

REVISION OF THE TALBRAGAR FISH BED FLORA (JURASSIC) OF NEW SOUTH WALES

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SUMMARY

The three well known form-species of the Talbragar Fish Bed Flora—*Podozamites lanceolatus*, *Elatocladus planus* and *Taeniopteris spatulata*—are redescribed as *Agathis jurassica* sp. nov., *Rissikia talbragarensis* sp. nov. and *Pentoxylon australica* sp. nov. respectively. The minor components of the assemblage are described and illustrated, and in some cases, reclassified. Additions are made to the list of plants recorded from the horizon.

INTRODUCTION

The Talbragar Fish Beds are characterised by their beautifully preserved fish and plant remains which occur in great profusion throughout the shale lens which comprises the Beds. The ochre-coloured shale is ferruginous, with impressions of plants and fish, white in colour, standing out dramatically. The weathering of the outer layers of blocks of the shale has resulted in contrasting bands of iron-rich stain framing many of the specimens and enhancing their appearance. Specimens are much prized by collectors.

The fossil locality is the valley of the Talbragar River, about twenty miles due North of Home Rule Mine in the Cassilis District, "on the southern boundary of Boyce's selection" (Anderson 1889). Foldvary (1979) describes the locality as the northern slopes of Farris Hill, North East of Gulgong.

The Talbragar Fish Beds are considered to be Early to Middle Jurassic in age (Hind and Helby, 1969 in Geology of New South Wales). Dr P. R. Evans of the University of New South Wales kindly undertook a palynological examination of samples submitted by the author, but was unfortunately not able to obtain any diagnostic spores.

The Fish Beds were discovered by Mr A. Lowe of Wilbertree in 1889. The Geological Surveyor of the New South Wales Mines Department, Mr William Anderson, described his visit to the site in that year (Anderson 1889) and remarked on the very large numbers of specimens which were awaiting transportation. These specimens, obtained from the splitting up of the oblong or square blocks of shale "which lay scattered over the surface of the hill", and not from excavating the underlying beds of the hill, are the Cullen Collection. The many thousand specimens of this first collection are held by the Mining Museum, Sydney, and until recently were stored in their original crates at the Mines Department Depot at Londonderry. The contents of the crates had been superficially examined once (one crate by Mining Museum staff and three by The Australian Museum), since the specimens were packed away in 1890. At the time of their crating, they had been briefly examined by Mr W. S. Dun, Assistant Palaeontologist (a cadet at the time) and by Mr R. Etheridge Jr., the Government Palaeontologist. A selection of specimens, representing all the fish species present, was sent to Mr A. Smith Woodward at the British Museum, and resulted in his monograph on the fish (Woodward, 1895). A small number