

Designation of lectotypes for certain species and subspecies of unilocular Nodosariida and Buliminida (Foraminifera), Part 1 – Those housed in the British Museum (Natural History)

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ABSTRACT—Lectotypes are herein designated for 20 lagenoid species and subspecies housed in the British Museum (Natural History) and paralectotypes are also selected for eight of these. The original figures of all are reproduced, and those of two are supplemented by means of light photomicrographs. A brief discussion as to the whereabouts of the collections of Rymer Jones (1874) and Chaster (1892) is appended.

INTRODUCTION

It often becomes necessary, in the interest of maintaining stability of nomenclature, to designate lectotypes for those species for which the original author did not propose holotypes and paratypes (this was accepted practice until comparatively recently).

The purpose of the present paper is to designate lectotypes for 20 lagenoid species and subspecies and select paralectotypes for eight of these, in order to place on a sounder taxonomic basis some of the forms discussed by the author in his recent paper (in press) on a revised classification on the unilocular Nodosariida and Buliminida (scheduled for publication in May 1984).

It was the author's original intention to designate lectotypes (where appropriate) for all of the species mentioned therein, but, as they are housed in a number of institutions, this is considered beyond the scope of a single paper. Part 2 (in prep.) will deal with those deposited in the National Museum of Ireland, Dublin. The present work deals only with those in the British Museum (Natural History). These types are listed alphabetically in Table 1 and illustrated on Plates 1 and 2, mostly from the original figures.

NOTES ON SOME IMPORTANT BRITISH COLLECTIONS

Adams *et al.* (1980) state that "The collections on which the first 4 publications on British foraminifera were based (Walker & Boys, 1784; Walker & Jacob, 1798; Montagu, 1803 and 1808) must be presumed lost."

Regrettably, the same conclusion is reached herein with regard to the collection of Rymer Jones, 1874 and at least that part of the collection of Chaster, 1892 containing most of the new species and varieties of "*Lagenae*" (see Appendices).

Hence, this paper focuses on specimens in the collections of Williamson (or at least the extant part thereof),

Parker & Jones, Brady, Millett, Sidebottom, Heron-Allen & Earland and Earland. For further information regarding these collections (their histories etc.), the reader is referred to Adams *et al.* (1980, p. 2).

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Mrs. V. C. Stirling typed the manuscript.

Dr. J. R. Haynes, of the University College of Wales, Aberystwyth, critically reviewed the manuscript.

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Table 1. Alphabetical List of Taxa and Status of Specimens

| TAXON | Original Pl./fig. nos. | B.M.(N.H.) reg. no. | STATUS (herein) (designated) |
|---|---|------------------------------|---|
| <i>Entosolenia squamosa</i> (Montagu) var. <i>hexagona</i> Williamson, 1848 | Figured specimen not recognised | 96:8: 13:67* ₁ | LECTOTYPE |
| <i>Lagena alveolata</i> Brady, 1884. | Pl. 60, fig. 30. | ZF4311 | LECTOTYPE |
| | Pl. 60, fig. 32, and unfigured. | ZF1612 | PARALECTOTYPES |
| <i>Lagena alveolata</i> Brady var. <i>separans</i> Sidebottom, 1912 | Pl. 21, fig. 5. | ZF4306 | LECTOTYPE |
| | Unfigured. | ZF4307-8 | PARALECTOTYPES |
| <i>Lagena apiculata</i> (Reuss) var. <i>punctulata</i> Sidebottom, 1912. | Pl. 14, fig. 21. | ZF4309 | LECTOTYPE |
| | Pl. 14, fig. 23. | ZF4310 | PARALECTOTYPE |
| <i>Lagena auriculata</i> Brady var. <i>costata</i> Brady, 1881. | Pl. 60, fig. 38 (1884). | ZF4312 | LECTOTYPE |
| <i>Lagena bisulcata</i> Heron-Allen & Earland, 1932. | Pl. 11, fig. 29. | ZF4313 | LECTOTYPE |
| | Pl. 11, figs. 30-32. | ZF3322 | Figured and other PARALECTOTYPES |
| <i>Lagena clavata</i> (d'Orbigny) var. <i>setigera</i> Millett, 1901. | Figured specimen not recognised.* ₂ | 1955: 11:1: 1375 | LECTOTYPE |
| <i>Lagena cymbaeformis</i> Millett, 1895. | Pl. ?* ₃ , fig. 3. | P51662 | LECTOTYPE |
| <i>Lagena cymbula</i> Heron-Allen & Earland, 1913. | Figured specimen not recognised. | ZF4314 | LECTOTYPE* ₄ |
| <i>Lagena fimbriata</i> Brady, 1881. | Pl. 60, fig. 26 (1884). | ZF1654 | LECTOTYPE |
| <i>Lagena foveolata</i> Reuss (?) var. <i>paradoxa</i> Sidebottom, 1912. | Pl. 16, fig. 22. | ZF4319 | LECTOTYPE |
| <i>Lagena globosa</i> (Montagu) var. <i>setosa</i> Earland, 1934. | Pl. 6, fig. 52. | ZF3338 | LECTOTYPE |
| <i>Lagena gracilis</i> Williamson, 1848. | Figured specimen not recognised. | 96:8: 13:53* ₅ | LECTOTYPE |
| <i>Lagena marginata</i> (Montagu) (<i>sic.</i>) var. <i>spinifera</i> Earland, 1934. | Pl. 7, figs. 3-4. | ZF3358 | LECTOTYPE and unregistered figured PARALECTOTYPE |
| <i>Lagena quadrilaterata</i> Earland var. <i>striatula</i> Earland, 1934 | Pl. 7, fig. 9. | ZF3368 | LECTOTYPE |

Table 1. continued.

| TAXON | Original Pl./fig. nos. | B.M.(N.H.) reg. no. | STATUS (herein) (designated) |
|---|--------------------------------------|------------------------|--|
| <i>Lagena reniformis</i> Sidebottom, 1913. | Pl. 18, fig. 14. | ZF4318 | LECTOTYPE and unfigured PARALECTOTYPE |
| <i>Lagena stelligera</i> Brady, 1881. | Pl. 57, fig. 35 (1884). | ZF1771 | LECTOTYPE |
| <i>Lagena stelligera</i> Brady var. <i>nelsoni</i> Heron-Allen & Earland, 1922 | Pl. 5, figs. 20–22. | 1922: 10:26: 73 | LECTOTYPE and two figured PARALECTOTYPES |
| <i>Lagena sulcata</i> (Walker & Jacob) var. <i>striatopunctata</i> Parker & Jones, 1865. | Pl. 13, fig. 26. Pl. 13, fig. 27. | ZF4316 ZF4317 | LECTOTYPE PARALECTOTYPE |
| <i>Lagena unguis</i> Heron-Allen & Earland, 1913. | Figured specimen not recognised. | ZF4315 | LECTOTYPE* ₄ |

*₁ Strew slide labelled *Entosolenia*, ringed specimen (presumed syntypic) designated lectotype.

*₂ *vide* Whittaker & Hodgkinson, 1979. Lectotype indicated on slide.

*₃ Plate not numbered on original.

*₄ Fragility of test precludes photography of lectotype.

*₅ Strew slide labelled *Lagena gracilis*, arrowed specimen designated lectotype.

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APPENDIX 1: WHEREABOUTS OF THE RYMER JONES COLLECTION

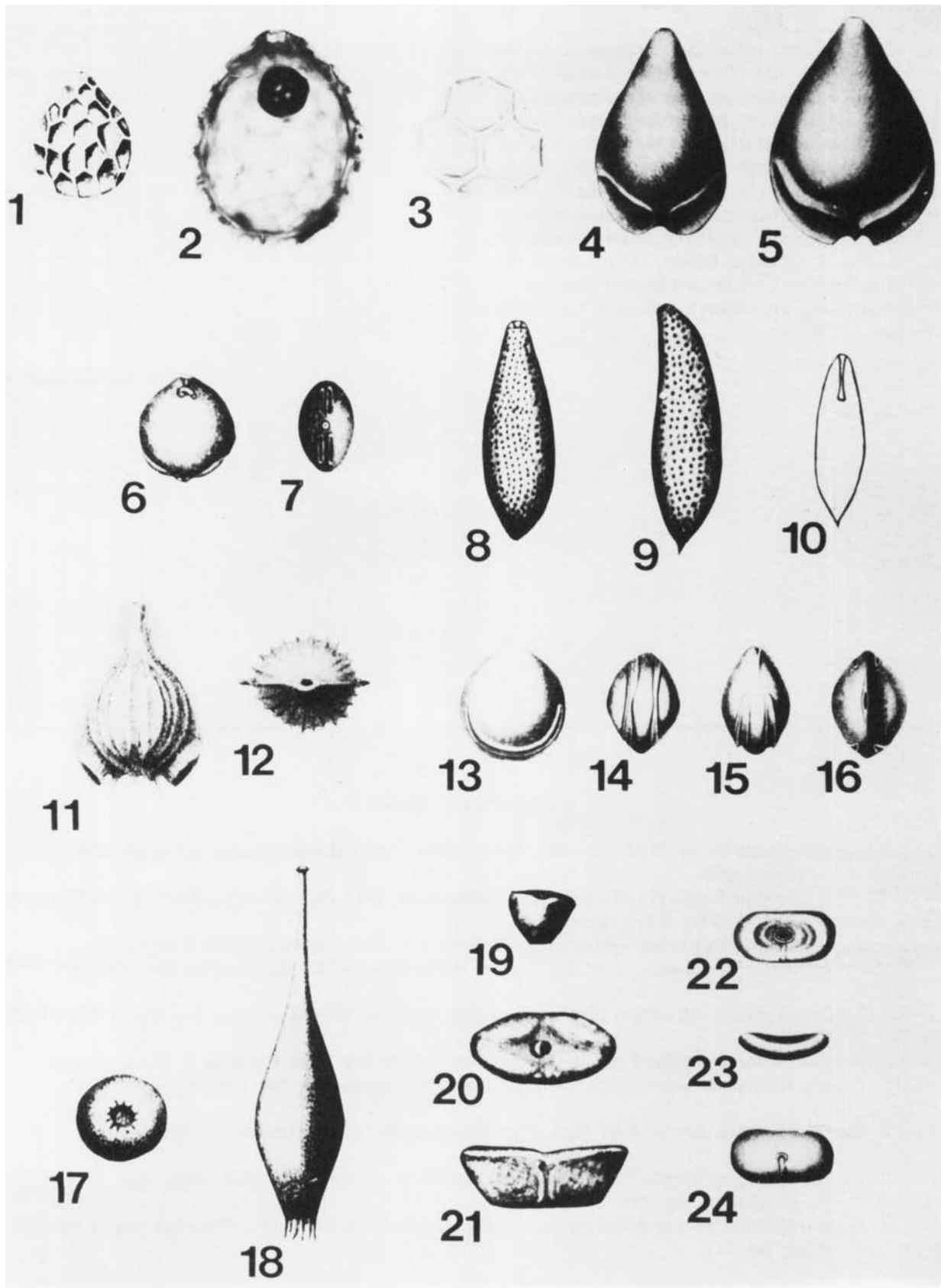
F. W. O. Rymer Jones' paper on the *Lagenae* from deep sea soundings in the Java Seas was evidently intended by him as the first part of a monographic treatment of the foraminiferal faunas of that region, but it seems that it was the only part that he completed, for its publication in 1874 appears to have coincided approximately with the time of his early death. Indeed, evidence from the text (p. 49) indicates that the text and figures were produced "... while in a recumbent position on an invalid's couch. . . ."

The paper was communicated to the Linnaean Society of London in 1872 through the then secretary, H. J. Stainton (as was customary at the time). The death of Rymer Jones is alluded to in a letter from Stainton to the succeeding secretary, written in early 1876, urging that reprints of the paper be sent to the young man's parents without delay.

F. W. O. Rymer Jones' father (T. Rymer Jones) was himself an eminent zoologist, author of a paper on Foraminifera in "The Intellectual Observer", Member of the Royal College of Surgeons, sometime physiology lecturer and Professor of Zoology and Comparative Anatomy at King's College, London from 1836 until his early retirement in 1874. He died in 1880. It seems that this influential man had in his possession at some time not only a copy of the paper but possibly also the actual Java Seas material, acquired from Lieutenant A. Ross of H.M.S. 'Serpent'. There is no tangible evidence as to what he did with the foraminiferal collection, although some correspondence suggests that he sold it (with various other teaching aids) to King's College on leaving. Unfortunately, it does not appear to be in the Stebbings Collection housed in that institution, and it is herein presumed lost.

Explanation of Plate 1

- Figs. 1–3. *Entosolenia squamosa* (Montagu) var. *hexagona* Williamson, 1848 (fig. 1 after Williamson, $\times 108$; fig. 2 lectotype, $\times 128$; fig. 3, close-up of lectotype, $\times 192$).
- Figs. 4–5. *Lagena alveolata* Brady, 1884 (figs. after Brady, $\times 60$). (Lectotype, fig. 4).
- Figs. 6–7. *Lagena alveolata* Brady var. *separans* Sidebottom, 1912 (figs. after Sidebottom, $\times 75$). Lectotype.
- Figs. 8–10. *Lagena apiculata* (Reuss) var. *punctulata* Sidebottom, 1912 (figs. after Sidebottom, $\times 50$). Lectotype, fig. 8; specimen shown in fig. 9 not recognised).
- Figs. 11–12. *Lagena auriculata* Brady var. *costata* Brady, 1881 (figs. after Brady, 1884, $\times 60$). Lectotype.
- Figs. 13–16. *Lagena bisulcata* Heron-Allen & Earland, 1932 (figs. after Heron-Allen & Earland, $\times 55$). (Lectotype, fig. 13).
- Figs. 17–18. *Lagena clavata* (d'Orbigny) var. *setigera* Millett, 1901 (figs. after Millett, $\times 90$).
- Figs. 19–21. *Lagena cymbaeformis* Millett, 1895 (figs. after Millett, $\times 135$). (Lectotype, fig. 21; specimen(s) shown in figs. 19, 20 not recognised).
- Figs. 22–24. *Lagena cymbula* Heron-Allen & Earland, 1913 (figs. after Heron-Allen & Earland, $\times 200$).



APPENDIX 2: WHEREABOUTS OF THE CHASTER COLLECTION

Some of the Chaster collection is deposited in the British Museum (Natural History) (see Adams *et al.*, 1980) but that part containing most of the species and varieties of '*Lagenae*' is not to be found there.

There exists, however, in the B.M. (N.H.) a letter from the National Museum of Wales, Cardiff, to the effect that, at one time, at least part of the Chaster Collection was residing in that institution (in an old shoe box!). This would appear, however, to be the case no longer, for Dr. P. Graham Oliver, of the N.M.W., informs the author that "the Department of Zoology . . . has no foraminifera *ex* Chaster collection" (written communication, 1983).

Explanation of Plate 2

- Figs. 1–3. *Lagena fimbriata* Brady, 1881 (figs. after Brady, 1884, × 60). (Lectotype, fig. 1; specimen shown in figs. 2, 3 probably not conspecific).
- Figs. 4–5. *Lagena foveolata* Reuss (?) var. *paradoxa* Sidebottom, 1912 (figs. after Sidebottom, × 75). (Lectotype, fig. 4; specimen shown in fig. 5 not recognised).
- Fig. 6. *Lagena globosa* (Montagu) var. *setosa* Earland, 1934 (fig. after Earland, × 50). Lectotype.
- Figs. 7–8. *Lagena gracilis* Williamson, 1848 (fig. 7 after Williamson, × 113; fig. 8, lectotype, × 90).
- Figs. 9–10. *Lagena marginata* (Montagu) (*sic*) var. *spinifera* Earland, 1934 (figs. after Earland, × 70). (Lectotype, fig. 9).
- Fig. 11. *Lagena quadrilaterata* Earland var. *striatula* Earland, 1934 (fig. after Earland, × 75). Lectotype.
- Figs. 12–13. *Lagena reniformis* Sidebottom, 1913 (figs. after Sidebottom, × 75). Lectotype.
- Figs. 14–17. *Lagena stelligera* Brady, 1881 (figs. after Brady, 1884, × 75). (Lectotype, figs. 14, 16).
- Figs. 18–20. *Lagena stelligera* Brady var. *nelsoni* Heron-Allen & Earland, 1922 (figs. after Heron-Allen & Earland, × 70). (Lectotype, fig. 18).
- Figs. 21–23. *Lagena sulcata* (Walker & Jacob) var. *striatopunctata* Parker & Jones, 1865 (figs. after Parker & Jones, × 24). (Lectotype, fig. 21).
- Figs. 24–26. *Lagena unguis* Heron-Allen & Earland, 1913 (figs. after Heron-Allen & Earland, × 120).

