

## Short Report

### Infestation by *Auchmeromyia senegalensis* as a consequence of the adoption of non-nomadic life by Pygmies in the Congo Republic

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The Congo floor maggot is the blood-sucking larva of the fly *Auchmeromyia senegalensis* (Diptera: Calliphoridae) which is specific to sub-Saharan Africa (DUTTON *et al.*, 1904). The original specific name given to the fly, *A. luteola*, has recently been corrected to *A. senegalensis* as used by Macquart in 1851 (PONT, 1980). The ecology and biology of this insect have been extremely well documented by ROUBAUD (1914) and GARRET-JONES (1950). The flies are usually found in the immediate vicinity of, or inside, human dwellings. The females lay their eggs on the sandy floor, and after hatching the larvae bury themselves into the ground and come out at night for a blood meal. *A. senegalensis* was initially considered to be specific to man (GARRET-JONES, 1950), but it was later discovered in the entrances to burrows of ant-bears and warthogs, and also associated with the domestic pig (GEIGY & HERBIG, 1954; MOUCHET & RAGEAU, 1964; ZUMPT, 1965). Blood meal analyses of fed larvae collected in Kenya, in regions uninhabited by man, showed that warthogs, and occasionally hyenas, were the natural hosts (BOREHAM & GEIGY, 1976). It has been suggested that *A. senegalensis* might transmit *Trypanosoma brucei* non-cyclically among hyenas (GEIGY & KAUFFMANN, 1977). At the beginning of the 20th century, this fly was common throughout the former French Congo (ROUBAUD, 1914), though nowadays the Congo floor maggot is seldom found. This is related to the improvement in the standard of living, such as the replacement of matting by beds depriving the larvae of their sources of food and, in certain cases, the cementing of floors of dwellings (ZUMPT, 1965).

The Pygmy populations of the Chaillu mountains in the Congo, originally nomads, adopted a sedentary life style about 10 years ago on the outskirts of the Bantu villages. However, certain family groups leave the villages temporarily to stay in camps in the heart of the forest. In spite of their non-nomadic life, conditions remain primitive and they sleep on matting on the floor of their dwellings. During a survey on biting insects carried out in the Chaillu mountains, the Pygmies mentioned the presence

of blood-sucking larvae (*bangounou* in the local language) in the dwellings of their permanent camps. Several specimens of *A. senegalensis*, most of which were engorged with blood, were collected by sieving the sandy soil in the dwellings; they were concentrated under the matting of the sleeping areas. In contrast, the larvae were not found in the temporary forest camps when Pygmies were present. This may be related to the organic matter content of the forest soil and to the frequent moving of the nomadic camps, factors which are unfavourable to *A. senegalensis* (ROUBAUD, 1914). This form of infestation of the Pygmies seems therefore to be a recent acquisition related to their relinquishing a nomadic existence. The Bantus who live near the Pygmies are not affected by this larva and most of them had not heard of it. It is thus probable that the Congo floor maggot disappeared completely from Bantu dwellings a long time ago. When human hosts are not available, *A. senegalensis* can survive only near an animal host, probably a wild pig such as the giant forest-hog, which is a common animal in this forest region.

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