Ber. Inst. Geol. Paläont. K.-F.-Univ. Graz	ISSN 1608-8166	Volume 7	Graz 2003

DISCOVERY OF THE LOWEST CARBONIFEROUS TABULATA, *CLEISTOPORA* AND BIOSTRATIGRAPHY IN SHAHAMIRZAD, NORTH IRAN

Isao NIIKAWA

Department of Geology, Faculty of Science, Niigata University, 8050 Igarashi Ninocho, Niigata, 950-2181, JAPAN

Carboniferous corals of Iran has been described from Talartal and northern Semnan in Elburz Mountains and correlated to the Upper Viséan because of the presence of *Kueichouphyllum* by Flügel (1963). However, the geological context and stratigraphy were not probed in detail, the fauna produced the pre-Upper Viséan corals, *Shiphonophyllia* and *Kyseringophyllum* (*Humboldtia* by Flügel, 1963) and, moreover, *Kueichouphyllum* have been described from the Upper Tournaisian in nearby Armenia by Papojan (1969) and reported from the Upper Tournaisian elsewhere (Niikawa, 1994).

Shahamirzad area, where was investigated by the author in 2001, locates in northern Semnan, SE Elburz Mountains, north Iran and can be supposed to be the same area as Flügel (1963). Among paleozoic formations, many coralline fossils occurred from the Mobarak Formation, which is divided into 10 beds from A to J in ascending order, is in disconformity contact with the Devonian old Red Sandstone and is unconformably overlay with a basal conglomerate by the Permian.

Cleistopora from this area occurred from lenticular limestone into black limy shale which is divided as Bed A of the lowermost part of the Mobarak Formation. This tabulate coral is recognized *Cleistopora* from small, discoid and holothecate corallum, short and prismatic corallite with dense walls which are pierced by sparse mural pores.

When Vaughan(1905) established biostratigraphy of the Lower Carboniferous in the Avon gorge, Bristol area, he recognized six biozones, *Modiola*, *Cleistopora*, *Caninia*, *Seminula* and *Dibunophyllum* Zones in ascending order. While *Cleistopora* Zone in this area lithologically consists of shale with subsidiary limestone (Vaughan, 1905).

Thus, the lowermost Mobarak Formation can be correlated with the lowermost Carboniferous by both paleontology and lithology.

Among other coral from the Mobarak Formation, Rugosa contain *Zaphrentites* sp. A, *Z.* sp. B, *Kueichouphyllum laosense* Fontaine, *K. sinense* Yu, *Shiphonophyllia cylindrica* Scouler in Griffith, *S.* sp. A, *S.* sp., *Cyathoclisia* sp., *Amygdalophyllum* n.sp., *Kyseringophyllum* sp., *Caninia cornucopiae* Michelin in Gervais, *C.* sp., *Campophyllum* n. sp. and Tabulata is *Syringopora* sp.

From these corals, the whole of Mobarak Formation is correlated with the Tournasian or the Courceyan to Chadian in the Dinantian.