

A comparative study of fossil vertebrates from the Siwaliks at Garhiyala village, District Attock, Pakistan

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Abstract

Siwalik deposits of Pakistan possess a large number of well-preserved vertebrate fauna bearing the typical morphological features. The overall dental morphology was identified and measurements of the dental constitution were documented to trace back the fauna obtained from the Siwalik deposits exposed in Garhiyala village in District Attock to the species level. The height to width (H/W) values of the dental constitution were determined to categorize the specimens between extremely brachyodont (<50) and extremely hypsodont (>120), while width to length (W/L) indices were used to identify the grade of the crown between extremely narrow crowned (<50) and extremely broad crowned (>125). A total of three species were diagnosed identifying the specimens collected from the Siwalik deposits. First specimen represents the mandibular part of *Selonoportax vexillarius* with three molars and one premolar preserved; all these are extremely hypsodont and narrow crowned. The second specimen is the maxillary part of *Proamphibos kashmiricus* with four hypsodont and narrow crowned molars and one extremely hypsodont and extremely broad crowned premolar from the Upper Siwalik conglomerate of the Pleistocene Soan Formation. The third specimen has been identified as mandible of *Antelope sub torta* with two extremely hypsodont and narrow crowned molars and one extremely hypsodont and broad crowned premolar. Both the first and third specimens were collected from the sandstone of the Middle Siwalik Dhok Pathan Formation of Early to Middle Pliocene age.