

## A Giant New Trimerellide Brachiopod from the Wenlock (Early Silurian) of New South Wales, Australia

D.L. STRUSZ,<sup>1</sup> I.G. PERCIVAL,<sup>2</sup> A.J. WRIGHT,<sup>3</sup> J.W. PICKETT<sup>2</sup> & A. BYRNES<sup>4</sup>

<sup>1</sup> Department of Geology, Australian National University, Canberra ACT 0200, Australia  
dstrusz@geology.anu.edu.au

<sup>2</sup> Specialist Services Section, Geological Survey of New South Wales,  
PO Box 76, Lidcombe NSW 2141, Australia  
iperciva@laurel.ocs.mq.edu.au  
picketj@cherry.com.au

<sup>3</sup> School of Geosciences, University of Wollongong, Wollongong NSW 2522, Australia  
tony\_wright@uow.edu.au

<sup>4</sup> 55 Woodside Avenue, Strathfield NSW 2135, Australia  
a.byrnesh@student.unsw.edu.au

ABSTRACT. *Keteiodoros bellense* n.gen. and n.sp. is a remarkably large trimerellide brachiopod from the Wenlock Driestone Formation, southeast of Wellington, central New South Wales. The probable articulatory mechanism is unusual for trimerellides. It apparently involved both flattened sections of the lateral commissures which acted as pivots for opening and closing the shell, and a large and strongly modified articulating plate (which partly envelopes a robust dorsal umbo) articulating with the pseudointerarea at the posterior end of the ventral platform. The heavy dorsal umbo probably acted as a counterbalance to the anterior part of the valve; the diductor muscles were apparently attached to the umbo at the sides of the articulating plate, and to the anterior end of the ventral platform.

The trimerellides occur in presumed life position in nearly monospecific beds which are interpreted as having formed in a quiet inshore shallow subtidal area on a sloping shelf, protected by coral biostromes but periodically disrupted by storm action. They are considered to represent a low-diversity quiet-water Benthic Assemblage 2 community.

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At a length of nearly 200 mm, the huge Silurian trimerellide brachiopod described herein as the new taxon *Keteiodoros bellense*, and a possibly ancestral genus in older (Ordovician) rocks about 70 km south of Mumbil, are amongst the largest known brachiopods. Trimerellides are

a distinctive group formerly classified within the "Inarticulata", indicative of the fact that they supposedly lacked articulatory structures. Following recent re-evaluation of higher level brachiopod systematics, the trimerellides have now been moved to a position closer to