

THE CARBONIFEROUS BRACHIOPODS *PODTSHEREMIA PRIMA* FROM THE U.S.S.R., AND *PODTSHEREMIA AUSTRALIS* FROM EASTERN AUSTRALIA

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ABSTRACT

This report redescribes the Russian brachiopod *Podtsheremia prima* Kalashnikov based on topotype material sent to the author by Dr. N. V. Kalashnikov. *Podtsheremia australis* n. sp. a new Carboniferous spiriferid brachiopod from eastern Australia is also described. *Podtsheremia? thomasi* Roberts and *Podtsheremia? humilicostata* Roberts are confirmed as belonging to the genus *Podtsheremia*.

INTRODUCTION

The genus *Podtsheremia* Kalashnikov 1966 was first used in relation to Australian brachiopods by Roberts in 1971 (p. 216-217) for two species of spiriferids from the Bonaparte Gulf Basin in Northwestern Australia (*P.? humilicostata* Roberts and *P.? thomasi* Roberts). It is difficult to use the genus with confidence, because of the poor quality of reproduction of photographs in the Russian literature, and the lack of detail in the descriptions.

While studying Carboniferous spiriferids of eastern Australia the author encountered *Podtsheremia sp.* (Roberts, 1975) from the Chichester Fm. (Crane & Hunt, in press) in New South Wales. To ascertain the exact relationships with *Podtsheremia*, it was necessary to examine topotypes of *Podtsheremia prima*. Dr. Kalashnikov graciously sent me eight topotype specimens of *P. prima* from the Podcherem River in the Ural Mts. The descriptions of the external features of *P. prima* and the accompanying photographs should clarify the interpretation of the genus.

Podtsheremia sp. (Roberts, 1975) has been assigned to the genus and has been named *Podtsheremia australis* n. sp. *P.? humilicostata* Roberts, and *P.? thomasi* Roberts from the Bonaparte Gulf Basin are confirmed as belonging to the genus *Podtsheremia*.

Family: *Spiriferidae* King, 1846

Genus: *Podtsheremia* Kalashnikov, 1966

Type Species: *Podtsheremia prima* Kalashnikov, 1966 from the Tuls horizon, (Visean), Kirpich-Kyrta, Podcherem River, Northern Urals, U.S.S.R., by original designation of Kalashnikov, 1966. (Fig.2; numbers 1-4).

Diagnosis: (from Kalashnikov, 1966, pp. 50-51, translated by Mrs. G. A. Cooper).

Shells of medium size. Hinge line shorter than the greatest width. Ears rounded. Sinus triplicate — with a median rib. Ribs flatly convex, numerous. On the flanks they branch and form fascicles of 2 or 3 ribs. Microsculpture is in the form of fine longitudinal stria (difficult to distinguish) and fine concentric lines of growth. Delthyrial plates appear a few millimetres from the tip of the beak. A delthyrial plate is preserved for about half of the delthyrium. The shell is thin, apical filling is absent. In the dorsal valve are a wide cardinal process, high crural plates and a short septal ridge. (Roberts, 1971, p. 216-217).

Description of *Podtsheremia prima* based on examination of topotype material.

Records of The Australian Museum, Vol. 32 No. 19, 589-596, Figures 1-3.