

Kittiwara Siripattaranukul 2014: Diversity, Abundance and Habitat used of Carnivorous Mammals in Salakphra Wildlife Sanctuary, Kanchanaburi Province. Master of Science (Forest Biological Science), Major Field: Forest Biological Science, Department of Forest Biology. Thesis Advisor: Associate Professor Naris Bhumpakphan, Ph.D. 134 pages.

The study on the diversity, abundance and habitat use of carnivorous mammals in Salakphra Wildlife Sanctuary, Kanchanaburi was conducted during May 2012 to September 2013 by camera trapping and Geographic Information System (GIS). The study site was divided into two areas, thungsalakphra and thungnamon. A total of 120 cameras were used, covering an area of 71 km². 78 cameras were placed in thungsalakphra covering an area of 45 km² and 42 cameras were placed in thungnamon covering an area of 26 km². In this study, 13 species of carnivorous mammals from 6 orders were found including leopard cat (*Prionailurus bengalensis*), clouded leopard (*Pardofelis nebulosa*), Asian golden cat (*Catopumate mminckii*), leopard (*Panthera pardus*), Asiatic jackal (*Canis aureus*), Asian wild dog (*Cuon alpinus*), Asiatic black bear (*Ursus thibetanus*), crab-eating mongoose (*Herpestes surva*), large-spotted civet (*Viverramegaspila*), Asian palm civet (*Paradoxurus hermaphroditus*), large indian civet (*Viverris zibetha*), hog badger (*Arctonyx collaris*) and yellow-throated marten (*Martes flavigula*). Nine species were found in thungsalakphra and 10 species were found in thungnamon. The similarities between the two areas were 63%. The species with the highest abundance was the Asiatic jackal followed by the Asian wild dog, hog badger, leopard cat, large indian civet, Asiatic black bear, large-spotted civet, Asian palm civet, clouded leopard, leopard, Asian golden cat, yellow-throated marten and crab-eating mongoose, respectively. The probability in the site occupancy (Ψ) in thungsalakphra could only be calculated in two species including the Asiatic jackals, with $\Psi = 0.48$ (SE=0.15) equal to a population density of 0.75 animals/km² and the Asian wild dog with $\Psi = 0.47$ and a population of 0.84 animals/km². The probability in the site occupancy in thungnamon could be calculated in seven species including leopard cat ($\Psi = 0.32$, population of 0.43 animals/km²), hog badger ($\Psi = 0.52$, population 1.00 animals/km²), large indian civet ($\Psi = 0.36$, population 0.50 animals/km²), Asiatic jackal ($\Psi = 0.22$, population 0.26 animals/km²), Asiatic black bear ($\Psi = 0.15$, population 0.16 animals/km²), Asian palm civet ($\Psi = 0.22$, population 0.26 animals/km²) and leopard ($\Psi = 0.04$, population 0.04 animals/km²). Most of the carnivorous mammals occupied dry evergreen forests. The factors affecting the presence of the carnivores were the ranger stations, water source, elevation above sea level and the rangers' inspection routes, respectively. The highest activities of the carnivores were seen during 00.00-06.00 hr. They were mostly active at night until 06.00 – 08.00 hr.

Student's signature

Thesis Advisor's signature