

Oral presentation

## **New early Late Jurassic vertebrate localities near Shanshan in the Turpan Basin (NW China) – a field report**

Oliver WINGS

Institut für Geowissenschaften, Universität Tübingen & Museum für Naturkunde, Leibniz-Institut für Evolutions- und Biodiversitätsforschung an der Humboldt-Universität zu Berlin, Invalidenstr. 43, D-10115 Berlin, Germany. E-mail: oliver.wings@web.de

Since 2007, three expeditions of the Sino-German Paleontological Cooperation Project have prospected for Middle and Late Jurassic vertebrate assemblages in fluvial-lacustrine sediments near the town of Shanshan in Xinjiang Autonomous Province, China. The most recent expedition in April of 2009 focused on the early Late Jurassic Qigu Formation, which is particularly rich in macroscopic vertebrate fossils. Fieldwork included quarrying blocks from an immense accumulation of fossil turtles at the so-called "Mesa Chelonia" site and prospecting for and excavating of dinosaur material.

The Mesa Chelonia site consists of a 10 – 20 cm thick mudstone layer which dips at ca. 60° to the north and is exposed both on the west and east sides of a mesa capped by Pleistocene alluvial deposits. All skeletal elements of at least two xinjiangchelyid taxa, currently assigned to *Annemys* cf. *latiens* and *Xinjiangchelys* cf. *chowii*, are present. The total number of turtles once buried in an originally 500 m<sup>2</sup> large area is calculated at about 2500, likely representing the world's richest fossil turtle taphocoenosis (death assemblage).

The articulated bones of a gigantic sauropod with a 4.2 m long series of 13 anterior caudal vertebrae, several ribs, and an articulated left hind limb are among the new dinosaur finds. Fifteen isolated gastroliths were found next to the femur. Four additional, promising sauropod localities, which yield long bones, articulated cervical vertebrae, the articulated dorsal vertebrae of a juvenile individual, and articulated phalanges, were identified and await further investigation. Among isolated dinosaur bones found in the area are a partially preserved metatarsal III of a large theropod, several small theropod teeth, the distal half of a maniraptoran femur, and the fragment of an ilium tentatively referred to Stegosauria.