Ber. Inst. Erdwiss. KFUniv. Graz	ISSN 1608-8166	Band 14	Graz 2009
Paleozoic Seas Symposium	Graz, 14-18 th September 2009		

Dorypyge perconvexalis (Trilobita, Middle Cambrian) from Zanskar region of Northwest Himalaya: significance in global correlation

SINGH, B.P.

H.No. 37, Hari Vihar (Vijay Park), Dehradun-248001, India; v_ruh@rediffmail.com

Dorypyge perconvexalis YANG in ZHOU et al., 1977 occurs very sparsely in the late Middle Cambrian Lejopyge laeivigata Zone and lower part of the Proagnostus bulbus Zone of Himalaya (equivalent to Pianaspis sinensis Zone to Wanshania wanshanensis Zone of Hunan, China). This is the first report of the genus *Dorypyge* in Indian Himalaya. More than six pygidia and two cranidia have been collected from the alternation of shale-grainstone limestone beds of the Teta Member (Karsha Formation) exposed along the Tangze-Yogma-Kuru section of Kurgiakh valley, southeastern part of the Zanskar region of Zanskar-Spiti Basin. The Indian Himalayan species is closely resembles with the *Dorypyge perconvexalis* YANG in ZHOU et al., 1977 and assigned to Dorypyge perconvexalis based on the presence of deep and clearly defined pleural and interpleural furrows, one pair of long and stout posterolateral spine, absence of lateral borders and border furrows and dense, medium granules ornamentations on pygidial surface. The Indian species can be differentiated from the type species of the *Dorypyge* genus, *Dorypyge richthofeni* DAMES, 1883, by having wide and relatively short axis, both pleural and interpleural furrows incised, with five Paris of marginal spines, last pair of marginal spines long and heavy (stout) and lateral border absent. It also differs from Dorypyge bisulcata (PENG et al., 2004) by having only one pair of posterior spines being stout and longer. The new finding indicate that the similar to Wangcun and Paibi sections, northwestern Hunan (PENG & ROBISON 2000, PENG et al. 2004) the species is also occur in Indian Himalaya. However, the stratigraphic position of this species in Indian Himalaya is lower than the Hunan, China, where it occurs in Wanshania wanshanensis Zone to Listracina bella Zone. However, in Zanskar region of Zanskar-Spiti Basin (Tethyan Himalaya) Dorypyge perconvexalis occurs in association with other trilobites of Pianaspis sinensis Zone to Wanshania wanshanensis Zone (equivalent to Lejopyge laeivigata Zone to Proagnostus bulbus Zone, SINGH 2008). Dorypyge perconvexalis is the youngest known species of the Dorypyge (PENG et al., 2004). This genus globally occurs in the middle Middle Cambrian in most places, and in late Middle Cambrian successions in Australia and China. Thus the report of this genus is equally very significant in Indian Himalaya as it appear in latest Middle Cambrian successions (Teta Member, Karsha Formation) and stratigraphically can be correlated with the China and Australia. The various species of this genus have been reported from the other part of the Laurentia and Gondwana i.e. from Alaska, Antarctica (Nelson Limestone), Australia (from Queensland), Christmas Hills, Tasmania, Canada (British Columbia), China (Hunan), St. Tudwal's Peninsula, Iran (Alborz Mountains), Korea (Daegi Formation, Taebaeksan Basin), Russia (Siberia), Spain, Sweden, Turkey, Utah (Swasey Limestone, Drum Mountains and Trailer Limestone, Dugway Range.

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Ber. Inst. Erdwiss. KFUniv. Graz	ISSN 1608-8166	Band 14	Graz 2009
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