

Waterfalls of Maliau Basin—geoheritage of Sabah, Malaysian Borneo

Abstract

The Maliau Basin, located in one of the remaining pristine rainforest in Sabah, produces some of the most spectacular waterfalls in Malaysia. The seven-tier Maliau Falls has become one of the major attractions for visitors to the basin. However, other waterfalls within the basin are not well known to visitors and their development rarely publicised. This paper highlights the development of waterfalls in this extremely remote basin. At least 28 waterfalls showing heights of more than 5 m have been mapped in this basin. The high density of waterfalls in the basin can be attributed to the right combination of geology, geomorphology and climate. A waterfall development model is proposed to explain the occurrence of the waterfalls. The basin which is made up of gently dipping sedimentary rock comprising of repetitive resistant sandstone layers and soft mudstone layers produces multi-storey waterfalls. Numerous vertical fractures within the rock layers, which constitute lines of geological weakness, assist river downcutting and the formation of narrow valley, ideal for waterfalls to form. The saucer-like shape of the basin is ideal for collecting rainwater to feed the waterfalls.