

THE
PROCEEDINGS
OF THE
LINNEAN SOCIETY
OF
NEW SOUTH WALES,
VOL. IV.,

[WITH TWENTY-SEVEN PLATES.]



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PROCEEDINGS
OF THE
LINNEAN SOCIETY
OF NEW SOUTH WALES.

WEDNESDAY, JANUARY 29TH, 1879.

The President, Rev. J. E. Tenison-Woods, F.G.S., F.L.S., etc.,
in the Chair.

The President introduced to the Meeting the following gentlemen as Visitors:—The Hon. Louis Hope, W. H. Archer Esq., W. A. Haswell, Esq., M.A., B.Sc., and Dr. O'Connor, of H.M.S. "Sapphire."

DONATION.

Compte Rendu de la Societe Entomologique de Belgique,
Serie II., No. 56.

PAPERS READ.

ON SOME TERTIARY FOSSILS.

BY THE REV. J. E. TENISON-WOODS, F.G.S., F.L.S., PRESIDENT
LINNEAN SOCIETY, N.S.W., &c., &c.

At a recent meeting of this Society I described some fossils from the tertiary (probably Miocene) beds of Muddy Creek, Western Victoria. I now complete the list of all those at present in my hands. They came from the same locality, and were obtained for me by the late Mr. Samuel Pratt Winter, who I regret to add died at the close of last year. I take this opportunity

of expressing what a loss science has sustained in the death of so estimable a man. Not only was his house hospitably open to all who desired to advance the knowledge of the geology of the district, but during the last 20 years he constantly gave me the most untiring and valuable assistance in all my studies. It is an additional source of regret to me that he was not able to receive from me the feeble, but sincere acknowledgment of his assistance which I have given in the preceding paper.

The fossils here described have no special character which calls for notice. The resemblances to Miocene forms of Europe are fewer. A *Leiostraca* and a *Crossea* connect them with our existing fauna, but the general character differs much from anything we have with us now. It has been thought that our fossil fauna is somewhat like the facies of that living in Philippine Seas; but this is not the case. The fauna of North Eastern Australia has a large number of species identical with those now living in the Philippine seas, but the relations between the Queensland marine fauna and that of our Miocene seas is very remote. The relations are not evident so far, except with the Miocene of Europe, but this will more clearly be seen when the whole of the paleontology of the beds has been dealt with.

EULIMA DANÆ. Pl. 1, fig. 1.

Testa, late pyramidata, polita, solida, apice acuto; anfr. 12, planatis lævibus, lineis incrementi tantum insignitis, sutura haud impressa, periphæria obtuse angulata, apertura late ovata, labro tenui, acuto, antice producto; Labio antice tantum reflexo. Alt. 13½, lat. 4½.

Shell broadly pyramidal, polished, solid, apex acute, whorls 12 quite flat, smooth, only marked and generally very faintly with the lines of growth, suture only marked by a fine line, periphery obtusely angular, aperture widely ovate, labrum thin, acute, produced anteriorly, lip reflected anteriorly.

This fossil is not uncommon in the beds, but the specimens usually met with are not quite so stout as represented in the figure.

LEIOSTRACA ACUTISPIRA. Pl. 1, fig. 2.

Testa parva, subulata, medio parum ventricosa, polita, tenui; anfr. 11, haud latis, omnino laevibus, sutura vix visibili; apertura pyriformi, labro antice producto; labio parvo, angusto, rotundato. Long. $8\frac{1}{2}$, lat. 2.

Shell small, subulate, slightly ventricose in the middle, polished, thin; whorls 11, not wide, altogether smooth, suture scarcely visible, aperture pyriform, labrum produced anteriorly, lip small, narrow, rounded.

The differences between this shell and *L. australis*, our only Australian species, are, first that the fossil is smaller, opaque, much more acute in the spire, with many more whorls in proportion; there is a peculiarity in *L. australis* from which this fossil completely differs, the top of the spire is obtusely rounded and on the summit the nucleus is placed like a little granule.

CONUS PULLULASCENS. Pl. 1, fig. 3-4.

The two cones figured on this plate I only name provisionally. They are the same species, but fig 4 is very much worn. The specimens seen by me are all extremely small with a very large conspicuous pullus, the upper angle of the whorls is distinctly and elegantly ribbed, and the whole shell is deeply and distantly spirally grooved. Larger and more numerous specimens may enable me to give better details, and more information as to the relations of the species.

LEDA LUCIDA. Pl. 1, fig. 5 and 5 a.

Testa parva, tumida, solida, polita, æquilaterali quasi, ovata, concentricè regulariter costata, costis rotundatis, æqualibus; latere postico vix producto, subacute angulato, area postangulari vix sulcata; latere antico brevi, obtuse rotundato, umbonibus subacutis. Long. $3\frac{1}{2}$, lat. $5\frac{1}{2}$, alt. 2.

Shell small, tumid, solid, polished, equilateral, almost ovate, regularly concentrically ribbed, ribs rounded equal, posterior side scarcely produced subacutely angular, posterior angle scarcely sulcate, anterior side short, obtusely rounded, umbone subacute.

This fossil occurs in the Murray beds, according to Prof. Tate who also considers that the drawing does not represent the shell in the manner it is familiar to him. The whorls are more numerous and not so regularly increasing in size. I believe that this fossil has a wide vertical as well a horizontal range.

CYLICHA EXIGUA. Pl. 2, fig. 6.

This fossil I have figured as one of those specimens which may perhaps be identified with Quoy and Gaimard's shell, *C. arachis*. It is very much smaller, is highly polished, the apical foramen much larger in proportion to the size, the umbilicus marked. The resemblances are the general form and the peculiar spiral undulating lines. The latter feature may however be common to more than one species. A shell of the size and the peculiar ferruginous periostrata of the existing *Cylicha arachis*, I have not met as a fossil at Muddy Creek. If the specimen figured be not new I propose for it the name of variety—*exigua*. It should be further remarked that in the fossil the apex is flat, obliquely truncate, the labrum remarkably posteriorly produced, and the spiral grooves are well marked, deep in proportion to the size and not so numerous.

EXPLANATION OF PLATES.

Plate I.

- Fig. 1.—*Eulima Danae*, enlarged.
 „ 2.—*Leiostraca acutispira*, enlarged.
 „ 3.—*Conus pullulascens*, much enlarged.
 „ 4.—*Conus pullulascens*, worn specimen, much enlarged.
 „ 5.—*Leda lucida*, much enlarged.
 „ 6.—*Niso psila*, much enlarged,
 „ 7.—*Crossea parvula*, much enlarged.
 „ 8.—*Trivia minima*, *a.* seen from above, *b.* mouth, much enlarged.
 „ 9.—*Cerithium eusmitia*, much enlarged.
 „ 10.—*Triforis Wilkinsoni*, much enlarged.

