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Research Note

A preliminary field survey of ectoparasites of rodents in urban park, Sarawak, Malaysian Borneo

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Abstract. A survey of ectoparasites was carried out during Eco-Zoonoses Expedition in Bukit Aup Jubilee Park (BAJP), Sibu, Sarawak, Malaysian Borneo from 5th to 9th June 2008. A total of nine individuals comprising two species of rodents were captured. The species of rodents screened for ectoparasites were *Sundamys muelleri* and *Callosciurus notatus*. Four genera and six species of ectoparasites were collected, namely, *Ixodes granulatus*, *Ixodes* sp., *Laelaps sedlaceki*, *Laelaps nuttalli*, *Hoplopleura dissicula* and *Listrophoroides* sp. Three species of the ectoparasites are known to have potential health risk. The species were *Ixodes granulatus*, *Laelaps nuttalli* and *Hoplopleura dissicula*. This survey produced the first list of ectoparasites in Bukit Aup Jubilee Park, Sarawak, Malaysia.

Bukit Aup Jubilee Park (BAJP) is located 20 minutes away from Sibu town. The park covers a 24-acre (10ha) cluster of low hill forest surrounded by plantations, longhouses and the Igan River. It is a well known and popular area for sight-seeing, picnics, jogging and other recreational activities by the local community.

Rodents are considered as the most important hosts because taxonomically this group includes the largest number of species (Nieri-Bastos *et al.*, 2004). They are also important to help in maintaining our ecosystem and known as reservoirs of zoonotic disease (Paramasvaran *et al.*, 2009a; Thanee *et al.*, 2009). Some ectoparasites of rodents in Malaysia are known to be of public health importance. There is currently no survey of ectoparasites on rodents conducted in BAJP. The aim of this study is therefore to identify the ectoparasites present in BAJP that is of known public health importance and to determine whether there is any potential public health risk in the area.

Trapping was conducted in BAJP (N 2°21'17.61" E 111°49'51.79") from 5th to 9th June 2008. A total of 100 standard cage traps were set per day for five consecutive days. Cage traps were placed on the ground and tree branches along the existing trail with approximately five meters interval. Cage traps were baited with bananas and checked twice daily. Baits were replenished every day in the morning and evening. Caught animals were placed in cloth bags and brought back to a field laboratory in BAJP for further processing.

Identification of the animals was based on Payne *et al.* (2005). The animals were then individually anesthetised with chloroform in a separate plastic bag or cloth bag prior to screening for ectoparasites (Gannon & Willig, 1995). Individual processing of host was observed to avoid contamination of