17. **A New Carboniferous Trilobite from North Thailand**

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Trilobite specimens were collected by the junior author in sandy mudstone in a small outcrop situated at about 1.7 km south of Ban Sup (about 19 km northeast of Loei), along the road from Loei to Ban Sup (Loc. no. 88072001), northern Thailand. Many kinds of fossils such as brachiopods, bryozoans, corals, ammonites, gastropods, etc. were found in association with the trilobites. Some fifteen years ago Yanagida (1974) described the brachiopod fauna including *Brachythyrina strangwaysi lata* Chao and *B. strangwaysi longa* Chao from Ban Sup. According to him, they are very common in Middle Carboniferous in China and he concluded that the brachiopod fauna belongs to the *Profusulinella* zone (the lower part of Middle Carboniferous). Although the present locality cannot be confirmed to be exactly the same with the Yanagida’s one, it may be the same horizon because of the resemblance of the brachiopod constituents in the two localities (personal communication from Yanagida).

The recent information on the geology of Ban Sup area was given by N. Nakornsri (personal communication) as follows: According to A. Charoenpravat (Geological map of “Changwat Loei”, 1:250,000, 1976) the present trilobite locality is included in the upper part of the Wang Saphun Formation (gray shale, sandy shale, pebbly sandstone and gray limestone lenses). The age of the formation is Carboniferous. Further the present locality is also put into the upper part of the Wang Saphung Formation by C. Chairangsee et al. (Geological map “Ban Sup Quadrangle, 1:50,000, 1986). The age of the formation is considered to be Middle-Upper Carboniferous by them.

The trilobites in question are brachymetopids and the family Brachymetopidae is now classified by Kobayashi and Hamada in 1980 and 1984 as below.

- **Subfamily Cordaniinae** Campbell, 1977
- **Subfamily Brachymetopinae** Prantl and Pribyl, 1950
  - **Genus Brachymetopus** McCoy, 1847
    - **Subgenus Brachymetopus (Brachymetopella)** Kobayashi and Hamada, 1978
  - **Genus Cheiropyge** Diener, 1897
    - **Subgenus Cheiropyge (Suturikephalion)** Kobayashi and Hamada, 1892

**Description of a new species.**

*Brachymetopus (Brachymetopella) nakornsri*

Kobayashi and Sakagami, sp. nov.

Cephalon exclusive of genal spines semi-parabolic in outline and well vaulted. Glabella of moderate size, subcylindrical: its basal lobes marked by a pair of diagonal, somewhat pitted furrows extending from occipital furrows; eyes fairly large, opposed at basal lobes; occipital ring crescentic, defined by strong occipital furrow in front; cheek nearly as wide as glabella; lateral marginal border very broad, about twice the posterior border; facial suture extending diagonally from

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anterior end of eye as far as the lateral limit of the eye and suddenly bent inward in crossing the antero-lateral marginal border and then doublure rectangularly; genal spine half as long as cephalon.

Thorax composed of nine segments; its axial part wider than a pleura in anterior, but in posterior nearly as wide as a pleura.

Pygidium subtrigonal, though three margins are broadly arcuate; axial lobe one-third as broad as pygidium; axial lobe narrowing backward slowly to overlap a little on the posterior border where axial lobe is well rounded forming a terminal piece; the lobe more or less flattened on top, steeply slant on lateral sides on both sides ending nodes; 14 or more axial rings countable besides the terminal piece; lateral furrow deep; pleural lobe divided into 10 or more ribs, each subdivided into two branches or two narrow riblets by an interpleural

Fig. 1. *Brachymetopus (Brachymetopella) nakornsri* Kobayashi and Sakagami, sp. nov. All figures are in ×3. a, b. Enrolled specimens (holotype). a: Internal mould (GK.D 50001). b: External replica (GK.D 50002). c, d. Thorax with perfect pygidium. c: Internal mould (GK.D. 50003). d: External replica (GK.D. 50004). e–h. Pygidia, e, g, h: Internal moulds (GK.D 50005, GK.D 50006 and GK.D 50007, respectively). f: External replica (GK.D 50008).
furrow; marginal border flat, smooth and depressed. Test smooth, unless pitted on cephalon.

The distinct opisthoparian facial suture, comparatively large glabella and eyes, small and narrow basal lobes, well developed marginal borders on the cephalon and pygidium, and the subtrigonal pygidium, its flattopped axial lobe provided with lateral nodes as often seen in *Pseudophillipsia* are important characteristics of this species. Although it bears common aspects with the above cited genera in the Brachymetopidae, it does not fit in any generic diagnosis in the family. On the other hand it resembles *Parvidumus* in the Griffithinae of the Phillipsidae.

The specimens treated in this paper will be deposited in the Palaeontological Repository of the Department of Geology, Faculty of Science, Kyushu University.

**References**


—— (1984) : Permian trilobites of Japan etc. ibid., no. 26, 92 pp., 14 pls.

