

## A NEW GENUS AND SPECIES OF ERYTHRAEINAE (ACARI: ERYTHRAEIDAE) FROM RWANDA

ALEX FAIN\*

### RESUMEN

Se describen un género y una especie nuevos de ácaro, *Opserythraeus hoffmannae* (Acari: Erythraeidae), con base en el estado larval. Los ejemplares provienen de musgo de la selva Rugege, a 2500 m de altitud en Ruanda, África Central.

Palabras clave: Acari, Erythraeidae, género y especie nuevos, Ruanda, África.

### ABSTRACT

A new genus and species of mite, *Opserythraeus hoffmannae* (Acari: Erythraeidae) are described from the larval stage. The specimens were collected from moss in the Rugege Forest, at 2500 m altitude, in Rwanda, Central Africa.

Key words: Acari, Erythraeidae, new genus and species, Rwanda, Africa.

### INTRODUCTION

The new mite that is described here is only known from the larval stage. Two larvae were collected from moss covering the base of a tree in a mountain forest (2500 m altitude) in Rwanda, Central Africa.

Abbreviations: IRSNB = Institut royal des Sciences naturelles de Belgique.

Metric data: Following Southcott (1992), Fain & Elsen (1987) and Fain & Jocqué (1996). All measurements are in micrometers.

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Family ERYTHRAEIDAE  
Subfamily ERYTHRAEINAE

*Opserythraeus* gen. nov.

**Definition.** Only the larva is known. Dorsal shield more or less cordiform with anterior border concave. Setae PL situated at the same level as the anterior sensillae. Most of dorsal setae concentrated in median area of dorsum. Two pairs of eyes situated on punctate plate, anterior pair exceptionally large and slightly oval, the posterior pair rounded, very small; a large pigmented retina posterior to eyes. Venter: One pair of sternal setae; coxae with 1-1-1, trochanters with 1-1-1 setae. Basi-femur I with 2 setae, basi-femur III with 1 seta. Femur II much shorter and distinctly thicker than femora I and III and not divided in basi and telofemur; its apical third carrying ventrally a wrinkled sclerotized membrane extending over the genu-femoral articulation. Leg III much longer than legs I and II. Tarsi I and III with a long falciform empodium and 2 lateral ciliate, almost straight claws ending in a hook. Tarsus II with empodium and anterior claw as in tarsi I and III but with a posterior claw straight, densely ciliate, inflated and not hooked apically. Number of solenidia on legs: tarsi 1-1-0; tibiae 3-1-1; genua 1-1-1; femora 0-0-0. Gnathosoma: Palps long, femur and genu with a pectinate dorsal seta; apical spine of tibia forked; tarsus small with 2 unequal solenidia; preapical very long and basal very short.

**Type species:** *Opserythraeus hoffmannae* sp. nov.

**Remarks.** In his key to the Erythraeinae, Southcott (1988) recognized 9 valid genera. A tenth genus *Abalakeus* was added by this author in 1994. By the number of setae on the scutum, the coxae, the trochanters and the basifemora I to III, the genus *Opserythraeus* is most similar to the genera *Proterythraeus* Vercammen-Grandjean (1972) and *Abalakeus* Southcott (1994). It differs, however, from these genera by the following characters:

1. Modification of the femur of legs II, thicker and much shorter than the femora I and III, and bearing ventrally in its apical third sclerotized wrinkled membrane extending over the articulation with the genu. In the two other genera femur II is normally developed.
2. The exceptional size of the anterior pair of eyes and the presence of a large pigmented retina.
3. The anterior situation of setae PL, at the same level as the anterior sensillae (whilst in the two other genera they are at the same level as the posterior sensillae).
4. The shape of the claws: the anterior and posterior claws I to III are straight, ciliate and with a curved apex; the posterior claw of leg II is straight, dilated apically, densely ciliate and without an apical hook. In the genus *Proterythraeus* the tarsi I to III bear two curved and non-ciliate claws. In *Abalakeus* the posterior claw of tarsi I to III is pulvilliform, ciliate and without apical hook, the anterior claws and the empodium are nude and curved.

***Opserythraeus hoffmannae* sp. nov.**  
(Figs. 1-12)

This new species is named for Prof. Dr Anita Hoffmann, Universidad Nacional Autónoma de México, in recognition of outstanding contribution in the field of Acarology.

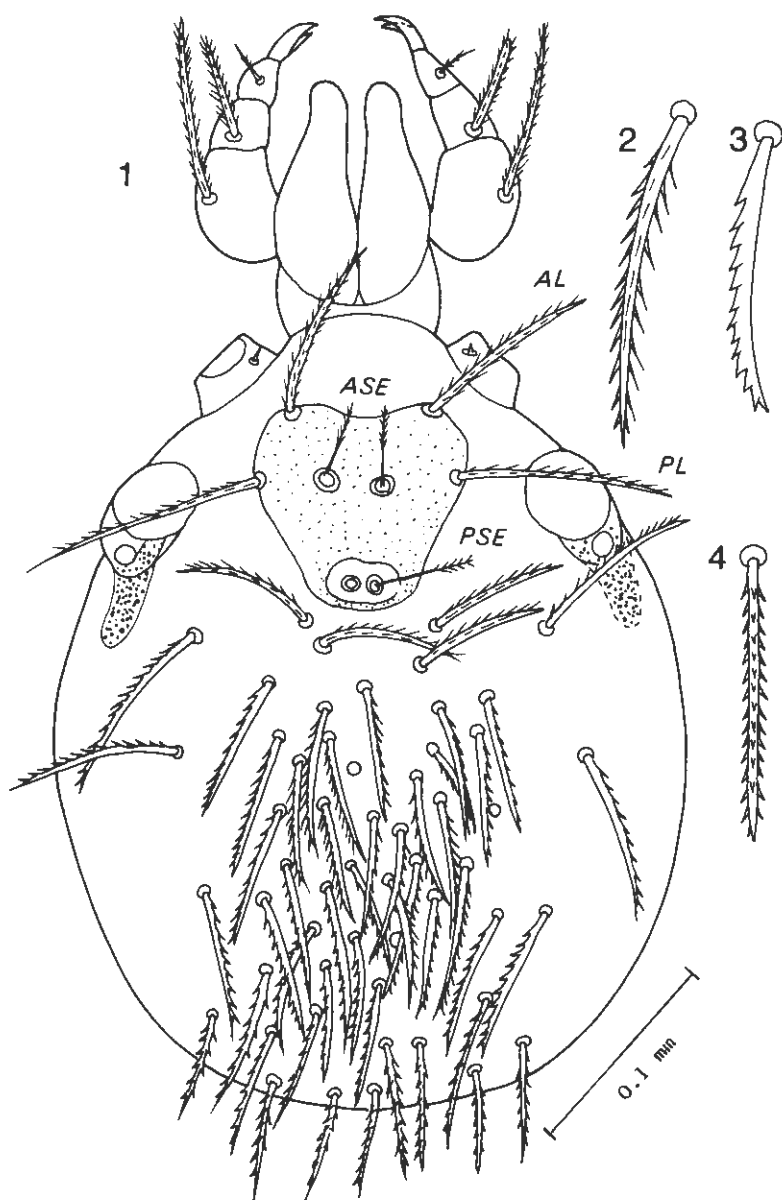
**Larva, holotype** (Figs. 1-12). Metric data, see Table 1. Length and maximum width of idiosoma: 378 x 285 (paratype 390 x 300). *Dorsum*: Diameter of anterior pair of eyes 60 x 33 (in the paratype 46 x 39), of posterior eyes 13 (14 in paratype); the lens of the posterior eye is particularly well visible in the paratype. The eyes are situated on a punctate plate. Pigmented retina 60 long and 20 wide. *Dorsum*: Sensillae thick, bearing very short pectinations in their apical half. Behind the scutum the cuticle bears 29 pairs of thick setae, most of them dentate; they are concentrated in the median area of the dorsum. *Venter*: Only one pair of sternal setae; *st2* is replaced by a small rounded sclerite. Area between coxae II and III with one pair of setae 36 long; opisthogaster with 8-9 pairs of thick pectinate setae 38 to 49 long. *Legs I-III*: Lengths (claws and coxae included): 546-554-904; number of pectinate setae: femora 7-7-6; genua 8-8-8; tibiae 14-15-14; number of solenidia: genua 1-1-1; tibiae 3-1-1; tarsi 1-1-0. Eupathidia not observed.

**Habitat and locality.** Holotype and one paratype larvae, collected by the author (21 March 1968) from moss covering the base of a tree in the Rugege forest (2500 m altitude) in Rwanda, Central Africa. Both specimens are mounted on the same slide, they are deposited in IRSNB.

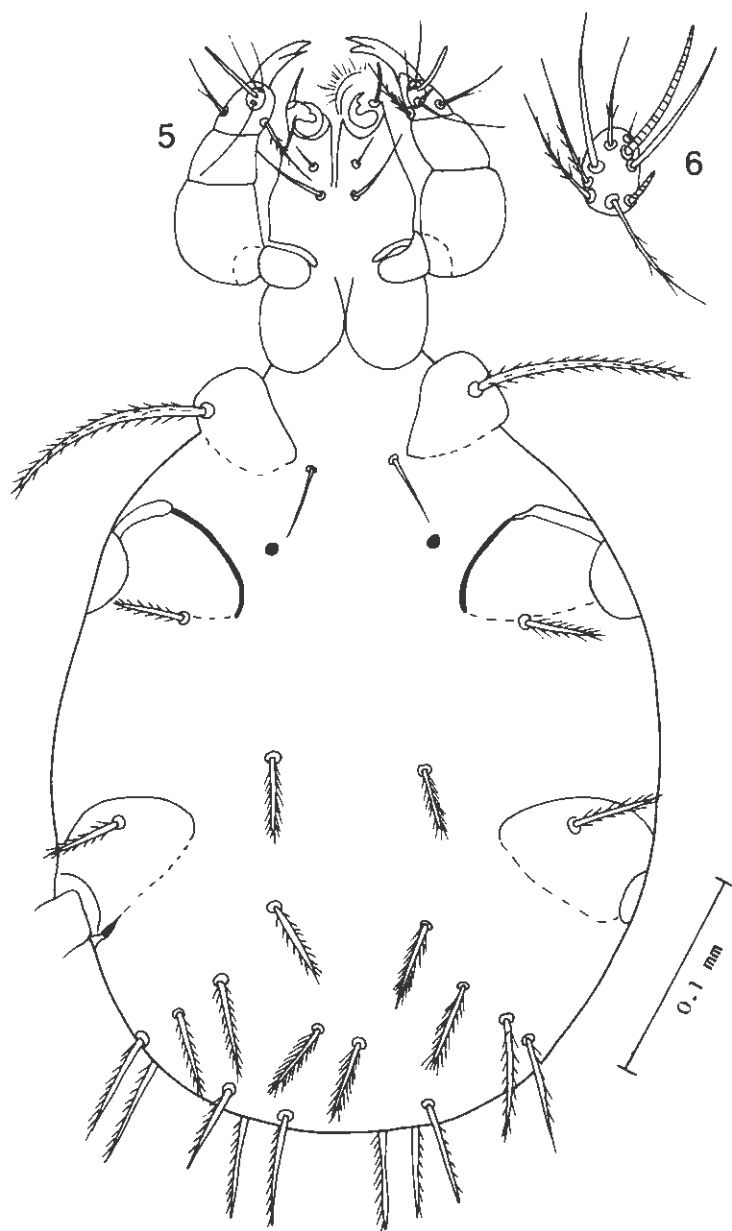
**Table 1.** Metric data of the larvae of *Opserythraeus hoffmannae* sp. nov.

Holotype			Paratype		
Characters*			Characters		
AW	68	69	TaII	79	78
PW	90	87	TiII	145	141
SBa	27	22	GeII	109	105
SBp	12	13	FeII	106	96
ASBa	36	38	TaIII	81	75
ASBM	30	36	TiIII	198	204
ISD	48	43	GeIII	102	105
L	96	94	FeIII	219	216
W	99	98	StI	43	45
AAS	42	45	CxI	100	102

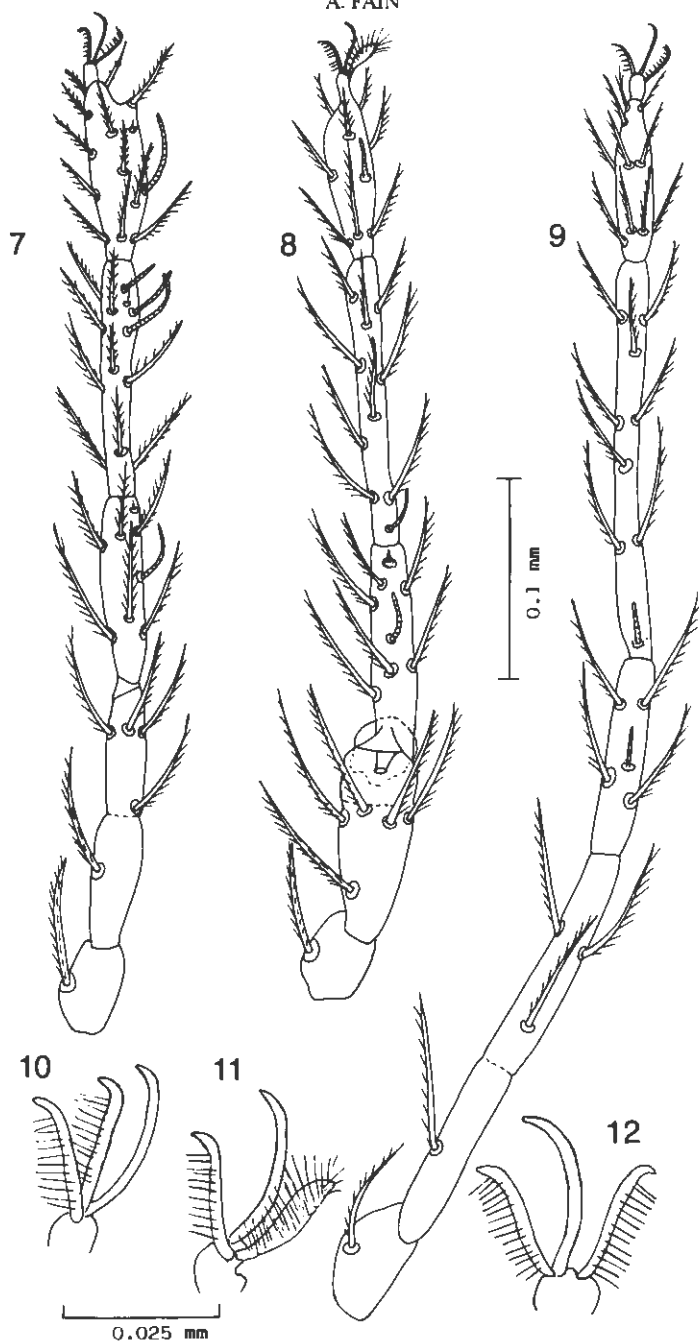
\*The symbol ASBM is that proposed by Fain and Elsen (1987). For other symbols see Southcott (1992).



Figs 1-4. *Opserythraeus hoffmannae* sp. nov. Larva in dorsal view (1); pectinate dorsal setae (2); dentate dorsal setae (3 and 4).



Figs 5-6. *Opserythraeus hoffmannae* sp. nov. Larva in ventral view (5); palptarsus (6).



Figs 7-12. *Opserythraeus hoffmannae* sp. nov. Larva. Leg I (7), leg II (8) and leg III (9) in dorsal view. Tarsal claws of leg I (10), leg II (11) and leg III (12).

Table 1, cont.

	Holotype	Paratype		Holotype	Paratype
Characters*			Characters		
A-P	34	30	CxII	39	36
AL	84	87	CxIII	44	46
PL	105	99	ωI	32	-
ASE	36	36	ωII	16	17
PSE	60	54	φIa	15	-
DS	50/90	57/82	φIb	25	-
'Oc'	90	83	φIb'	32	-
TaI	90	-	σI	25	-
TiI	120	-	φII	22	21
GeI	93	-	σII	25	20
FeI	126	-			

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