

K-Ar AND Ar-Ar AGES OF THE VOLCANIC ROCKS OF THE DINOSAUR FOOTPRINT HOSTING UHANGRI FORMATION, HAENAM, SOUTH KOREA

1KIM, C.B., 2CHANG, H.W. AND 3HUH, M., 1The Institute of Basic Sciences, Chonnam National University, Kwangju, KOREA, 500-757, 2Department of Earth System Sciences, Seoul National University, Seoul, Korea, 151-742, 3Faculty of Earth system and Environmental Science, Chonnam National University, Kwangju, Korea, 500-757.

The Uhangri Formation forms the bed rock of the southwestern tip of the Korean peninsular. It is a member of the Cretaceous sedimentary sequence that was deposited in a series of inland basins. It comprises approximately 400 m thick interlayered epiclastic sequence of conglomerates and sandstone, chert, mudstone, felsic tuff, lava, and shales. Recently, about 600 well preserved dinosaur tracks have been discovered in shale and sandstone beds at 6 different levels in the Uhangri Formation. Tracks in level 2 and 4 are unique and distinct from the other sites. These tracks are of sauropod, ornithopod, theropod, pterosaur, and of a web-footed bird. Volcanic rocks of the Uhangri Formation are lapilli tuffs, welded tuffs, andesite, rhyolite. Calcareous black shale and sandstone are intercalated with the volcanic rocks. K-Ar and Ar-Ar ages for the volcanic rocks are: andesite- 85 Ma, rhyolite- 79 Ma, welded tuff- 69 Ma. This volcanism, between 85 and 69 Ma, provides a time frame for the sedimentary rocks with their dinosaur tracks. The occurrence of tracks of dinosaurs and web-footed early bird at same horizon attests to their coexistence in same environment in the Cenomanian to Maastrichtian time.