

A NEW GENUS *GLYPTOLEDA* AND A REVISION OF THE GENUS *NUCULANA* FROM THE PERMIAN OF AUSTRALIA.

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(Plates xix-xxii.)

Introduction.

In this paper the genus *Nuculana* occurring in the Permian rocks of Australia is revised. Generic rank is given to a well defined group of these shells with a characteristic and bizarre ornamentation under the name *Glyptoleda*. The stratigraphy of the Silverwood-Lucky Valley Permian succession has been reinterpreted on additional palaeontological evidence.

A collection of fossils from Permian beds in the Springsure area of Queensland was made some time ago by Mr. J. H. Reid, of the Queensland Geological Survey. The specimens are of particular interest and include a series of well preserved shells (Nos. 261-268) which have been referred to the new genus *Glyptoleda*. They were collected from rocks of the Coral or Ingelara Stage at Ingelara Station, near Carnarvon Creek, in the Springsure district. This collection is now in the Australian Museum, but is to be transferred to the University of Queensland. I offer my thanks to Mr. J. H. Reid for the loan of the specimens.

The assistance given by the Shell (Queensland) Development Pty. Ltd., in making available for examination, from their collection in Brisbane, a fine series of specimens of *Glyptoleda* is greatly appreciated. The company generously presented to the Australian Museum the two specimens selected as the holotypes of *G. reidi* and *G. glomerata*.

I am indebted to Dr. Curt Teichert, of the University of Western Australia, for the opportunity of examining and describing the Western Australian material used in the preparation of this paper.

Historical Notes on the Genus *Nuculana* from Australian Permian Localities.

The first reference to the occurrence of *Nuculana* in the Permian rocks of Australia is Dana's description (1847, p. 157) of an internal cast of a shell from Wollongong, Illawarra district of New South Wales, as *Nucula abrupta*. Two years later, the same author redescribed *N. abrupta* (1849, pp. 698-699) and also described the two additional species, *N. concinna* from Harper's Hill, and *N. glendonensis* from Glendon, both localities in the Hunter Valley of New South Wales. The two former species are referred to the genus *Nuculana*, but it is impossible to come to any definite conclusion regarding *N. glendonensis*. The species was described from an imperfect shell and the figure is meaningless.

A plastotype of *N. concinna*, figured in this paper (Pl. xxii, fig. 3), is an imperfect specimen and shows few definite characters. Although described from the Allandale Stage of the Lower Marine Series at Harper's Hill, it compares very favourably in size and outline with a specimen (F.39313) from the base of the Branxton Stage in the Upper Marine Series. This specimen is figured (Pl. xxii, figs. 4-5) and has been chosen as a plasiotype of the species.

De Koninck (1877, p. 147) described a single shell as *Tellinomya darwini*, from a greyish sandstone in a railway cutting between Maitland and Stony Creek, New South Wales. Etheridge (1888, p. 168) referred this species to the genus *Nuculana*, as he