

## Early Devonian Conodonts from the Kuan Tung Formation, Thailand: Systematics and Biogeographic Considerations

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ABSTRACT. A small conodont assemblage, obtained from a limestone marking the boundary between the middle and upper units of the Kuan Tung Formation, Satun Province, South Thailand, contains *inter alia* *Pandorinellina steinhornensis steinhornensis*, *Polygnathus labiosus mawsonae* n.subsp., and *Pseudooneotodus kuangtungensis* n.sp., indicating an Emsian age (*perbonus-serotinus* Zones). Studies on ontogenetic variation in Pa elements of *Polygnathus labiosus mawsonae* n.subsp. show that smaller Pa elements have fewer transverse ridges on the posterior third of the platform, more distinct marginal denticulation on the platform and a proportionately smaller basal cavity. The basal cavity lips may break off in mature specimens; this gives an appearance of a small basal cavity. The distribution of *P. labiosus*, *P. pseudoserotinus*, *P. perbonus* and *Pseudooneotodus kuangtungensis* n.sp., in the Shan-Thai and South China Terranes, together with supporting evidence from thelodontid and placoderm fishes, suggests that these terranes were in close proximity to the eastern margin of Gondwana at the end of the Early Devonian.

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Little is known of the Devonian conodont faunas from south-east Asia compared to the vast amount of data from Europe, America and Australia. Conodont faunas from Thailand have been listed by Baum *et al.* (1970) and Bastin *et al.* (1977) for isolated localities in the north of the country. Most of these are of Early Devonian age, except for two sites yielding Givetian and Famennian conodonts. None of the localities are from specifically named lithological units, and their stratigraphic relationships are uncertain. Burrett

*et al.* (1987) described a limited conodont fauna from the Mae Ping Formation, south of Chiang Mai, establishing a Siluro-Devonian age for a sequence previously thought to be Ordovician. Fortey (in press) reports that a few conodonts including *Icriodus* sp. and *Polygnathus* sp. were recovered from chippings of limestone from preparation of trilobites from Satun Province in the south of Thailand. These come from the same stratigraphic section as the fauna described herein. No icriodids were recovered from