

## **Social structure and reproduction of long-tailed porcupine (*Trichys fasciculata*)**

### **ABSTRACT**

We studied the social structure of long-tailed porcupine (*Trichys fasciculata*) in the tropical rainforest in Sabah, Borneo Island, Malaysia via direct observation assisted by radio-tracking and camera-trapping at burrow entrances. We identified and observed seven individuals in the study area, of which five were radio-tagged. Analysis of their burrow use, home range, and behaviour strongly suggested that five of the observed individuals formed a family group consisting of an adult male–female pair and their three offspring, two of which were born during the study period. The family members used the same burrow site almost every day, and their home ranges largely overlapped. In contrast, the other two individuals never used the burrow sites of this family group. The adult male–female pair was maintained for at least 18 months and reproduced twice during the study period. They had a litter size of one, and the inter-litter interval was estimated to be 11 months. During these two reproductions, the previous litter stayed in the natal family group as a sub-adult after the next juvenile was born. Direct paternal care, such as grooming the juvenile, was also observed. Their low reproductive potential should be considered in conservation efforts.