

PARASITIC MITES OF SURINAME  
II. SKIN AND FUR MITES OF THE FAMILIES  
PSOROPTIDAE AND LOBALGIDAE <sup>(1)</sup>

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The material which is described here has been collected by the junior author on various mammals of Suriname during a stay in Paramaribo from 11th November 1969 until 14th March 1970.

The types of the new species and specimens of the known species have been deposited in the Rijksmuseum van Natuurlijke Historie in Leiden, one paratype in the National Collection of Suriname, other paratypes in the collections of the authors.

FAMILY PSOROPTIDAE CANESTRINI, 1892  
SUBFAMILY PSORALGINAE OUDEMANS, 1908

Genus *Psoralges* TROUESSART, 1896

1. *Psoralges libertus* TROUESSART, 1896

This species has been recorded from Brazil, the Guyanas and Panama. It seems confined to a single host *Tamandua tetradactyla* (see FAIN, 1965).

In Suriname the junior author has collected this mite from the same host. Numerous specimens (36 ♂♂, 27 ♀♀ and numerous immatures) on an animal captured at Lelydorp, Suriname, on 17th December 1969).

Genus *Edentalges* FONSECA, 1954

1. *Edentalges bradypus* FONSECA, 1954

This species is known from several species of *Bradypus*. The typical host is *Bradypus tridactylus brasiliensis*, from Brazil (FONSECA, 1954). In Suriname and French Guyana it has been recorded from *Bradypus tridactylus tridactylus* (see

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FAIN, 1965). Another host is *Bradypus griseus castaneiceps*, from an unknown locality (FAIN, 1965).

The junior author has found numerous specimens (15 ♂♂, 17 ♀♀, immatures) of that species on a *Bradypus t. tridactylus*, of Uitvlucht, Suriname, 5th February 1970.

#### SUBFAMILY LISTROPSORALGINAE FAIN, 1965

This subfamily was represented so far by a single genus (*Listropsoralges* FAIN) containing two species, both from South American marsupials. One of these species *L. marmosae*, had been found on *Marmosa* spp. from Brazil and French Guyana, the other species, *L. monodelphis*, was described from *Monodelphis dimidiata*, from Brazil.

We describe here a second genus belonging to this subfamily :

#### Genus *Listropsoralgoides* gen. nov.

**Definition :** This genus is distinguished from the genus *Listropsoralges* by the following characters :

1. All the dorsal hairs are very thin and short, except *h* setae in male which are very strong and long.
2. The setae *d* 5 are transformed into short and strong spines.
3. The coxas II of the female bear a flat and bilobate chitinous process directed posteriorly. In the male this process is simple.
4. Legs IV more reduced, in both sexes.

**Type species :** *Listropsoralgoides surinamensis* sp. n.

#### 1. *Listropsoralgoides surinamensis* spec. nov.

**MALE** (holotype) (fig. 1, 3): Total length (including gnathosoma) 180  $\mu$ , maximum width 126  $\mu$ . Dorsum covered by two large punctate shields, a propodosomal and an hysterosomal. Posterior border of the body straight. All the epimera free. Legs as in *Listropsoralges* but the legs IV are more reduced than in that genus. Other characters as in *Listropsoralges*.

**Chaetotaxy :** setae *sc* *i*, *sc* *e*, *d* 2 to *d* 4 very thin and short. Setae *d* 5



Fig. 1. — *Listropsoralgoides surinamensis* sp.n. Male in ventral view.

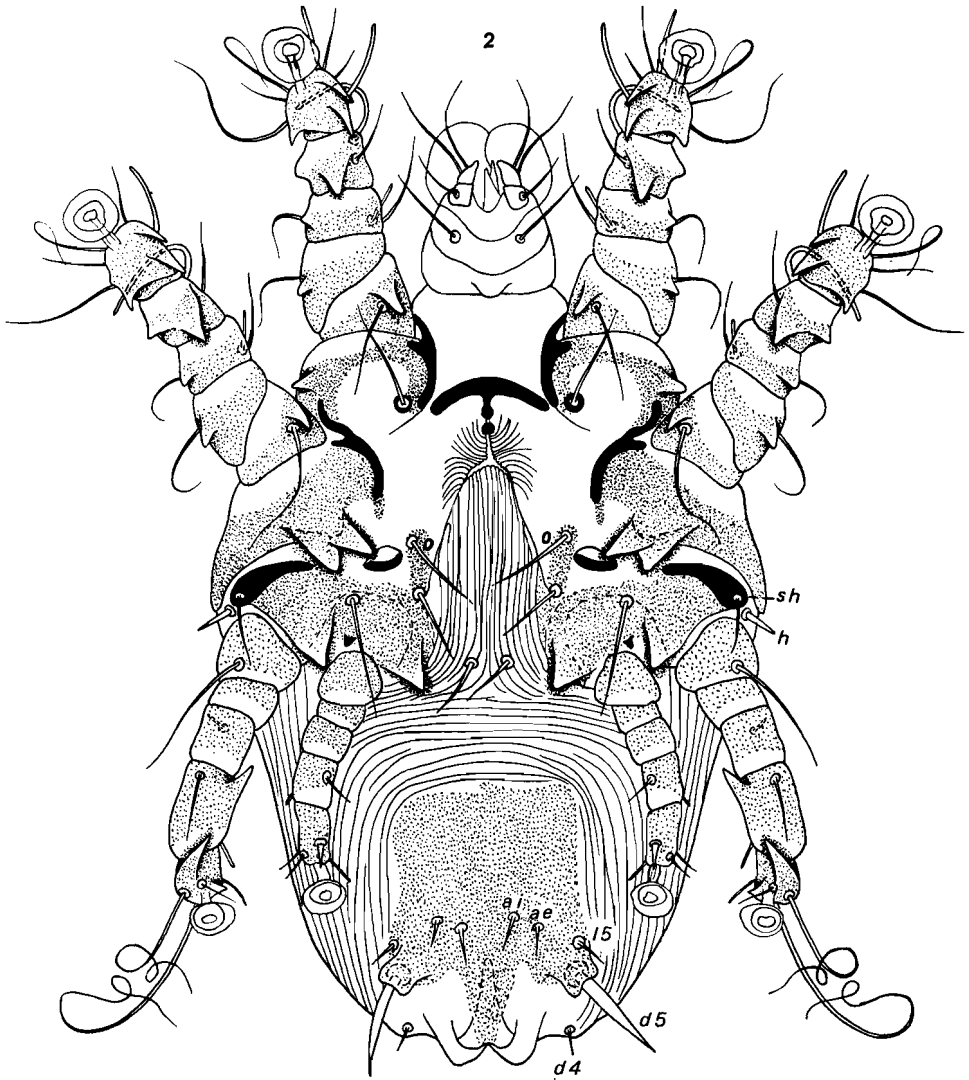


Fig. 2. — *Listropsoralgoides surinamensis* sp.n. Female in ventral view.

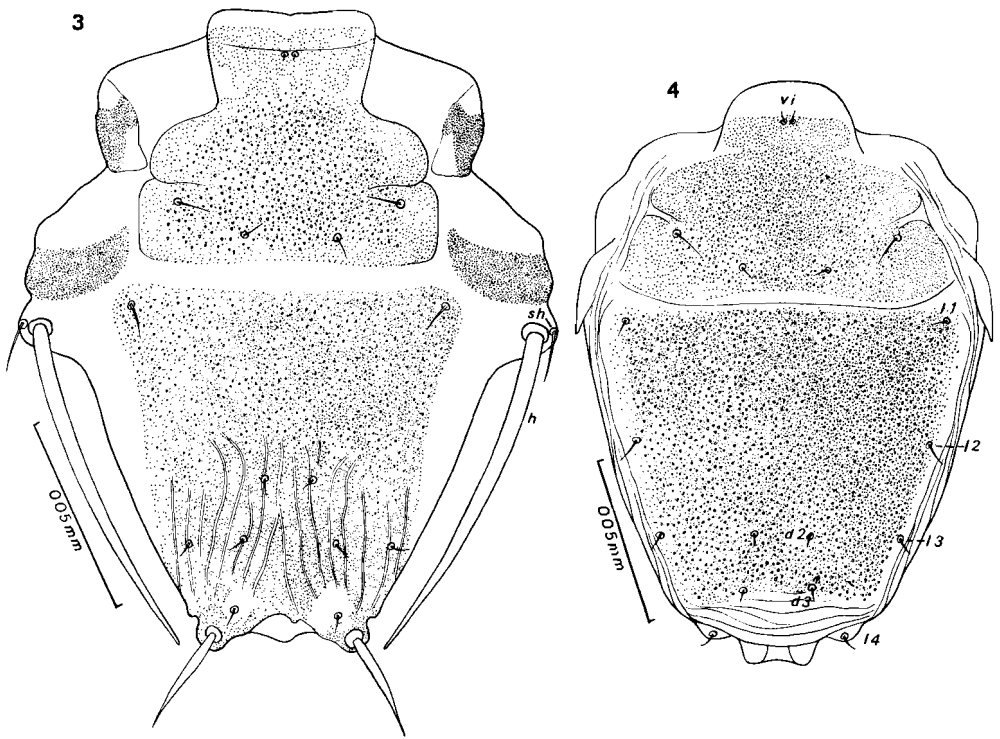


Fig. 3-4. — *Listropsoralgoides surinamensis* sp.n. Dorsal view of male (3) and female (4).

in the shape of relatively short spines ; *l5* is a very small spine ; setae *h* very thick and long.

*Solenidiotaxy*: Tarsi 2-1-0-0. Tibiae 1-1-1-1. Genua 1 1-1-0.

**FEMALE** (allotype) (fig. 2, 4) : Body (including gnathosoma) 210  $\mu$  long, 126  $\mu$  wide. Dorsal shields as in the male. All the epimera free. Copulatory papilla situated dorsally near the posterior margin of the body. Epigynium well developed, not fused with the epimera I. Coxa II with a bilobate process, the coxae III and IV with a triangular process, all directed posteriorly. Legs as in *Listropsoralges* but legs IV more reduced (shorter and thinner). Chaetotaxy and solenidiotaxy as in the male, except the *h* setae which are short and thinner.

**TRITONYMPH** : One specimen of our collection is 180  $\mu$  long and 120  $\mu$  wide. The legs I, II and III are well developed, the legs IV are vestigial. Dorsal shields and structure of legs I to III as in the female. There is no bilobate process on coxa II.

**Host and locality** : On a *Proechimys guyannensis guyannensis* (E. GEOFFROY, 1803) of Uitkijk, Suriname, 8th January, 1970. (Holotype and 1 paratype  $\sigma\sigma$  ; allotype and 15 paratypes  $\text{♀}\text{♀}$  ; 3 nymphs). (Coll. F. LUKOSCHUS).

#### FAMILY LOBALGIDAE FAIN, 1965

This family has been erected for a very unusual genus of mite represented by one species (*Lobalges trouessarti*) living on *Bradypus tridactylus brasiliensis*.

FONSECA (1954) had rattaché this genus to the Epidermoptidae. According to FAIN (1965) this genus exhibits characters which are not encountered in the Epidermoptidae nor in the Psoroptidae. Among those, the most important is probably the bilobation of the posterior extremity of the body in both sexes. These characters have induced this author to create the new family Lobalgidae.

Recently in examining a collection of parasitic mites collected on South American mammals preserved in the British Museum, the senior author found two species with bilobate bodies in both sexes, as in the genus *Lobalges*, but which, however, were distinguished from that genus by several important characters. He has therefore proposed to erect a new genus (*Echimytricalges*) and a new subfamily (Echimytricalginae) to contain them (FAIN, 1970).

The two species known so far in the genus *Echimytricalges* had been collected on South American mammals. One, *E. brasiliensis* FAIN, was found on *Echimy*

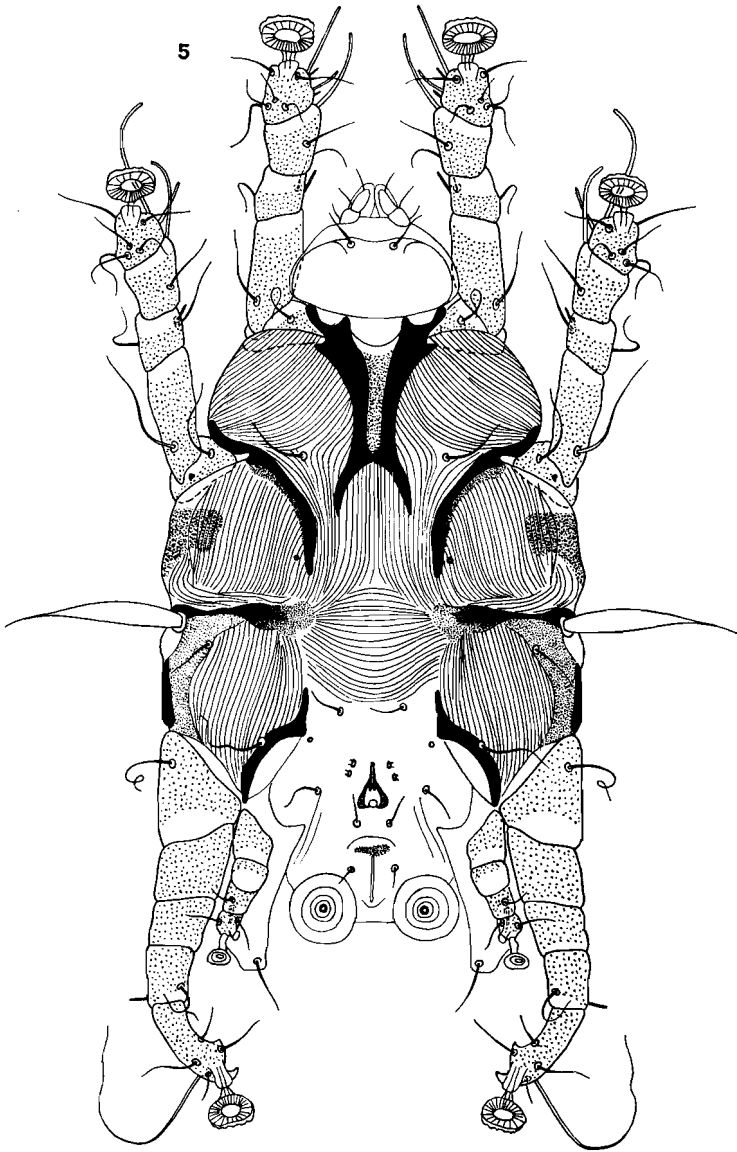


Fig. 5. — *Echimytricalges surinamensis* sp.n. Male in ventral view.

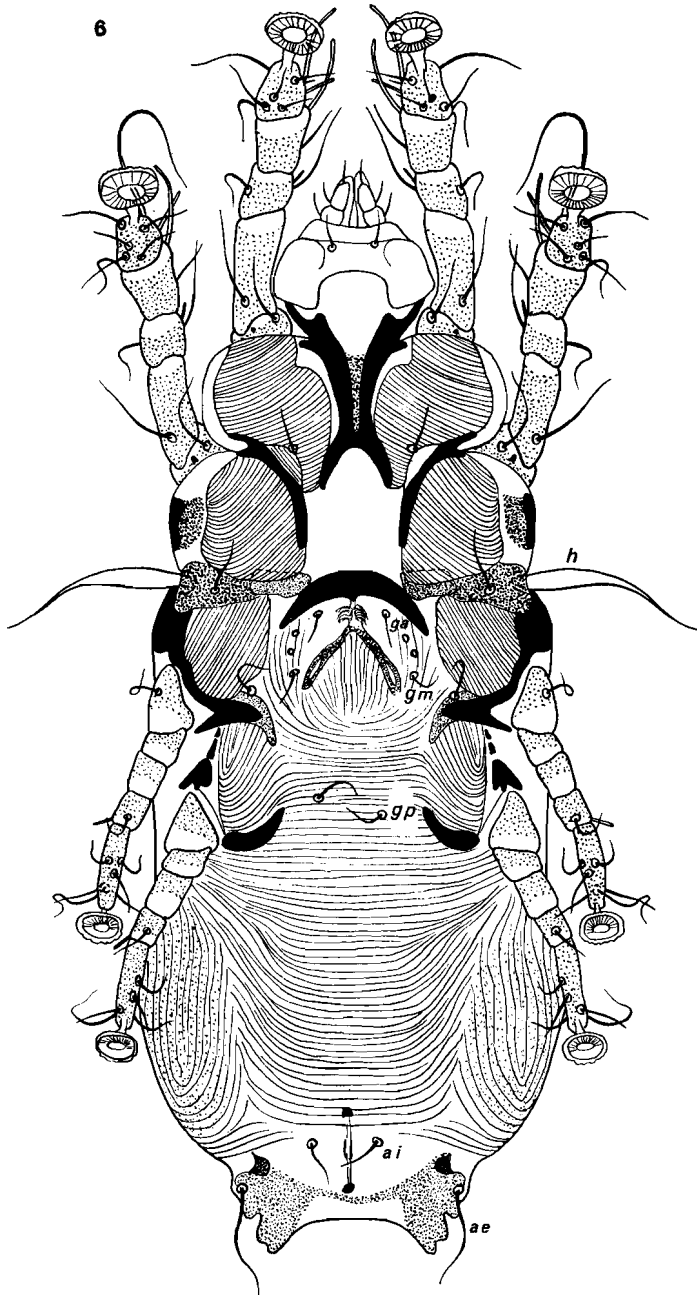


Fig. 6. — *Echimytralges surinamensis* sp.n. Female in ventral view.



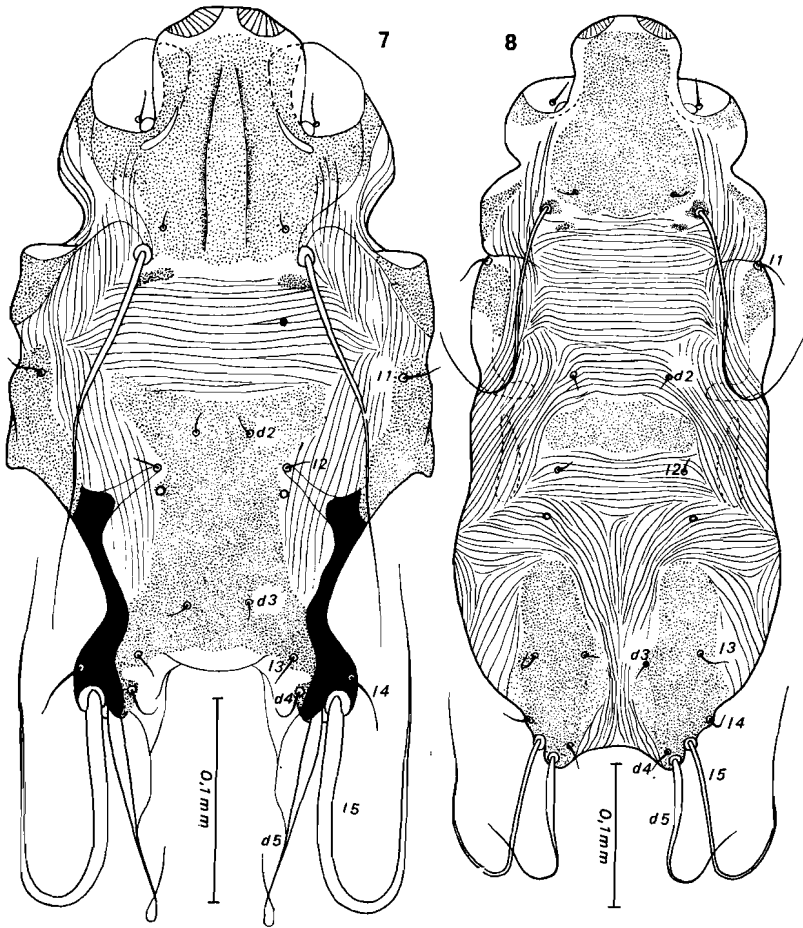


Fig. 7-8. — *Echimytricalges surinamensis* sp.n. Dorsal view of male (7) and female (8).

*brasiliensis* in Brazil, the other, *E. guyanensis* FAIN, on *Philander philander* in French Guyana.

In the present paper we describe a third species of this interesting genus. It had been discovered by the junior author on a rat *Proechimys g. guyannensis*. All the mites were situated along some curiously grooved hairs of the host. These hairs are situated along the midline of the back. The mites were attached into the concavities of these hairs. This unusual situation may explain the curious morphology of these mites which show characters that link those of both feather mites of birds and skin mites of mammals.

#### SUBFAMILY LOBALGINAE FAIN, 1965 tax. nov.

##### Genus *Lobalges* FONSECA, 1954

##### 1. *Lobalges trouessarti* FONSECA, 1954

This species has been, so far, recorded from the following hosts :

- 1) *Bradypus tridactylus brasiliensis* (typical host), from Brazil (FONSECA, 1954);
- 2) *Bradypus tridactylus tridactylus*, from Suriname (FAIN, 1965);
- 3) *Choloepus didactylus*, from unknown country (FAIN, 1965).

The specimens (18 ♂♂, 11 ♀♀, immatures) found by the junior author came from one *Bradypus tridactylus tridactylus*, of Uitvlucht, Suriname, 5th February 1970.

#### SUBFAMILY ECHIMYTRICALGINAE FAIN, 1970

##### Genus *Echimytricalges* FAIN, 1970

##### 1. *Echimytricalges surinamensis* spec. nov.

This species is distinguished from *E. guyanensis* FAIN and *E. brasiliensis* FAIN, in the male by the shape of the propodosomal shield which in the mature specimens reaches the lateral margins of the body and by the greater interval existing between the two adanal suckers. The female is distinguished from the female of *E. brasiliensis* by the smaller size of the propodosomal and the anterior hysterosomal shields, the different shape of the propodosomal shield with more rounded lateral margins, the shape of the two posterior hysterosomal shields which are narrower and nearer to the midline.

MALE (holotype) (fig. 5, 7) : the total length of the body, including the gnathosoma and the posterior lobes, is 390  $\mu$ ; maximum width 204  $\mu$ . Propodo-

somal shield 110  $\mu$  long and 150  $\mu$  wide. Hysterosomal shield longer than wide, enlarged at its two extremities. Posterior lobes widely separate, bearing large transparent membranes which are attached laterally to the setae *d*5. Epimera I in the shape of an H. Other epimera rather long but free. Adanal suckers widely separate. Anus ventro-terminal. Aedeagus small, situated at level of coxae IV. Legs I and II rather long, with tibiae and tarsi distinctly thickened. Legs III long, with tarsi slightly curved inwards. Legs IV strongly reduced, with apparently 4 free segments. All the legs ending in a pedonculate sucker. Gnathosoma with a very wide base.

**Chaetotaxy** : The following setae are present on the idiosoma : *sc i* (very small) ; *sc e* (strong and long) ; *d*2 ; *d*3 ; *d*4 ; *d*5 (long, attached to the lobal membranes) ; *l*1 ; *l*2 ; *l*3 ; *l*4 ; *l*5 (long, with a widened base) ; *s*cx ; *h* (very strong, with a flagellar extremity) ; *sh* ; *cx*I ; *cx*III ; *g*a ; *g*m ; *g*p ; *a*i ; *a*e.

**Solenidiotaxy** : Tarsi 2-1-0-0. Tibiae 1-1-1-1. Genua 1-1-0-0.

**FEMALE** (allotype) (fig. 6, 8) : Length of the body (including the gnathosoma and the posterior lobes) 550  $\mu$ , width 198  $\mu$ . **Dorsum** : the propodosomal shield does not reach the lateral margins of the body ; it is strongly enlarged in its posterior half and has a slightly sinuous posterior border. The *sc e* setae are not situated on this shield but immediately behind on a small punctate platelet. Hysterosoma with an anterior shield median and much wider than long and two posterior shields paramedian and longer than wide. **Ventrum** : epimera as in the male. The epimera III are loosely fused with the very large epigynium. Posterior legs slender. All the legs ending in a sucker.

**Host and locality** : On a *Proechimys guyannensis guyannensis* (E. GEOFFROY, 1803) of Uitkijk, Suriname, on 8th January 1970 (Coll. F. LUKOSCHUS).

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