



The Bayankhoshuu Ruins section in the southern Gobi of Mongolia revisited: new sedimentological/facies data.

**A.Munkhjargal ^{1,2}, P. Königshof ², J.A.Waters ³, S.K.Carmichael ³, S.Gonchigdorj ¹,
H. Thassannapak⁴, M. Udchachon⁴, Sh. Davaanyam⁵**

¹Mongolian University of Science and Technology 8th khoroo, Baga Toiruu 34, Sukhbaatar District, 14191 Ulaanbaatar, Mongolia.
Email: ariuka.munkhjargal@senckenberg.de, sersmaa@gmail.com.

²Senckenberg – Research Institute and Natural History Museum Frankfurt, Senckenberganlage 25, 60325 Frankfurt am Main, Germany.
Email: ariuka.munkhjargal@senckenberg.de, peter.koenigshof@senckenberg.de.

³Department of Geological and Environmental Sciences, Appalachian State University, 572 Rivers St., Boone, NC 28608, USA.
Email: watersja@appstate.edu; carmichaelsk@appstate.edu.

⁴Paleontological Research and Education Center, Mahasarakham University, Mahasarakham 44150, Thailand.
Email: mongkol.c@msu.ac.th, bthaihip@yahoo.com.

⁵Institute of Geology, Mongolian Academy of Science, Labor union street, Songinokhairkhan district, Ulaanbaatar 18080, Mongolia
Email: bthaihip@yahoo.com.

ABSTRACT

The Central Asian Orogenic Belt (CAOB) is the world's largest Paleozoic accretionary orogenic belt, which has evolved over 800 million years, from Neoproterozoic time until the Cenozoic. Mongolia lies in the center of the CAOB, which is composed of a large number of different terranes. Mongolia is divided into a northern and southern domain by a Main Mongolian Lineament. Mid Paleozoic deposits cover a huge area south of this lineament as it is less deformed in comparison to northern domain. Deposits of the Devonian/Carboniferous transition of the Bayankhoshuu Ruins section in the southern Mongolia likely occurred on either the Mandalovoo-or Gurvansayhan Terrane. The section exposes mainly deep-water (hemipelagic and pelagic) deposits composed of limestones, siltstones and chert. The marine sedimentary succession is interjected by volcanic rocks, basaltic lava and volcanoclastic bentonite and tuff of remarkable thickness. Shallow-water sediments are less frequent. The overall facies suggest an island arc setting with intensive volcanic activity during Middle-Late Devonian. The talk aims to contribute to a better understanding of Paleozoic rocks within the critical period of Earth's History around the D/C boundary in deeper water facies settings. Furthermore, we present new sedimentological and biostratigraphical data within the Paleozoic Terrane scheme for Mongolia, an area little facies details are known so far.