# ON TWO NEW MALLOPHAGA FROM THE KITE, MILVUS MIGRANS GOVINDA SYKES

BY

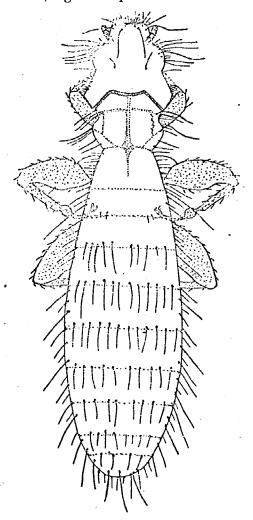
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(With two text-figures)

Læmobothrion indica n.sp. (Fig. 1)

THIS is a large insect, measuring about 8.5 mm. in length with a distinct trapezoidal head, a glabrous prothorax and a metathorax continuous



1 IG. 1. Lamolothrian indican. sp. (x 13).

with the oblong abdomen. The body colouration is more or less chestnut

brown with somewhat darker head and thorax.

The head is broader than its length. In front the head is of the shape of a trapezium with rounded corners. There are a number of setæ along the anterior margin of the head, five to seven on each side of the median line. Closely behind this row of setæ on the clypeus is a set of four long bristles. Following this on the dorsal surface there is another set of very long bristles which surpass all the others described above in length being nearly double those of the second row. The two innermost bristles of this row are placed in between the two bristles of each side of the second row. The anterior rounded corners of the trapezoidal area of the head are devoid of bristles. the lateral margin, a swelling with five or six long bristles and a similar number of smaller setæ is present. Behind the swelling there is a long bristle on either side. Antenna is concealed and composed of four segments, of which the distal segment is clavate. Eyes are hemispherical and projecting. Temples are angular and projected backwardly having nine seta marginally on each side and two bristles internally on top of the head. The occiput is deeply convex with a dark band marginally. The mandibles are sharply pointed and the maxillæ are imperfectly developed. The maxillary palpi are prominent and four-segmented.

The prothorax is free and somewhat roundish with a lateral depression on either side. Posteriorly the prothorax has a much lighter area. Anteriorly the rounded margin has an assemblage of some strong setæ numbering about 16 or 17 on either side. Laterally the prothorax has about six long bristles on either side, and dorsally on the clearer posterior portion there are two strong bristles. There is a median furrow running all along the prothorax and this continues right within the metathorax involving two-thirds or more of the latter. There is no trace of the furrow in the abdomen. The metathorax is bilobed in front and concave posteriorly. It is narrower than the

head and furnished with long bristles laterally.

The legs, especially the third pair, are strongly developed and of dark brown colour. The femora are somewhat longer than the tibiæ. Each femur has two longitudinal rows of setæ of which the one situated towards the anterior margin is composed of much longer setæ than those on the other row. The tibiæ are arched and form a sort of a sharp heel at their junction with the tarsus. The first tarsal segment is small and roundish; the second tarsal segment is long and curved and somewhat flattened distally with two strong curved claws at the tip.

The abdomen of the female is oblong and composed of nine visible segments and bordered by unequal hair-like bristles. There is a row of long bristles sub-marginally on the posterior face of each segment excepting the first. The first abdominal segment is small, so is the eighth. The fourth and fifth abdominal segments have the maximum width. The ninth segment is rounded at apex with several long and fine bristles arising from it.

The species described here differs from L. titan (Piaget) a closely allied species recorded from a kite, Milvus atolius (ater) [Piaget, 1880] in its head being broader than its length, in the absence of bristles on the corners of the trapezoidal area of the head, in possessing more than four bristles in the lateral

### Measurements of female

								Length mm.	Breadth nun.
Head .	•		•	•	•			1 · 4	1.6
Thorax .	•	•	•	•	•			1 · 7	l ·5
Abdomen	•		•	•	•	•		5 · 3	2 · 1
Third femur	•	•	٠	•			•	1 · 6	
Third tibia	•				٠.	٠		1 · 1	
•							- 1	-	į

swelling of the head and more than five in the temple, in the absence of a median furrow in the first two abdominal segments and in the general chætotaxy of the body, as also in proportional measurements of the different parts of the body.

Only two female specimens of the species were obtained for description through the courtesy of Mr K. N. Das, M.Sc., of the Zoological Survey of India, who collected the insects from a kite, *Milvus migrans govinda* Sykes, in Calcutta. The type specimen is deposited in the Indian Museum, Calcutta.

# Philopterus milvi var. tropica n. var. (Fig. 2)

Only one male specimen was available for the present description. The specimen is dark-brown to chestnut in colour and measures about 1.9 mm. in length. The head is sub-triangular with the posterior end broadest. The head bulges out in front into a fleshy transparent outgrowth which also covers a portion of the lateral face towards the tip; anteriorly this outgrowth has a median depression. From the anterior corners of this region two curved longish bristles having their seat of origin on the ventral surface, arise on either side. There is another bristle just below the junction of the transparent outgrowth with the dark chitinous margin. The frontal plate is highly chitinous and dark. The trabeculæ, one on each side, are prominent and of light yellow colour. A pair of long bristles are present latero-ventrally in front of the trabeculæ on either side. The eyes appear as shining protuberances. Behind the eye there are four long bristles. The occiput is slightly rounded in the middle, the corners are almost straight. It bears a pair of small setæ, one on each

side, almost half-way between the outer boundary of the occiput and its junction with the thorax. The antennæ are brownish and five-segmented, of which the second segment is the longest being almost equal in length to the next two segments in front. The thorax is broader than its length.

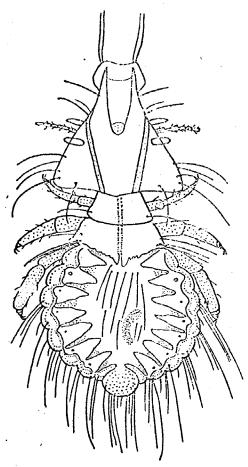


Fig. 2. Philopterus milvi var. tropica n. var. (x 45).

The prothorax is small and widened posteriorly and shows a median suture. In the hinder corner there is a long bristle on either side. The metathorax is much broader and also exhibits a median suture. The dark chitinous plates on each side are irregularly dentate posteriorly. In the metathorax there are three long bristles on each side, one laterally situated and the other two closely apposed and placed on the hinder corner of the thorax. The legs are short and stout and of dark brown colour, and terminate in fine claws.

There are nine visible abdominal segments, the last being rounded and small. The first eight segments bear on each side, a dark chitinous plate which is narrowed inwardly. The mid-region of the abdomen not covered by the

chitinous plates is whitish. There is a number of long bristles arising from near the posterior margin of each segment, and the bristles are also present in the lateral margins.

## Measurements of male

									Length mm.	Breadth mm.
									0.73	0.71
Head .	•	•	•	•	-	•	•	.		
Thorax .			•	•	•	•	•	.	0.41	0 · 61
Abdomen		•					•		0.73	0.85 (3rd seg.)
										0.47 (7th seg.)
Third femur	•					•			0.28	••
Third tibia		<i>:</i>	•					•	0 ·34	••

The new variety described here is closely related to *Philopterus milvi* (Mjöberg) but the two short setæ present in front of the eye of the forma typica are absent in the present variety, and there are only four long bristles on the margin of the head behind the eye against five in the forma typica [Mjöberg, 1910]. In the present variety, there are three long bristles on the metathorax on either side, there being only one in the *P. milvi* (forma typica). The proportional measurements of certain parts of the body also somewhat differ. The thorax is slightly longer and the abdomen shorter than in the forma typica; the tibia is longer than femur in the present variety.

The specimen was collected from the common pariah kite, Milvus migrans govinda Sykes, in Calcutta along with the Læmobothrion described above by Mr K. N. Das, M.Sc., who kindly handed over the specimen to me for study.

The varietal form is deposited in the Indian Museum, Calcutta.

#### REFERENCES

Mjöberg, E. (1910). Ark. f. Zool. 6, 109-11 Piaget, E. (1880). Les Pediculines, 578-81