

COMPARISON OF THE GIVETIAN RUGOSE CORAL *ARGUTASTREA* OF DUSHAN (SOUTH CHINA) AND GRAZ (AUSTRIA)

Weihua LIAO* & Bernhard HUBMANN**

* Nanjing Institute of Geology and Palaeontology, the Chinese Academy of Sciences, 39 East Beijing Road, Nanjing 210008, P.R. China; weihualiao@163.com

** Institut für Geologie und Paläontologie, Universität Graz, Heinrichstr. 26, A-8010 Graz, Österreich; bernhard.hubmann@uni-graz.at

The genus *Argutastrea* was established by Crickmay in 1960 with its type species *Argutastrea arguta* Crickmay, 1960. Representatives of *Argutastrea* are known from Europe, Asia, West Australia, North Africa and western North America.

Formerly, many Devonian cerioid corals were attributed to *Hexagonaria* Gürich 1896. Restudies of the neotype of the type species *Hexagonaria hexagonum* (Goldfuss) from Bensberg, Germany (probably upper Givetian or lower Frasnian) resulted in the new view that the bulk of the so-called „*Hexagonaria*” in reality belong to *Argutastrea*.

Hexagonaria Gürich is mainly distinguished from *Argutastrea* Crickmay by its spindle-shaped dilatation of septa with typically carinae.

The genus *Prismatophyllum* Simpson, 1900 differs from *Argutastrea* Crickmay by its thinner septa with yardarm carinae.

We are greatly indebted to the exchange-program between the Chinese Academy of Sciences and the Austrian Academy of Sciences that supported a comparisomal study of cerioid rugosa of the Hochlantsch area north of Graz, Austria and Dushan, southern Guizhou, China in 2000 and in 2002 respectively.

Cerioid corals of the Hochlantsch area were already mentioned by Frech (1888) who determined them as *Cyathophyllum quadrigeminum*. Our recent collecting activities within the Zachenspitze Fm. (middle to upper varcus-zone) yielded individuals which are better preserved than the previous material known from here (Flügel & Schimunek 1961). However taxonomic studies confirmed Flügel & Schimunek's determination as *Argutastrea darwini* (Frech).

In 2002 we studied the Devonian section at eastern and northern suburbs of Dushan County town, southern Guizhou Province, China and collected some species of *Argutastrea* (Middle Devonian, Givetian).

Nearly two decades ago, Liao & Birenheide (1985) published some species of *Argutastrea* from the Givetian of Dushan, Guizhou Province, South China. They are *Argutastrea dushanensis* Liao and Birenheide, 1985, *A. jiwozhaiensis* Liao and Birenheide, 1985, *A. elegans* (Kong in Kong and Huang), 1978 and *A. endeca* (Kong in Kong and Huang) 1978. Among them, *Argutastrea dushanensis* is closely related to *Argutastrea darwini*.

References

- Flügel, H.W. & Schimunek, K. 1961. Revision der aus dem Mitteldevon von Graz beschriebenen Arten der Gattung *Hexagonaria* Gürich (Rugosa).- N. Jahrb. Geol. Paläont., III, 1960, 1961, Stuttgart.
- Frech, F. (1888): Über die Altersstellung des Grazer Devon.- Mitt. naturwiss. Ver. Steiermark, 24, 47-64, Graz.
- Liao, W. & Birenheide, R. 1985. Rugose Korallen aus dem Givetium von Dushan, Provinz Guizhou, S-China. 2: Kolonien der Columnariina.- Senckenberg. Lethaea, 65, 265-295, Frankfurt.