

DEFINITION OF A NEW FOSSIL CHITON.

By

EDWIN ASHBY, F.L.S., Etc.

(Communicated by Clive Lord.)

(Read 10th June, 1929.)

Plate I.

Pseudo-ischnochiton, n. gen.

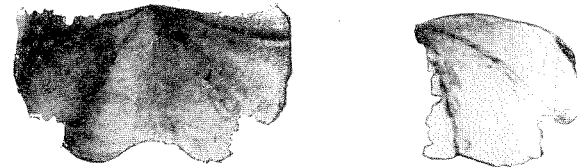
The above generic name is proposed provisionally for the reception of a new fossil Chiton which I am describing under the name *Pseudo-ischnochiton wynyardensis*; which species I designate as the type of the above new genus.

Definition.—Median valve only, distinguished by extremely thin shell, tegmentum almost unsculptured except for a strongly raised rib and slight radial ribbing; pleural area unusually broad and tegmentum much bowed forward on either side of the jugal sinus; sutural laminae reduced to a narrow extension of the articulamentum bordering the anteriorly bowed tegmentum; insertion plates absent wholly or in part.

Pseudo-ischnochiton wynyardensis, n.sp.

(Plate I., figs 1a., 1b.)

Introduction.—Mr. Francis A. Cudmore, to whose earnest collecting we are indebted for so many discoveries in Fossil Mollusca, has placed in my hands for description a single median valve of an undescribed fossil Chiton. It is quite unique in several respects; at first I purposed placing it provisionally under the family *Ischnochitonidae*, but on re-examination under 65 magnifications, I could find no evidence of the breaking off of the insertion plates, and was driven to the conclusion that it never possessed insertion plates; we are compelled to consider it a primitive species. Except for the absence of insertion plates (a feature that is common to the genus *Lepidopleurus* and *Palaeozoic* forms) it shows no

*Pseudo-ischnochiton wynyardensis*, n.sp.

(a) Upper side; (b) side view.

affinity with the *Lepidopleuridæ*, and in other respects appears unrelated to any of the living forms. Until added data are available by the discovery of the end valves, I propose placing it under the above new genus, the name being suggested by its general appearance, which in the thinness of the shell and general shape simulates the *Ischnochitonidæ*; but the peculiar forward development of the tegmentum, the reduced sutural laminæ, and absence of insertion plates, show it to be widely removed from that family.

Upper Side.—Median valve, shell thin and fragile, in fact, so thin that I at first feared that the tegmentum had been weathered away, but under the closest examination there is no evidence of this, and the fact that a row of perforations exist in the under side immediately below the diagonal rib, which evidently were the apertures through which the nerve fibres passed, makes it clear that the articulamentum has not been flaked off; shell highly arched not ridged, bent downwards at the beak, dorsal area well defined, of medium width, the sides of this area forming two sides of an isosceles triangle, longitudinally ridged with narrow, shallow, widely spaced ribs; the side slope of this valve is steep, and owing to the elevation of the arched dorsal area the pleural area appears slightly concave, but this is more seeming than real; the tegmentum is bowed forward very strongly in a unique manner, the sinus between being very deep, the only sculpture consists of concentric growth grooves, a strong, though narrow diagonal rib which is more or less broken by transverse sulci, this in a very perfect specimen would probably under a low power suggest sub-granulation; the portion of the valve posterior to the diagonal rib is narrow, about a quarter the size of the pleural area, and this portion but for the diagonal rib is not raised, but shows towards the outer margin shallow radial ribbing, the posterior margin has broken away except near the beak where the margin is narrowly thickened; anterior to the diagonal rib is a slightly raised fold only visible under lateral lighting.

Under Side.—Deeply scooped out under the dorsal area, the callus forming a strong ridge which is much bowed, the space between the callus and the posterior margin is on either side also deeply scooped out; owing to the extreme thinness of the shell the line of demarcation between the tegmentum and the articulamentum is a little obscure, and what I take to be the sutural laminæ are very narrow, forming a narrow marginal extension of the bowed tegmentum;

the sinus between, as before stated, is fairly broad and deep. The insertion plate is absent, at first I concluded it had broken away on either side, but having re-examined the margin under 65 magnifications I have concluded that the shell never possessed insertion plates, and that the extension of the articulamentum which forms the sutural laminae, ceases at the callus; the tegmentum is folded over at the beak, the anterior margin of this infolded portion consists of a well-defined, narrow, smooth, callus ridge.

Locality.—Table Cape, Wynyard, Tasmania; Tertiary (Janjukian).

Measurement.—6 x 3.5 mm.

EXPLANATION OF PLATE I.

Fig. 1.—*Pseudo-ischnochiton wynyardensis*, n.sp. Holotype, median valve, (a) upper side, showing general shape and diagonal rib, x 6; (b) side view same valve, showing diagonal rib and arched jugum, x 7. National Museum, Melbourne, No. 13,498.

TASMANIAN STONE CULTURE.

SOME NOTES ON DISTINCTIVE TYPES, SPOKESHAVES, BORERS, AND CHIPPING TOOLS, AND THEIR PROBABLE USAGES.

BY

R. W. LEGGE, Cullenswood.

Plates II.-V.

(Read 12th August, 1929.)

Amongst the various and more or less well-defined types of Tasmanian stone implements which have been engaging the attention of students for some time past, there are two distinct and decidedly specialised forms which stand out conspicuously from all the others as having been fabricated for certain definite purposes.

In the following notes they will be termed respectively Spokeshaves and Borers, and it is proposed with the help of two or three plates to give a short description of several series which are fairly representative of the types.

So persistent are these two forms throughout the whole range of Tasmanian stone implements, and so regularly do they conform to type, that, although this is not by any means the first instance wherein they have been described, it is thought that students may still derive some considerable interest from having series of selected flakes exhibiting remarkably well re-touched edges brought directly under their notice.

These types are the more interesting also, in that they have survived right down through the ages from the Middle Palæolithic Period, as indeed practically the whole Tasmanian Lithic Industry has done, revealing, as it undoubtedly does, the most remarkable analogies to the types constituting the chief features of the Mousterian and post-Mousterian Flint Culture.

Taking the so-called Spokeshaves first, a series of 53 has been chosen, which is illustrated on Plates II. and III.

The chief, if not the only, purpose for which these implements were made and used, was for smoothing down spears and waddies after having carefully charred the shafts first to remove the outer and softer layers of the wood, and for trimming off any slight protuberances which might be present.