

# SHORT COMMUNICATION

## RE-ASSESSMENT OF THE ARABIAN PERMIAN CHONETID BRACHIOPOD *CHONETES ARABICUS* HUDSON & SUDBURY

*CHONETES ARABICUS* is a remarkable tiny species of a chonetid brachiopod originally described from the Early Permian Lusaba Limestone of the Haushi Area (Sultanate of Oman) by Hudson & Sudbury (1959). The small size of the species raises questions as to its correct generic placement, despite the assignment of the species by Archbold (1983: 68) to *Neochonetes* (*Sommeriella*), a subgeneric group noted for its larger species size (Archbold 1981).

The new material described herein permits us to confirm the generic position of the species and to assess several critical morphological characters.

In 1984 one of us (C.F.B.) collected a large suite of topotypic specimens from the Lusaba Limestone. The limestone is interpreted as being a shallow marine deposit from an open subtidal environment with fairly high energy conditions, consistent with the earlier views of Hudson & Sudbury (1959).

The age of the Lusaba Limestone was considered by Hudson & Sudbury (1959) to be comparable with that of the Fossil Cliff Formation of Western Australia (a unit usually considered to be of Sterlitamakian age; Archbold 1982), but, as the Lusaba Limestone occurs stratigraphically above the occurrence of the Late Sakmarian (Sterlitamakian) ammonoid *Metalegoceras*, the formation may be earliest Artinskian (Aktasian) as suggested by Waterhouse (1976: 84).

### MORPHOLOGY OF THE SPECIES

The species was well described by Hudson & Sudbury (1959), although some doubt has existed as to whether their material represented a mature species. We illustrate three specimens (Fig. 1A–C), coated with ammonium chloride, to provide details not clearly visible in the original figures of uncoated specimens

Specimen No.	Width	Hinge width	Ventral height	Dorsal height
UTGD 98800	9.8	8.8	—	7.0
UTGD 98799	7.2	6.8	5.5	—
UTGD 98798	6.8	5.8	—	4.5

Table 1. Measurements of figured specimens (in mm).

(Hudson & Sudbury 1959, pl. 3, figs 6–16, pl. 6, figs 14–18).

Measurements of the three figured specimens are provided in Table 1. Specimens are held in the Department of Geology, University of Tasmania. Pertinent morphological features include the distinct brachial ridges of the largest dorsal valve (UTGD 98800), indicating the maturity of the specimen, and the nature of the ventral internal rows of papillae and the dorsal external ornament (UTGD 98799 and 98798 respectively). The coarse denticulation of the ventral hinge reported by Hudson & Sudbury (1959) is regarded by us as due to post mortem abrasion of isolated valves. The feature is variably developed, often irregular, and a similar appearance can occur at the rear margin of the ventral interarea.

We conclude that the species belongs in *Neochonetes* (*Sommeriella*) and that the larger representatives of the species are mature specimens rather than juveniles.

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Fig. 1. A–C, *Neochonetes* (*Sommeriella*) *arabicus* (Hudson & Sudbury). A, UTGD 98800, dorsal valve internal view,  $\times 5$ . B, UTGD 98799, ventral valve internal view,  $\times 5.5$ . C, UTGD 98798, dorsal valve external view,  $\times 5.5$ .



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