A REMARKABLE OBSERVATION ON THE INDIAN HONEY-BEE VERSUS THE YELLOW-THROATED MARTEN FROM JAVA

by

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Very little is known about the biology of *Charronia flavigula robinsoni* (POCOCK), the Javanese subspecies of *Charronia flavigula* (BODD.) and so far as I am informed J. H. VAN BALEN (De dierenwereld van Insulinde, 1916: 330) and F. J. APPELMAN (De Tropische Natuur, 29: 136, 1940) are the only authors who ever published anything concerning the life of this animal in Java. This carnivore, which belongs to the Marten family (*Mustelidae*), in Java lives only in high mountain forests, not below 5000 feet. It occurs also in Sumatra, Borneo, the Malay Peninsula, Burma, Formosa, India, China, Manchuria and up to the river Amur.

Although I myself got only a glimpse of the life of *Charronia flavigula robinsoni* and its relations to the Indian honey-bee (*Apis indica* F.), my observations are so remarkable, that I think it may be found worth while to publish the few facts which I happened to witness.

For many years I have been living at Nongkodjadjar in the Tengger Mountains, East Java, at an altitude of 4000 feet. Still higher up, at 5000 feet, I own a wooded piece of ground, where I erected a shack and stayed there often for some days to study animal life and to look after one hundred bee-hives, which I had placed there. I originally bought the bees from the Javanese living in the foothills of the Tengger Mountains at 2500 feet. This ground of mine borders a big Government forest reserve, where plenty of flowering trees supplied the bees with nectar and pollen.

One day my Javanese gardener sent me a note down to my house at Nongkodjadjar, informing me that during the night some animal had destroyed many bee-hives and had devoured the combs, honey and bees. He further asked me to come up and have a look myself. I was very much annoyed about that report as we just were in the middle of the biggest honey flow since many years. As there are no wild bears in Java I simply could not believe that any other wild animal would be able to destroy the bee-hives and rob the contents and I rather was inclined to think that one or the other Javanese, or my gardener himself, were responsible. Immediately I started for the woods. On arrival at the bee-stand I saw

that my gardener had not exaggerated. The whole was in a chaotic condition. No less than fourteen bee-hives were damaged and big holes had been gnawed into them. Six hives were pushed from their supports and littered the ground. The contents of those hives had vanished; in some, half a comb with a score of bees clinging to it was all that was left. It was now clear that this was not the work of human robbers. But who did it? To make this out I tried to catch the aggressor and placed a chicken in a trap. The following morning at 5 a.m. I went to the trap and saw from a distance already that it was closed. The spoiler appeared to be a specimen of *Charronia flavigula robinsoni*. I have to admit, that I was puzzled, as up to that time I had always regarded martens to be purely carnivorous. It was a vicious animal, it snarled at us whenever we merely lifted a hand. We killed the robber, repaired the damage done to the bee-hives as good as we could, and went home. Two days later I again received a note from my gardener, reporting that at 11 p.m. the night before he had surprised a second marten, which had already gnawed a sufficient big hole to allow the animal to enter the bee-hive. When the pilferer was with half of its body inside the hive, the gardener tried to club it, but the marten escaped. My bee-hives were made of the rather soft wood of *Erythrina*. Nevertheless I was astonished that a carnivore could gnaw away the wood like a rodent.

Up again I went, placed a chicken in the trap and waited for the morning to come. We were lucky again, for the next morning we found an exceedingly vicious adult marten in the trap. Being afraid that somebody hearing the story would accuse me of spinning a yarn, I resolved to skin the killed marten this time in order to use the skin as proof of my story. And so I took the skin home. Arriving at my yard at Nongkodjadjar I hung the skin on a clothes-line not far from the place where I had stationed ten bee-hives. And then I got the surprise of my life!

Without any provocation on my side suddenly thousands of bees stormed at the empty skin and, mad with rage, began stinging it. Everybody standing in their line got stings too, so we had to retreat. In a very short time hundreds of bees sacrificed themselves and all hairless parts of the skin were covered with stings and the tips of the abdomina of the bees stood out clearly against the darker coloured hairless patches of skin, such as the nose, the snout, part of the belly, the flanks and the soles.

Never before had I ever heard such an amazing thing and until today it is still a puzzle to me how those bees, which I got from the foothills and which thus had never seen a marten nor suffered from its attacks, could react so promptly upon the mere sight or perhaps the particular smell of an empty skin.

At Buitenzorg I had the opportunity of consulting several papers dealing with the habits and behaviour of *Charronia flavigula*. As my

observations concern only the relations between bees and the marten and the fondness of the latter for nectar, I shall quote here only what others witnessed in this respect.

R. I. POCOCK (Fauna of British India, Sec. ed., Mammalia, 2 : 336, 1941) speaking about *Ch. f. flavigula,* says: "Its fondness for nectar, at all events was observed by MUIR, who watched a couple of specimens in Garhwal climbing about a rhododendron-bush and thrusting their snouts into the blossoms to lick up the sweet secretion; and another pair was seen by a friend similarly feeding from the flowers of the silk-cotton tree."

GLOVER M. ALLEN (The Mammals of China and Mongolia, Part 1 : 367, 1938) writes about *Ch. flavigula:* "Mell (Beiträge zur Fauna Sinica 1922: 17), writing of Kwangtung, tells of two that were shot on the edge of an opening in the woods in early morning as they were snapping at bees going in and out of a hive; their stomachs contained the bees they had already caught. A male shot October 15 in a high tree in a village wood at Fungwahn, also had honey bees in its stomach, so that these are evidently a favorite food. Indeed, Sowerby (1923, The naturalist in Manchuria) states that it is known in Manchuria as "mi-kou" or Honey Dog, although in Shansi and Shensi the Chinese call it "hwangyao" (Yellow Marten), in reference to its yellow color. A writer in the Journal of the Bombay Natural History Society (1916), vol. 24, p. 589) has mentioned its fondness for nectar."