

15. The Efficacy of Protected Areas and Future Challenges for Wildlife Conservation in Sarawak

Mohd-Azlan J.^{1,2} & Michael J. Lawes¹

Abstract

The protected areas of Sarawak now contain the best examples of what were once some of the most diverse and continuous mature rainforest in the world. Excluding proposed sites and marine reserves, Sarawak boasts 26 protected areas comprising nature reserves, wildlife sanctuaries and national parks. These are the only line of defence in efforts to protect Sarawak's biodiversity and prevent local extinction. The protected areas cover about 0.5 million hectares of forest, or 4% of Sarawak's total area. Accelerated land conversion to agriculture, agro-forestry and urban development has confined the residual biodiversity to protected areas and human-modified or secondary habitat. With protected areas being fragmented and isolated, even minor threats to these areas could potentially have large impacts on their biodiversity. The ability of species to persist within such remnants is an issue of concern. With the rapid pace of anthropogenic land use change, Sarawak is running out of potential sites for new high quality protected areas. In light of this, and based on past and present experience, a decisive approach to conserving the remaining diverse mature rainforest is urgently needed. New criteria for reserve selection based on basic principles of ecology are critically needed to maximize conservation gains and priorities.

Protected Areas of Sarawak

Sarawak represents approximately 17% of Borneo which is the third largest island in the world covering 746,337 km² and supporting one of the richest assemblages of flora and fauna in the Sundaland region. Sundaland is one of four biodiversity hotspots containing high concentrations of endemic species and is experiencing rapid deforestation and habitat degradation (Myers et al., 2000). A substantial proportion of Sarawak's wildlife is endemic to Borneo. This includes approximately 19% of the mammals (5% of the 98 bats species, 5 primates, 3 carnivores, 21 rodents and two large mammals), 20% of snakes and 6% of birds. However little is known about these taxa. Most large mammals, such as the pigmy elephant, clouded leopard and orang utan are well studied charismatic species and are considered endangered (Christiansen, *in press*; Rabinowitz et al., 1987; Schaller, 1961; Wich et al., 2008; Wilting et al., 2006).

¹ Research Institute of Environment and Livelihoods, Charles Darwin University, 0909 Darwin, Northern Territory, Australia.

² Faculty of Resource Science and Technology, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak.