ways to prove that the 1843 date on title page of Volume I is incorrect and that it and other title pages were printed at a date later than imprinted. Reeve was not elected a Fellow of the Linnean Society (F.L.S.) until December 1846, and his *Elements of Conchology* was not started until 1846. Also, Volume I contains text dated 1846. Volume II, with text dating from February 1844–March 1845, is also dated 1843 and Vol. III, dated 1845, contains text dating from April 1845–February 1847. It is important to know that these dates are not correct as authors have attempted to use them to date the changes in name of the printing/publishing firm. The volume title pages for Volumes II and III also bear the Reeve, Brothers imprint indicating that all three were printed at the same time.

These volume title pages, meaningless for dating, are the only places where Reeve used his full name, Lovell Augustus Reeve. On all of his other published work he is styled as Lovell Reeve.

Dating of the Iconica

The plates in the *Iconica* are not dated nor do they have genera or species names thereon. Each plate is accompanied by explanatory text. The first page of the letterpress for each plate is dated, with a few omissions, to month and year. There are some errors and omissions in dating that will be explained, or at least discussed, below.

From this point on the expression "dates on plates" should be taken as "dates on the text for plates."

It has been generally accepted that these dates are the actual date of publication. For the first time a table has been compiled, and is here presented (Table 2), listing the number of plates dated for each month. From this table it is clear that many parts could not have contained plates all dated the same month. Ignoring the first four months of publication which have been discussed, we come to May with 4 plates and June with 12. It would be logical to assume that these were combined and formed two parts of 8 plates each. When were they issued? One part early in June and one in late June? The next month, July, has 9 plates so perhaps an extra was added to atone for the delay? Doubtful. Then follows a string of 17 consecutive months in which 8 plates were produced each month, an accomplishment never matched again. The year 1844 is the only year in which 8 plates are dated for each month. However, 1843 would have had 96 plates counting the canceled *Pollicipes* plate issued in April (see infra). After 1844 the dates of issue of the parts are problematical. It is not possible to work out how the parts could have continued to contain 8 plates. There is no record of any slips announcing that a part contains fewer than 8 plates and that they will be added into the next part. A detailed review of Part 61 (Anonymous 1848a) stated that it contained 9 plates of *Bulimus* and a portrait of Cuming. There are 13 plates dated April 1848, including Plates 1–9 of *Bulimus*. No explanation can be offered. It can be seen from Table 2 that the plates dated December 1847 through April 1848 do not add up to a multiple of 8.

Although it is obvious that many of the *Iconica* plates could not have been issued as dated, it is usually impossible to determine absolute dates. This is due in part to Reeve's negligence and carelessness in the way he handled his ads. As an example, on 18 April 1857 there was an *Iconica* ad listing, as usual, the available monographs and the number of the next part and a short list at the bottom. In this case the short list is: "The

following Genera are now just ready:—*Psammolia* [sic; = *Psammobia*], *Soletellina*, *Capsula* [sic; = *Capsella*], *Sanguinolaria*." These genera are not in the list of available monographs. Of these genera, 4 have all of their plates dated alike. They are: *Soletellina*, 4 plates dated January 1857; *Capsella*, 2 plates dated January 1857; *Capsa*, 1 plate dated December 1856; *Sanguinolaria*, 1 plate dated March 1857. *Psammobia* had some of its plates dated in December 1856 and January 1857; the last plates are dated June 1857.

TABLE 2. Number of *Conchologia Iconica* plates by date.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1843	9	6	8	7	4	12	9	8	8	8	8	8	95
1844	8	8	8	8	8	8	8	8	8	8	8	8	96
1845	6	0	18	4	8	10	0	10	0	8	8	16	88
1846	8	6	2	8	8	8	7	8	9	4	0	20	88
1847	4	11	7	4	10	2	14	8	0	8	8	6	82
1848	10	3	4	13	8	8	8	8	8	8	8	8	94
1849	8	8	8	1	15	8	5	11	3	0	15	14	96
1850	0	8	9	8	8	8	0	16	8	8	8	8	89
1851	8	6	10	8	8	8	8	0	8	8	0	8	80
1852	8	8	8	8	8	8	0	16	0	8	16	8	96
1853	0	8	0	8	16	8	4	3	0	9	8	20	84
1854	0	0	8	12	8	8	8	8	10	14	0	24	100
1855	8	0	8	16	8	15	0	16	0	8	16	0	95
1856	8	8	9	0	8	15	0	8	0	8	15	17	96
1857	8	0	15	0	8	17	0	7	0	7	0	1	63
1858	16	0	7	8	8	8	0	7	0	8	17	16	95
1859	0	10	0	12	5	7	0	9	0	0	15	8	66
860	15	8	9	4	10	17	0	0	14	0	9	14	100
861	0	17	7	11	6	10	8	9	0	0	14	16	98
1862	0	8	0	8	17	16	0	0	0	0	0	0	49
1863	15	17	0	16	0	17	0	14	0	15	0	1	95
1864	14	9	9	3	0	0	1	26	3	0	16	0	81
1865	17	0	11	5	4	14	0	0	0	18	0	12	81
1866	0	0	16	0	16	0	8	6	0	0	16	0	62
1867	0	0	8	8	0	16	0	0	16	0	0	0	48
1868	14	0	17	0	0	0	16	4	16	17	0	0	84
1869	0	0	0	18	0	0	0	12	0	0	0	0	30
1870	0	0	0	0	0	17	0	0	0	14	0	0	31
1871	8	7	0	0	0	0	0	0	16	0	19	0	50
1872	0	0	12	0	0	0	0	16	0	0	18	17	63
1873	0	14	0	16	0	0	0	15	0	16	0	16	77
1874	0	16	0	16	0	15	0	18	0	0	18	0	83
1875	0	0	0	13	15								28
.876	Not d	ated											63
877	Not dated											68	
878	Not dated												18
	Plates listed below:		Chito	n								5	
			Murex								1		
				Conus									9
				Conus	,						Total		2,727

On 18 April 1857 the same list appeared as "just ready" with the addition of *Avicula* and with *Psammobia* spelled correctly. Thirteen of the *Avicula* plates are dated March 1857 and the final plates are dated June 1857. None of these genera are included in the list of available monographs.

On 11 July 1857 the same list appeared, this time with *Capsella* spelled correctly. The top matter, which on 18 April announced "Parts 164, 165 now ready" is changed to "Parts 167, 168 now ready." These genera are still not included in the list of available monographs. On August 22 a full page ad for *Iconica* monographs and volumes included these genera.

It is unfortunate that so few early part covers remain as they could add to our knowledge. There are a few reviews and ads that list the contents of certain parts but not enough to enable a reconstruction of the contents of all.

There are a few cases of odd dating that cannot be explained. For example, in *Bulimus* the text for plates 74 and 76 is dated August 1849 while the text for intervening plate 75 is dated July 1849. Table 2 shows that July and August combined had a total of 16 plates. Other cases of unusual or problem dates are listed below.

Iconica Supplementary plates

Chiton. Five uncolored and unnumbered plates of *Chiton* valves are not included by month as they are undated. However, even though uncolored they were included in the plate count for Volume 4 on price lists. The *Chiton* monograph price was the same as it would have been if they were colored.

Murex. Murex Supplementary Plate 1, dated June 1849, is not included in that month. When and how it was distributed is not known. Price lists, at least up to 1860, still listed Volume 3 with 129 plates which would not include the *Murex* Supplementary Plate. All price lists seen dated prior to 1867 show the *Murex* monograph as having 36 plates at a cost of £2 5s. 6d. An 1867 list shows it with 37 plates and a price of £2 7s. Table 2 shows that 1849 is one of the few years for which the correct number of plates was issued, and there are 8 plates dated June 1849. The *Conus* Supplementary plates were treated differently. The *Murex* Supplementary plate is discussed in more detail herein under the *Samarang* Zoology.

Conus. Conus Supplementary Plates 1–9 are not included by month and year as it has not been determined how or when they were issued. There are seven pages of text dated June 1849. The explanation pages for the 9 plates are variously dated from February 1848 to June 1849. A list printed in 1854, not giving the number of plates in each monograph, prices the Conus monograph at £3. An 1863 price list shows the Conus monograph with 47 plates and a price of £ 3 11s., reflecting the inclusion of the Supplementary Plates in the price but without showing a corrected number of plates. This is the only monograph on the 1863 list with a price different from the 1854 list. This indicates that at some time between 1854 and 1863 the Conus Supplement came to be treated as part of the monograph and not as a separate item although it never appeared on any list as such. An 1867 list shows the total number of Conus plates as 56 while retaining the £3 11s. price, making it even more evident that the earlier lists just did not have the number of plates emended.

According to Hanna & Strong (1949: 263) the *Conus* Supplement was issued without a title page but with seven pages of comments and corrections in addition to the plate explanations. Those authors correctly state that copies of the work have been seen from which the Supplement is missing as it is lacking in many supposedly complete volumes. A set of Volumes 1–6 at hand that is complete in every other respect lacks these Supplements. Volume 6 was completed in March 1851 so why this partial set should be lacking the *Conus* Supplement, as well as the *Murex* Supplement, is not known. These Supplementary plates were not distributed in the normal manner. No advertisement listing either the *Conus* or *Murex* Supplementary plates has been found. Hanna & Strong also noted that:

"there is an unfortunate error in the numbering of the species on the plates and in the explanations starting with plate 4. The numbers from 237–83 should have been 287–333. This is noted by Reeve

at the end of the work but he printed the last figure as "337" by mistake." —(Hanna & Strong 1949: 263)

They were certainly correct, but unaware of the existence of another Supplementary Plate 4 on which the numbers begin with 287. This plate was issued as it exists in a few sets but evidently was recalled or cancelled. It has been mentioned only by Salisbury (1948: 306) who did not fully understand or mention what was a larger problem. This cancelled plate was not replaced simply due to incorrect numbering as Plates 5–9 continue with the numbering 50 numbers out of sequence. At the risk of compounding the confusion a portion of Salibury's comments will be quoted:

"... a supplementary plate was completed even to being coloured, which was cancelled, and some at least of the figures thereon incorporated in plate VII of the ultimate supplementary plates. This cancelled plate was numbered IV and its figures numbered 287 to 294; when, however, this plate was cancelled a new plate IV was issued and the figures were numbered 237 and upwards, this unfortunate error necessitating the 'Notice' after the last described species 'No. 283.'" – (Salisbury 1948: 306)

The plate was not cancelled because the figures were incorrectly numbered but because they were the wrong figures to match the text which was numbered out of sequence, as also were the figures on plates 5–9. Although scenarios can, with difficulty, be envisioned to account for this series of errors, it is difficult to imagine one in which all of the plates with text dated June 1849 could have appeared at one time. The existence of this cancelled plate was never mentioned by Reeve. The cancelled plate can be easily identified as it has species 287 at the top center of the plate.

Pollicipes. An advertisement in the *Literary Gazette* for 29 April 1843 (no.1371: 292) announced the publication of No. IV. In the list of genera and species included in that part is *Pollicipes* (barnacles). Salisbury stated that he had at hand a copy of the *Pollicipes* in:

"Monograph form ... which we do not now include in the Mollusca although Reeve embodied it in his work." – (Salisbury 1948: 306)

Salisbury was unaware that he had one of the few extant copies of that monograph as Reeve did not leave it in the *Iconica* long.

Pollicipes demonstrably comprised only one plate figuring five species, none newly described. That plate is not included in the count in Table 2 as it was never again mentioned by Reeve and does not appear in the included genera in the first advertisement for the *Iconica* in volume form in 1848.

Iconica problem dates

The undated text for five plates in Volume 1 (*Conus* plates 1–3, *Crassatella* plates 1–2) had to have been published in January 1843 as text for later plates is dated January 1843.

The last plates published in Volume 20 do not have dates. As shown by their many other publications, G.B. Sowerby I and G.B. Sowerby II, for some reason, did not like to use dates. The dates given in Table 2 for these parts were obtained from E. von Martens (1878, 1879, and 1880). Although Martens gave some part numbers, most cannot be completely reconstructed. In many cases where a genus was split, Martens gave the number of plates based on the last number in the lot regardless of the absence of the number one plate in the genus. At that time the first plate in each genus appeared with the last lot of plates for the genus, not with the first.

Other problem or questionable dates are listed in Table 3 and discussed below.

TABLE 3. Problem dates on *Iconica* plates.

Volume	Genus	Plate No.	Imprinted date	Correct date?
2	Mitra	30	March 1844	March 1845
2	Cardium	3	Undated	October 1844
3	Ricinula	4	October 1486	October 1846
3	Ricinula	6	October 1856	October 1846
6	Partula	1	May 1849	May 1850
7	Helix	133	October 1851	October 1852
10	Mytilus	9	January 1857	January 1858
10	Psammobia	3	December 1865	December 1856
12	Anculotus	5	April 1860	April 1861
13	Cymbium	13	February 1860	February 1861
13	Terebratula	9	January 1861	February 1861
14	Anatina	2	December 1860	?
15	Ovulum	2	March 1862	March 1865
16	Unio	30	June 1856	June 1865

Anatina plate 2 in Volume 14 is dated December 1860. Anatina Plates 1, 3 and 4 are dated February 1863. Although plate 2 may have been issued later than 1860, there is no evidence that will justify any particular later date. There was probably a considerable lapse between issuance of Plate 2 and Plate 4 as Reeve named a species Anatina gracilis on Plate 2 and used the same name for a different new species on Plate 4. The latter usage was changed to A. prolongata in an erratum on the bottom of the Anatina index.

Anculotus Plates 1 and 4 in Volume 12 are dated May 1860; Plates 2 and 3 are dated April 1860. Plate 5 and 6 are respectively dated April 1860 and April 1861. It seems certain that the 1860 date on Plate 5 is an error for 1861, especially as the plate contains a species described in the U.S. in mid-April 1860.

Phorus Plates 1 and 2 in Volume 1 are dated March 1843; Plate 3 is dated March 1845.

Production of the Iconica

We are fortunate to have, in Reeve's own words, a short description of the preparation and publication of the *Iconica* and some of the logistics involved. In Tryon's (1866) obituary of Reeve he quoted extensively from an advertisement written, based on internal evidence, in early 1863. Unfortunately a search for that advertisement has been fruitless. Reproduced below is a portion of the longer quote in Tryon from which has been omitted a long paragraph of praise for Cuming. Most of the first paragraph that is quoted below was repeated, with appropriate changes in numbers, on a large 4-page ad for the *Iconica* produced after the work was finished. Reeve wrote that:

"The 'Conchologia Iconica' was commenced in 1843, as the exponent of this and other English collections of shells, and its publication has proceeded with uninterrupted regularity for twenty years. Part 236, just ready, will complete the Fourteenth Volume. The number of plates contained in these volumes is 1890, comprising not fewer, probably, than 15,000 figures of shells of the natural size, all drawn and lithographed by the same characteristic pencil, that of Mr. G. B. Sowerby. The system of nomenclature adopted is that of Lamarck, modified to meet the exigencies of recent discoveries.

With the name of the species is given a summary of its leading specific characters in Latin and English. Then the authority for the name is quoted, accompanied by a reference to the work where the species was originally described; and next in order are its synonyms—the names given to the species by other authors, different from that to which it is entitled by priority, or in consequence of the introduction of an improved system of genera. The habitat of the species is next given, accompanied, where possible, by particulars of the circumstances under which it is found, such as the nature of the soil, depth, vegetation, etc.; and to this are added some remarks directing attention to the most obvious distinguishing peculiarities of the species, with occasional criticisms on the views of other writers. It is also noted, under each species, in what cabinet, mostly that of Mr. Cuming, the type specimen selected for illustration is preserved.

"The author's method of proceeding is as follows: Having determined upon a family to monograph, his first step is to select from the Cumingian collection a characteristic series of specimens of all the species of one or more genera, every specimen during the past twenty years having been taken from the cabinet under the supervision of Mr. Cuming himself, who furnishes whatever information he may be in possession of, either from transmitted sources or from individual personal research. This information, committed to paper, is subsequently sifted and collated with other information, and applied, as the working out of a monograph proceeds, to the respective species. On the completion of a monograph, the particulars of information are generalized, and their bearings on the different branches of the study are exhibited in the preliminary observations to each genus. For an elaborate example of what it is intended to convey, the reader is referred to the preliminary observations to genus Terebratula. For this reason the letter-press of Plate I of each genus is not prepared until the monograph is completed, when it is issued along with the title page and index. The Cumingian specimens having been selected, a search is then made among the specimens of the British Museum and other cabinets for further material, and the views of different authors as to their characters and affinities are examined and compared. The specimens are now grouped in plates for the artist; and the stones when drawn on and printed from, are carefully put away in racks, arranged in alphabetical order according to the name of the genus. Many and curious are the details of etching, proving, printing, etc.; and the statistics of quantity acquire an interest as the work proceeds. The 1890 stones employed up to the present time weight little short of seventeen tons; placed side by side, they would extend to a distance of more than half a mile; and if raised flat upon one another, they would reach to the height of the dome of St. Paul's. The number of impressions printed from those stones is approaching half a million; and the coloring is done entirely by hand, forming the livelihood of a family of colorists, who follow their occupation from year to year with an assiduity and interest worthy of a higher branch of art.

"The mode of publication is to issue monthly a Part containing eight plates, price 10s (or bi-monthly a double Part of sixteen plates, price 20s.), the plates and letter-press being loose in the wrapper for facility of arrangement and reference. Two, sometimes three, genera are taken at a time, for the sake of variety, the publication proceeding with regularity until they are completed. When completed they are issued separately as monographs, and when enough monographs have accumulated to fill a volume, a title page is issued for the permanent binding. The publishers undertake the binding of the work, employing a special process, in which sewing is dispensed with, to the great advantage and preservation of the plates."

A few comments on this self-aggrandizing advertisement are appropriate.

Notwithstanding Reeve's statement, the letterpress of Number 1 of each genus must have been prepared earlier and then dated and printed at the appropriate time. The species numbers could not have been placed in order without knowing how many were on Plate 1. The tactic of having the Number 1 plate of a genus issued with the last plates for the genus, hopefully keeping subscribers from terminating their subscriptions at least

until the genus was finished, did not begin until 1846. The monograph of *Purpura* in Volume 3 was the first monograph in which the Number 1 plate was issued last.

Reeve wrote that that after Mr. Cuming furnished all known information about his specimens those data were then committed to paper. This is further indication that Cuming had no written labels on his specimens.

To say that production of the *Iconica* had "proceeded with uninterrupted regularity for twenty years" is rather disingenuous, especially considering that the year before only 49 plates were produced, with none dated during the last six months of 1862.

The statement that almost half a million impressions had been made from the 1,890 lithographic stones is interesting as it is possible to determine that approximately 265 copies were printed.

The binding process mentioned by Reeve was the use of gutta-percha, a form of rubber cement. The result was somewhat like today's so-called "perfect binding" used in paperbacks. However, it was more substantial and some of it lasted many years. During the writing of this paper a gutta-percha bound copy of the *Systematica*, incorrectly thought to be tightly sewn, came apart during use.

Other than quoting the above advertisement, and citing details about Reeve's activities taken from the introduction to *British Land and Freshwater Mollusks* (Reeve 1863a), Tryon had little to say. He expressed his opinion of the *Iconica* succinctly:

"The plates are generally excellent, but the descriptions are mostly very poor, and without the former would be unreliable." – (Tryon 1866: 189)

However, he expressed a stronger opinion of some of Sowerby's monographs published after Reeve's death. In his lists of publications received, after the last *Anodon* plate was reported, he wrote:

"I now take leave of Sowerby's Unionidae, I trust forever. The series of monographs composing it certainly contain more errors than any other work on Natural History that I have ever seen." – (Tryon 1871: 292)

An index of the *Iconica*, listing the number of plates in each monograph and the volume in which it is included, is given in Table 4.

TABLE 4. Index to *Iconica* genera with number of plates in each monograph and volume number.

Genera	Pls.	Vol.	Genera	Pls.	Vol.
Achatina	23	5	Aplysia	10	17
Achatinella	6	6	Arca	17	2
Adamsiella	2	14	Argonauta	4	12
Adeorbis	2	19	Artemis	10	6
Akera	1	16	Aspergillum	4	12
Alycaeus	6	20	Astarte	3	19
Amphidesma	7	8	Atys	5	17
Ampullaria	28	10	Auricula	7	20
Anastoma	1	14	Avicula	18	10
Anatina	4	14	Bartelettia & Mulleria	1	18
Anatinella	1	19	Broderipia	1	19
Ancillaria	12	15	Buccinum	14	3
Anculotus	6	12	Bulimus	89	5
Ancylus	3	20	Bulla	6	16
Anodon	37	17	Bullia	4	3
Anomia	8	11	Bullina	1	18
Aplustrum	1	16	Calyptraea	8	11

TABLE 4 (continued)

Genera	Pls.	Vol.	Genera	Pls.	Vol.
Cancellaria	18	10	Cypraea	27	3
Capsa	1	10	Cypricardia	2	1
Capsella	2	10	Cyprina	1	19
Cardilia	1	19	Cyrena	19	20
Cardita	9	1	Cytherea	10	14
Cardium	22	2	Delphinula	5	1
Carinaria	1	15	Dentalium	7	18
Cassidaria	1	5	Dione	12	14
Cassis	12	5	Dolabella	2	16
Castalia	3	17	Dolabrifera	1	16
Cemoria	1	19	Dolium	8	5
Cerithidea	4	15	Donax	9	8
Cerithium	20	15	Eburna	1	5
Chama	9	4	Emarginula	9	19
Chamostrea	1	14	Erato	3	15
Chilina	3	19	Etheria	2	18
Chiton	33	4	Eulima	6	15
Chitonellus	1	4	Fasciolaria	7	4
Chrondropoma	11	14	Ficula	1	4
Circe	10	14	Fissurella	16	6
Clausilia	17	20	Fistulana	1	20
Clavagella	3	18	Fusus	21	4
Columbella	37	11	Galatea	6	16
Concholepas	2	14	Galeomma	1	19
Conus	56	1	Gastrochaena	4	20
Corbis	1	18	Gena	2	19
Corbula	5	2	Glauconome	1	2
Crania	1	13	Glycimeris	1	19
Cranopsis & Zeidora	1	19	Gnathodon	1	19
Crassatella	3	1	Halia	1	14
Crenatula	2	11	Haliotis	17	3
Crepidula	5	11	Haminea	5	16
Crucibulum	7	11	Harpa	4	1
Cucullaea	1	17	Helicina	34	19
Cultellus	7	19	Helix	210	7
Cumingia	2	19	Hemipecten	1	6
Cyclophorus	20	13	Hemisinus	6	12
Cyclostoma	23	13	Hinnites	1	8
Cyclostrema	3	19	Hippopus	1	14
Cyclotus	9	14	Hydatina	2	16
Cylindrella	16	20	Hyria	5	17
Cymbium	26	13		5	11

TABLE 4 (continued)

Genera	Pls.	Vol.	Genera	Pls.	Vol.
Io	3	12	Nautilus	6	12
Iridina	2	16	Navicella & Latia	8	9
Isocardia	1	2	Nerita	19	9
Kuphus	1	20	Neritina	37	9
Laeda	9	18	Niso	1	15
Lampania	2	15	Nucula	5	18
Leiostraca	3	15	Oliva	30	6
Leptopoma	8	13	Oniscia	1	5
Lima	5	18	Orbicula	1	13
Limnaea	15	18	Ostraea	33	18
Lingula	2	13	Ovulum	14	15
Linteria	1	18	Paludina	11	14
Lithodesmus	5	10	Paludomus	3	4
Littorina	18	10	Pandora	3	19
Lucina	11	6	Panopaea	6	19
Lutraria	5	8	Partula	4	6
Mactra	21	8	Patella	42	8
Magilus	4	18	Pecten	35	8
Malleus	3	11	Pectunculus	9	1
Mangelia	8	3	Pedicularia	1	20
Margarita	3	20	Pedum	1	11
Marginella	27	15	Perna	6	11
Megaspira	1	19	Petricola	3	19
Melania	59	12	Pharus	1	19
Melanopsis	3	12	Phasianella	6	13
Melatoma	3	12	Philine	2	18
Meroe	3	14	Pholadomya	1	18
Mesalia & Eglisia	1	5	Pholas	12	18
Mesodesma	4	8	Phorus	3	1
Meta	1	11	Physa	12	19
Mitra	39	2	Pinna	34	11
Modiola	11	10	Pirena	2	12
Monoceros	4	3	Placuna	5	18
Murex	37	3	Placunanomia	3	11
Mya	3	20	Planaxis	5	20
Myadora	1	2	Planorbis	14	20
Mycetopus	4	16	Pleiodon	1	16
Myochama	1	12	Pleurobranchus	1	17
Mytelimeria	1	20	Pleurotoma	40	1
Mytilus	11	10	Pleurotomaria	1	19
Nassa	29	8	Plicatula	4	19
Natica	30	9	Potamides	1	15

TABLE 4 (continued)

Genera	Pls.	Vol.	Genera	Pls.	Vol.
Psammobia	8	10	Tapes	13	14
Psammotella	1	10	Teinostoma	1	19
Pterocera	6	6	Telescopium	1	15
Pterocyclos	5	14	Tellina	58	17
Pteropoda	6	20	Terebellum	1	14
Pupa	20	20	Terebra	27	12
Pupinidae	10	20	Terebratula	11	13
Purpura	13	3	Teredo	4	20
Pyramidella	6	15	Thracia	3	12
Pyrazus	1	15	Tornatella	4	15
Pyrula	9	4	Trichotropis	2	19
Ranella	8	2	Tridacna	8	14
Ricinula	6	3	Trigonia	1	12
Rimula	1	19	Triton	20	2
Rissoa	13	20	Trochita	3	11
Rostellaria	3	6	Trochus	16	13
Rotella	4	20	Tugalia	1	17
Sanguinolaria	1	10	Tugonia	1	14
Saxicava	2	20	Turbinella	13	4
Scalaria	16	19	Turbo	13	4
Scaphander	1	18	Turritella	11	5
Scarabus	3	12	Tympanotonos	2	15
Scintilla	6	19	Typhis	3	19
Scutus	2	17	Umbrella	1	11
Sigaretus	5	15	Unio	96	16
Siliquaria	4	20	Utriculus	1	18
Simpulopsis	2	13	Vanikoro & Neritopsis	3	20
Siphonaria	7	9	Velorita	1	20
Solarium	3	15	Venerupis	4	19
Solecurtus	8	19	Venus	26	14
Solemya	1	20	Vertagus	5	15
Solen	7	19	Vitrina	10	13
Solenella & Neilo	1	18	Voluta	22	6
Soletellina	4	10	Vulsella	2	11
Sphaerium	5	20	Yoldia	5	18
Spondylus	18	9	Zizyphinus	8	14
Stomatella	5	19	Zylophaga & Navea	1	20
Stomatia	2	19			
Strombus	19	6			
Struthiolaria	1	6			
Stylifer	2	20			
Succinea	12	18			

Iconica taxa

No attempt is made in this paper to correctly date or attribute the thousands of new nomina proposed in the *Iconica*. Systematists are advised to investigate all nomina attributed to other authors supposedly named about the same time as the *Iconica* part in which they appear. Addressed here are the taxa of two authors whose work was anticipated, at least in part, by Reeve in the *Iconica*. As discussed under the heading Authorship, Reeve sometimes figured and named species from papers presented at the Zoological Society before their publication in the *Proceedings*. Reeve also anticipated publication of some of the taxa in Hinds' *Sulphur* as shown below. There are dozens, if not hundreds, of names that first appeared in Reeve's *Iconica* that were actually first proposed verbally or in manuscript by other authors and awaiting publication when they were published by Reeve.

Species described by Hinds and Deshayes that first appeared in the *Iconica* will be briefly discussed and attributed here.

Hinds

Richard Brinsley Hinds (1811–1846) was surgeon naturalist on the *H.M.S. Sulphur* under Capt. Sir Edward Belcher just as Arthur Adams was later on the *Samarang*. Hinds edited the two volumes of the *Zoology of the Voyage of H.M.S. Sulphur under the command of Capt. Sir E. Belcher, R.N., during the years 1836-42*. He also wrote the Mollusca section which was the second of the two volumes (Hinds 1844–45, hereinafter referred to as *Sulphur*). In addition, Hinds wrote a number of papers on mollusks from the Cuming and Belcher collections, and the *Terebra* monograph in the *Thesaurus Conchyliorum*. Some of Hinds' papers and parts of the *Sulphur* were published after species therein had been included by Reeve in *Iconica* monographs. The problem of attribution and treatment of authorship has been addressed by Keen who interpreted the Code literally and commented that:

"The *Conchologica Iconica* of Reeve was just getting under way at the time Hinds was preparing his reports. He was generous in lending shells to Reeve for illustration. Reeve, of course, gave full credit to Hinds, and neither could know that when the nomenclatural code would later be formulated, the Law of Priority would rob Hinds of the credit of authorship for a number of the names, for a few of Reeve's plates came out in advance of the publication by Hinds." – (Keen 1966: 266)

Rules for zoological nomenclature had been formulated and presented at the annual meeting of the British Association in 1842 (Heppell 1981). Usually referred to as the "Strickland Code", it was widely distributed (e.g., Anonymous 1843c) and was certainly known to Reeve. However, the problems of authorship confronted herein are not addressed in that, or later, versions of the Code. It was a non-issue, the accepted position of the time being that if an author credited a species to someone else, it was to be attributed to that other person. Neither Reeve nor Hinds were in violation of any existing Code. This is a case where the Code was changed in a manner that actually disturbed stability.

The majority of Hinds' species first published by Reeve are in current usage attributed to Hinds or "Hinds in Reeve," the latter being the form advocated herein.

Listed here are Hinds' taxa that first appeared in Reeve's *Iconica*.

Delphinula reeviana Hinds in Reeve, 1843 (October). [Hinds 1845a (January)]. Attributed to "Hinds, Proc. Zool. Soc. 1843" by Reeve although it was never published there but appeared in the *Sulphur*. Hinds stated that he was naming the species as "a compliment to Mr. Lovell Reeve, the industrious author of the Conchologia Iconica." Reeve, after his description, stated:

"I kindly thank Mr. Hinds for attaching my name to this highly interesting species, and especially as

belonging to a genus which I have worked out with considerable interest and attention."

It is, of course, apparent that Reeve had access to Hinds' manuscript and thought it would be read and/or published before the *Iconica* part. The species was attributed to "Hinds in Reeve, 1843" by Sherborn (1930: 5449). This is an infrequently cited species, currently listed as *Pseudoliotia reeviana* (Reeve, 1843) by Higo et al. (1999: 106).

Turridae. Hinds wrote a paper describing new species of Turridae from the Belcher collection (Hinds 1843a). The paper was read on 28 March 1843 but not published in the *Proceedings* until October 1843. Reeve had begun publishing the *Pleurotoma* monograph (including taxa placed in *Clavatula* by Hinds) in January 1843 and did not issue the last of the forty plates until April 1846. Affected by the delayed publication of Hinds' paper are:

Pleurotoma inermis Hinds in Reeve, 1843 (March). [Hinds (1843a)]. Attributed to Reeve by Keen (1966: 272).

Pleurotoma militaris Hinds in Reeve, 1843 (March). [Hinds (1843a)]. Described by Hinds in the genus *Clavatula*, a taxon not utilized by Reeve. Attributed to Reeve by Keen (1966: 272).

Pleurotoma felina Hinds in Reeve, 1843 (April). [Hinds (1843a)]. Described by Hinds in the genus *Clavatula*, a taxon not utilized by Reeve. In the recent Japanese literature this species is universally attributed to Hinds only, with no mention of Reeve.

Pleurotoma gemmata Hinds in Reeve, 1843 (April). [Hinds (1843a)]. Attributed to Reeve by Keen (1966: 272). The name is preoccupied by *P. gemmata* Conrad, 1835 and is considered to be a synonym of *Gemmula hindsiana* Berry, 1958.

Corbula. The *Iconica* monograph of *Corbula* was published over the period August 1843 to May 1844. Of concern are only those parts published prior to November 1843 as Hinds' *Corbula* paper was published in October. Hinds' paper (Hinds 1843b) was read at the Society meeting on 9 May 1843. Most of the species listed here were treated by Bernard et al. (1993). They attributed the taxa to "Hinds, 1843" in the headings but in the first line of the chresonymies they are listed as of "Hinds in Reeve, 1843." Species involved are:

Corbula crassa Hinds in Reeve, 1843 (August). [Hinds 1843b (November)]. Attributed to Hinds, 1843 with reference to Hinds in Reeve, 1843 by Bernard et al. (1993: 108).

Corbula fasciata Hinds in Reeve, 1843 (September). [Hinds 1843b (November)]. Listed as *Potamocorbula fasciata* (Hinds, 1843) with reference to Hinds in Reeve, 1843 by Bernard et al. (1993: 109).

Corbula modesta Hinds in Reeve, 1843 (September). [Hinds 1843b (November)]. Attributed to Hinds, 1843 with reference to Hinds in Reeve, 1843 by Bernard et al. (1993: 108).

Corbula pallida Hinds in Reeve, 1843 (September). [Hinds 1843b (November)]. Attributed to Hinds, 1843 with reference to Hinds in Reeve, 1843 by Bernard et al. (1993: 108).

Corbula speciosa Hinds in Reeve, 1843 (August). [Hinds 1843b (November)]. Attributed to Reeve, 1843 by Keen (1971: 270).

Corbula tunicata Hinds in Reeve, 1843 (August). [Hinds 1843b (November)]. Attributed to Hinds, 1843 with reference to Hinds in Reeve, 1843 by Bernard et al. (1993: 109).

Triton. Hinds described six new species of *Triton* in the *Sulphur*. Three of them appeared in the *Iconica* in June before the *Sulphur* appeared in July. The other three appeared in the *Iconica* in August. Reeve referred to "Hinds, Zool. of the Sulphur" and cited correct plate and figure numbers indicating that he had a copy of the finished work, or a proof, in hand. In the *Sulphur* Hinds listed all of his *Triton* species as of the "Proceed. Zool. Soc. Feb. 27, 1844," the date his paper describing them was read. That paper was not published until July 1844, the same month that the descriptions appeared in the *Sulphur*.

Triton antiquatus Hinds in Reeve, 1844 (June). [Hinds 1844a (July), 1844b (July)]. Treated as *Tritonoharpa antiquata* (Hinds in Reeve) by Beu & Maxwell (1987: 35–36) who pointed out that this species was not described or mentioned by Reeve in his paper on the genus (Reeve 1844g; read 9 July 1844). It was also discussed and attributed to Hinds in Reeve by Petit & Harasewych (2005: 7, 25). Cited as of "Hinds in Reeve" in virtually all current literature.

Triton bracteatus Hinds in Reeve, 1844 (June). [Hinds 1844a (July), 1844b (July)]. Attributed to Hinds by Kay (1979: 246) as *Maculotriton bracteatus* (Hinds, 1844). Type species, by monotypy, of *Maculotriton* Dall, 1904 who cited it as *Triton bracteatus* Hinds.

Triton truncatus Hinds in Reeve, 1844 (June). [Hinds 1844a (July), 1844b (July)]. Attributed to Hinds by Wilson (1994: 89), as *Caducifer truncatus* (Hinds, 1844), and by all other recent authors. Goto & Poppe (1996: 813) list ten references for the species attributed to Hinds and none with it attributed to Reeve. Type species, by monotypy, of *Caducifer* Dall, 1904 who cited it as *Triton truncatus* Hinds.

Conus. Two Conus described in the Sulphur appeared earlier in Reeve's Iconica:

Conus californicus Hinds in Reeve, 1844 (January). [Hinds 1844c (July)]. Attributed to "Hinds, Proc. Zool. Soc. 1844" by Reeve although it was published by Hinds in the *Sulphur*: Attributed by Sherborn (1924: 990) to "Hinds in Reeve." In current American literature as *Conus californicus* Hinds, 1844 (Abbott 1974: 257; Turgeon et al. 1998: 105).

Conus voluminalis Hinds in Reeve, 1843 (December). [Hinds 1844c (July)]. Attributed to "Hinds, Proc. Zool. Soc. 1844" by Reeve although it was published by Hinds in the *Sulphur*. Attributed by Sherborn (1932: 6976) to "Hinds in Reeve." Attributed to Reeve, 1843 by Röckel et al. (1995: 164), who do not mention Hinds. They reproduce Reeve's figure which is a dorsal view of the specimen figured by Hinds. Hinds also figured a ventral view, from which it will be possible to identify the specimen should it ever be found. Reeve writes about "this exceedingly delicate shell" as if there were only one specimen available.

Deshayes

In the early 1850s the eminent French malacologist Gérard Paul Deshayes (1796–1875) wrote several papers on bivalves from the Cuming collection. After his papers were presented to the Zoological Society of London, but before they appeared in print in the *Proceedings*, which at that time was often over a year late, some of the involved genera were treated by Reeve in the *Iconica*. The British conchologist J.R. le B. Tomlin (1865–1954), while engaged in renaming a homonym, realized that Reeve's monographs of *Mactra* and *Lutraria* had appeared in print before Deshayes' papers on those genera were published (Tomlin 1921). He later published a more expansive paper (Tomlin 1924) in which he averred that Reeve "must stand as the author."

Ruhoff (1980) attributed the involved species to Deshayes as she did not utilize either Tomlin's papers or

Duncan's (1937) paper dating the issues of the *Proceedings of the Zoological Society of London*. Ruhoff did, however, also cite their appearance in Reeve, presumably as they were figured there. These species have been variously attributed by other authors. Even when attributed to Deshayes they are usually dated and cited from the *Proceedings* and not as Deshayes in Reeve.

Dr. Akihiko Matsukuma, while studying Japanese Mactridae, noticed that the descriptions in Reeve were copied almost verbatim from Deshayes. He published an example showing Reeve's and Deshayes' descriptions together (Matsukuma 2001: 6). It was his conclusion that inasmuch as Deshayes had written the descriptions the authorship should be attributed to Deshayes in Reeve. Matsukuma only referred to Japanese species. Dr. Gary Rosenberg, working on western Atlantic species, independently arrived at the same conclusion (personal communication, May 2006). Even if parts of the descriptions are not exactly verbatim, the fact that Reeve attributed the species to Deshayes, citing the "Proc. Zool. Soc. 1854" indicates that the descriptions were copied. It is even possible that some descriptions were altered by Deshayes himself between the time his papers were read and when they were published. He clearly made some changes as Reeve attributed ten species of *Mactra* to Deshayes that were not published by him. It is shown elsewhere herein that names read at meetings were not always the names published.

The ten species attributed to Deshayes but not published by him should still be attributed to him and not to Reeve as stated by Tomlin. Although Deshayes had some reason for not publishing them, or they were omitted through editorial error, they were in his manuscript used by Reeve.

Tomlin mentioned several taxa that present unusual problems. *Mactra aequilateralis* Deshayes was changed to *M. aequilatera* by Reeve. Deshayes' spelling is in use in New Zealand, attributed to Deshayes and not to Deshayes in Reeve (e.g., Powell 1979: 414). That spelling may be retained under Article 33.3.1.

Reeve changed Deshayes' *Mactra cuvieri* to *M. cumingii*, an act that was likely intentional, but it may have simply been a lapsus. In this case he did change a bit of the Latin description. Both names have been used by different authors. Hedley (1916: 19) listed it as *Mactra cumingi* [sic] and cited both names with correct dates of publication for each. Lamy (1917: 242), in the work that drew Tomlin's attention to this problem, listed Hedley's reference in synonymy but cited *M. cuvieri* Deshayes as the proper name. As Deshayes was not responsible for the name this species must be attributed only to Reeve as *Mactra cumingii* Reeve.

There is only one other case where the names differ. *Lutraria sieboldii* Deshayes was written by Reeve as *L. sieboldtii*. This was not an error or a lapsus but simply how Reeve thought that Siebold's name was spelled. Throughout Reeve's works Siebold is invariably misspelled in various ways. The name is in current usage, with the name properly spelled, variously attributed to Deshayes or to Deshayes in Reeve. The spelling *sieboldii* may be retained under Article 33.3.1.

As pointed out by Tomlin, Deshayes described a *Mactra bilineata* attributed to "C.B. Adams MSS." This was repeated by Reeve and the name should be attributed to Deshayes in Reeve. However, it is not in use having been placed in the synonymy of *Mactra fragilis* Gmelin, 1791 by Lamy (1917: 247).

Two of the species of *Lutraria* attributed to Deshayes by Reeve are not listed by Tomlin. One was never described by Deshayes. The other, *L. curta*, was described by Deshayes without locality, but Reeve cited it from the Philippines. The description is considerably different, Reeve's Latin description being about half that given by Deshayes. As Reeve attributed the species to Deshayes, citing the *Proceedings*, they must be considered to be the same.

Reeve's *Mactra* monograph appeared in March, April and May 1854. Although not published until later in 1854, Deshayes' papers on *Mactra* were read at Zoological Society meetings on 25 January 1853 (Deshayes 1854) and 14 February 1853 (Deshayes 1855a). The *Iconica* monograph of *Lutraria* is dated August 1854 and Deshayes' descriptions appeared in February 1855 (Deshayes 1855a) after having been read two years earlier on 14 February 1853

The species of *Mactra* and *Lutraria* attributed to Deshayes by Reeve in his respective monographs of those genera are not being listed here as they should all be attributed to Deshayes in Reeve, 1854.

A number (18) of these mactrids occur in the China Sea and were treated by Bernard et al. (1993) either as valid taxa or junior synonyms. Those authors attributed all of them to Deshayes, variously dated 1853 and 1854. One of the ten species not in Deshayes' *Proceedings* paper was treated by Bernard et al. as *Mactrinula subrostrata* (Deshayes, 1854) with the first line of the chresonymy listing it as *Mactra subrostrata* Deshayes in Reeve, 1854.

In 1931 Tomlin wrote another paper concerning similar treatment of Deshayes' species of *Mesodesma* and *Donax*. He concluded that the species attributed to Deshayes should be credited to Reeve as the *Iconica* monographs were published first.

Regarding *Donax*, the facts are as stated above for *Mactra* and the species should be attributed to Deshayes in Reeve. Although Reeve shortened the Latin descriptions he attributed the species to Deshayes and cited "Proc. Zool. Soc. March, 1854." The addition of a month is a refinement not present in the other genera. The *Iconica* monograph of *Donax* appeared in September and October 1854 but Deshayes' paper was not printed until May 1855 (Deshayes 1855b). Deshayes did not even read his paper to the Society until 12 December 1854, a circumstance indicating that Reeve had a copy of Deshayes' manuscript and that Deshayes had intended to present it at a March meeting, not having done so for unknown reasons.

Four species of *Donax* described in Deshayes' paper are not treated in the *Iconica* monograph: *D. affinis, interrupta, peruviana* and *striatula*. The first of these is from the Cuming collection and should have been available to Reeve even if he did not have specimens of the others. Reeve described and figured *Donax lamarckii* "Deshayes MSS." That species was not described by Deshayes and must be cited as *Donax lamarckii* Reeve, 1854. The *Donax* species attributed to him by Reeve with a reference to the *Proceedings* should be attributed to Deshayes in Reeve, 1854. Two of these *Donax* species were treated by Bernard et al. (1993), who attributed them to Deshayes 1854.

The treatment of *Mesodesma*, stated by Tomlin to be the same, is quite different. Although the descriptions of *Mesodesma* (Deshayes 1855b: 336–339) appeared a few pages ahead of the *Donax* (Deshayes 1855b: 350–354), Reeve does not mention the *Proceedings* and cites all of Deshayes' *Mesodesma* species as "Deshayes MS." Reeve's Latin descriptions are much shorter and five of the species that were without localities in Deshayes' paper have locality data. In other cases localities are expanded. Perhaps Cuming did not remember species the same way every time he looked at them. The reason for the *Mesodesma* being treated differently is not known, but as mentioned before, there is much in Reeve's work that is inexplicable. In the absence of a reference to the *Proceedings*, the *Mesodesma* species must be attributed to Reeve, 1854.

Conchologist's nomenclator

The Conchologist's Nomenclator has as subtitle, A catalogue of all the Recent species of shells, included under the subkingdom 'Mollusca,' with their authorities, synonymes, and references to works where figured or described. The title and subtitle fairly describe the work, stated in the preface to be the "first attempt that has been made towards the compilation of a Conchological Catalogue of Species." The title page shows the work as "by Agnes Catlow, authoress of 'Popular Conchology' assisted by Lovell Reeve, A.L.S., F.Z.S., Etc., author of the 'Conchologia Systematica,' and the 'Conchologia Iconica.'" Reeve, on covers for the Iconica, listed himself as author of the Nomenclator without mentioning Catlow although in the Initiamenta (Reeve 1846: 15) he referred to the work as being by Agnes Catlow without mention of himself. The Nomenclator was printed and published by "Reeve, Brothers, King William Street, Strand" in 1845.

The work is not illustrated. Instead of a frontispiece there is a single page, on heavy paper, headed "Molluscorum Distributio Methodica" listing 5 Classes, 12 Orders, 44 Families and 225 Genera of Mollusca. This is simply Reeve's *Tabula Methodica* under a different name. The preface is signed "A.C. and L.R." with the address as "8, King William Street, Strand, March, 1845." The body of the work consists of viii + 326 pages.

It was, and still is, a useful work.

Nothing is known about Agnes Catlow (1807?–1889) except that she and her sister Maria both wrote a number of works, mostly on natural history, some of which were published by Lovell Reeve. She especially contributed to his "Popular Series" with works such as *Popular Field Botany*, *Popular Garden Botany*, and others. Both sisters were artists and jointly wrote and illustrated, in 1861, a two-volume work on their travels through Switzerland and Italy.

Several species-group names are listed as of Catlow & Reeve by Sherborn (1922–32) but all are attributable to earlier authors. One genus name has been dated from this work. It is listed here for completeness:

Thurlosia Catlow & Reeve, 1845: 3. This appeared, as *Thurlosia crispata* Leach, from a Leach manuscript, in the synonymy of "P[holas] crispata Linn." Although introduced in synonymy and never used as an available name, it continues to appear as a synonym of *Zirfaea* Gray, 1842.

Initiamenta Conchologica—Elements of Conchology

This is the most complex of Reeve's publications, with incomplete and inaccurate dating, the introduction of new names without indication of novelty, and production problems. A complete treatment of this work is out of proportion to its importance as a molluscan reference.

Even for Reeve this work took an extraordinary length of time from beginning to completion. Begun in 1846 it was not completed until 1860. Even the title(s) is confusing.

Editions and dates. In 1846 the first of 16 parts appeared with the following title page: "Initiamenta Conchologica / Or / Elements of Conchology, / Comprising / The Physiological History of Shells / And / Their Molluscous Inhabitants, / Their Structure, Geographical Distribution, Habits, Characters, / Affinities, Arrangement, and Enumeration of Species. / by / Lovell Reeve, A.L.S., etc. / Author of the 'Conchologia Iconica'. / [Here follow eight lines from Milton's "Paradise Lost"] / London: / Printed & Published by / Reeve, Brothers, King William Street, Strand; / 1846." The verso of the title page bears only the Reeve, Brothers imprint. The preface is dated 20 February 1846, King William Street, Strand. By the end of 1849 only ten parts had been issued. It was not completed until 1860.

In 1860 it was reissued as a two-volume book. The 1860 title page is: *Elements of Conchology; / an introduction to / the natural history of shells / and of / the animals which form them. / by /*Lovell Reeve, F.L.S., F.G.S. / corresponding member of the Lyceum of Natural History of New York and of / the Natural History Museum of Wurtemberg. / in Two Volumes. / Vol. I. / [Reeve's 'LR' monogram] / Published by the author, / London; 5, Henrietta Street, Covent Garden. / 1860. There is no quotation on the recto of the Volume I title page as in the *Initiamenta*. The verso bears a quotation from Edward Forbes. The two page preface is dated 30 November 1859, Hutton, Brentwood.

Herein the work as issued in parts will be referred to as the *Initiamenta*, and the entire work, as issued in two volumes in 1860, as the *Elements*.

This work was collated by Reynell (1916). Iredale (1922) added additional notes on the dates. Strangely, neither of them mentioned Plates P, Q and 43–46. Salisbury (1945) offered a few corrections to Reynell's paper based partly on incorrect dates on volume title pages of the *Iconica*. His notes added nothing to those of Iredale which were not cited. A new collation of the *Initiamenta* is given in Table 5. It requires considerable discussion as some of the dates differ from the usually accepted collations of Reynell and Iredale.

TABLE 5. *Initiamenta Conchologica* publication dates. Collation from Reynell (1916) and Iredale (1922) with corrections, additions and alterations.

Part	Date	Pages	Plates
I	1 March 1846	Title-page, preface [i–ii], 1–16	A, B, C, 1–2
II	1 April 1846	17–32	D, 3–6
III	1 May 1846	33–48	E, 7–10
IV	June 1846	49–64	F, 11–14
V	July 1846	65–80	G, 15–18
VI	December 1846	81–96	H, 19–22
VII	May 1847	97–112	I, K, 23–25
VIII	January 1848	113–128	L, 26–29
IX	August 1848	129–144	M, 30–33
X	March 1849	145–160	N, 34–37
XI	1859	161–224	O, 38
XII	1859	225–260, half-title page, title, new preface and contents [v]–viii, (Vol. I); 1–16 (Vol. II)	39–40
XIII	1860	17–64	41 - 42
XIV	1860	65–112	P, Q, 43–46
XV-XVI	1860	113-203 (incl. index), half-title page, title page, and contents [v]-vi	

Covers have not been seen by this writer, but a set was available to, and described by, Reynell who stated that most are undated. Iredale (1922) attempted to date Parts I–X based on advertisements and the premise that it was issued on the first of each month as promised. As can be seen by the manner of issuance of other Reeve publications, that is not a firm basis for dating. Iredale placed the date of Part X as January 1849. Reeve's diary entry for 17 February 1849 (Melvill 1900: 352) indicates that it had been some time since he last worked on the *Elements* and his hope to issue a number in March would seem to make March 1849 the earliest possible date for Part X. An ad in *The Literary Gazette* for 27 January 1849 stated that Part X would be ready on March 1st. The gap left in Table 5 between Parts X and XI is intentional to draw attention to the long interval and to stress that the final six parts were all issued within a period of probably less than one year.

In Table 5 the pagination data for Parts I–XVI are as listed by Reynell (1916) with only minor changes. The months for Parts I–X are as given by Iredale (1922), slightly modified. Reynell's data on the contents of Part XII are critical. He stated that:

"The data as regards Parts III—XIII are taken from an incomplete but untouched series. The title-page for Vol. I, issued with Part XII, differs from that issued with Part I, which I have previously given in full. The preface was also entirely rewritten, and is dated from Hutton Brentwood, November 30, 1859."

Unless the new preface was predated, it places the issuance of Part XII as early December. Reynell never directly mentioned the 1860 date that appeared on the new title page, a singular omission as he quoted Reeve's intention, expressed in Part XI and quoted above, to issue parts at monthly intervals. It is obvious that the date of 1860 was used by Reeve in anticipation of having the entire work completed then, not in 1859. Given the November/December issuance of Part XII, and an expected issuance rate of one part per month, Parts XIII–XVI could not be earlier than 1860. It is indeed fortunate that only two new nomina are involved in these later parts, one a junior objective synonym and the other a *nomen inquirendum*.

Reynell did not include the *Initiamenta* Volume II title and contents pages in his tabular collation, but mentioned in the text that "the title page of Vol. II was probably issued with Parts XV and XVI. That reasonable assumption is adopted in Table 5.

It appears that the same text and plates, with the exception of the title pages and prefaces, should be treated as separate editions that would have been considered complete at different times. Salisbury (1945: 156) considered there to be two separate editions but that is an oversimplification. The work may be considered to have three citable editions:

Initiamenta Conchologica – 1846–1849. Parts I–X as listed above.

Initiamenta Conchologica – 1846–1860. Parts I–XVI as listed above

Elements of Conchology - 1860.

Nissen (1969: 333) lists as two works, the *Initiamenta* consisting of Parts I–X with 50 plates, and the *Elements* to include Parts XI–XVI and having 62 plates. Keen (1971: 1011) lists two editions, the *Initiamenta* dated as 1846–49 consisting of Parts I–X, and the *Elements* in two volumes dated as 1859–1860. This terminology is not ideal as the 1860 title pages issued in parts do not contain the word *Initiamenta* but a better name has not been found. Fortunately it is not critical and is only of bibliographic interest.

The 1846–1849 section was considered finished long before the final parts came out in 1860, and it was bound and treated as a book by many owners. Copies have been located in numerous libraries that consist only of Parts I–X. One such bound copy is at hand together with a bound volume, from a different source, consisting of Parts XI–XVI. A copy containing all parts, the original 1846 title page, the 1860 title page and preface issued in 1859 would constitute another edition. Complete copies, sold as a two volume book, without an 1846 title page including the word *Initiamenta*, with the 1860 title pages and new prefaces, form another edition with an entirely different title.

When the *Elements* was published in two volumes, the plates were redistributed with Plates A–H and 1–21 in Volume 1 and Plates I–Q and 22–46 (xxxxvi) in Volume 2.

Format. It was Reeve's intention to give a detailed discussion of each genus, and a figure of a shell as an example as well as a figure showing the living animal if possible. The plates showing animals are lettered and those that show only the shell are numbered. The work is arranged in systematic order according to Reeve's *Tabula Methodica*, the higher categories being listed on page 4. Each genus is followed by a list of the known living species although they had just been listed in 1845 in *The Conchologist's Nomenclator*. These lists, which added considerable bulk to the work without effort, were not always complete, some not even including species being newly described. The work failed to live up to its advance billing. Reeve touted it as:

"Elements of Conchology; or, Physiological History of Shells and their Molluscous Inhabitants; being a systematic Classification of all the Species of recent Shells known up to the time of publication, with descriptions of their formation, Growth, Deposition of Colours and a popular Account of the Organic Structure, habits, and calcifying Functions of their Animal Occupants." – (advertisement, *The Athenaeum*, 11 April 1846, 963: 364)

In a rather unflattering review of Part XI, before taking issue with Reeve's excuses for the delay of the final parts, Leifchild took exception to the form of presentation and commented:

"There are two ways of doing shell-work for the public: – one is that adopted by Mr. J.P. Woodward – whose 'Rudimentary Treatise' is a marvel of cheapness, and a model of accuracy and careful compression, – the other is the costly form, and is employed by Mr. Reeve, – perhaps wisely, if his patrons be wealthy, and he himself wishes to be the same." – (Leifchild 1859: 672)

In a long review of the entire work, totaling three and a half columns, Leifchild used most of the space to decry changes in nomenclature, using as one example the change from *Chenopus* to *Aporrhais*. After adding Reeve's description of the animal he declared that

"a reader not much addicted to such lore is apt to become confused amongst so many strange terms,

and to end by having a very tangled recollection of the true characters of *Aporrhais*. He will be apt to take up the little shell and say that 'pelican's-foot' is a suitable and convenient title, and all besides may be thrown into the sea." – (Leifchild 1861: 392)

Let it be said that there is no record of Leifchild (John R. Leifchild, 1815–?) ever having a particular interest in mollusks. A Commissioner on coal mines with far ranging interests, his overriding passion seems to have been writing reviews. During the period 1858–1871 he wrote over 290 reviews for *The Athenaeum*, the only ones on molluscan works being the two cited here (Leifchild 1859, 1861). Leifchild's objections were mostly directed to what he considered the over-naming of species and the cost of the work. In his first review he quoted Reeve's remarks about shells named for people, a subject treated elsewhere herein. A sample of the reviewer's glorious grandiloquence follows (this immediately after the 'pelican's foot' quote above):

"But if old names and similitudes were to be retained, what would become of systematic conchologists? What need of new and elegant Elements and Manuals and Introductions to Conchology? Let them all come forth, one after another, say we, replete with every variety of strange appellative, with minutest details of features and forms, and with anatomical descriptions of the now dislodged animals. Let collectors go forth to all shores, and dredge in all seas; let dealers in these curious commodities lay in ample stocks; let purchasers regard them with weighty purses; let authors write day by day, with a Latin Dictionary on one hand and a Greek Lexicon on the other; especially let artists delineate and colour, up to the very hues of Nature's palette; let names be tossed about as the shells themselves once were in the waters; let us have column after column of odd and unpronounceable titles, such as we see in the pages before us in abundance, and such as may be conjectured from the simple samples of Pantagruelinus, Pfeifferianus, plectostylus, pemphigodes, pythogaster, and quinquedentatus – not to go beyond our p's and q's. Let us, we say, have all these things as fast and frequent as there are authors to write, men to print, females to paint, and fortunate people to purchase. What though these productions are not so plain and popular as many might desire? What though they are as sealed books to the multitude? benefits of various kinds result from them - paper-makers, printers, booksellers, dealers, sailors and purchasers are all pleased and profitably employed; and of authors one at least, well known to Mr. Reeve, is thereby enabled to recruit himself in his countryhouse, after the severe and enervating labour of copying and partly concocting columns of names, which life is too short to commit to memory, and which are far too long to be even pronounced by any but an adept." -(Leifchild 1861: 392)

Production. No parts were issued between 1849 and 1859. During that decade Reeve had too much to do as shown in the Business Relationships section. Reeve was spread too thin, physically and financially.

Cessation of publication after Part X certainly upset some subscribers. When Reeve finally announced that it was to be completed, *The Athenaeum* for 15 January 1859 carried this editorial message:

"A naturalist asks us to draw Mr. Reeve's attention to the fact that his 'Elements of Conchology,' advertised last week as 'in course of completion,' have been in the same course of completion any time these past thirteen years. 'The work was to be in ten [sic] parts. The first part bears date March 1846. The tenth part is dated 1849. Since then I have received no more. Now, surely Mr. Reeve after trifling with his public for ten years, has no right to come out with fresh advertisements of this book until the book itself is out.'"

The following week, in The Athenaeum for 22 January the editor published this letter from Reeve:

"Hutton, near Brentwood, Jan. 17

Will you allow me to inform the inquiring naturalist, who asks in your paper of Saturday 'what right' have I to 'come out' with fresh advertisements of my 'Elements of Conchology,' to the effect that it is 'in course of completion,' until the book itself is out, that when such is the case that announcement will not be needed. The work has been so advertised for the first time lately, with the view of assuring many justly indignant purchasers of the published parts that I am at length honestly engaged upon it. When

'the book itself is out' it will be advertised with the, to me, welcome announcement of 'now ready.'

I am, &c, Lovell Reeve." – (Reeve 1859a)

While it is true that it was advertised "for the first time lately" as being in "course of completion," the first ten parts had been continually advertised, priced by parts. As late as 1858 it was advertised by Reeve as "Parts I. to X. ... 3s. 6d. each," with no indication that future numbers were to be expected (*The Athenaeum*, 26 June 1858, p. 623). Reynell quoted statements from the cover of Part XI where Reeve acknowledged that:

"At the end of the tenth number it was found that not a third of the letter-press was published, whilst the illustrations were nearly exhausted."

That should not have come as a surprise as the advertised plan was to have 5 plates per part, the number actually issued for the first 10 parts although the promised monthly schedule had long been abandoned. What Reeve really meant was that the rest of the plates had not been prepared. His diary entries for March 1849 and his letters to Sowerby of February 1849, quoted under Business Relationships herein, are pertinent. Reeve discussed the long delay and proposed to:

"complete the Work in six Numbers, to appear at intervals of a month, each containing two plates and from forty to fifty pages of letter-press."

Leifchild (1859: 672) commented that:

"this might have been foreseen at the end of the first number, as well as found out at the tenth; letterpress being so much easier and cheaper than plates and description so much more facile than drawing."

It is here speculated that there were few active subscriptions left by 1859 and that only a small number of Parts XI-XVI were issued as such. After the old subscriptions were handled, the parts were no longer sold individually and the parts were rearranged and sold only as a book.

Evidently the *Elements* stayed in print for many years with plates relithographed as necessary. One copy at hand has the original covers by Westleys and the LR monogram in gilt, with the addition, in Old English letters, of A.S.C. (which this writer likes to think is a presentation copy for Agnes Catlow). Although certainly a "first run" copy of the *Elements*, this set contains a few plates originally in Parts I–X that have been relithographed.

A copy of the *Elements* at hand that was evidently produced much later differs still more with reworking and/or relithographing being especially noticeable. It must have been a pristine copy when purchased as it is finely half-leather bound in two volumes with gold-stamped shells on sections of the spine and the pages gilt-edged. Attesting to its condition when purchased is the fact that it was a gift with a fine holograph dedication dated May 1906 in the front of each volume. Many of its plates have been relithographed. On Plates I and 25 "del." is rendered as "bel." On many plates "G.B.S." is left off and the name of the printer has been changed. On one plate not only was "G.B.S. del." omitted, it was replaced by "Vincent Brooks, lith." On some plates wear is evident, especially in the numbers and imprints. In this "late" copy the plates are on a yellowish stock that tends to fox, much inferior to the early issue and the coloring is not nearly as good. The most unusual feature of this copy is the appearance of "Printed in Germany" on the bottom of page 62 in Volume 1 and on the bottom of page 57 in Volume 2. Additionally, Volume 1 pages 1–160 and Volume 2 pages 1–64 are on different paper than the remainder of the volumes. These features raise questions that cannot be answered at present.

Before being reissed as a book, no effort was made to add an errata page or to correct such errors as citation of *Conus textile* Linnaeus as being on Plate E, figure 4 when it is actually on Plate F, figure 3, and *Ovula ovum* (Linnaeus) as being on Plate 3, figure 3 instead of Plate F, figure 2. *Magilus antiquus* Montfort is stated to be on Plate 6 instead of Plate 5 and *Bankivia purpurascens* Reeve on Plate 2 instead of Plate 12. *Rotella gigantea* Lesson, figured on Plate 13, figure 66, is not listed on text page 141 as being figured. On page 126 in Volume 1 Reeve mentioned the "forthcoming Mollusca of the Voyage of H.M.S. Samarang." As the *Samarang* was finished in 1850, that statement should not appear in a book with an 1860 title page, especially with-

out a history of its previous incarnation.

One error was corrected immediately after publication. On page 10 in Part 1 Reeve attributed Chinese ink to fluid of a cephalopod. Either Part 1 appeared early or its delivery was especially speedy as John Reeves (1774–1856) wrote Lovell Reeve a long letter on 2 March giving the true source of the ink. That letter was printed on page 21 in Part 2, published on 1 April. In correcting that error Reeve made another by referring to his original misstatement as being on page 15 instead of page 10.

Plates. The plates in this work are of interest. Lettered Plates A–I and K, all of living mollusks, were drawn and lithographed by H. Miller. There is no Plate J. Plate L was drawn and lithographed by Arthur Adams. Plates by these two artists are chalk lithographs as opposed to the pen lithographs by Sowerby on the numbered plates. Plates M, N and O are not attributed. Plates P and Q by G. B. Sowerby II are also drawn with lithographic chalk, as are a few of the numbered plates. In the 1850s Sowerby began using chalk but an exact date cannot be established as he used both techniques depending on the subject. During the same period he was also still doing engraving (e.g., his 1859 *Index of British Shells*) and in 1863 he produced drawings on wood for engravings used in Reeve's land shell book. The 20 plates drawn by Sowerby for his *Popular British Conchology* in 1854 are also chalk lithographs.

The aforementioned Plate L by Arthur Adams is of *Dolabella rumphii* Cuvier. The same figure appeared in the *Samarang* on Mollusca Plate 18.

Plates 32–37 and 39–46 have Roman numerals and all other plates have Arabic numerals. Plates xxxvi and xxxvii were numbered xxvi and xxvii in error and have been corrected in pen in all copies seen.

The letterpress for Parts I–VII of the *Initiamenta* was produced by Reeve Brothers, for Parts VIII–X by Reeve, Benham, and Reeve, and for Parts XI–XVI by J. E. Taylor, Printer, Little Queen Street, Lincoln's Inn Fields.

The plates were evidently originally printed in small quantities. A copy at hand, issued in parts, has only two numbered plates that could have been printed before Part VIII appeared although all of the lettered plates for that period bear the Reeve imprint. That they continued to be printed in small runs is demonstrated by the fact that in three copies examined for such data, some plates exist in three distinct states, differing in printers' and lithographers' names, or their absence.

Taxa. As new names were introduced in the *Initiamenta* without any indication of their novelty, many of them escaped notice. Some of them had been noted, but not investigated, by Reynell (1916: 46) and Iredale (1922: 90–91). All of the taxa newly proposed therein are listed here. Given Reeve's manner of citation and listing, it is quite possible that this list is not complete. Reeve did not give a location or a description for most of the new species. Of later authors, H. Adams & A. Adams (1853–58) listed some of these new taxa by name. Some, but not all, of the new names were treated by Tryon and Pilsbry in the *Manual of Conchology*. None are listed by Sherborn in the *Index Animalium* as dating from the *Initiamenta*. These omissions are understandable considering Reeve's treatment.

It is not the intent of this paper to treat these names systematically. Such current usage as was found in attempting to trace them is noted but should not be taken as being necessarily the most recent. Some require the attention of specialists.

Cymbium linnaei Reeve, 1846: 1: 46, pl. 2, fig. 8. The name is followed by "(Voluta cymbium *Linn.*). Shell showing the papillary spire, and the summit of the whorls flattened." It was probably intended to be a renaming to avoid tautonomy as prescribed by the recently introduced "Strickland Code" (Anonymous 1843: 267). However, Reeve did not explicitly rename Linnaeus' species (I.C.Z.N. Article 72.7), and figured a different species. This name has not previously been noted and is here considered to be a junior subjective synonym of *Cymbium marmoratum* Link, 1807.

Cyllene grayi Reeve, 1846: 1: 65, pl. 3, fig. 12. No location stated. Name in current usage. Correctly attributed by Cernohorsky (1984: 220).

Phos cumingii Reeve, 1846: 1: 67, pl. 3, fig. 16. No location stated. Correctly attributed and figured by Keen (1971: 569) as *Phos (Strombinophos) cumingii* Reeve, 1846.

Fastigiella Reeve, 1848: 1: 122 [January]. No location stated. This is the first appearance of this genus-group name which is in current usage attributed to Reeve 1848b. Although read on 11 January, Reeve 1848b was not published until April. Fortunately neither author nor date of publication in current usage will need to be changed as only the original reference is different. When the 11 January meeting of the Zoological Society was reported in *The Literary Gazette* on 22 January it was mentioned but not validated. The report contained the statement that:

"The business of the evening concluded with a short paper by Mr. Lovell Reeve 'On a new genus of Molluscs,['] which he calls *Fastigiella*, ..."

Fastigiella carinata Reeve, 1848: 1: 123, pl. 10, fig. 6. This name is in current usage ascribed to Reeve, 1848b. It is figured by Abbott & Dance (1982: 68) as being a rare shallow-water species from the Bahamas and northern Cuba.

Cerithium nobile Reeve, 1848: 1: 125, pl. 12, fig. 59. Universally cited as *Pseudovertagus nobilis* (Reeve in Sowerby, 1855), this description and excellent life-size figure has been overlooked in the subsequent literature. Although not tagged as new, in the discussion of *Cerithium* Reeve stated that:

"The magnificent example selected for illustration is of very large size for a marine species; it is extremely rare, and I cannot learn that it has been named or described."

Sowerby (1855: 851) attributed the species to Reeve with no reference. It is notable, given the treatment of such attributions herein, that this species has always been ascribed to "Reeve in Sowerby, 1855."

Triphoris grandis Reeve, 1848: 1: 127, pl. 12, fig. 55. No location stated. The short description contains only generic characters. This taxon not located in any subsequent literature. Present status unknown.

Stylifer pyramidalis Reeve, 1848: 1: 129, pl. 12, fig. 56. Named without any location and no meaningful description. Listed in fauna of Reunion by Deshayes (1863: 57). Tryon (1886b: 291) listed it after *S. cumingianus* A. Adams, and stated that it "appears to be very similar." Figured by Sowerby in the *Stylifer* monograph in Volume 20 of the *Iconica* (1878) as *S. cumingiana* "Adams ____? MS Cum. Coll." Trew (1992: 26) listed *Stylifer cumingii* Adams as of H. Adams & A. Adams, 1853 where it is a nude name. Present status unknown.

Turritella picta Reeve, 1848: 1: 131, pl. 11, fig. 51 [August]. No location stated. The name has not been located elsewhere. In Reeve's 1849 *Turritella* Monograph in the *Iconica* this species was not mentioned. It is probably the Panamic-Pacific *Turritella lentiginosa* Reeve, 1849. As it cannot be positively identified from the figure and this later name is in widespread current use (e.g., Keen 1971: 392), *T. picta* Reeve is here considered to be a *nomen dubium*.

Phasianella venusta Reeve, 1848: 1: 132, pl. 12, fig. 58. Named without location or any helpful description. Treated by Pilsbry (1888: 165) as a variety of the variable *Phasianella australis* (Gmelin, 1791).

Elenchus circulatus Reeve, 1848: 1: 133, pl. 12, fig. 57. No location stated. This name has not been located in subsequent literature. This taxon is here considered to be a junior subjective synonym of *Phasianotrochus eximius* (Perry, 1811).

Bankivia Reeve, 1848: 1: 133. This genus name, attributed to Deshayes, appeared on page 133 where it was discussed. Reeve gave a short description of the genus and declared:

"Such is the generic character of a shell of which there are several differently coloured varieties, but only one species, which has been mixed up along with the *Trochus iris* in the genus *Elenchus*. It appears to have been first distinguished by M. Deshayes in Pl. 70, fig. 8, of his '*Traité Elémentaire de Conchyliologie*' and, as I learn, was intended as the type of a new genus, for which he proposed the name *Bankivia*. To the great loss of Conchology that important work remains still incomplete, the text never reached so far as to include the present genus, and I am not aware that any publicity has yet been given to it."

This part of Reeve's work was published in August 1848. The genus *Bankivia* Krauss, 1848 is in current usage. The two concepts are identical and the type species are subjective synonyms. Krauss attributed his usage to Beck which is the source from which Deshayes derived the name. Krauss' work is not dated to month on the title page. However, the preface is signed at "Stuttgart im Januar 1848." It is here considered that this dedication is sufficient evidence to place Krauss' publication prior to that of Reeve, thus avoiding any change in current attribution.

Bankivia purpurascens Reeve, 1848: 1: 134, pl. 2 [sic; =12], fig. 61. No location stated. This name has not been located elsewhere. This taxon is here considered to be a junior subjective synonym of *Bankivia fasciata* (Menke, 1830).

Margarita pulchella Reeve, 1848: 1: 136, pl. 14, figs. 69–70. No location stated. In the *Margarita* Monograph in Volume 20 of the *Iconica* Sowerby figures a shell with this name attributed as "A. Adams _____?" This name has not been located elsewhere attributed to either Reeve or Adams.

Morulus [sic; =*Modulus*] *cidaris* Reeve, 1848: 1: 140–141, pl. 13, fig. 63. No location stated. *Morulus* is listed by Neave (1940 3:221) as "pro *Modulus* Gray, 1840" which is strange as Neave lists *Modulus* Gray, 1840b as a *nomen nudum* and dates it as valid from 1842. In any event, given other errors in Reeve, this should be treated as a simple misspelling. This species was placed in the synonymy of *Modulus tectus* (Gmelin, 1791) by Tryon (1887a: 260).

Solarium maculatum Reeve, 1848: 1: 144, pl. 13, fig. 62. No location stated. Not Solarium maculatum Link, 1807. Listed as a junior subjective synonym of Architectonica. fuliginosum (Hinds, 1845b) by Bieler & Petit (2005: 49).

Monoptygma cinerea Reeve, 1849: 1: 148, pl. 15, fig. 76. No location stated. Stated to be in the genus *Monoptygma* Lea, Reeve's species is not akin to that of Lea (1833). This may have resulted from confusion with the later *Monotygma* Gray, 1840b that had been emended to *Monoptygma*. Lea's genus was used in the sense of Gray by H. Adams & A. Adams (1853–58) who did not list Reeve's species. This species is here considered a *nomen inquirendum*.

Rissoa cumingii Reeve, 1849: 1: 151, pl. 15, fig. 75. No location stated. Tryon (1887b: 385–386) placed "*Rissoa cumingii* Reeve, of Sowerby in Conch. Icon." in the synonymy of *R. striata* Quoy [sic]. Treated in the *Iconica* by Sowerby as "Reeve. Proc. Zool. Soc." but it was never described there by Reeve. *Rissoa cumingii* Sowerby, 1876 is currently considered to be a synonym of *Rissoina striata* (Quoy & Gaimard, 1833).

Paludina oxytropis Benson, 1836. Reeve, 1859: 1: 170, pl. 17, fig. 93. Listed here as it is unattributed and appears to be new in the *Initiamenta*. The name is not in the list of 98 species although a junior synonym, *P. pyramidata* Busch [sic; = Busch in Philippi, 1844 (in 1842–50)], is included. Present status unknown.

Valvata cumingii Reeve, 1859: 1: 171, pl. 17, fig. 88. No location stated. Present status unknown.

Teredo marina Reeve, 1860: 2: 174, pl. 46, fig. 248. On page 173 the name is attributed to Sellius. Turner (1966: 109) attributed it to "'Sellius' Jeffreys, 1860." She quoted Jeffrey's statement that due to the fact that the name had been used as a binominal throughout Sellius' work, he felt justified in restoring his prior and appropriate name. This name is not mentioned by Warén (1980). A synonym of *Teredo navalis* Linnaeus, 1758.

Assiminea oparensis Reeve, 1860: 2: 196, pl. 18, fig. 96. Pages 194–196 in Vol. 2 contain notes and citations for "Genera figured in the plates, but not described in the text." The last entry in this section is this species, described as:

"Shell, of a new species from the Island of Opara, showing its Paludina-like form."

This is one of the few places in this entire work where a new, or any figured, species is given a locality. There is no additional description. Although Plate 18 was issued in 1846, no name was attached to this figure until 1860. Present status unknown. Opara is an island in French Polynesia now known as Rapa.

Voyage of H.M.S. Samarang

In addition to Reeve, there are two other principals in the saga of the Mollusca collected during the 1843–1846 voyage of the *H.M.S. Samarang*, Sir Edward Belcher (1799–1877) and Arthur Adams (1820–1878). The commander of the voyage, Captain Sir Edward Belcher, wrote a two-volume work describing the voyage in detail (Belcher 1848). Belcher's *Narrative of the Voyage of H.M.S. Samarang, during the years 1843–46; employed surveying the islands of the eastern archipelago; accompanied by a brief vocabulary of the principal languages* (hereafter referred to as *Narrative*) contains a long section by Arthur Adams (Adams 1848a) on the zoology of the voyage. Belcher's work is interesting aside from mollusks, but he was no stranger to them. Specimens he procured on an earlier voyage were the basis of molluscan descriptions by R. B. Hinds (1811–1847) in *The Zoology of the Voyage of H.M.S. Sulphur* (Hinds 1844–45). The *Sulphur* must be mentioned as on that voyage Belcher spent time on the west coast of the Americas, an area not visited by the *Samarang*, which went to the western Pacific. In *The Zoology of the Voyage of H.M.S. Samarang* (hereafter referred to as *Zoology*), a few species are stated to be from the *Sulphur* voyage. Additionally, some species from the Panamic-Pacific area are described in the *Zoology* with western Pacific localities. This mixture of material could have been made only by Belcher or Reeve, as Adams was not on the *Sulphur* voyage. Belcher, like Cuming, did not have labels in his collection. Carpenter wrote of

"the very valuable collection of Admiral Sir Edward Belcher, in which most of the shells are, unfortunately, destitute both of names and of locality-marks" – (Carpenter 1864b: 529).

The exact publication date of Belcher's *Narrative* is important. The imprint date is 1848, with publisher as Reeve, Benham, and Reeve. In *The Athenaeum* for 25 December 1847 there was a lengthy review of the *Narrative* by William Hepworth Dixon (1821–1879). Dixon included several quotations from both Belcher's and Adams' parts of the work. The review is interesting, aside from the date, in that the title given differs slightly from that published, notably the use of "Eastern Hemisphere" instead of the published "Eastern Archipelago," and in showing the publisher as "Reeve & Co." a firm that ceased to exist in November 1847. The *Narrative* was advertised in late November 1847 as being "nearly ready." The earliest advertisement that has been

located listing it as already published appeared in *The Athenaeum* for 13 May 1848. In that ad, a review from the *Examiner* (not seen) is quoted, but *The Athenaeum* review is not. It must be concluded that Dixon (1847) was furnished a review copy, and the book was actually published, prior to 13 May, in 1848 as imprinted.

Arthur Adams was assistant surgeon on the *Samarang* voyage, a position that often included duties as a naturalist. The observations and descriptions of living mollusks by Adams, who had never previously published on mollusks, are excellent. Adams was an accomplished artist and drew some of the illustrations for the *Narrative*, as well as figures of living animals for the *Zoology* and Reeve's *Initiamenta*. Upon his return, Adams wrote, in addition to the zoology portion of the *Narrative*, one paper on some of the mollusks (Adams 1847), edited the entire *Zoology* volume (Adams 1848–50), and co-authored the Mollusca part with Reeve. After the publication of the *Zoology*, Adams wrote numerous papers, often with his brother Henry Adams (1813–1877), describing shells from the Cuming collection before, and after, he went on another voyage in 1860. A list of the Adams brothers' publications and the new taxa introduced by them has been published by Trew (1992).

Reeve published both the *Narrative* and the *Zoology* and coauthored the Mollusca part of the *Zoology* with Arthur Adams (Adams & Reeve 1848–50). As shown herein, they wrote only one additional paper together. Many of the new species of the *Zoology* first appeared in the *Iconica* and in most instances Reeve gave "Adams and Reeve, Moll. Voy. Samarang" as authority. Although consisting of only 87 pages and 24 plates, the first part of the *Zoology* Mollusca was published in 1848 and the last two parts not until 1850. Mollusca is one of only four subjects—Fishes, Crustacea, Mollusca, Vertebrata—in the seven numbers of the *Zoology* which has, in total, 55 plates, 35 being hand colored. The *Zoology* is one of the most attractive and sought after works of its type.

Within Mollusca I of the Zoology there is a 12-page section by Richard Owen on the description of Spir-ula. At the end of many descriptions there are comments, in a slightly smaller type, about living animals, habitats and other observations followed by the initials A.A. These are Arthur Adams' personal observations.

A collation of the Mollusca parts is given here together with the earliest established dates and their sources:

No. 3. Mollusca I. Pp. i–x (Introduction to Mollusca by Adams only), 1–24, [i–ii] (plate explanations), pls. 1–9. [Pp. 6–17 and pl. 4 are by Owen on *Spirula*.] Received by the Linnean Society 1 November 1848.

No. 6. Mollusca II. Pp. 25–44, pls. 10–17. 27 April 1850 fide an ad in *The Athenaeum* of that date stating "Part II, *this day.*" This part was received by the Linnean Society 2 May 1850.

No. 7. Mollusca III. Pp. 45–87, pls. 18–24, i–xv (title page, preface and plate explanations for entire work [pp. i-xv by Adams only]. An ad in *The Athenaeum* of 31 August 1850 stated the availability of Mollusca Part III and also that "This Work is now complete, and may be had, strongly bound, in cloth, price 3*l*.10*s*." This part was received by the Linnean Society 6 September 1850.

The reasons for the delay in publishing the Mollusca parts are not known. There were evidently problems in addition to Reeve's seeming inability to finish anything on schedule. Earlier herein a passage from Reeve's diary of 17 March 1849 is quoted in which he dithered about whether to work on the *Iconica*, the *Elements*, the *Samarang*, or to arrange and dispose of more of Belcher's shells. Three days later he wrote that he was feeling unwell and was obliged to withdraw from business. That there had been a crisis of some sort in late 1847 is shown by the addition of Benham to the firm. Obviously that did not solve the problems. In 1849 Reeve ceased publication of his *Initiamenta* and it remained unfinished for ten years. The Vertebrata of the *Zoology* appeared in 1849 and the last of the Mollusca should have been published in that year. That some problems extended into 1850 is evident as there seems no reason for the long delay between the Mollusca parts, or even for splitting the last of the mollusks into two parts. The *Samarang* plates were all printed by Reeve, Benham and Reeve with varying styles of imprint and were probably produced before 1850. The final portion of the text, however, was printed by Frederic Reeve, as shown by his imprint on the verso of the final page, on the cover, and on the title page for the entire work. The division of the firm in mid-1850 was proba-

bly the culmination of internal problems and/or overcrowding.

It is possible that a portion of the delay involved some sort of rift between Adams and Reeve. It will be shown that Reeve managed to get credit for describing some species that rightly should have been part of their joint effort. No details are known, and there is no unequivocal proof there actually were problems between them, although the next paragraph lends some credibility to this surmise. The Adams brothers are even more enigmatic than Reeve. Considering the body of their published work, it is strange that no obituaries of them were published in England.

Even stranger are the covers for the *Samarang* Mollusca II and Mollusca III. The existence of covers for the *Zoology* has not previously been mentioned in the literature. When covers were located, it was a surprise to find that while Mollusca I was properly imprinted "by Arthur Adams, F.L.S. & Lovell Reeve, F.L.S.," Mollusca II and Mollusca III were imprinted "by Lovell Reeve, F.L.S. & Arthur Adams, F.L.S." One of the latter could have been a lapsus, but not both. However, no record has been found of Reeve attributing any of the jointly described species with himself as senior author. Although the covers are mostly identical there are indications that the type was reset. Across the middle of the page is the legend, in a dark Old English font, "Published under the Authority of the Lords Commissioners at the Admiralty." On all covers except Mollusca III that legend is enclosed in parentheses. Of course, the name of the publisher was changed to reflect the midsummer change from Reeve, Benham, and Reeve to Reeve and Benham. Also, on the bottom of the cover of Mollusca III, just below the ornamental border, appears "Printed by Frederic Reeve, Heathcock Court, Strand." These changes, discussed more fully elsewhere herein, are mentioned here as evidence of upheaval within the firm that delayed publication.

The price of this work, always expensive, has skyrocketed in recent years. In a favorable review of *The Zoology of H.M.S. Samarang*, it was observed that

"this work is not of the class likely to have an extensive sale; but as it has been published at the expense of Government, we hope arrangements have been made to secure a copy of it not only to the great public libraries, but to all the institutions in our large towns which can give a guarantee of their stability and have a public library attached." – (Lankester 1850: 1019)

We can only hope that this review never came to Arthur Adams' attention, because Lankester credited the Mollusca portion to Reeve only!

Of the mollusk plates four were drawn by Adams, 18 by G.B. Sowerby II, and two by J.D.C. Sowerby. The two plates by J.D.C. Sowerby are Plate 20, an engraving on steel illustrating *Hemipecten*, discussed below, and Plate 4 which is composed of numerous views of living *Spirula*. The first submission of this latter plate was returned to Sowerby by Reeve with the comment that it was not good enough for publication (letter from LR to JDCS dated 10 May 1848).

Dance (1978: 125) reproduced Mollusca Plate XIX, one of Arthur Adams' lithographs of living mollusks, and Dance & Heppell (1991: 87) reproduced Plate VIII, a G.B. Sowerby II lithograph. As mentioned earlier, figure 4 on Plate 18 by Arthur Adams of *Dolabella rumphii* Cuvier appeared in the *Elements* as Plate L.

A number of the Samarang taxa merit discussion.

Mollusca of the Samarang

Narrative. Surprisingly, a discussion of the *Samarang* mollusks must begin, not with the *Zoology*, but with Adams' "*Notes*" (Adams 1848) in Belcher's *Narrative* and two even earlier papers (Adams 1847; Reeve 1847c).

Only those taxa will be discussed that appeared elsewhere before they were described in the *Zoology*, or about which there is a question of authorship or date. As some *Samarang* mollusks were first described in the *Conchologica Iconica*, where Reeve referenced "Adams & Reeve, *Samarang*," it is accepted that they worked

together on the descriptions. As will be seen, there are some unusual situations involved, and in a few cases lack of evidence of collaboration results in unfair attribution. Whether or not any lack of attribution was deliberate is debatable. Circumstantial evidence indicates that in some instances it probably was.

Nudibranchia. In the zoology portion of the *Narrative*, Adams named, with adequate descriptions, several genera and species of nudibranchs. Reeve was involved in some, but not all, of the descriptions as Adams carefully listed some in the form "... one of which (*D. stellifer*, Adams and Reeve)" while elsewhere he wrote "A species ... which I have named *H. sanguinolentus*." Some of these taxa were later figured in the *Zoology* using Adams' drawings.

In the *Zoology*, under the genus *Bornella*, Adams & Reeve described and figured two species and stated that they had "proposed to found a genus for these mollusks and had them figured for this purpose, but were anticipated by Mr. Gray, into whose possession the drawings had previously passed in their way from the Admiralty." They also figured *B. adamsii* (pl. 19, fig. 3), attributed to Gray with a correct page and figure reference to his description in M. E. Gray's 1850 *Figures of molluscous animals*. On the same page of the *Zoology* Adams and Reeve proposed the new genus *Ceratosoma*. This name has been attributed to Adams and Reeve by Sherborn (1924: 1182), Neave (1939: 640), and Trew (1992: 21) but it was proposed earlier by Gray at the same time he introduced *Bornella*. The checkered history of these taxa has been treated by Bertsch (1980) and Rudman (1984). Rudman (1984) dated the M.E. Gray work where J.E. Gray introduced these names to February, 1850, a date that this writer has not been able to confirm. However, that is unnecessary as we have the published word of Adams and Reeve that Gray's work preceded the portion of the *Zoology* in which these species were treated.

Cardium bechei Reeve, 1847c: (PZS) 25; (AMNH) 417. On page 356 of the Narrative Adams described a "large and handsome new species of Cardium (C. Bechei Adams and Reeve)*" and referred to it again on pages 463–464. The asterisk indicates a footnote "Ann. and Mag. Nat. Hist. vol. xix. p. 417." That issue of the journal does have a paper by Adams (Adams 1847) on pages 411–416 in which he describes the animals of various gastropods. Immediately following Adams' paper is one by Reeve (Reeve 1847c) occupying pages 416–418. The two papers are individually authored. On pages 417–418 there is a description of Cardium bechei with no mention of Adams. Reeve stated: "I have much pleasure in dedicating this species, at the desire of Capt. Sir Edward Belcher, to Sir Henry De la Beche." There is no mention of coauthorship, and the species must be cited as Cardium bechei Reeve, 1847. These same two papers were printed six weeks earlier in the Proceedings of the Zoological Society. Trew (1992: 5), having no particular reason to investigate Reeve papers, attributed the species to "Adams & Reeve in A. Adams" [= the Narrative]. These two papers were individually attributed in the report of the 9 March meeting of the Zoological Society (Anonymous 1847b: 216).

In typical Reeve fashion the species was described as new again in the *Zoology* (1850: 78) with the comment that: "We have much pleasure in dedicating this species, at the desire of Capt. Sir Edward Belcher, to Sir Henry De la Beche." Adams demonstrably considered himself coauthor as he later (H. Adams & A. Adams 1853 2: 457) cited the species, misspelled as *beechei*, attributing it to Adams & Reeve. Figured as *Nemocardium bechei* (Reeve, 1847) by Abbott & Dance (1982: 330).

Smaragdinella A. Adams, 1848: 475. This new genus was described without mention of Reeve. It is listed here as the genus was incorrectly attributed to Adams & Reeve by Neave (1940 4: 213) who gave the correct page number of the *Narrative* but cited it as "Voy."

Bulimus adamsii Reeve in A. Adams, 1848: 482. The description included a statement that the species "has been named *Bulimus Adamsii* by Mr. Lovell Reeve." Reeve's description of the species, replete with a quota-

tion from the *Narrative* about the unusual circumstance involved in discovering the shell, appeared in the *Bulimus* monograph of the *Iconica* as species 73 on Plate 13, the text page for which is dated June 1848. As shown above, the *Narrative* was published prior to that date. This case is mentioned earlier herein in the discussion under Authorship. As Adams clearly stated that it had been described by Reeve authorship should be shown as "Reeve in A. Adams." As this species has previously been considered to date from the *Narrative*, the only change in its citation will be the addition of "in A. Adams." This species was figured as *Amphidro-mus adamsii* (Reeve, 1848) by Abbott (1989: 161).

Dendronotus stellifer Adams & Reeve in A. Adams, 1848, D. tenellus Adams & Reeve in A. Adams, 1848 and Polycera cornigera Adams & Reeve in A. Adams, 1848 were all described on page 494 of the Narrative and attributed to "Adams and Reeve."

Zoology. As mentioned above, some specimens described in the Zoology with localities such as "China Sea" or "Eastern Seas" are actually eastern Pacific species. Also, a few are South African. This was recognized early as Carpenter (1857: 224) stated his opinion that two species of bivalve were Panamic. Four more were added by Hertlein & Strong (1947: 131–132; 1950: 242–243). At least nine Zoology bivalves are now known to be Panamic (E. V. Coan, pers. comm., 28 January 2006). The gastropods Cancellaria lyrata Adams & Reeve (= C. funiculata Hinds, 1843) and Cancellaria pyrum Adams & Reeve are both easily identifiable as Panamic-Pacific although they were described as being from the far western Pacific. Fusinus spectrum (Adams & Reeve) is now also recognized as Panamic. In addition to the inclusion of Panamic-Pacific species, other Samarang species were given incorrect localities such as Marginella diadochus Adams & Reeve, a South African species stated to be from Straits of Sunda. Other Samarang species thought to have been given incorrect localities have not yet been investigated.

The names of the species figured and/or described in the *Zoology* do not have authors' names appended and often research is needed to determine if a name is newly introduced. Only those species that have been misattributed, misdated, described earlier elsewhere, or are otherwise notable are discussed here.

As shown in the collation, two unnumbered pages captioned References to Plates, listing figures on Plates 1–9, was issued with Mollusca Part I in 1848. The fact that these plate explanations provide available names for some species, not described until 1850 in the two latter parts of the *Zoology*, has evidently not previously been mentioned in the literature. These plate explanation pages were not listed by Sherborn (1922: cxi) and most other authors. Those few who gave a complete collation (e.g., Keen 1971) did not note the availability of the names listed in the Plates Explanations. Twelve species should be dated as 1848 from these Plates Explanations instead of 1850 as commonly cited. Although some of these twelve appear in various works dated 1848 it is always as a result of misdating the entire work with attribution to an 1850 page number, not the unnumbered pages i–ii. These species are listed below, followed by other *Zoology* species requiring comment:

Dentalium formosum Adams & Reeve, 1848: [i], pl. 5, figs. 1a-b; 1850: 71. Lectotype figured as Fissidenta-lium formosum (Adams & Reeve) by Higo et al. (2001: 187, fig. S10).

Oniscia exquisita Adams & Reeve, 1848: [i], pl. 5, figs. 3a-b; 1850: 35. Figured as Morum (Oniscidia) exquisitum (Adams & Reeve) by Springsteen & Leobrera (1986: 104, pl. 27, fig. 15).

Marginella diadochus Adams & Reeve, 1848: [i], pl. 7, figs. 4a–c; 1850: 28. This is a South African species whose locality was incorrectly given in 1850 as "Straits of Sunda,". Lectotype selected and figured by Boyer & Neefs (1999: 76–77, pl. 1, figs. 2, 7–9; text-figs. A, B).

Voluta abyssicola Adams & Reeve, 1848: [i], pl. 7, figs. 6a–b; 1850: 25. This species has received a variety of dates and attributions in the literature. Sherborn (1922: 20) credited it to Reeve 1850a; Weaver & Dupont (1970: 10) credited it to Adams & Reeve 1848 (*Zoology*); and Trew (1992: 14) to Adams & Reeve 1850 (*Zoology*). Figured as Volutocorbis abyssicola (Adams & Reeve, 1850 [sic]) by Abbott & Dance (1982: 212).

Buccinum hinnulus Adams & Reeve, 1848: [ii], pl. 7, figs. 10a-b; 1850: 32. Listed as Siphonalia hinnulus (Adams & Reeve) by Kuroda & Habe (1952: 86) but not located in later literature.

Murex. In the Zoology there are three species of Murex that appear to be newly described in 1850 but which were made available in 1848. These Murex names were complicated by the fact that Reeve (June 1849) published a Supplemental Plate to the Iconica "Monograph of the genus Murex," in which these species appeared to be described as new although all were shown as "Adams and Reeve, Moll. Voy. Samarang" with correct plate and figure references to the Zoology. There are six new species of Murex in the Iconica Supplement. Sherborn (1922–32) dated the three non-Samarang species as 1849 citing the Iconica and dated the three Zoology species as 1850 with reference to the Zoology. This discrepancy in dates was noted by Vokes (1971) who listed the three Zoology species as being published in 1849 and attributed authorship to Adams & Reeve in Reeve. Trew (1992) listed these species as dating from the Zoology without any mention of the Iconica. The three species are correctly:

Murex rorifluus Adams & Reeve, 1848: [ii], pl. 8, figs. 2a-b; 1850: 38. Placed in genus Ceratostoma by Vokes (1971: 91).

Murex plorator Adams & Reeve, 1848: [ii], pl. 8, figs. 3a–b; 1850: 38. Syntype figured as *Pteropurpura plorator* (Adams & Reeve. 1850 [sic]) by Higo et al. (2001: 64, fig. G2273).

Murex burnettii Adams & Reeve, 1848: [ii], pl. 8, figs. 4a–b; 1850: 38. Syntype figured as *Ceratostoma burnettii* (Adams & Reeve, 1850 [sic]) by Higo et al. (2001: 64, fig. G2269).

The last of these had been noted by Adams in the *Narrative* (p. 464). He mentioned, with no description, a "magnificent new [*Murex*] I propose naming in honour of Sir William Burnett."

Pleurotoma impages Adams & Reeve, 1848: [ii], pl. 9, figs. 1a-b; 1850: 39. Holotype figured by Kilburn (1985: 437, figs. 54-57, 60) as *Toxiclionella* (*Toxiclionella*) *impages* Adams & Reeve, 1850 [sic]. A South African species although locality was given as "China Sea."

Pleurotoma fagina Adams & Reeve, 1848: [ii], pl. 9, figs. 2a-b; 1850: 40. Placed in synonymy of *Turris annulata* (Reeve, 1843) by Powell (1966: 51).

Triton testudinarius Adams & Reeve, 1848: [ii], pl. 9, figs. 3a–b; 1850: 37. Lectotype figured as *Cymatium testudinarium* (Adams & Reeve, 1850 [sic]) by Higo et al. (2001: 48, fig. G1600).

Calyptraea trigonalis Adams & Reeve, 1848: [ii], pl. 9, figs. 7a-b; 1850: 70. Stated (on page 70) to be from the "China Sea," this is a Panamic-Pacific species placed in the synonymy of *Crucibulum lignarium* (Broderip, 1834) by Keen (1971: 463).

Conus. Adams & Reeve's first grouping under the gastropods is the Convoluta. Although not given a rank by them, Convoluta was a family in Reeve's *Tabula Methodica* (Reeve 1841, 1842) consisting of the genera *Erato, Cypraea, Ovula, Terebellum* and *Conus*. In the discussion under the heading Convoluta, the authors stated that:

"out of from eighty to a hundred species of Cones collected during the voyage of the Samarang, only four proved to be new, the greater number of those of recent discovery being anticipated by Mr.

Cuming during his researches among the Philippine Islands and described in the 'Conchologia Iconica.'" – (Adams & Reeve 1848: 17)

The basis for the number of new species is unknown as there are five new species of *Conus* described in the *Zoology*, three of which were stated to have been from the *Sulphur*. All five of these species were later included in the *Conus* Supplement to Reeve's *Iconica* as was another species attributed to the Samarang and evidently omitted from that work in error. This latter species is *Conus alabaster* Adams & Reeve in Reeve, 1849, *Iconica Conus* Supplement, pl. 6, fig. 257. As it is attributed to Adams & Reeve by Reeve, while the *Zoology* was in progress, it should be cited as here listed. Also cited as of Adams & Reeve by H. Adams & A. Adams (1853: 1: 253). The addition of *Conus alabaster* increases the number of Samarang *Conus* to three leaving the fourth unknown.

Ovulum. Immediately following the quotation cited above is:

"The genus *Ovulum*, not having been examined since the publication of Mr. Sowerby's 'Species Conchyliorum,' afforded a greater amount of novelty. Mr. Sowerby, junr., being engaged in preparing a monograph of this genus for the forthcoming number of his 'Thesaurus,' it was thought desirable to place the specimens collected in his hands for comparison, and we are indebted to him for the descriptions and figures of eleven new species."

The fact that the descriptions and figures were both by Sowerby escaped the attention of all later authors except Sowerby. In his *Thesaurus* (G.B. Sowerby II 1849) these new *Ovulum* species are correctly attributed by Sowerby to himself, with reference to the *Samarang* figures. Under Article 50.1.1 of the Code (International Commission on Zoological Nomenclature 1999), these names should be attributed to G.B. Sowerby II.

However, in the "Monograph of the genus *Ovulum*" in his *Conchologia Iconica* Reeve attributed the names to Adams & Reeve rather than to G.B. Sowerby II. Most recently, Trew (1992) attributed the *Samarang* ovulids to Adams & Reeve. The eleven new names are listed below in alphabetical order. Generic placement of these taxa is beyond the scope of this paper. Remarkably, ten of the eleven are still regarded as valid (Dr. Gary Rosenberg, personal communication, December 2005).

Ovulum acuminatum G.B. Sowerby II in Adams & Reeve, 1848

Ovulum bulla G.B. Sowerby II in Adams & Reeve, 1848

Ovulum bullatum G.B. Sowerby II in Adams & Reeve, 1848

Ovulum coarctatum G.B. Sowerby II in Adams & Reeve, 1848

Ovulum concinnum G.B. Sowerby II in Adams & Reeve, 1848

Ovulum dentatum G.B. Sowerby II in Adams & Reeve, 1848

Ovulum formosum G.B. Sowerby II in Adams & Reeve, 1848

Ovulum gracile G.B. Sowerby II in Adams & Reeve, 1848

Ovulum nubeculatum G.B. Sowerby II in Adams & Reeve, 1848

Ovulum recurvum G.B. Sowerby II in Adams & Reeve, 1848

Ovulum subreflexum G.B. Sowerby II in Adams & Reeve, 1848

A short note showing the correct attribution of the *Zoology* Ovulidae has been published (Petit 2006b).

Turritella and Eglisia. In the Zoology there are ten new species of Turritella and one Eglisia described with no indication that they were previously described in the Iconica, and there attributed to "Adams and Reeve, Moll. Voy. Samarang." These species, all dated 1850 from the Zoology by Trew (1992) and Sherborn (1922–1932), properly date from June 1849 in the Iconica monograph. Another Samarang Turritella, T. aquila, was described in the Iconica where it was attributed to Adams & Reeve, although it was not included in the Zoology. This species was listed by Trew as:

"Adams and Reeve 1854 [sic] in H. Adams and A. Adams 1853 [sic] 1: 351. This refers to *Turritella aquila* Reeve 1849."

This species was omitted by Sherborn, as it appears in the *Iconica* to have been in the *Zoology*. As explained elsewhere, he missed other species introduced in a similar manner. All of the Samarang *Turritella* and *Eglisia* species jointly described by Adams & Reeve, listed by Trew as of "Adams and Reeve in A. Adams, 1850," as well as *T. aquila*, should instead be attributed to: "Adams & Reeve in Reeve, 1849, Monograph of the genus *Turritella* [or *Eglisia*], *Conchologia Iconica*, Vol. 5" with appropriate plate and species numbers.

Fusus candelabrum Adams & Reeve in Reeve, 1848. Trew (1992: 20) listed this species as "*Trophon candelabrum* Adams and Reeve in H. Adams and A. Adams, 1853," stating that it refers to *Fusus candelabrum* Reeve, 1848. In the *Fusus* monograph of the *Iconica* where it is described it is credited to "Adams and Reeve, Moll. Voy. Samarang," both in the text and in the index, although it was not included in the *Zoology*. Not listed by Sherborn (1922–1932), it is attributed to Reeve, 1848 by Snyder (2003: 60). Figured as *Boreotrophon candelabrum* (Reeve, 1848) by Abbott & Dance (1982: 152).

Fasciolaria lugubris Adams & Reeve in Reeve, 1847. Trew (1992: 39) listed this species as of "Adams and Reeve in H. Adams and A. Adams, 1853," stating that it refers to Reeve 1847. In the *Fasciolaria* monograph of the *Iconica* where it is described, it is credited to "Adams and Reeve, Moll. Voy. Samarang" in the text and in the index. Not listed by Sherborn (1922–1932), it is properly attributed to "Adams & Reeve in Reeve, 1847" by Snyder (2003: 132). Figured as *Pleuroploca lugubris* (Reeve, 1847) by Abbott & Dance (1982: 183).

Fasciolaria porphyrostoma Adams & Reeve in Reeve, 1847. Trew (1992: 48) listed as "Tudicla porphyrostoma Adams and Reeve in H. Adams and A. Adams, 1853" stating: "This refers to Fasciolaria porphyrostoma Reeve, 1847." Snyder (2003: 164) attributed the species to Reeve 1847 with the comment that it was cited erroneously as of Adams and Reeve, "Samarang." That it was never published in the Samarang does not affect authorship, which is identical for both of the Fasciolaria species. Figured as Afer porphyrostoma (Adams & Reeve, 1847) by Abbott & Dance (1982: 210).

Fusus gracillimus, F. spectrum, F. acus. These three species were listed by Trew as having been described in the Zoology in 1850 and attributed by her to Adams and Reeve, 1850. The names of all three were on the References to Plates in 1848 but they had been described even earlier in the *Iconica*, the first two in January 1848, the third in February 1848. Authorship should be Adams & Reeve in Reeve, 1848 as shown by Snyder (2003). Now placed in Fusinus, F. spectrum is a Panamic species.

Bulimus gregarius and B. meiacoshimensis. These two species were listed by Trew (1992) as having been described in the Zoology in 1850 and attributed by her to Adams and Reeve, 1850. Sherborn (1922–1932) also dated them from the Zoology. However, both were described earlier in the Iconica, the first in December 1849, the second in February 1850. They should be attributed to Adams & Reeve in Reeve with appropriate dates. Present status of these two species has not been determined.

Chiton. This entry could have been under the *Iconica* section of this paper but some *Zoology* plates are also involved. Plate XV of the *Zoology* contains figures of four *Chiton* species but there are none in the text. The References to Plates for the entire *Zoology* volume has this statement on the last page (Adams 1848–50: xv):

"For description of Chitons figured in Plate XV, and inadvertently omitted in the text, see Monograph of that genus in 'Conchologia Iconica.'"

In the *Iconica* monograph, Plate 26 (July 1847) Reeve placed this statement under the first Belcher specimen: "For this and other interesting species represented in the accompanying plate, I am indebted to the kindness and liberality of Capt. Sir Edward Belcher, by whom they were collected during his recent

voyage in H.M.S. Samarang."

There are five species of *Chiton* on *Iconica* Plate 26, all stated to have been from Belcher. There is no mention of Adams. These five species had already been described in April (Reeve 1847c) in a paper in which Adams was not mentioned (see *Cardium bechei* Reeve, 1847 above).

On *Iconica* Plate 27 (October 1847), there are two species attributed to "Adams and Reeve, Moll. Voy. Samarang."

In the *Chiton* index in the *Iconica* all seven of these species are attributed to "Adams & Reeve." At the end of the monograph there are five unnumbered and uncolored plates showing only two valves of each to detail the sculpture. On the plate explanations for them, four of the species are attributed to Adams & Reeve and three to Reeve. The three attributed to Adams & Reeve are on the last plate. Correct authorship and dates of the chitons are:

Chiton coreanicus Reeve, 1847c: 24 Chiton fuliginatus Reeve, 1847c: 24 Chiton acutirostratus Reeve, 1847c: 25 Chiton petasus Reeve, 1847c: 25. Chiton formosus Reeve, 1847c: 25

Chiton scutiger Adams & Reeve in Reeve, 1847, Iconica Chiton Pl. 27, sp. 178

Chiton circellatus Adams & Reeve in Reeve, 1847, Iconica Chiton Pl. 27, sp. 180

In addition to the two Adams & Reeve species on *Iconica* Plate 27 there are two other new species. Those two were listed by Sherborn who omitted those referenced to the "Samarang." In his "Additions and Corrections" Sherborn (1932: 50) listed "*Chiton circellatus* 'Adams & Reeve' in R. [*teste* R.W.]." By listing the species on the basis of a correction received from 'R.W.' [Ronald Winkworth] and not going back to the *Iconica*, he still omitted *Chiton scutiger*:

It appears that Reeve originally did not intend coauthoring these *Chiton* species. Between April and October 1847 he may have decided that it would be expedient to retroactively add Adams as a coauthor as he was not only going to publish the *Narrative* and the *Zoology*, but also coauthor the mollusks of the *Zoology*. It is not known exactly when Reeve and Adams joined forces, but at a meeting of the Linnean Society of 16 February 1847 Reeve announced the importance of the H.M.S. Samarang collections. It was also reported that:

"Some interesting drawings of mollusks, known only hitherto by their shells, had been taken from the living animal by the assistant-surgeon, Mr. A. Adams; and Mr. Reeve hoped, with the assistance of the Lords Commissioners of the Admiralty, to co-operate with that gentleman in bringing them before the public." – (Anonymous 1847a: 171)

Adams clearly considered himself to be a coauthor. All chitons here listed were attributed to Adams & Reeve, under various genera of Chitoninae, in H. Adams & A. Adams (1854). The only exception was their use of *cancellatus*, an error for *circellatus*.

Trew (1992: 20) listed *Acanthochites cancellatus* Adams and Reeve in H. Adams and A. Adams, 1853 [sic; =1854] 1: 483. This is H. Adams & A. Adams' error for *Chiton circellatus* Adams & Reeve in Reeve. If it were not it would be a *nomen nudum*. Trew cited all of the other chitons listed here in the form of: "*Acanthochites scutiger* Adams and Reeve in H. Adams and A. Adams, 1853 [sic] 1: 483. This refers to *Chiton scutiger* Reeve, 1847."

Hemipecten Adams & Reeve, 1849 and Hemipecten forbesianus Adams & Reeve, 1849. Included here as it is usually attributed to the *Zoology*, the convoluted history of this genus name and the single included species is particularly interesting. At the meeting of the Zoological Society of London on 14 November 1848, as reported in *The Literary Gazette*:

"Mr. Lovell Reeve read a paper by Mr. Adams and himself, on *Venilia concentrica*, a new genus and species of acephalous mollusks, collected by Sir Edward Belcher, C.B., during the voyage of H.M.S.

Samarang. The peculiarity of this shell, of which the animal was not preserved, consists in the lower valve having a remarkable lateral incision on the left side, after the manner of *Pedum*, whilst the hinge partakes of the structure of *Pecten* and *Avicula*; both valves are, moreover, of the same fragile tenuity as the *Placuna placenta*." – (Anonymous 1848b: 776)

The reporter added a comment that "the authors considered it an entirely new form."

As usual, the papers presented at the meeting were not published until several months later. This was fortuitous as the genus name initially selected by Adams and Reeve, *Venilia*, is preoccupied by *Venilia* Duponchel, 1829 (Lepidoptera). This prior usage must have come to Reeve's attention as in his diary for 12 March 1849 (Melvill 1900: 352) he wrote:

"Much engaged to-day in remodelling the description of our new genus, which instead of calling *Clymene*, have christened *Hemipecten*. The *Nomenclator* [= Catlow & Reeve 1845] is charged to the brim with the names of sea-nymphs, there is not a Nereid left! And the daughters of Oceanus are all 'used up.' Its affinities appear now to come nearer to *Anomia* than *Pedum*, but more allied to *Pecten* than either."

It is obvious that Reeve considered using *Clymene*, another preoccupied name, instead of *Venilia* before finally settling on *Hemipecten*, just in time to have that name appear in the printed *Proceedings of the Zoological Society of London* (25 April). When printed in the *Proceedings* the species-group name was changed from *concentrica* to *forbesianus*. The stated reason for the name was:

"Trusting that this interesting subject may assist the developmental views of Professor Edward Forbes, we have the pleasure of distinguishing the species by his name." – (Adams & Reeve 1849: 134)

Hemipecten Adams & Reeve was incorrectly dated as 1848 by Neave (1949: 610) from the *Zoology*. He did not realize that not all of that work was published in 1848 and that the part including *Hemipecten* did not appear until 1850 (page 72, plate 20). Hemipecten forbesianus is treated as a new species in the *Zoology* with no reference to the earlier *Proceedings*. There the authors made the rather incongruous statement that:

"We have the pleasure to name the species in honour of Professor Edward Forbes, who notices the genus, in his valuable work on the British Mollusca, as affording a curious intermediate link between *Pecten* and *Anomia.*"

Hemipecten was mentioned by Forbes (Forbes & Hanley 1849 2: 323, 1 September) in one sentence:

"Anomia has really very close relations with *Pecten*, and is connected to the latter by the curious genus *Hemipecten* of Reeve [sic; not Adams & Reeve]."

The Monograph of the Genus *Hemipecten* in Reeve's *Conchologia Iconica* consists only of a treatment of this species. Reeve began the monograph by stating:

"The subject of the present new genus, proposed by Mr. Arthur Adams and myself in the 'Mollusca of the Voyage of the Samarang,' is an inequivalve shell of the lamellibranchiate family *Pectinacea*, intermediate in its characters between *Pecten* and *Anomia*."

It was typical of Reeve to make a statement of this sort at the same time that he cited the location of the original description in the *Proceedings*, with correct page number. This monograph in the *Iconica* is dated September 1849, and he cited the *Zoology* plate but not the page. The *Zoology* mollusk plates were printed before the text but most were distributed with appropriate text. In this instance both the plate and text were issued together. Reeve also repeated verbatim the sentence from the *Zoology* naming the species for Professor Forbes.

The illustration of this species in the *Proceedings* shows both valves of a specimen. On the same plate is a large *Placuna* illustrating an article by Gray. The *Proceedings* plate was lithographed by William Wing and printed by Reeve, Benham, & Reeve. The plate in the *Zoology* is a steel engraving by J.D.C. Sowerby, also printed by Reeve, Benham, & Reeve. The plate was reengraved, probably being transferred to a lithographic stone, for the *Iconica* without the border and "Mollusca" at the top but with the genus name on the plate. This

plate is singular in being the only plate in the *Iconica* drawn by J.D.C. Sowerby.

Although the species group name *concentrica* was made available, albeit accidentally, in 1848, the later name *forbesianus* is firmly entrenched in the literature and should be retained under Article 23.9.1 (I.C.Z.N. 1999). Documentation to meet the conditions of Article 23.9.1.2 is beyond the scope of this paper but should be done by some interested worker. It should be noted that the species group name *concentrica* is not used herein as the "presumed valid name" of the species.

Pecten reevei Adams in Adams & Reeve, 1850. This species was attributed by Trew (1992: 51) to Adams & Reeve. However, the description is followed by "Adams, MS" indicated that he alone wrote the description. Under Article 50 (I.C.Z.N. 1999) Adams is the author of the name. Authorship was correctly shown by Reeve (1853 *Iconica Pecten* pl. 23) and by H. Adams & A. Adams (1858 2: 552). Placed in the genus *Annachlamys* by Higo et al. (1999: 445)

Cardium adamsii Reeve in Adams & Reeve, 1850. The situation with this species is identical to the one above, except the description is followed by "Reeve, MSS." Attributed to Adams & Reeve by Trew (1992: 14), it was correctly attributed to Reeve in Adams & Reeve by H. Adams & A. Adams (1858 2: 459). Listed as *Trigoniocardia adamsii* (Adams & Reeve, 1850) by Bernard et al. (1993: 71).

Codakia fibula (Reeve, 1850). There are two species of Lucina listed and figured in the Zoology, L. fibula and L. sericata. Both were attributed to Reeve in the Iconica and the statement made that "[these species] were incidentally described and figured in the Conchologia Iconica whilst the accompanying plate was in the hands of the engraver." That statement is arguable as Lucina fibula appears on Iconica plate 7, printed by Reeve, Benham, and Reeve whereas L. sericata is on plate 9, printed by Frederic Reeve. Although the text for both plates is dated June 1850, plate 9 could not have been printed before the last week of June. All of the Zoology mollusk plates were printed by Reeve, Benham, and Reeve. Trew (1992: 31) listed "Codakia fibula Adams and Reeve in H. Adams and A. Adams, 1853," with the comment that the Adams' listing refers to Lucina fibula Reeve, 1850. This was an error on the part of the Adams brothers as there are no descriptions of these lucinids in the Zoology and the Samarang was not mentioned by Reeve in the Iconica where the species were based on Cuming specimens. Lucina sericata, an eastern Pacific taxon, is not listed in H. Adams and A. Adams (1853–1858) or in Trew (1992).

Thracia trigonalis Adams & Reeve, 1850. Trew (1992: 60) listed this species and also listed "*Capsa trigonalis* Adams & Reeve, 1856 in H. & A. Adams." However, the Adams' treatment was simply a transfer of the species from *Thracia* to *Capsa*. Listed as *Leptomya trigonalis* (Adams & Reeve, 1850 [sic]) by Higo et al. (1999: 491).

The Land and freshwater mollusks indigenous to, or naturalized in, the British Isles

This 1863 book was Reeve's last large work. It was dedicated to John Edward Gray as already mentioned. Thomas Bell (1792–1880) reviewed the book (Bell 1863) and took issue with most of Reeve's doctrines concerning distribution. He especially disliked the selection of English names for the species, stating that he was "a little annoyed at some ... which are invariably mere naked translations, and not always accurate

ones, of the Latin specific name."

However, Bell admitted to those being comparatively trivial items that

"do not militate against the true value and merit of the work."

There was high praise for Sowerby's figures and even more for the

"drawings of the animals by Mr. O. Jewett [that are] without exception, surpassingly life-like and beautiful. The little limaces, &c., are actually gliding over the leaves"

Bell closed his long review with praise for the book, especially for the details concerning geographical distribution and ecological data. The praise of Jewett's engravings was not overstated by Bell as they are, in a word, exquisite.

A review in the *Annals and Magazine of Natural History* was quite critical of the work. While this reviewer also had high praise for Jewett's illustrations, those of Sowerby were said to be, in some instances, "not only worthless, but calculated to mislead." The reviewer stated that:

"It is with much regret that we notice the numerous changes in nomenclature which Mr. Reeve seeks to introduce, changes in almost every instance uncalled for, in many cases actually wrong. Obsolete names, originally appended to descriptions of Mollusca so loosely and inaccurately defined as to apply with equal truth to many species, are here dragged from their merited oblivion, and made to supersede names which have been familiar to European conchologists for the last half-century. It is impossible to criticise all the changes thus made; but let us examine those that are introduced into a single genus: let it be *Planorbis*." —(Anonymous 1863)

This was followed by a lengthy discussion of the reviewer's disagreement with Reeve's treatment of various species of *Planorbis* and his use of the 10th edition of Linnaeus instead of the 12th. At the time there was debate about which edition should be accepted as the "first" and it was only later that the 10th edition was declared to be the starting point of our current system of zoological nomenclature. Reeve (1863b) immediately replied defending his use of the 10th edition and also about the attribution of a name to Moquin-Tandon. The editors placed another note after that letter stating that Reeve's statements about the 10th edition were:

"totally at variance with the generally received opinion of naturalists that the twelfth is the standard edition of Linnaeus's work, which is to be referred to and followed."

Reeve's statement about Moquin-Tandon was also refuted. This brought, in turn, another letter from Reeve (1863c) that simply asked the Editor to permit him to withdraw that portion of his earlier letter stating that he followed Moquin-Tandon, and apologized for his carelessness in making the statement. Reeve made no further comment on the adoption of the 10^{th} edition of Linnaeus, a position in which he was to be proved correct.

Reeve sent a copy of the book to Darwin who wrote him a letter of thanks on 25 April 1863.

The book was, of course, published by Reeve and Co. and bound, as were many of Reeve's publications, by Westleys & Co. The front cover has a gilt imprint of a helicid land snail crawling on a leaf.

Non-molluscan productions

The Literary Gazette and Journal of Belles Lettres, Sciences, and Art. Reeve became editor and proprietor of *The Literary Gazette* on 1 January 1851 and continued as such until 1 July 1858. In December 1850 there were full page advertisements announcing

"an important change in the Price, Content, and Conduct of *The Literary Gazette*." It was stated that

"All New English Books of interest, and occasionally Foreign Works, will be entrusted for review to the first writers of the day, and no department of literature will be unrepresented. Books of Philosophy, Classics, History, Biography, Archaeology, Travels, Poetry, Plays, Works of Fiction, &c., will be reviewed by the highest authorities on the respective subjects; and the progress of Natural and Physical Science will be ably shown in the reviews of Scientific Books and Memoirs."

In actual fact, the content of the *Gazette* was little changed. The title was emended slightly from time to time, both before and after Reeve's tenure, being simply *The Literary Gazette* for a time and expanded to include "*Journal of Archaeology, Science, and Art*" before reverting to a title similar to the original. Reeve was succeeded as editor by J. M. Jephson, with whom Reeve had taken "*A Walking Tour in Brittany*."

While Reeve probably wrote many of the reviews and other portions of the *Gazette* we have no means of knowing which. Several critical reviews are almost certain to have come from his pen. One such is a particularly vituperative attack on Gray in a review of Gray's edition of Leach (Anonymous 1853). As it cannot be definitely attributed it will not be quoted here. An exception has been made for the item in the "Gossip of the Week" column for 21 March 1857, concerning Candidates for the Fellowship of the Royal Society, quoted earlier in this paper but without definite attribution.

Curtis's Botanical Magazine, started in 1811, was purchased by Reeve in 1845. The July 1845 issue was the first under his ownership. The editor was Sir William Hooker, Director of the Royal Botanic Gardens at Kew. Much interesting information about this magazine and its operation, especially Reeve's disputes with Hooker about prices, may be found in Great Natural History Books and their Creators (Desmond 2003). A Celebration of Flowers (Desmond 1987) with the subtitle "Two hundred years of Curtis's Botanical Magazine," is a complete history of this serial. Published by the Reeve firm until the end of 1920, Curtis's is still being published and is the oldest periodical in existence with colored plates (Desmond 2003: 113). Desmond's two works (1987, 2003) should be consulted for more information about the history of this serial publication.

Floral Magazine was started by Reeve after a dispute with Hooker, who wanted a higher fee for his own text and also for his artist, Fitch. Reeve wanted a more popular periodical, so over Hooker's objections he started the *Floral Magazine* in May 1860. It was, in Reeve letters quoted by Desmond (2003: 111), to be

"devoted chiefly to meritorious varieties of such introduced plants only as are of a popular character and likely to become established favourites in the Garden, Hothouse or Conservatory... [with *Curtis's* to continue]... to represent the scientific department of Garden Botany."

The Floral Magazine lasted until 1881.

The Stereoscopic Magazine, the first magazine illustrated entirely with stereoscopic views, was owned and published by Reeve. It first appeared on 1 July 1858, advertised as:

"A gallery of English and foreign landscape scenery, architecture, antiquities, natural history, sculpture, and portraiture; comprised in illustrations for the Book Stereoscope, printed under the superintendence of James Glaisher, Esq., F.R.S., and accompanied with descriptive letter-press by writers of eminence in the respective departments." To be issued "in monthly numbers, at 2s. 6d., each containing three photo-stereographs of subjects to which it has been found that photography can be most successfully applied. Amongst these Architecture stands pre-eminent. The sun's rays print upon the plate every moulding, and even the smallest inscription which no artist's pencil could follow..."

The magazine ceased publication in February 1865 after its 80th issue. A complete listing of the contents is available on the Internet (Holland 2002).

The Book Stereoscope, manufactured for viewing stereographs in books, was stated to be available "of any bookseller or optician, price 3s. 6d." The reference to the "sun's rays" was literal as the photographic prints were developed by sunlight.

The Stereoscopic Cabinet: or Monthly Packet of Pictures for the Stereoscope was initiated by Reeve in November 1859. His advertised reason was that "there are many subjects of the highest general interest of which a description in detail is scarcely needed." The stereo views were mounted on card stock and were "suitable for use with any type of viewer." The Cabinet was produced under James Glaisher's supervision. Details on this and other stereoscopic publications by Reeve have been detailed by Stark (1981).

Portraits of Men of Eminence in literature, science and art, with biographical memoirs. The photographs from life, by Ernest Edwards, B.A. Six volumes of this work were produced from 1863–1867. The first two

volumes were edited by Reeve and the rest by Edward Walford (1823–1897). Walford also edited several other biographical and genealogical works.

Ernest Edwards (1837–1903) was an accomplished photographer, best known for having introduced the 'heliotype,' a modified collotype process (Stark 1981: 14). The photographs in the *Portraits* are fragile albumen prints. This reference can now be found only in rare book rooms, and even then access and examination is limited. It is a work that should be digitized and made available to biographers.

The biographical articles that accompany the photographs are not attributed. It is known that Reeve himself wrote the article on Hugh Cuming (Dance 1986: 247). About 36 of the articles were written by Robert Hunt (1807–1887) including the one on Lovell Reeve that was in press at the time of Reeve's death. The Natural History Museum (London) holds a manuscript collection of Hunt's proof copies of the biographical memoirs he wrote as well as the memoir on Hunt himself that was written by Lovell Reeve. Hunt noted Reeve's authorship on the copy that is in his manuscript collection.

Reeve's reason for starting this series is not known. When it was started in 1863 he evidently had all of the publishing work he could handle. It may have been a means of favoring those from whom he had received publishing commissions or from whom he hoped to obtain them in the future. Also, it presented the opportunity to curry favor with Fellows of the Royal Society as he greatly desired admission into the Society. Another possibility, considered equally likely, is that Reeve wished to have some forum where he would forever be associated with the best known scientists and scholars of the time.

Reeve bibliography

An attempt has been made to identify and list all published work by Lovell Reeve. Unfortunately it has not been possible to positively attribute to him editorial matter that he wrote as editor of the *Literary Gazette*. It is also probable that he authored biographical articles for *Portraits of men of eminence* in addition to the two that can be definitely attributed to him.

In the following list the three works that Reeve coauthored with other persons are listed first. Next are his serially published works followed by his articles and books. It seems not to have been noted by librarians and most authors that he invariably published as Lovell Reeve. His full name, Lovell Augustus Reeve, appears only on the Volume title pages of the *Conchologia Iconica*. The individual *Iconica* monograph title pages show him as Lovell Reeve as does the overriding series title page. There are no published works that can be attributed to him as Lovell Augustus Reeve although his works will almost certainly continue to be so cited.

Co-authored publications

Adams, A. & Reeve, L. (1848–50) *Mollusca. In*: A. Adams, ed. *The Zoology of the voyage of H.M.S. Samarang; under the command of Captain Sir Edward Belcher. C.B., F.R.A.S., F.G.S. during the years 1843–1846.* Reeve, Benham, and Reeve, London. x + 87 + [ii] pp., pls. 1–24. [Pt. I, i–x (by Adams only), 1–24, i–ii (plate explanations), pls. 1–9, 1 November 1848; Pt. II, 25–44, pls. 10–17, 27 April 1850; Pt. III, 45–87, pls. 18–24, 31 August 1850.]

Adams, A. & Reeve, L. (1849) Description of a new genus of Acephalous Mollusca, of the family Pectinacea, collected by Capt. Sir Edward Belcher during the voyage of H.M.S. Samarang. *Proceedings of the Zoological Society of London*, 16, 133–134, pl. 1, fig. 2. (25 April); *Annals and Magazine of Natural History*, (2)4, 371–372 (1 November)
Catlow, A. & Reeve, L. (1845) *The Conchologist's Nomenclator*. Reeve, Brothers, London. [1] + viii + 326 pp.

Serially published works

Reeve, L. (1841–42) Conchologia Systematica, or complete system of conchology; in which the Lepades and Conchiferous Mollusca are described and classified according to their natural organization and habits. Longman, Brown, Green and Longman's, London. 2 volumes. [Published in 12 parts. See collation herein.]

Reeve, L. (1843–78) [continued by G.B. Sowerby II] *Conchologia Iconica; a complete repertory of species.* London. 20 volumes. [Vols. 1–14 and parts of 15 and 16 are by Reeve as detailed herein; remainder by G.B. Sowerby II. Should

- be cited, by monograph, as a serial publication.]
- Reeve, L. (1846–49) Initiamenta Conchologica; or elements of conchology, comprising the physiological history of shells and their molluscous inhabitants, their structure, geographical distribution, habits, characters, affinities, arrangement, and enumeration of species. Reeve Brothers, London. [i–ii], 1–160, pls. A–I, K–N, 1–37. [See collation herein.]
- Reeve, L. (1846–60) *Initiamenta Conchologica; or elements of conchology, comprising the physiological history of shells and their molluscous inhabitants, their structure, geographical distribution, habits, characters, affinities, arrangement, and enumeration of species.* Reeve Brothers, London, 2 vols. [See collation herein.]
- Reeve, L. (1860) *Elements of Conchology; an introduction to the natural history of shells and of the animals which form them.* Published by the author, London. 2 vols. 1, i–vii, 1–260, pls. A–H, 1–21; 2, i–vi, 1–203, pls. I, K–Q, 22–46. [See discussion herein.]

Articles and books. As was customary at the time, many papers first published elsewhere were reprinted in the *Annals and Magazine of Natural History.* That procedure is sometimes confusing as the *Annals* also published original papers and the appearance of a paper therein does not necessarily imply that there is a corresponding earlier paper elsewhere. Identical papers published in more than one journal are listed together under the earliest date.

Many of the papers in the *Proceedings of the Zoological Society of London* and *Annals and Magazine of Natural History* did not have titles as such and were headed with the secretary or editor's description of the paper presented. Excerpts from those headings, or a simple description of the subject matter, are taken as "titles" and are in square brackets. The reviews from *The Athenaeum* attributed to Reeve were either credited to him in later works or by the indexers of *The Athenaeum*.

As all of the following are by Lovell Reeve, his name is not repeated.

- 1835. [Descriptions of two species of shells]. Proceedings of the Zoological Society of London, 3, 68. (2 September)
- 1841a. Key to a valuable collection of Recent shells, containing many of extreme rarity, arranged and named in illustration of Reeve's Systematic Conchology, and now exhibiting at the Royal Polytechnic Institution, 309 Regent Street, (in the Upper Gallery at the further end of the Hall.). Privately printed, London. 10 pp. (foreword 1 December)
- 1841b. [Description of *Mitra stainforthii*] *In:* Anonymous, [Report of the] Zoological Society. *The Literary Gazette, and Journal of the Belles Lettres*, 785. (4 December)
- 1842a. Tabula Methodica, pp. 74–76. *In*: Anonymous, [Mr. Reeve's forthcoming *Conchologia Systematica*]. *Proceedings of the Zoological Society of London*, 9, 72–76. (March); *Annals and Magazine of Natural History*, 9, 148–152. (1 April)
- 1842b. Description of a new species of *Corbis*, a genus of acephalous mollusks of the family Nymphacea. *Proceedings of the Zoological Society of London*, 9, 85–86. (March); *Annals and Magazine of Natural History*, 9, 504. (1 August)
- 1842c. [A new species of *Mitra*]. *Proceedings of the Zoological Society of London*, 9, 93. (March); *Annals and Magazine of Natural History*, 9, 509. (1 August)
- 1842d. On *Lingula*, a genus of Brachiopodous mollusks. *Proceedings of the Zoological Society of London*, 9, 97–101. (May); *Annals and Magazine of Natural History*, 10, 210-213. (1 November)
- 1842e. Description of a new species of *Carinaria*, a genus of Nucleobranchiate mollusks. *Annals and Magazine of Natural History*, 9, 140–141, plate 2. (1 April)
- 1842f. On the genus *Scarabus*, a small group of Pulmobranchiate mollusks of the family Auriculacea. *Annals and Magazine of Natural History*, 9, 218–221, plate 4. (1 May)
- 1842g. Scarabus castaneus. Annals and Magazine of Natural History, 10, 74-75. (1 September)
- 1842h. Monograph of *Crassatella*, a genus of Acephalous mollusks (Family Mactracea). *Proceedings of the Zoological Society of London*, 10, 42–46. (November); *Annals and Magazine of Natural History*, 11, 302–306. (1 April 1843)
- 1842i. Descriptions of new species of shells, principally from the collection of Hugh Cuming, Esq. *Proceedings of the Zoological Society of London*, 10, 49–50. (November): *Annals and Magazine of Natural History*, 11, 308–309. (1 April 1943)
- 1842j. Descriptions of four new species of *Achatina*, a genus of Pulmonobranchiate mollusks of the family Colimacea. *Proceedings of the Zoological Society of London*, 10, 55–56. November); *Annals and Magazine of Natural History*, 11, 313–314. (1 April 1843)
- 1842k. Monograph of the genus *Tornatella*, a small group of Pectinibranchiate mollusks of the family Plicacea, including descriptions of seven new species, from the collection of H. Cuming, Esq. *Proceedings of the Zoological Society of London*, 10, 58–62. (November); *Annals and Magazine of Natural History*, 11, 387–390. (1 May 1843)

- 1843a. Descriptions of two new species of *Oniscia*, a genus of pectinibranchiate mollusks. *Proceedings of the Zoological Society of London*, 10, 91. (January); *Annals and Magazine of Natural History*, 11, 475–476. (1 June)
- 1843b. Descriptions of new species of *Delphinula*, a genus of Pectinibranchiate mollusks (Family Turbinacea). *Proceedings of the Zoological Society of London*, 10, 102–104. (January); *Annals and Magazine of Natural History*, 11, 521–523 (1 June)
- 1843c. [A new species of the genus *Murex*]. *Proceedings of the Zoological Society of London,* 10, 104. (January); *Annals and Magazine of Natural History,* 11, 523. (1 June)
- 1843d. History and observations on the Pearly Nautilus, involving a new theory to account for the camerated construction of its shell by the aid of the siphonic membrane. *Annals and Magazine of Natural History*, 11, 119–125. (1 February)
- 1843e. On the genus *Phorus*, a group of agglutinating mollusks of the family Turbinacea. *Proceedings of the Zoological Society of London*. 10, 160–163. (February): *Annals and Magazine of Natural History*, 12, 214–217. (1 September)
- 1843f. [New species of the genera *Trochus* and *Turbo*]. *Proceedings of the Zoological Society of London*, 10, 184–186. (February); *Annals and Magazine of Natural History*, 12, 286–289. (1 October)
- 1843g. [Descriptions of new species of shells figured in the 'Conchologia Systematica']. *Proceedings of the Zoological Society of London,* 10, 197–202. (February); *Annals and Magazine of Natural History,* 12, 370–373. (1 November)
- 1843h. Descriptions of four new species of *Conus*, a genus of Pectinibranchiate mollusks. *Proceedings of the Zoological Society of London*. 11, 12–13. (July); *Annals and Magazine of Natural History*, 12, 449. (1 December)
- 1843i. [Descriptions of various new shells, about to be figured in the 'Conchologia Iconica.'] *Proceedings of the Zoological Society of London*, 11, 31–34. (October); *Annals and Magazine of Natural History*, 13, 132–135. (1 February 1844)
- 1843j. [Description of a new species of *Cyclostoma*, from the Cordilleras Mountains.] *Proceedings of the Zoological Society of London*, 11, 46. (October); *Annals and Magazine of Natural History*, 13, 145–146. (1 February 1844)
- 1843k. Descriptions of new species of shells about to be figured in the 'Conchologia Iconica.' *Proceedings of the Zoological Society of London,* 11, 79–81. (December); *Annals and Magazine of Natural History,* 13, 388–389. (1 May 1844)
- 1844a. Descriptions of new species of *Delphinula*, a genus of pectinibranchiate mollusks, collected for the most part by H. Cuming, Esq. in the Philippine Islands. *Proceedings of the Zoological Society of London*, 11, 141–143. (March); *Annals and Magazine of Natural History*, 13, 515–517. (1 June)
- 1844b. [Description of a new species of *Voluta*.] *Proceedings of the Zoological Society of London*, 11, 143–144. (March); *Annals and Magazine of Natural History*, 13, 406 (1 May). [The *Proceedings of the Zoological Society of London* paper does not have a title; the *Annals and Magazine of Natural History* paper has a title but authorship is not shown.]
- 1844c. Descriptions of new species of shells figured in the 'Conchologia Iconica.' *Proceedings of the Zoological Society of London,* 11, 168–197. (June); *Annals and Magazine of Natural History,* 14, 205–218 (1 September), 297–309. (1 October) [In the *Annals and Magazine of Natural History* some of the discussions about species were omitted.]
- 1844d. [Description of seven new species of *Glauconome*]. *Proceedings of the Zoological Society of London*, 12, 19–21. (July); *Annals and Magazine of Natural History*, 14, 372–373. (1 November)
- 1844e. [Description of thirty-three new species of *Arca*]. *Proceedings of the Zoological Society of London,* 12, 39–48. (September); *Annals and Magazine of Natural History,* 14, 486–495. (1 January 1845)
- 1844f. Monograph of the genus *Myadora*, a small group of Acephalous mollusks of the family Myaria. *Proceedings of the Zoological Society of London*, 12, 91–93. (October); *Annals and Magazine of Natural History*, 15, 61–64. (1 January 1845)
- 1844g. Descriptions of new species of Tritons, collected chiefly by H. Cuming, Esq. in the Philippine Islands. *Proceedings of the Zoological Society of London*, 12, 110–122. (December); *Annals and Magazine of Natural History*, 15, 199–210. (1 May 1845)
- 1844h. Descriptions of new species of *Arca*, chiefly collected by H. Cuming, Esq. in the Philippine Islands. *Proceedings of the Zoological Society of London*, 12, 123–128. (December); *Annals and Magazine of Natural History*, 15, 355–359. (1 May 1845)
- 1844i. Description of new species of *Ranella. Proceedings of the Zoological Society of London*, 12, 136–140. (December); *Annals and Magazine of Natural History*, 15, 360–363. (1 May 1845)
- 1845a. Descriptions of new species of *Mitra* and *Cardium. Proceedings of the Zoological Society of London,* 12, 167–187. (February); *Annals and Magazine of Natural History,* 15, 475–495. (1 July)
- 1845b. Descriptions of eighty-nine new species of *Mitra. Proceedings of the Zoological Society of London,* 13, 45–61. (September); *Annals and Magazine of Natural History,* 16, 257–273. (1 October)
- 1845c. On the dissolution and re-calcification of the shell in *Cypraea*, a genus of Pectinibranchiate mollusks. *Annals and Magazine of Natural History*, 16, 374–377. (1 December) [Not identical to the similarly titled 1846b.]
- 1846a. Descriptions of new species of *Murex. Proceedings of the Zoological Society of London,* 13, 85–88. (January); *Annals and Magazine of Natural History,* 17, 129–133. (1 February)

- 1846b. On the growth and re-calcification of the shell in *Cypraea*, a genus of Pectinibranchiate Mollusca. *Proceedings of the Zoological Society of London*, 13, 133–135. (February) [Not identical to the similarly titled 1845c.]
- 1846c. Descriptions of new species of shells. *Proceedings of the Zoological Society of London*, 13, 108–119. (February); *Annals and Magazine of Natural History*, 17, 290–292, 363–372. (290–292, 1 April; 363–372, 1 May)
- 1846d. [Letter re Zoological Society]. *The Athenaeum* 964, 396. (18 April) [Signed F.Z.S. but Reeve attributed to himself in 1846g.]
- 1846e. [Continuation of 'Descriptions of new species of shells']. *Proceedings of the Zoological Society of London*, 14, 3–6. (May); *Annals and Magazine of Natural History*, 17, 478–481. (1 June)
- 1846f. Descriptions of two new species of *Cypraea. Proceedings of the Zoological Society of London,* 14, 23. (May); *Annals and Magazine of Natural History,* 18, 54. (1 July)
- 1846g. Letter to the Right Honourable the Earl of Derby, K.G., D.C.L., on the management, character, and progress of the Zoological Society of London. Reeve Brothers, London. 26 pp. + 1 table. (1 June)
- 1846h. Descriptions of forty new species of *Haliotis. Proceedings of the Zoological Society of London,* 14, 53–59. (August); *Annals and Magazine of Natural History,* 18, 197–202. (1 September)
- 1846i. Descriptions of fifty-four new species of *Mangelia*, from the collection of H. Cuming, Esq. *Proceedings of the Zoological Society of London*, 14, 59–65. (August); *Annals and Magazine of Natural History*, 18, 202–208. (1 September)
- 1847a. Descriptions of new species of *Chama. Proceedings of the Zoological Society of London,* 14, 117–120. (26 January); *Annals and Magazine of Natural History,* 19, 270–273. (1 April)
- 1847b. On the calcifying functions of the Cowry and the Olive, two genera of Pectinibranchiate mollusks. *Proceedings of the Linnean Society of London*, 1, 307–308. (16 February); *Annals and Magazine of Natural History*, 19, 197–199. (1 March)
- 1847c. Descriptions of new species of shells collected in the Eastern Archipelago by Capt. Sir Edward Belcher and Mr. Adams during the Voyage of H.M.S. Samarang. *Proceedings of the Zoological Society of London,* 15, 24–26. (13 April); *Annals and Magazine of Natural History,* 19, 416–418. (1 June)
- 1847d. On the structure and comparative physiology of *Chiton* and *Chitonellus. Proceedings of the Linnean Society of London*, 1, 322–323. (13 May); *Annals and Magazine of Natural History*, 19, 454–455, (1 June 1847); *Transactions of the Linnean Society of London*, 20, 479–481. (24 May 1851)
- 1847e. On the dissimilarity in the calcifying functions of mollusks, whose organization is in other respects similar. Report of the Sixteenth Meeting of the British Association for the Advancement of Science; held in Southampton in September 1846, 82. [This is more in the nature of a review than an original paper and refers to the similarly titled 1847b]
- 1848a. On the habits and geographical distribution of *Bulimus*, a genus of air-breathing mollusks. *Annals and Magazine of Natural History,* (2)1, 270–274. (1 April)
- 1848b. On *Fastigiella*, a new genus of shells of the Lamarckian family Canalifera. *Proceedings of the Zoological Society of London*, 16, 14–15. (13 April); *Annals and Magazine of Natural History*, (2) 2, 66. (1 July)
- 1848c. Descriptions of new species of *Turbo*, chiefly from the collection of Hugh Cuming, Esq., F.L.S. *Proceedings of the Zoological Society of London*, 16, 49–52. (2 December); *Annals and Magazine of Natural History*, (2)3, 227–230. (1 March 1849)
- 1849a. On a new species of Argonaut, *A. owenii*, with some observations on the *A. gondola*, Dillwyn. *Report of the Eighteenth Meeting of the British Association for the Advancement of Science; held at Swansea in August 1848*, 80–81.
- 1849b. [Review of] Principles of scientific botany; or, botany as an inductive science. By Dr. M.J. Schleiden. Translated by Edwin Lankester, M.D. *The Athenaeum* 1152, 1175–1176. (24 November)
- 1849c. Description of a new species of *Bulimus* from the collection of A. L. Gubba, Esq., of Havre. *Proceedings of the Zoological Society of London*, 16, Mollusca Plate 2, fig. 10 [plate only]. (1 June 1849); *Proceedings of the Zoological Society of London*, 17, 16, Mollusca Plate 2, fig. 10. (11 December); *Annals and Magazine of Natural History*, (2)5, 61. (1 January 1850)
- 1850a. On the discovery of a living representative of a small group of fossil volutes occurring in the Tertiary rocks. Report of the Nineteenth Meeting of the British Association for the Advancement of Science; held at Birmingham in September 1849, 64–65. (pre-May 1850)
- 1850b. Descriptions of sixteen new species of *Bulimus*, in the collection of H. Cuming, Esq., discovered by Mr. William Lobb in the Andes of Peru. *Proceedings of the Zoological Society of London*, 17, 96-100. (pre-July 1850); *Annals and Magazine of Natural History*, (2)6, 61–65. (1 July)
- 1850c. Description of a new species of *Cytherea*. *Proceedings of the Zoological Society of London*, 17, 126. (pre-July 1850); *Annals and Magazine of Natural History*, (2)6, 291. (1 October)
- 1850d. [Obituary] The Rev. William Kirby. *The Athenaeum* 1185, 737. (13 July)
- 1850e. [Review of] An introduction to conchology; or, elements of the natural history of molluscous animals. By George Johnston, M.D., L.L.D. *The Athenaeum* 1186, 761–762. (20 July)
- 1850f. On a new species of Lymnaea from Thibet. Proceedings of the Zoological Society of London, 18, 49. (12 Novem-

- ber); Annals and Magazine of Natural History, (2)7, 331. (1 April 1851)
- 1851a. On the geographical distribution of the *Bulimi*, a genus of terrestrial Mollusca, and on the modification of their shell to the local physical conditions in which the species occur. *Annals and Magazine of Natural History*, (2)7, 241–255, map. (1 April) [Reprinted in the *Initiamenta* 1859 1, 217–229 and in the *Elements* 1860 1, 217–229.]
- 1851b. On the geographical distribution of the *Bulimi*, a group of terrestrial Mollusca; and on the modification of their calcifying functions according to the local physical conditions in which the species occur. *Abstracts of the Papers Communicated to The Royal Society of London*, 5, 947–949.
- 1852a. Observations on the geographical distribution of the land Mollusca. Report of the Twenty-first Meeting of the British Association for the Advancement of Science; held at Ipswich in July 1851, 82.
- 1852b. [Details added to Mr. Gray's communication]. *Proceedings of the Zoological Society of London*, 19, 93. (7 December); *Annals and Magazine of Natural History*, (2)11, 154. (1 February 1853)
- 1853a. Description of a new species of *Bulimus* from Australia. *Proceedings of the Zoological Society of London,* 19, 198, pl. 12. (29 June); *Annals and Magazine of Natural History,* (2)12, 149. (1 August) [The *Annals and Magazine of Natural History,* version has an abbreviated title.]
- 1853b. Description of a new species of *Helix* from Van Diemen's Land. *Proceedings of the Zoological Society of London*, 20, 31. (14 November); *Annals and Magazine of Natural History*, (2)13, 349–350. (1 April 1854)
- 1854. Descriptions of new species of *Paludomus*, a genus of freshwater mollusks. *Proceedings of the Zoological Society of London*, 20, 126–129. (126–128, 23 May; 129, 27 June)
- 1855a. Description of a new Volute from New Caledonia. *Proceedings of the Zoological Society of London,* 22, 73, pl. 26. (10 February)
- 1855b. Account of the shells collected by Captain Sir Edward Belcher, C.B., North of Beechey Island, pp. 392–399, pls. 32–33, In: E. Belcher, The last of the Arctic voyages: being a narrative of the expedition in H.M.S. Assistance, under the command of Captain Sir Edward Belcher, C.B., in search of Sir John Franklin, during the years 1852–53–54: with notes on the natural history. Lovell Reeve, London. 2 volumes.
- 1855c. [Preface and biographical sketch, pp. iiii-xiv] *In: Literary papers by the late Professor Edward Forbes, F.R.S.* Lovell Reeve, London. xiv + 300 pp., portrait.
- 1856. Descriptions of three new Volutes, from the collections of the Hon. Mrs. Cathcart and Mr. Cuming. *Proceedings of the Zoological Society of London*, 24, 2–3, pl. 33. (16 June)
- 1857–58. Descriptions of seven new shells from the collection of the Hon. Sir David Barclay, of Port Louis, Mauritius. *Proceedings of the Zoological Society of London*, 25, 207–210, pls. 37–38. (207–208, 11 November 1857; 209–210, 12 January 1858); *Annals and Magazine of Natural History*, (2)20, 522–524. (1 January 1858)
- 1859a. [Reply to anonymous letter regarding the *Elements of Conchology*]. The Athenaeum 1630, 117. (22 January)
- 1859b. *Notes of a photographic expedition. In*: Jephson, J.M., *Narrative of a walking tour in Brittany.* Lovell Reeve, London. xvi + 352 pp., frontispiece, map. [The extensive "Notes" occur throughout the text where they appear in the form of footnotes; the frontispiece is a stereoscopic plate by Reeve.]
- 1859c. Description of two new species of *Bulimus* from the collection of Mrs. De Burgh. *Proceedings of the Zoological Society of London, 27, 123–124.* (pre-July)
- 1860a. On two new species of shells from Cambojia. *Annals and Magazine of Natural History,* (3)6, 203–204. (1 September)
- 1860b. Helix mouhoi. Annals and Magazine of Natural History, (3)6, 455. (1 December)
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- 1861b. A revision of the history, synonymy, and geographical distribution of the recent Terebratulae. *Annals and Magazine of Natural History,* (3)7, 169–190. (1 March)
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- 1863b. 'The land and freshwater mollusks of the British Isles' [Letter to the Editors]. Annals and Magazine of Natural History, 3(11), 389–390. (1 May)
- 1863c. Planorbis crista [Letter to the Editors]. Annals and Magazine of Natural History, 3(11), 462. (1 June)
- 1864a. "New forms of mollusks?" [Letter to the Editors]. *Annals and Magazine of Natural History,* 3(13), 440. (1 May) [This paper is signed by Reeve at Sutton, Hounslow, April 7, 1863, an obvious misprint as the letter concerns a paper published in the previous number of *Annals* in April 1864.]
- 1864b. Hugh Cuming, F.L.S. *Portraits of men of eminence in literature, science, and art, with biographical memoirs*, 2, 41–46 [with portrait by E. Edwards].
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Epilogue

In the discussion of the *Iconica* it was mentioned that each Volume title page had a classical quotation on the bottom third of the page. The title page for Volume 15 was, of course, issued after Reeve's death. Sowerby selected a well known partial quotation from Shakespeare's *Macbeth*, Act I, Scene IV. The meaning and application of the incomplete quote is variously treated, especially by those who do not know the context or preceding lines. In and of itself, the part quoted is complimentary and is so taken here as was certainly intended, Mrs. Reeve probably having a voice in its selection. The quotation provides an end to this study of Reeve and his works.

"... nothing in his life
Became him like the leaving it; he died
As one that had been studied in his death
To throw away the dearest thing he ow'd [=owned],
As 'twere a careless trifle."
Shakespeare

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