

PROCEEDINGS

OF THE

SCIENTIFIC MEETINGS

OF THE

ZOOLOGICAL SOCIETY

OF LONDON

FOR THE YEAR

1863.

PRINTED FOR THE SOCIETY,
AND SOLD AT THEIR HOUSE IN HANOVER SQUARE.

LONDON:
MESSRS. LONGMAN, GREEN, LONGMANS, AND ROBERTS,
PATERNOSTER ROW.

PARIS:
M. J. ROTHSCHILD,
14, RUE DE BUCY.

LEIPZIG:
M. J. ROTHSCHILD,
2, QUERSTRASSE.

preservation of types therefore, and the interchange of specimens named from types, is of the first importance to save the time and ensure the accuracy of succeeding writers. The Smithsonian Institution has fully recognized this principle by directing that the first available duplicate of all type species described from its collections shall be deposited in some museum open to students on the other side of the Atlantic.

As the authorities of Amherst College had not taken any steps to figure their unique specimens, and as Prof. Adams's determinations of old species had not been verified, I made it my business (when visiting America to deposit the first duplicate series of the Mazatlan Shells in the New York State Museum at Albany) to compare Prof. Adams's collection, on the spot, with his published book, in my copy of which I made my notes and sketches at the time. Every facility was afforded me by the Curator. I was allowed freely to handle the specimens in the presence of his assistant, and to draw the minute species under my microscope*. I took with me for comparison the drawings of the minute Mazatlan shells in the British Museum. The species being numbered in both the Panama and the Mazatlan lists, it is easy now to institute a comparison between them. They are here distinguished by the initials P. and M.

P. 1. *Ovula avena*. May be distinct from *Radius variabilis*, M. 435, being much more stumpy, with a thicker lip; but the few specimens are in poor condition, and the differences may be accidents of station.

2. *Ovula emarginata*=*Carinea e.* Quite distinct from its Caribbean analogue *C. gibbosa*.

3. *Ovula neglecta*, C. B. Ad., is probably a small variety of *Radius variabilis*.

4. *Ovula variabilis*, C. B. Ad.=*Radius v.*, M. 435.

5. *Ovula*, sp. ind., probably=*variabilis*, jun.

6. *Cypræa arabicula*=*Aricia a.*, M. 438.

7. *Cypræa cervinetta*=*C. exanthema*, M. 436. Having now examined a multitude of specimens from different stations on the west coast, which differ from each other quite as much as they do from the typical Caribbean forms, I am confirmed in the belief of their identity.

8. *Cypræa punctulata*=*Aricia p.* Erroneously given, in M. p. 374, as a probable synonym of *A. arabicula*. It is less thickened at the sides, with smaller spots. Although specimens of *arabicula* graduate into it at the back, it may always be known by the mouth, which has its teeth much further apart.

9. *Cypræa pustulata*=*Trivia p.*, M. 439.

* The week which this work occupied was spent with the widow of the late Professor, who undertakes the duty of boarding students. Her two oldest sons were, alas! among the early victims of the civil war.

10. *Cypræa radians*=*Trivia r.*, M. 440.

11. *Cypræa rubescens*=dead sp. of *Trivia sanguinea*, M. 442.

12. *Cypræa sanguinea*=*Trivia s.*, M. 442.

13. *Erato scabriuscula*. Stet.

14. *Marginella minor*. Stet, M. 587.

15. *Marginella sapotilla*. The Panama specimens collected by Prof. Adams, and abundantly by others, more closely resemble *M. prunum* than the type *M. sapotilla* of Hinds, which is a much smaller shell. The Caribbean shells (which are found across the Isthmus at Aspinwall) differ only in having a sharper angle in the labrum at the posterior notch. Adanson's habitat, doubted by Prof. Adams (note, p. 41), is confirmed by specimens in the Bristol Institution brought from Sierra Leone by Chief Justice Rankine. The Pacific shells are probably conspecific, sufficient evidence being now in our possession that the two oceans were united at least as late as the Miocene epoch*.

16. *Mitra funiculata*. Stet.

17. *Mitra lens*, M. 585.

18. *Mitra nucleola*. Closely resembling young specimens of the Caribbean *M. granulosa*.

19. *Mitra solitaria*, C. B. Ad.=*Zierliana s.* Other specimens have since been found of this characteristic species. The "transverse ribs" can scarcely be said to be "obsolete anteriorly."

20. *Mitra tristis*=*Strigatella t.*, M. 586.

× 21. *Terebra elata*=*Myurella e.*

× 22. *Terebra larvæformis*=*Myurella l.*

23, 24. Stent.

× 25. *Terebra tuberculosa*=*Myurella t.*

× 26. *Terebra varicosa*. This may possibly be a very young specimen of *Subula v.*; but I think it distinct.

× 27-31. Sp. ind. A specimen of *Euryta fulgurata*, M. 455, is in the museum, as from Panama, but not of Prof. Adams's collecting.

32. *Oliva angulata*, M. 590.

* The specimens in the Cumingian Museum, named *M. carulescens* at the time of the British Association Report, are now labelled "*sapotilla*, Hds., 5-13 fathoms sandy mud, Panama, H. C." Another set of Pacific shells (notch-angle rounded) are given as "*Marginella n. s.*, Panama," "San Domingo" having been erased. The large West-Indian form (notch-angle sharp) is given as "*carulescens*, var., Lam., 10 fathoms sandy mud, Panama." Another set of large shells, with sharp angle, and labrum tinted behind, is given as "*carulescens*, Lam., Panama," but without authority. The small West-Indian form (like the typical *sapotilla*) is given as "*glans*, Mke." Either in this, as in other instances, error has crept into the locality-marks, or else even the distinction pointed out by Mr. Redfield (who has given peculiar study to this genus) cannot be relied on for separating the species geographically.