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Title: Siwalik-age faunas from the Himalayan Foreland Basin of South Asia

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Khari Nadi Baripada Kurnool Cave Mammalian faunas

Vihowa

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Abstract:

The Himalayan foreland basin is characterised by three principal sedimentary successions. These are the Subathu Group (Palaeocene-Eocene), the Murree or Dharamsala Group (Oligocene-Miocene) and the Siwalik Group (Miocene-Pleistocene). The basin was linked in the east to the Bay of Bengal through the Bengal Basin and its western part was connected to the Arabian Sea through Rajasthan and Kachchh, Gujarat. The Himalayan foothills have long been known for yielding rich mammalian fossil occurrences and significant localities in the Indian Siwaliks include Kalagarh, Ramnagar, Haritalyangar, Chandigarh and Jammu regions. The Bugti Basin and Zinda Pir area of Sulaiman Range of Pakistan were also part of the foreland basin, as Lower and Middle Siwalik fossils are known from the Vihowa and Litra formations, respectively. The Marwat Formation of Bhittani and Marwat Ranges, Pakistan have also yielded Pinjor-age vertebrate fossils. The Middle and Upper Siwalik-age fossils are also known from the Irrawaddy Formation of Myanmar, where older Pegu beds have also yielded scanty Lower Siwalik-age fossils. This faunal succession in the Irrawaddy Valley may have geologically and biogeographically belonged to the Himalayan foreland basin in the past. Additional mammalian fossils having an affinity with the Lower and Middle Siwaliks are known from the Khari Nadi Formation of Kachchh. The Bokabil Formation of Tripura also yielded scanty Lower to Middle Siwalik fossils. A younger Siwalik late Miocene assemblage is known from Piram Island of Gujarat. These areas are also part of the foreland basin. Most recently, a late Miocene suid species was discovered and reported from near Baripada, Odisha. The paper discusses the respective faunal lists of the various successions mentioned above. Finally, the paper discusses the implications of the foreland faunas. The faunas of Lower and Middle Siwaliks of foreland basin have links with Europe, Turkey, Africa and Central Asia and throw light on the uplift of the Himalaya. The post-Siwalik faunas of central and Peninsular India and Indo-Gangetic Plains have also yielded remnant Siwalik taxa, including Stegodon insignis, Elephas hysudricus and Potamochoerus theobaldi. The Kurnool Cave Fauna and Recent Fauna of India have also generic resemblance with the foreland faunas.

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