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A NOTE ON THE PRESENCE OF THE ELEPHANT LOUSE *Haematomyzus elephantis* PIAGET (MALLOPHAGA: RHYNCHOPHTHIRINA) IN THE KRUGER NATIONAL PARK

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First described in 1869, this rather unusual insect has been found to be a common ectoparasite on the Indian elephant *(Elephas maximus)*, and has been collected in low numbers from the African elephant *(Loxodonta africana)* in nearly all of sub-saharan Africa (Ledger 1979, *The arthropod parasites of vertebrates in Africa south of the Sahara (Ethiopian Region)* Vol. IV. *Phthiraptera. Publ. S. Afr. Inst. Med. Res., Johannesburg)*. The parasite has a number of unique morphological adaptations which, for nearly a century, resulted in uncertainty regarding the appropriate systematic position for these insects, causing them to be variously classified as a relative of bedbugs (Hemiptera: Cimicidae), a member of the Anoplura, a suborder of Mallophaga, and even as an order in its own right (Rhynchophthiraptera) (Ferris 1931, *Parasitology* 23: 112-127; Mukerji & Sen-Sarma 1955, *Parasitology* 45: 5-30). It has only one close relative, *Haematomyzus hopkinsi,* which parasitises warthogs in Kenya and Uganda (Ledger *op. cit.*). At present these two species are generally accepted to be an aberrant offshoot of biting lice and are treated as a suborder of the Mallophaga (Richards & Davies 1977, *Imms' General Textbook of Entomology*, London: Chapman & Hall).

A survey by Basson, McCully, De Vos, Young & Kruger 1971 *(Onderstepoort Jnl. Vet. Res.* 38(4): 239-254) on the internal and external parasites of 32 elephant culled in the Kruger National Park (KNP) revealed no specimens of *H. elephantis,* but the authors state clearly that the examinations were not exhaustive. Records kept by Ledger (*pers. comm.*) indicate that one female louse was taken from an elephant in the "Kruger National Park" during 1969, whereas 3♂♂ and 3♀♀ were obtained from a single host near Skukuza in August 1970.

With the annual reduction of elephant numbers in the KNP, an excellent opportunity is afforded for the collection of external parasites. Examination of randomly selected freshly killed elephant for such parasites commenced during June 1983, and from a total of 36 animals examined, 21 (58,3%) were found to harbour *H. elephantis.* Localities of these infected elephant were Pafuri, Mooiplaas, Mahlangene, Phalaborwa, Satara, and Crocodile Bridge,

indicating that the lice are generally distributed over the whole of the KNP.

No more than three lice were found on any one elephant, but it should be noted that due to an immobilised elephant normally falling on it's side, the skin in contact with the soil cannot be examined so that the number of lice per host animal may well be more. Similarly, it is very probable that some animals with only one or two lice had these on the obscured surface of the body, so that the percentage of lice-infested elephant in a population is higher than reflected in the figures provided above.

All lice encountered in this survey were captured from crevices or soft skin behind the ears, the throat, around the mouth, the ventral surface of the trunk near its base and on the abdomen.

Haematomyzus elephantis eggs were commonly found cemented onto the bristly hairs on the ventral and lower lateral surfaces of the chest, neck and head of nearly all elephant which harboured adult lice.

Although *H. elephantis* feeds on blood and both the African and Indian elephant are known to host a range of blood-parasites – mainly filarial worms and protozoans (Basson *et al.* 1971; Eltringham 1982, *Elephants* Dorset: Blandford Press; Sikes 1971, *The natural history of the African elephant,* London: Weidenfeld & Nicolson) – no studies have been made to determine the role played by these lice as potential vectors.

Eltringham (*op. cit.),* however, states that *H. elephantis* ". . . cause intense itching and the frequent rubbing to relieve the irritation may open up sores in the skin" of elephant. Such sores were not observed during the present survey.

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