

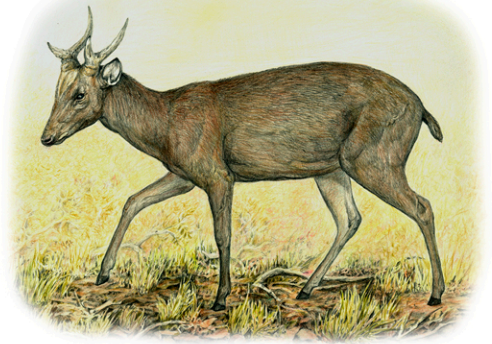
Mammals of Mt. Banahaw-San Cristobal National Park



Macaca fascicularis
Long-tailed macaque



Paradoxurus hermaphroditus
Common palm civet



Cervus mariannus
Philippine brown deer



Sus philippensis
Philippine warty pig
(male and female)



Viverra zangalla
Malay civet



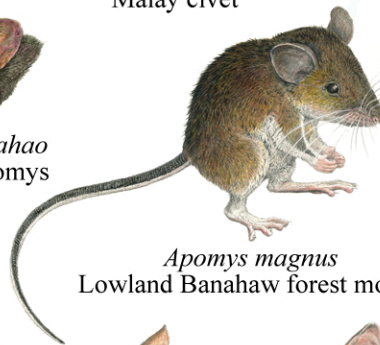
Phloeomys cumingi
Southern Luzon giant cloud rat



Apomys banahao
Banahaw forest mouse



Rhynchomys banahao
Banahaw rhynchomys



Apomys magnus
Lowland Banahaw forest mouse

Musseromys gulantang
Banahaw gulantang



Crocidura grayi
Luzon shrew



Myotis rufopictus
Orange-fingered myotis



Bullimus luzonicus
Luzon bullimus



Coelops hirsutus
Philippine tailless roundleaf bat



Pipistrellus javanicus
Javan pipistrelle



Hipposideros obscurus
Philippine forest roundleaf bat



Megaderma spasma
Common Asian ghost bat



Apomys microdon
Small Luzon forest mouse



Pteropus vampyrus
Large flying fox



Ptenochirus jagori
Greater musky fruit bat



Rousettus amplexicaudatus
Common rousette



Cynopterus brachyotis
Common short-nosed fruit bat



Otopteropus cartilagonodus
Luzon pygmy fruit bat



Macroglossus minimus
Dagger-toothed flower bat



THE MAMMALS OF MT. BANAHAW – SAN CRISTOBAL NATIONAL PARK

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Mt. Banahaw is the tallest mountain in Luzon south of the Cordillera and Zambales Mountains, and Mt. Banahaw – San Cristobal National Park is the largest protected area in southeastern Luzon; as such, it is an important watershed for Laguna and Quezon Provinces. Mt. Banahaw is revered as a sacred mountain, and is highly appreciated as a mountaineering, hiking, and bird-watching destination. It is also a most remarkable center of mammalian diversity; at least four species of mammals live only on Mt. Banahaw. Thus, this national park is a source of pride among Filipinos for its spiritual, ecological, conservation, and watershed significance. This guide is based on a biological survey conducted in 2004 – 2005 by the Philippine Mammal Project, based at the Field Museum of Natural History (Chicago), with funding from the Negaunee Foundation and the Brown Fund for Mammal Research, and with permission and support from the Protected Areas and Wildlife Bureau – Department of Environment and Natural Resources, the Protected Area Management Board, and Community Environment and Natural Resources Office–Pagbilao. For more details on these and other Philippine mammals, go to: <http://fieldmuseum.org/explore/synopsis-philippine-mammals>

The large mammals found in the park are the Philippine warty pig (*Sus philippinensis*) and Philippine brown deer (*Cervus mariannus*). Both are heavily hunted and thus rarely encountered. In the more heavily forested part of the park, however, an observant hiker might spot the freshly upturned ground where wild pigs foraged for succulent roots, earthworms, and grubs, their tracks imprinted on soft ground. At night, solitary deer might be heard barking from deep in the forest, and their tracks across the trail might be seen near the mountain peak. The common palm civet (*Paradoxurus hermaphroditus*; 2–3 kg) and Malay civet (*Viverra zangalla*; 3–4 kg) are also present in the park. A sharp-eyed visitor may notice their scats or droppings, consisting of undigested seeds and occasional bones or fur or small mammals, which they deposit on the ground or on exposed rocks and fallen logs along the trail. They are active mostly at night, when they are occasionally seen feeding up on fruiting trees. The bugkun (*Phloeomys cumingi*; 1.5–2 kg) is hard to observe even at night when they come out to feed on climbing bamboos and pandans. But during daytime, an observant hiker might be rewarded with the tell-tale sign of their presence in the form of partially eaten tender bamboo shoots and young pandan leaves strewn on the forest floor. Long-tailed macaques (*Macaca fascicularis*; 3.5– 6.5 kg) stay in troops or family groups but hunting has reduced their numbers. Occasionally the presence of a troop up in the canopy is betrayed by noisy youngsters as they chase one another among the branches and crash among the leaves.

Bats are abundant in the park, especially in the lowlands. At dusk and after sunset, bats begin to emerge from their roosts to forage. In the twilight insect-eating bats can be seen first chasing flying insects, many of them potential pests in the surrounding farms. Insect-eating bats appear to be silently hunting their prey, but they produce ultrasonic sounds to detect the insects, using their large and often elaborate ears to catch the echoes of their calls that reveal the position of their quarry. Among the many insect-eating bats are the arcuate horseshoe bat (*Rhinolophus arcuatus*; 7–12 g), common Asian ghost bat (*Megaderma spasma*; 21–27g), orange-fingered myotis (*Myotis rufopictus*; 10–17 g), Philippine forest roundleaf bat (*Hipposideros obscurus*; 7–12 g); Philippine tailless roundleaf bat (*Coelops hirsutus*; 2.4–3.6 g); and Javan pipistrelle (*Pipistrellus javanicus*; 4–7 g). As complete darkness envelops the forest, park visitors may observe many large and noisy bats as they fly around in the understory and above the forest canopy. These are fruit bats in search of and often squabbling over ripe fruits that they pluck off fruiting trees and carry away to eat at their feeding roosts. They include the common rousette (*Rousettus amplexicaudatus*; 64–106 g), common short-nosed fruit bat (*Cynopterus brachyotis*; 26–46 g), dagger-toothed flower bat (*Macroglossus minimus*; 14–20 g), greater musky fruit bat (*Ptenochirus jagori*; 62–97 g), and the Luzon pygmy fruit bat (*Otopteropus cartilagonodus*; 15–19 g). High above the canopy one might see much larger bats flying in various directions to the park and surrounding mountains to feed for the night. These are the giant flying foxes (*Pteropus vampyrus*; 725–810 g). Bats provide important ecological services in the form of seed dispersal by the fruit bats that facilitate regeneration of degraded forest and pollination of flowers of forest and orchard trees, while the insect-eating bats control insect pests.

Native small mammals are particularly diverse on Mt. Banahaw, many of them found only here and nowhere else. They typically shy away from houses and farms. Along the trail during the day, if a hiker is careful enough to tread lightly, he or she might spot a Luzon shrew (*Crocidura grayi*; 8–10 g) as it scampers nervously along the grassy edge of the trail in search of small insects and other soft-bodied invertebrates. Off the trail, on the undisturbed forest floor at higher elevations, a lucky hiker might have a glimpse of a Banahaw rhynchomys (*Rhynchomys banahao*; 150–155 g) as it hops around and probes piles of leaf litter with its long and slender snout for earthworms to eat. At night, among vines and climbing pandans up on trees, small mice might be spotted scampering along, likely the small Luzon forest mouse (*Apomys microdon*; 21–24g), but the Banahaw gulantang (*Musseromys gulantang*; 15.5 g) is another arboreal species that could be encountered. This belongs to a group of very small tree mice, first discovered on Mt. Banahaw, that are closely related to the giant cloud rats. The common forest rat (*Rattus everetti*; 170–490 g) is sometimes seen feeding on ripening figs up on fruiting trees along the trails. But they are more likely to be encountered on the forest floor at night, as with the large forest mice (*Apomys banahao*; 71– 92 g, and *A. magnus*; 98–128 g) and Luzon bullimus (*Bullimus luzonicus*; 315–520g).