

Geoexpeditions with *Lithiotis*-type bivalves – field works of Student Scientific Association “Strati” (AGH University of Krakow)

Zbigniew Ziarek*, Jakub Andrzejak, Michal Krobicki

AGH University of Krakow, Faculty of Geology, Geophysics and Environmental Protection,
al. A. Mickiewicza 30, 30-059 Krakow, Poland

* zbysiuziarek@student.agh.edu.pl

Student Scientific Association of Stratigraphy “Strati” at AGH University of Krakow is a research group founded in the 1990s. Their main focus has been on the evolution of the Tethys Ocean during the Jurassic and Cretaceous periods and the geology of Alpine system. They have conducted research in the Polish Carpathians, Eastern Carpathians (Ukraine, Slovakia, Romania), High Atlas (Morocco), Albanian Alps (Albania), and the central Thakkhola region of the Himalaya in Nepal.

Currently, their aim is to undertake a scientific expedition to the Ladakh region in the Indian Himalayas. This project

is closely related to their previous works, where they studied Early Jurassic buildups created by bivalves of the so-called *Lithiotis* facies. These biostructures occurred alongside of the southern margin of the Early Jurassic Tethys Ocean. The Association aims to conduct palaeontological, palaeoecological, sedimentological, and palaeobiogeographical analyses to gain insights into the appearance of *Lithiotis* buildups in the Pliensbachian and their disappearance by the end of the Early Toarcian time the most probably due to Toarcian Anoxic Event within Tethys Ocean.



Fig. 1. Members of Student Scientific Association “Strati” on the trip to Kali Gandaki valley (Nepal, 2019)

After a faunal crisis during one of the major mass extinctions (known as “The Great Five”) at the Triassic-Jurassic boundary, “reef-like” environments began to rebuild their biocenoses. One of the first groups of marine invertebrates that started forming organic structures after this crisis were *Lithiotis*-type bivalves. The most characteristic representatives of this group belong to the following genera: *Lithiotis*, *Cochlearites*, *Lithioperna*, and *Mytiloperna*.

A detailed sedimentological and palaeoecological analysis of the Ladakh/Zaskar profiles will be the main objective of the next expedition, with similar occurrences of *Lithiotis* bivalves in other parts of the “Tethys world” serving as a comparative material.