



Cretaceous Vertebrate Tracksites - Korean Cretaceous Dinosaur Coast World Heritage Nomination Site

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South Korea is one of the best known regions in the world for Cretaceous fossil footprints, which are also world-renowned. Korea has produced more scientifically named bird tracks (ichnotaxa) than any other region in the world. It has also produced the world's largest pterosaur tracks. Dinosaur tracksites also have the highest frequency of vertebrate track-bearing levels currently known in any stratigraphic sequence.

Among the areas that have the best track records, and the greatest scientific significance with best documentation, Korea ranks very highly. Objective analysis of important individual tracksites and tracksite regions must be based on multiple criteria including: size of site, number of tracks, trackways and track bearing levels, number of valid named ichnotaxa including types, number of scientific publications, quality of preservation. The unique and distinctive dinosaur tracksites are known as one of the world's most important dinosaur track localities. In particular, the dinosaur track sites in southern coastal area of Korea are very unique. In the sites, we have excavated over 10,000 dinosaur tracks. The Hwasun sites show diverse gaits with unusual walking patterns and postures in some tracks. The pterosaur tracks are the most immense in the world. The longest pterosaur trackway yet known from any track sites suggests that pterosaurs were competent terrestrial locomotors. This ichnofauna contains the first pterosaur tracks reported from Asia. The Haenam Uhngri pterosaur assigns to a new genus *Haenamichnus* which accommodates the new ichnosppecies, *Haenamichnus uhngriensis*. At least 12 track types have been reported from the Haman and Jindong Formations (probably late Lower Cretaceous). These include the types of bird tracks assigned to *Koreanornis*, *Jindongornipes*, *Ignotornis* and *Goseongornipes*. In addition the bird tracks *Hwangsaniipes*, *Uhngrichnus*, the pterosaur track *Haenamichnus* and the dinosaur tracks, *Brontopodus*, *Caririchnium*, *Minisauripus* and at least three other unnamed morphotypes are known. A total of 52 clutches containing 390 dinosaur eggs occur in several stratigraphic formations including seven dinosaur egg localities. The other fossils including turtles, crocodiles, fishes, wood fossil, plants, trace fossils and microfossils have also been discovered. The occurrences of Korean dinosaurs in diverse stratigraphic formations and sedimentological setting and in diverse sizes and morphotypes provide an opportunity to study the palaeoecologic and palaeoenvironmental conditions of the sites of the Late Cretaceous dinosaurs. Korea could serve as a global vertebrate ichnological standard for Cretaceous terrestrial sequences, and allow correlation with Japanese marine sequences to the east and classic Chinese sites to the west. The region plays a pivotal role in helping us understand vertebrate evolution and paleoecology on the margins of the Asian continent during the Cretaceous.