

A PALAEOONTOLOGICAL EXPEDITION HAS DISCOVERED NEW FOSSILS OF VERTEBRATE ANIMALS FROM THE CRETACEOUS PERIOD IN TAJIKISTAN

The current year has become an important event for paleontological research. An international team of scientists - geologists and paleontologists - went on a seven-day field expedition to northern Tajikistan from 25 June to 1 July 2024. This was the first paleontological expedition in the region, which has not been conducted since 1991. It aimed to discover fossilized vertebrate remains from the Late Cretaceous deposits of the Western Fergana in the territory Republic of Tajikistan.

The team was led by Drs Paul Rummy and Lizhao Zhang, scientists from the Institute of Vertebrate Paleontology and Paleoanthropology, Chinese Academy of Sciences, and Yunus Mamadjanov, Scientific Secretary of the Research Centre for Ecology and Environment of Central Asia (Dushanbe), National Academy of Sciences of Tajikistan.



The Expedition Team and the People of Kansai.

The central object of interest of the expedition was the Kansai locality, located at the foot of the Kuramin Range, 40 kilometres north of the ancient city of Khujand. The Kansai locality, where deposits of the Yalovach Formation are widespread, has a long history of research. The history of significant palaeontological discoveries dates back to the 1940s, when the first fossilised remains of late Cretaceous vertebrates were discovered here. Previous excavations carried out in the 1960s under the direction of Professor A. Rozhdestvensky discovered a rich collection of dinosaur, turtle and crocodile remains in this area.

A recently organised expedition has continued to investigate the Kansai site and found fragments of fossilised bones of turtles (Testudines) and crocodiles. The team also discovered an entire tooth of a large theropod dinosaur. These discoveries have generated even more interest and special attention to the site, which represents the deltaic deposits of a large river that flowed into the Fergana Bay during the Late Cretaceous period.



Remains of Turtle Bones from Kansai locality



Fossilized Remains of Crocodiles



Fossilized Dinosaur Tooth.



Scientists with fossil findings in the Kansai locality.

In addition to research at the Kansai locality, the team of Chinese and Tajik scientists visited two other areas, Isfara-1 (Zumradshah) and Isfara-2 (Kizilpilyal), where dinosaur fossils had also been found earlier.





locality of Isfara 2 – Kizilpila.

Taking into account the wide distribution of sediments of the Yalovach Formation of the Santon Stage (86.3-83.6 Ma) of the Cretaceous period in the northern part of Tajikistan, a group of scientists from China and Tajikistan postponed detailed and larger-scale palaeontological excavations until the next expedition.



Chinese scientists - Dr. Paul Rummy and Lizhao Zhang with Prof Abdusattor Saidov.



Dr. Paul Rummy with Dr. Yunus Mamajonov.

Based on a very fruitful preliminary study, a Memorandum of Understanding was signed between the Institute of Vertebrate Paleontology and Paleoanthropology of the Chinese Academy of Sciences and the Research Centre for Ecology and Environment of Central Asia (Dushanbe) of the National Academy of Sciences of Tajikistan, allowing further scientific cooperation between the parties on Cretaceous vertebrate research and joint paleontological studies.



Signing of the Memorandum of Understanding for future scientific cooperation.

As palaeontologists continue to trace the rich history of Cretaceous vertebrate ecology in Tajikistan, this first joint Tajik-Chinese palaeontological expedition confirmed the importance of the Kansai Cretaceous fossil locality as a key site for understanding the history of ancient ecosystems.

A special and large-scale expedition is expected to be organised next year to continue the palaeontological research that has begun.

Dr. Yunus Mamadjanov,

July 1, 2024, Kansai locality, Sughd region, Tajikistan.