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Sedimentologic and new Paleontologic data about the late Maastrichtian facies from the southern branch of the Neo-Tethys (east Anatolia) from the Malatya basin , Turkey

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The upper Cretaceous (Campanian-Maastrichtian) rocks in the Malatya basin (eastern part of Anatolid) include continental, reefal (Tohma Formation) and deep sea deposits. The late Cretaceus aged the Tohma Formation, consisting of mainly bivalves (rudist), gastropod and brachiopods is well exposed as barrier reef in the Malatya basin within the eastern part of the Anatolia from southern branch of the Neo-Tethys. While there are several investigations about rudist fauna and their benthic fauna from the Tohma reef, “nautiloids “ species has not been discovered in the basin.

Southeast Anatolia and northwest of Iran area are well known numerous invertebrate fossil localities from Arabian plate. Unlike ammonites, the Cretaceous nautiloids are poorly studied in invertebrate groups in Neo-Tethys. Some cephalopod types of the late Cretaceous have been recorded from the Garzan and Lower Sinan Formations in the southeastern Anatolia. However, there has not been recorded the late Cretaceous nautiloids from Anatolia platform of southern branch of the Neo-Tethys.

The Tohma Formation has *Inoceramus* sp., acteonellid types, and nautiloids with in the clastic facies at the lower part, totally made up of rudist fauna in the middle part as five meters as lenses and intercalation with sandstones (contain acteonellid type gastropod), and brachiopod species, trigonide types within the sandy unit with several alternations at the upper part. This facies pass into slope facies, and followed to deep

basin shales.

Cymatoceras pseudoatlas (Yabe and Shimizu 1942) is a new record as the youngest late Cretaceous nautiloids in the Tohma Formation from eastern Neo-Tetyhs. The nautiloids fossils are associated with an assemblage of benthonic foraminifers (e.g. *Lepidorbitoides* sp., *Siderolites* sp., *Orbitoides tisotti*, *Orbitoides medius*, *Omphalocyclus macroporus*, *Sivasella monolateralis*), rich in planktonic foraminifera fauna (*Globotruncana bulloides, G. aegyptiaca, G. linneiana, G. ventricosa, G. falsostuerti, G. stuarti, G. arca, G. marieii, G. rosetta, G. dubulei, G. orientalis, G. stuartiformis, Globotruncanita conica, G. angulata, Rugoglobigerina rugosa),* and these fossils assamblages indicate the unit age is late Maastrichtian; and acteonellid type of gastropods (*Throchactaeon (Trochactaeon) giganteus giganteus)*; bivalves (*Inoceramus* sp., new trigonid and rudist species) and brachiopods support the late Maastrichtian age.

The main tectonic events and paleogeography of the small plates (Anatolid-Torid) are existed during the Cretaceous period in the Neo-Tethys. Some nautiloids lived can be summarized as follows in the Neo-Tethys zone. For example, *Cymatoceras pseudoatlas* of a nauotoloid species is well known during the late Santonian-Campanian from Japan; the Cenomanian - Santonian from England and the late Campanian-early Maastrictian from Germany. However, it is one of the youngest species of the nautiloids with Maastrichtian age, found in the Neo-Tethys of eastern Anatolid platform.

The new finding of species *Cymatoceras pseudoatlas* as the youngest late Cretaceous nautiloids fossil, the first recording in the Neo-Tethys of Anatolid platform, contributes to the stratigraphic and new paleogeographic interpretations.