

NOTES ON THREE SPECIES OF ANOETIDAE, TWO OF WHICH  
ARE NEW, LIVING AS COMMENSALS OR PARASITES IN  
THE EAR OF AN AFRICAN BUFFALO

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Up to now mites of the family Anoetidae were not considered as parasites or commensals of vertebrates.

FAIN (1970) described a new genus and new species, *Loxanoetus bassoni* (Anoetidae) that had been found in great number in the fatty material of the ear of an elephant that died in the Kruger National Park, South Africa. This new species was represented by adults, larvae and nymphs. Hypopi were not present in this material.

Recently Mr H. WETZEL discovered in the outer ear of a buffalo from the Karumu Game Reserve, near Albert Lake, Uganda, numerous mites that were forwarded to one of us for identification. All these mites belong to the family Anoetidae. The collection was composed of adults, larvae, proto and tritonymphs. No hypopi were present.

These mites belong to three different species. All the specimens, except two, belong to *Loxanoetus bassoni* FAIN. The two other specimens are females, they belong to two new species. One of these species represents a new genus. This material is described here.

A question that arises is to know whether these mites are true parasites in the hosts which carry them or only simple commensals.

The presence of numerous larvae and nymphs proves that these mites are able to survive and to reproduce in the ear of their hosts. We may therefore ascertain that their presence in this habitat does not result simply from an accidental contamination.

Whether these mites are truly parasitic or not is difficult to ascertain. They could feed either on the fatty material or on the dead cells desquamated from the ear canal, or even on the superficial layers of the skin. By lack of appropriate chelicerae it does not seem possible that they are able to pierce the skin and to feed on dermic or subdermic fluids such as lymph or blood.

It is to be noted that in all our specimens the body is very clear and devoid of the blackish and opaque material which is usually present in the adults of the Anoetidae. It seems therefore that these mites do not feed on the same material as the other anoetids.

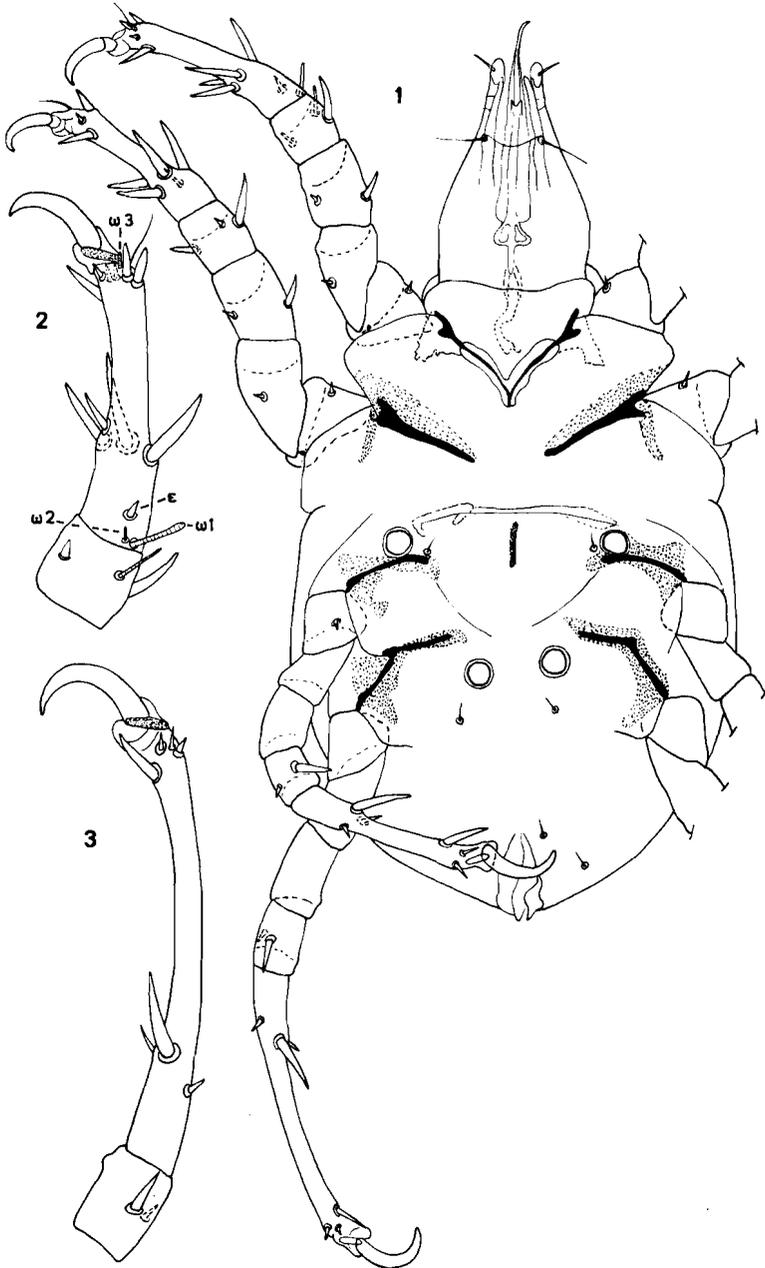


Fig. 1-3. — *Loxanoetus (Auricanoetus) longitarsus* sp. n. Fig. 1: Female in ventral view. Fig. 2 and 3: tibia and tarsus I and IV.

## FAMILY ANOETIDAE OUDEMANS, 1904

Genus *Loxanoetus* FAIN, 1970Subgenus *Loxanoetus* FAIN, 19701. *Loxanoetus (Loxanoetus) bassoni* FAIN, 1970

This species has been described from specimens collected in great number, in the ear of *Loxodonta africana*, in South Africa.

We have found new specimens of this species in the outer ear of an African Buffalo, from Karumu Game Reserve, Uganda, Coll. H. WETZEL, 21. VIII. 1972.

Subgenus *Auricanoetus* subgen. nov.

**Definition:** differs from the typical genus by the following characters: tarsi I to IV abnormally long and bearing very strong spines and claws; famulus transformed into a pointed spine; solenidion  $w_2$ , and  $\sigma$  of genu II present (these solenidia are absent in *L. bassoni*).

**Type species:** *Loxanoetus (Auricanoetus) longitarsus* sp. n.

2. *Loxanoetus (Auricanoetus) longitarsus* spec. nov.

This species is represented by a single female.

**FEMALE** (holotype) (fig. 1-4): Idiosoma 420  $\mu$  long and 300  $\mu$  wide. **Dorsum:** Propodosoma with a poorly sclerotized shield wider than long. The rest of the dorsum is not sclerotized.

**Venter and gnathosoma:** as in *L. bassoni*. The tarsi are very long, mainly the tarsi IV, and bear numerous long and strong spines. All the claws are very strong. Chelicerae not observed. Palps apparently as in *L. bassoni*.

**Chaetotaxy:** Tarsi I to IV with 12 setae (11 spines and 1 simple seta), 12 setae (11 spines and 1 simple seta), 10 (spines) and 10 (spines).

**Solenidions of leg I:**  $w_1$  is relatively short and narrow and situated basally;  $w_3$  is very small and apical;  $w_2$  is basal, small and close to  $w_1$ ; the famulus is a spine.

**Host and locality:**

In the outer ear of a Buffalo, from Karumu Game Reserve, Uganda. Holotype female (Coll. H. Wetzel, 21. VIII, 1972).

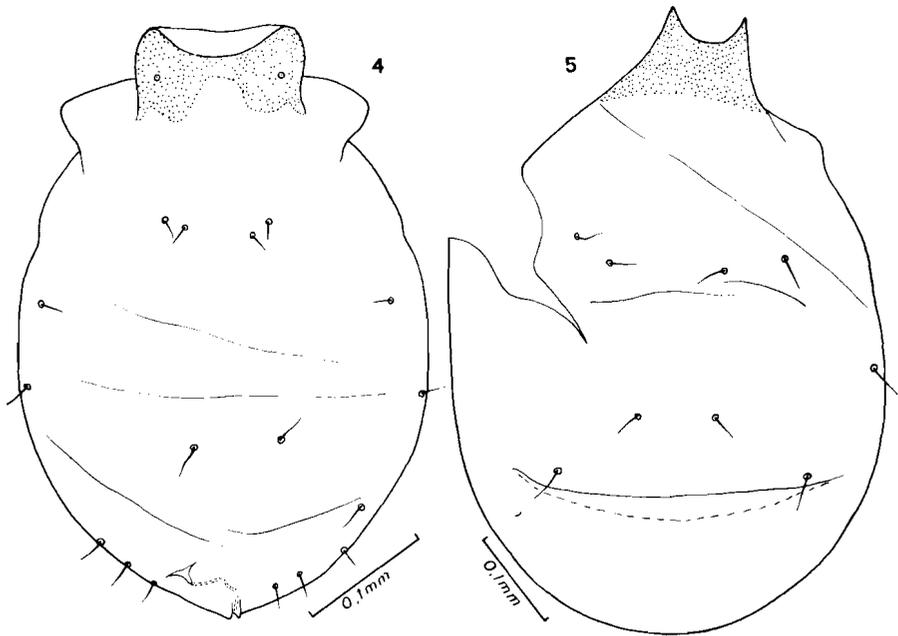


Fig. 4-5. — Dorsal view of *Loxanoetus (Auricanoetus) longitarsus* sp. n. (fig. 4) and *Otanoetus wetzeli* sp. n. (fig. 5).

Type in the South African Institute for Medical Research, Johannesburg.

Genus *Otanoetus* gen. nov.

**Definition:** Based on the female. This genus is distinguished from all the known genera in the Anoetidae by the presence of only two sclerotized rings on the venter (the posterior ones). The two anterior rings are replaced by two small heavily sclerotized oval areas, immediately in front of the epimera III. Gnathosoma with two wide lateral and sclerotized prolongations and a strongly sclerotized internal structure. Other characters as in *Loxanoetus*, except for the anterior border of the idiosoma which is incised.

**Type species:** *Otanoetus wetzeli* spec. nov.

1. *Otanoetus wetzeli* spec. nov.

**FEMALE** (holotype) (fig. 5-8): Idiosoma 615  $\mu$  long, 405  $\mu$  wide. With the characters of the genus. Idiosoma produced anteriorly into a tegmen with an excavated border. Gnathosoma very wide. Palps with a basal curved prolonga-

tion. Vulva transverse. Anus ventral. Anterior legs slightly thicker but shorter than posterior legs; tarsi III-IV much longer than tarsi I-II; claws I-II thick but much shorter than claws III-IV.

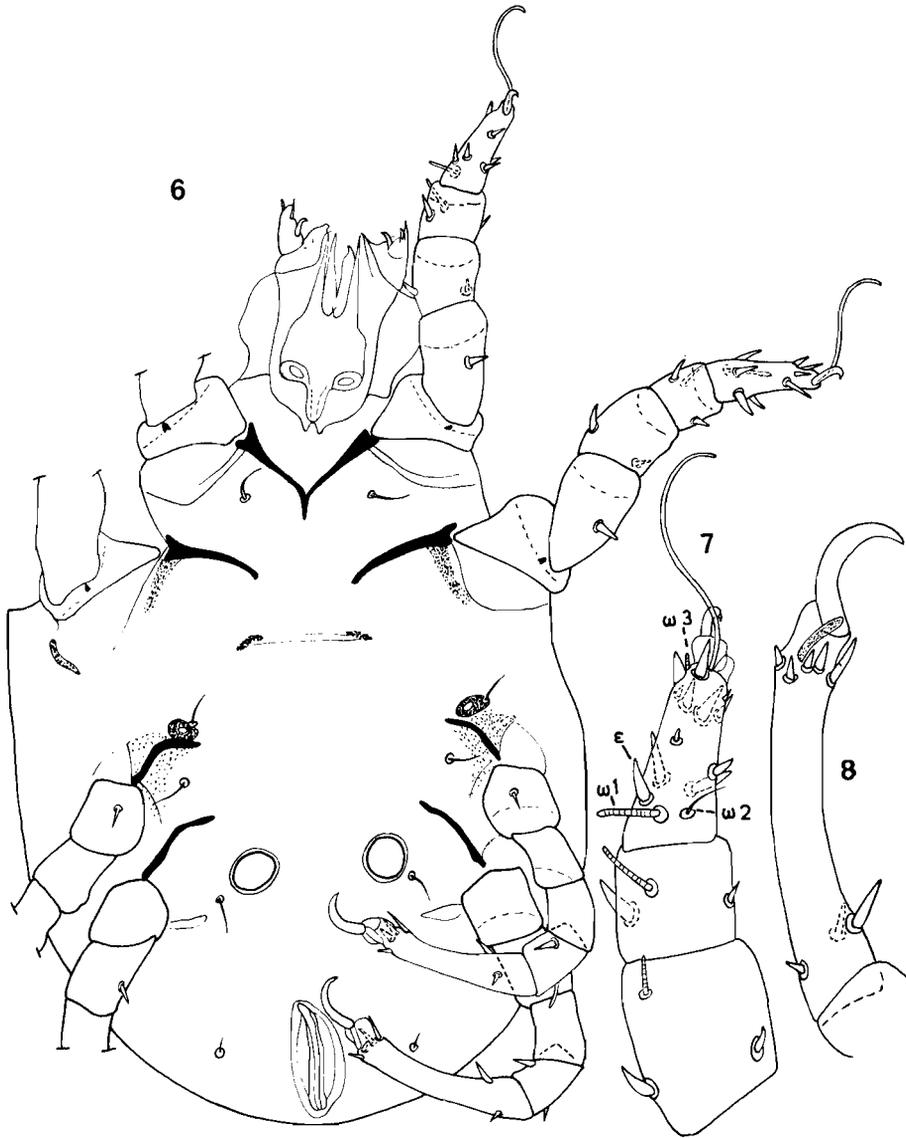


Fig. 6-8. — *Otanoetus wetzeli* sp. n. Fig. 6: Female in ventral view. Fig. 7: tibia, tarsus and genu I in dorsal view. Fig. 8: tarsus IV in lateral view.

Chaetotaxy of the tarsi (I-IV): 11 (10 spines and 1 simple hair) - 11 (10 spines and 1 simple hair) - 10 (spines) - 10 (spines).

Solenidiotaxy of leg I: as in *Loxanoetus (Auricanoetus) longitarsus* but the solenidion w<sub>2</sub> is piliform.

Host, locality and deposition of the holotype: as for *Loxanoetus (Auricanoetus) longitarsus*.

### SUMMARY

The authors describe three species of Anoetidae, two of which are new, which were found as commensals or parasites in the ear of an African Buffalo.

### SAMENVATTING

Dit artikel beschrijft drie soorten van Anoetidae, waarvan twee nieuwe, die als kommensalen of als parasieten in het oor van een Afrikaanse Buffel gevonden werden.

### RESUME

Les auteurs décrivent trois espèces d'Anoetidae, dont deux nouvelles, vivant en commensalisme ou parasitisme dans l'oreille d'un Buffle Africain.

### ZUSAMMENFASSUNG

Dieser Artikel beschreibt drei Arten Anoetidae, wovon zwei neue, welche als Kommensalen oder als Parasiten im Ohr eines afrikanischen Büffels gefunden wurden.

### BIBLIOGRAPHY

FAIN, A. (1970): Un nouvel Anoetide vivant dans la graisse de l'oreille d'un éléphant (Acarina: Sarcoptiformes). Acta Zool. Path. Antverp. 50: 173-177.