Discovering Traditional Plants Used by Indigenous People in the Tropical Rainforest of Malaysia for the Treatment of Malaria

Authors : Izdihar Ismail, Alona C. Linatoc, Maryati Mohamed

Abstract : The tropical rainforest of Malaysia is known for its rich biological diversity and high endemicity. The potential for these forests to hold the cure for many diseases and illnesses is high and much is yet to be discovered. This study explores the richness of the tropical rainforest of Endau-Rompin National Park in Johor, Malaysia in search of plants traditionally used by the indigenous people in the treatment of malaria and malaria-like symptoms. Seven species of plants were evaluated and tested for antiplasmodial activities. Different plant parts were subjected to methanolic and aqueous extractions. A total of 24 extracts were evaluated by histidine-rich protein II (HRP2) assay against K1 strain of Plasmodium falciparum chloroquine-resistant. Ten extracts showed significant inhibition of the growth of P. falciparum. Phytochemical screening of the same extracts revealed the presence of alkaloids, flavonoids, terpenoids and anthraquinones. This study affirms that tropical rainforests may still hold undiscovered cures for many diseases and illnesses that have inflicted millions of people worldwide. The species studied herein have not known to have been studied elsewhere before.

1

Keywords : Endau-Rompin, malaria, Malaysia, tropical rainforest, traditional knowledge

Conference Title : ICEB 2017 : International Conference on Ecosystems and Biodiversity

Conference Location : London, United Kingdom

Conference Dates : June 28-29, 2017