

The mountain giant rat of Borneo *Sundamys infraluteus* (Thomas) and its relations

Abstract

The genus *Sundamys* comprises the species *Sundamys muelleri*, Müller's rat, which is widespread in the Sundaic biogeographical subregion, and three other taxa, the mountain giant rats of Borneo *S. infraluteus*, Java *S. maxi* and Sumatra *S. atchinensis*. Nine additional specimens of the Borneo Mountain giant rat are reported, and one field record, adding new locations to the known range of the species in the Crocker Range, notably the vicinity of Gn. Alab, and Gn. Lumaku, Sabah, and at Pa Raye, Kalimantan Utara. Measurements of the specimens, and the first from Gn. Mulu, Sarawak, are tabulated with previously published data. Trapping results indicate that this rat is confined to an altitudinal range, 900 – 2350 m, broadly corresponding with the limits of Lower Montane Forest, especially Oak-Laurel forests, and that it occurs both in pristine habitat and in disturbed forests. The topography of the uplands of northern Borneo provides connections between all locations except Mulu, which is surrounded by lowlands. A review of palaeoecological interpretations indicates that favourable habitat for this rat was more extensive in north-western Borneo in the terminal Pleistocene, but may have been more reduced than at present during warm episodes of the Holocene. Consideration of palaeo-environments in the Sundaic subregion suggests that there may have been no genetic contact between mountain giant rats of Sumatra and Borneo during the Quaternary. Although molecular evidence is lacking, it is reasonable to treat *Sundamys infraluteus*, *S. atchinensis* and *Sundamys maxi* as distinct species, arising independently by vicariant evolution from a Pliocene ancestry.