

ECTOPARASITES FAUNA OF RODENTS AND SCANDENTS AT DIFFERENT HABITATS OF SARAWAK, MALAYSIA

Madinah Adrus^{1*}, Nur Akifah Mohd Jazman¹, Raja Nur Atiqah Raja Azizi¹,
Mariana Ahamad² & Abdullah Mohd Tajuddin³

¹Animal Resource Science and Management Programme,
Faculty of Resource Science and Technology, Universiti Malaysia Sarawak,
94300 Kota Samarahan, Sarawak, Malaysia

²Unit of Acarology,
Infectious Diseases Research Centre, Institute for Medical Research,
National Institute of Health, 40170 Setia Alam, Selangor, Malaysia

³Institute of Tropical Biodiversity and Sustainable Development,
Universiti Malaysia Terengganu,
21030 Kuala Nerus, Terengganu, Malaysia

*Corresponding author: amadinah@unimas.my

ABSTRACT

Field surveys of ectoparasites fauna on small mammals (Rodentia and Scandentia) were conducted since 2008 until 2019 in 12 localities of Sarawak, Malaysia (Borneo). The objectives of these field surveys are to obtain checklist on the distribution of ectoparasites and their hosts (rodents and scandents) in Sarawak, and to determine the ectoparasites that are of known public health importance. Throughout these surveys, seven types of habitat had been recorded from 12 localities of study sites, namely lowland dipterocarp forest, mixed dipterocarp forest, hill dipterocarp forest, riverine forest, limestone forest, secondary forest, and urban area. A total of 50 to 100 cage traps were used to traps hosts for five to six consecutive days per site and ectoparasites were extracted from each host caught using fine comb and forceps. Identification of ectoparasites was based on morphology from available taxonomic keys and published taxonomic drawings. A total of 148 animals comprising 22 species of rodents and scandents were caught and screened for ectoparasites. Of these hosts, 46 species of ectoparasites were identified from a total of 2463 individuals collected. Among the ectoparasites found, six species collected are of known medical importance namely *Ixodes granulatus* (ticks) *Laelaps nuttalli* (mesostigmatid mites), *Leptotrombidium deliense* (trombiculid mites), *Sarcoptes scabiei* (astigmatid mites), *Polypax spinulosa*, and *Hoplopleura dissicula* (lice). Further surveys are recommended for more comprehensive inventory of ectoparasites in different locations and habitats that can build up extensive wealth of information on various aspects such as host-parasite relationship, biology and ecology.

Keywords: Ectoparasites, small mammals, Rodentia, Scandentia, Malaysian Borneo