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A NEW GENUS AND TWO NEW SPECIES  
OF MITES (ACARI) PHORETIC OR PARASITIC  
ON NEOTROPICAL CHRYSOMELIDAE  
(COLEOPTERA)

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A NEW GENUS AND TWO NEW SPECIES OF MITES (ACARI)  
PHORETIC OR PARASITIC  
ON NEOTROPICAL CHRYSOMELIDAE (COLEOPTERA)

BY Alex FAIN \* AND Jorge A. SANTIAGO-BLAY \*\*

HISTIOSTOMATIDAE  
ERYTHRAEIDAE  
NEW TAXA  
PHORETIC  
PARASITIC  
SOUTH AMERICA  
CARIBBEE  
CHRYSOMELIDAE

ABSTRACT : A new genus, a new subgenus, and two new species of mites (Acari) are described from Caribbean and South American Chrysomelidae (Coleoptera) : *Ancyranoetus virkkii* n. gen., n. sp. (Histiosomatidae) from *Lema nigripes* (Criocerinae) in Puerto Rico and *Momorangia (Neomomorangia) asphaerae* n. subg., n. sp. (Erythraeidae) collected from *Asphaera* sp. (Alticinae) in Brazil.

HISTIOSTOMATIDAE  
ERYTHRAEIDAE  
NOUVEAUX TAXA  
PHORETIQUES  
PARASITES  
CHRYSOMELIDAE  
SUD AMERICAINS  
CARAÏBES

RÉSUMÉ : Un nouveau genre, un nouveau sous-genre et deux nouvelles espèces d'acariens sont décrits de Chrysomelidae (Coleoptera) caraïbes et sudaméricains : *Ancyranoetus virkkii* n. gen., n. sp. (Histiosomatidae) trouvé sur *Lema nigripes* (Criocerinae) au Puerto Rico et *Momorangia (Neomomorangia) asphaerae* n. subg., n. sp. (Erythraeidae) récolté sur *Asphaera* sp. (Alticinae) au Brésil.

Chrysomelid beetles (Coleoptera) carrying mites recently came to our attention. The hypopial nymphs of *Ancyranoetus virkkii* n. gen. and n. sp. (Histiosomatidae) were found attached to the head and the prothorax of a *Lema nigripes* Weise, 1885 (Criocerinae) from Puerto Rico. The larvae of *Momorangia (Neomomorangia) asphaerae* n. subg., n. sp. (Erythraeidae) were found attached by their chelicerae to the under surface of the elytra of an *Asphaera* sp. (Alticinae) from Minas Gerais, Brazil.

Measurements and nomenclature follow Southcott (1972) for the Erythraeidae; all measurements are given in micrometers. The measurement ASBM is the "perpendicular distance between the center of the bases of the anterior sensillae and the anterior edge of the scutum" (Fain *et al.* 1987).

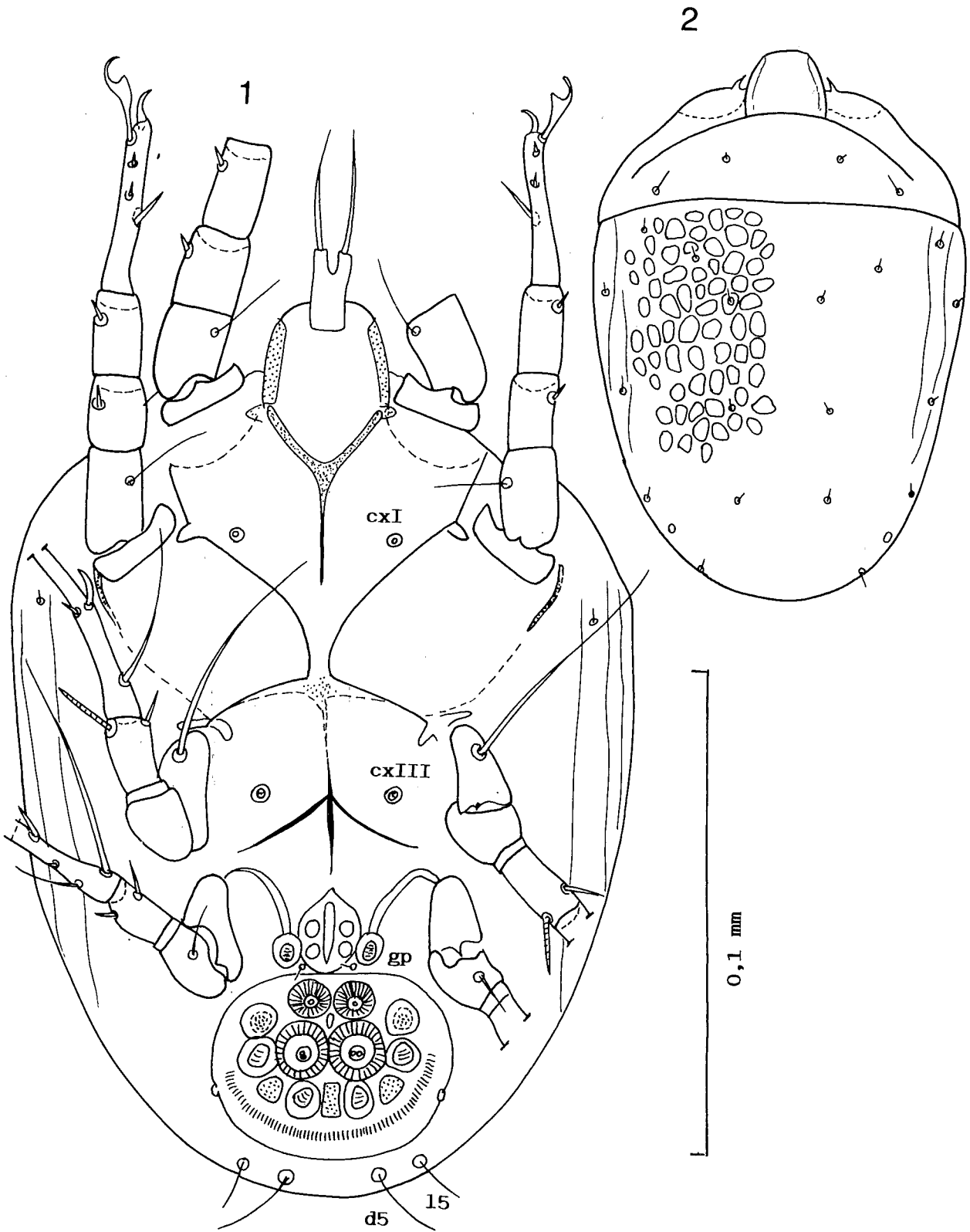
FAMILY  
HISTIOSTOMATIDAE BERLESE, 1897

ANCYRANOETUS NOV. GEN.

Diagnosis : Only heteromorphic nymph (hypopus) known. This genus is close to *Histiostoma* (Kramer, 1876) from which it differs by the following characters : apical seta of tarsus II modified into a poorly sclerotized, hooklike attaching organ ; great development of trochanter III seta and of tarsi III and IV ventrobasal setae, apical seta of tarsus IV modified into a long, flattened strip ; solenidia of tarsi and tibiae I unusually long or thick. All tarsi end in well-developed claw, hyste-

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Figs. 1-2 : *Ancyranoeetus virkkii* n.sp., hypopus, ventral view (1), dorsal view (2).

ronotum covered in its anterior two-thirds with numerous flattened, polygonal surelevations.

Type species : *Ancyranoetus virkkii* n. sp.

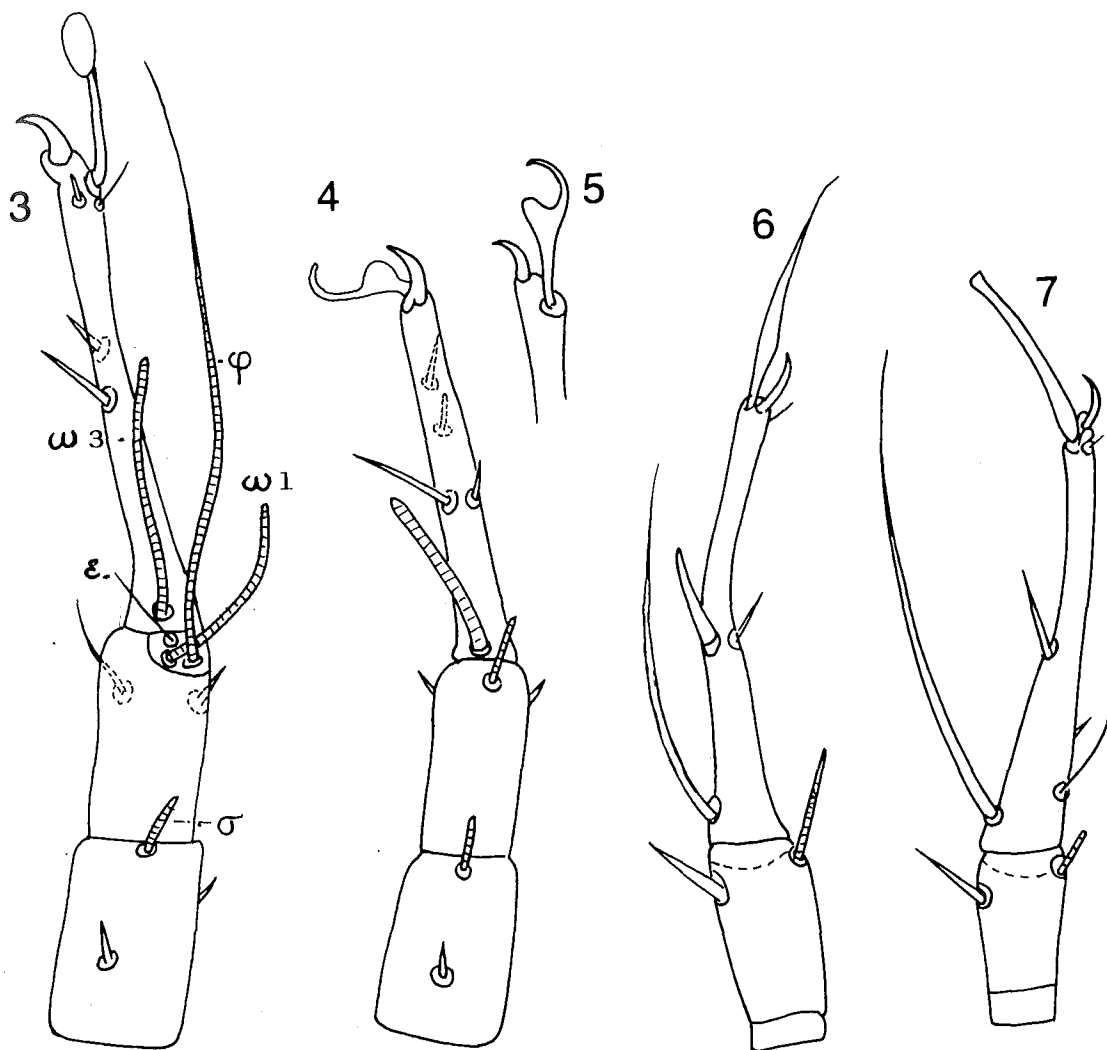
The beetle carrying these deutonymphs had been sputter coated with a 30 nm layer of platinum for scanning electron microphotographs before they were examined. Thus, most mites were opaque and difficult to examine. Only two specimens were in a rather good condition and were used for the description.

*Ancyranoetus virkkii* nov. spec.

(Figs. 1-7)

*Etymology.* This new species is named after its collector, Dr. Niilo Virkki, Cytogeneticist at the Agricultural Experiment Station of the University of Puerto Rico in Río Piedras.

*Hypopus*, holotype. Idiosoma 180 long, 135 wide. In two paratypes, length and width are 183, 126 ; 171, 121. *Dorsum* : Sejugal furrow well developed.



FIGS. 3-7 : *Ancyranoetus virkkii* n.sp., hypopus, apical segments of leg I (3), leg II (4), leg III (6), and leg IV (7). Apex of tarsus II on a paratype (5).

Anterior part of propodosoma produced, forming overhanging "rostrum". Hysteronotal shield punctate, with distinct pattern of raised, mostly rectangular, platelets. *Venter* : Sternum relatively long. Epimera II loosely connected with epimera III. Epimera IV fused with short median longitudinal sclerite. Suctorial plate 42 long, 50 wide, with posterior suckers larger (width 11) than anterior suckers (8.5 wide), lateral conoids aligned with posterior suckers. *Chaetotaxy* : Dorsum only with very short, thin setae. Setae *cxI* and *cxIII* modified in small conoids. Setae *gm* very thin and short, *gp* conoids, smaller than conoids of suctorial plate. Setae *d5* and *l5*, 20 and 15 long, respectively. Trochanter III with long (60) seta. Palposoma situated on anterior part of the "rostrum", carrying a pair of long (30) solenidia and, apparently, no simple setae. *Legs* : Tarsi 43-35-41-41 long, respectively (claws not included). Leg I with *omega 1* and *eta* situated on dorsoapex of tibia I; *omega 3* of tarsus I 23 long, *phi* 50 long. Apical seta of tarsus I thick and spoonlike, on tarsus II modified into claw-like structure, on tarsus III apical seta rather long and foliate on its middle part, on tarsus IV modified in a membranous strip, 24 long. The ventrobasal setae of tarsus III and IV are 34 and 48 long, respectively.

*Type data* : Holotype hypopus from *Lema nigripes*, Puerto Rico. Paratypes (7 hypopi) with same data as holotype. (Coll. Dr. N. Virkki). Types in the Institut royal des Sciences naturelles de Belgique (IRSNB).

#### FAMILY

ERYTHRAEIDAE ROBINEAU-DESVOIDY,  
1828

#### SUBFAMILY

CALLIDOSOMATINAE SOUTHOTT, 1957  
*MOMORANGIA* SOUTHOTT, 1972

This genus was only known from New Zealand. It was represented by two species found on cicadas (Homoptera : Cicadidae); one of the species has

also been collected from a moth (Lepidoptera). We describe herein a new species in this genus that differs from the two described species by characters of the dorsal plate and the ambulacra that justify their separation into a new subgenus, *Neomomorangia*.

#### *NEOMOMORANGIA* N. SUBG.

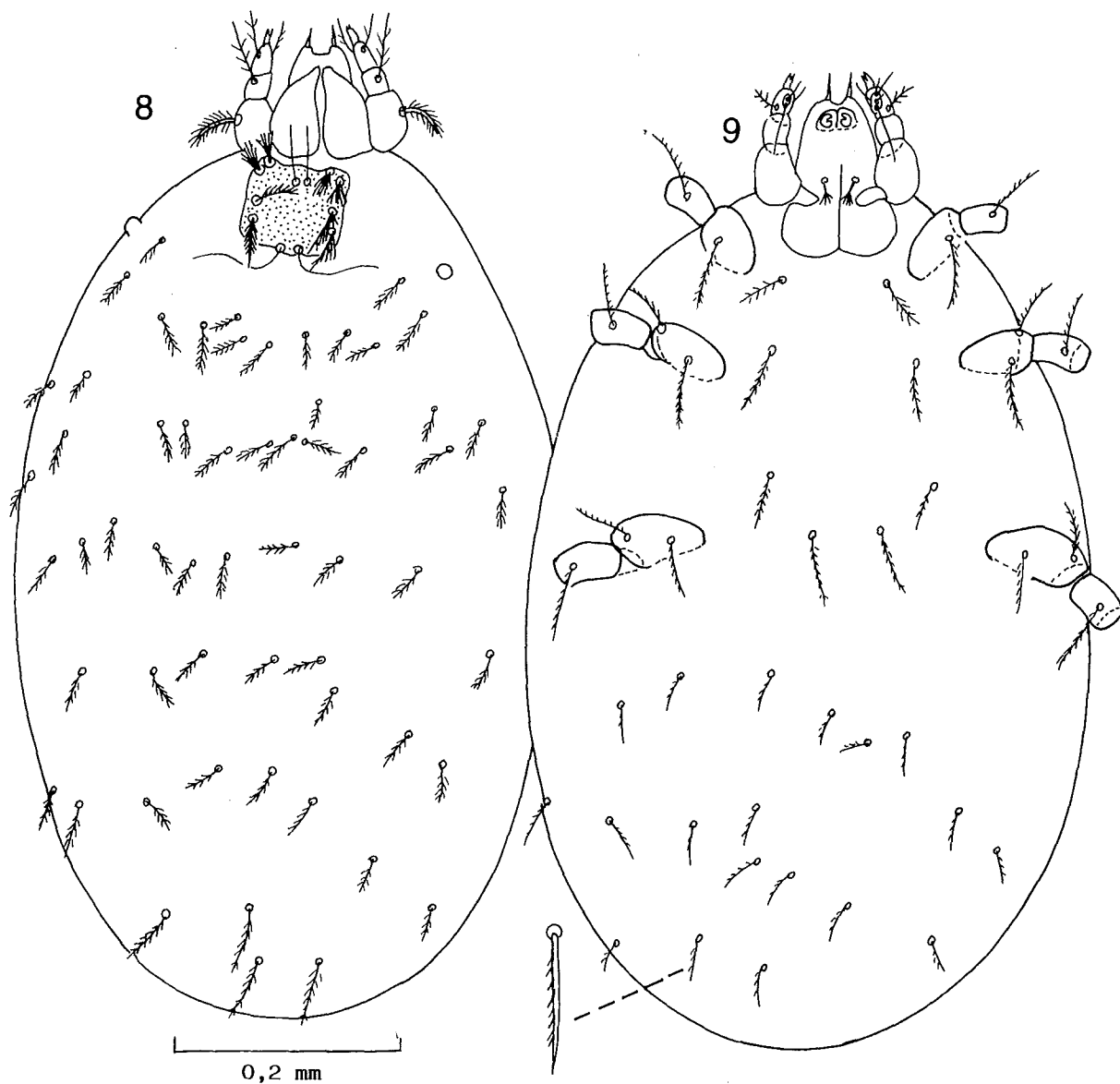
*Diagnosis* : This subgenus differs from the nominal by the following characters : dorsal shield almost rectangular, carrying four pairs of thick and short, thickly pectinated setae; posterior pulvilliform tarsal claws thin, not ending in a ventrally directed hook, apical spine of palptibia shorter than tibia; hypostomal setae with a few, rather long apical setules.

*Type species* : *Momorangia* (*Neomomorangia*) *asphaerae* n. sp.

*Momorangia* (*Neomomorangia*) *asphaerae* n.sp.

(Figs. 8-15)

*Larva*, holotype. Idiosoma 750 long, 480 wide. Length and width in three paratypes : 880, 600; 810, 600; 550, 525. *Dorsum* : Scutum as wide as long (Table I), with anterior margin slightly excavated. Four pairs of scutal setae thick and short, bearing thick pectinations, situated close to shield edges. Anterior sensillae with indistinct setules, posterior sensillae with few, very short setules on their apical two thirds. One pair of eyes, diameter 15. Dorsum with 58 pectinated setae 30 to 54 long, forming six rows. *Venter* : With one pair of pectinated sternal I setae (36 long) and one pair of sternal II setae (48 long). Two pairs of pectinated setae between coxae III, anteriormost 36 long, posteriormost 50 long; posteriorly with 19 setae, 30-40 long. Coxae I-III with 1-2-2 pectinated setae : coxa I 50 or 60 long; coxa II 60 (median), 45 (lateral); coxa III 48 (median), 45 (lateral). All legs with six segments, femur incompletely divided in basi and telofemur. Legs ending in three claws, anterior falciform, simple; middle falciform,



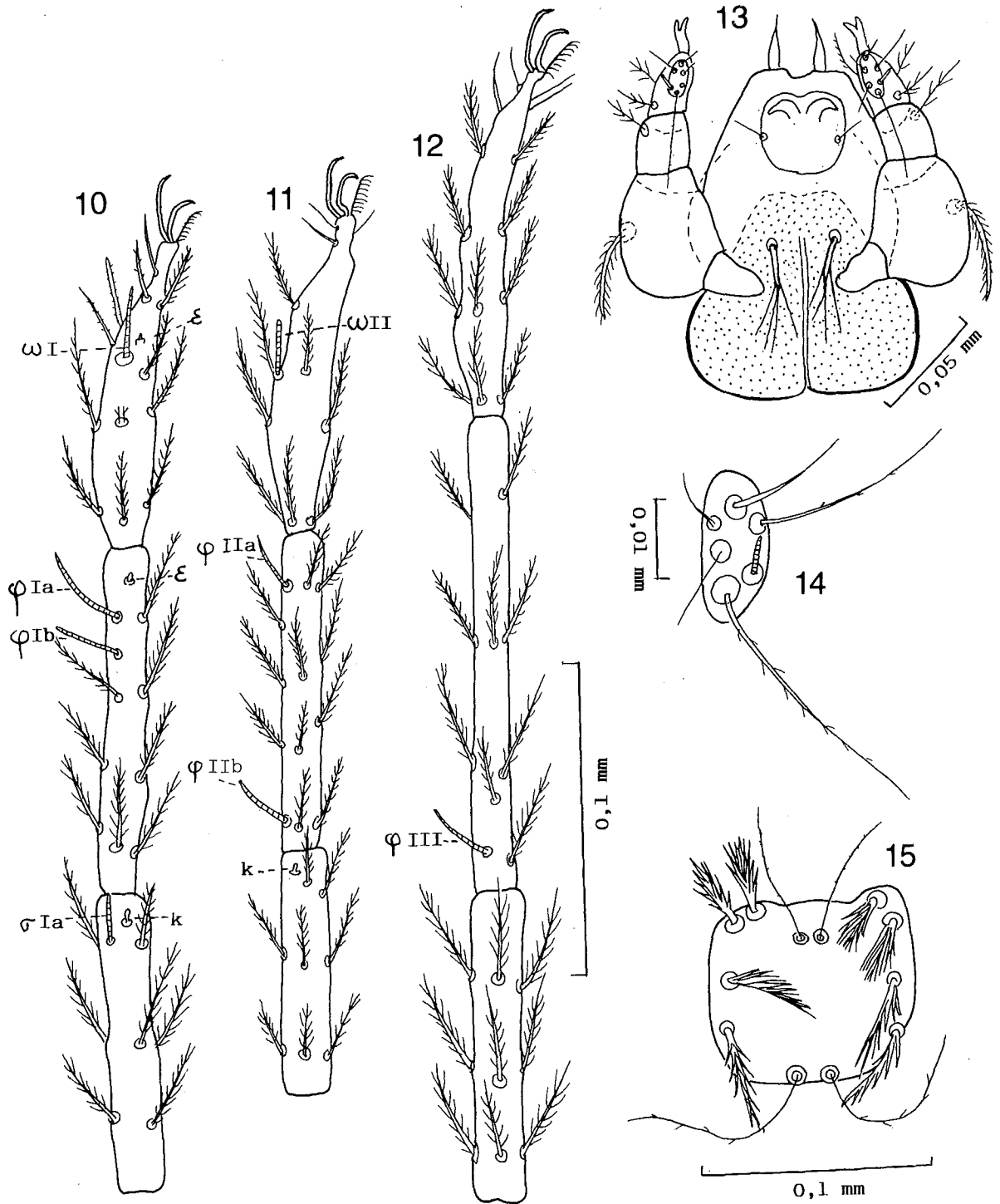
FIGS. 8-9 : *Momorangia (Neomomorangia) asphaerae* n. sp., larva. Dorsal (8) and ventral (9) surfaces.

slightly longer than anterior; posterior straight, thin, ciliated, without apical hook. *Gnathosoma* 144 long, 150 wide. Anterior margin with a pair of thick setae, finely attenuated apically. Hypostome with two pairs of setae, anterior thin and simple, posterior thick, longer, and ending in four very thin setules. Palptarsus elongate, carrying five setae, including two ciliated, and a short solenidion.

Palptibia ending in a thick, forked spine 5-6 long.

*Legs* : Chaetotaxy (number of pectinated setae) : trochanters 1-1-1; femora 9-9-7; genua 12-12-12; tibiae 17-17-19.

*Type data* : Holotype larva from *Asphaera* sp. (Chrysomelidae, Alticinae), Minas Gerais, Brazil. Paratypes : 3 larvae with same data as holotype. Types in IRSNB.



FIGS. 10-15 : *Momorangia (Neomomorangia) asphaerae* n. sp., larva. Three apical segments of legs : leg I (10), leg II (11), and III (12) (dorsal view). Ventral surface of gnathosoma (13). Palptarsus (14). Scutum (15).

Table I : Standard data of *Momorangia (Neomomorangia) asphaerae* n. sp. (larvae)

Scutal setae number	Holotype	Paratypes			Average
		n° 1	n° 2	n° 3	
	4 + 4	4 + 4	4 + 4	4 + 4	
AW	52	57	57	—	55.3
MW	72	72	70	—	71.3
PW	72	73	72	65	70.5
SBa	12	12	9	9	10.5
SBp	13.5	18	15	15	15.3
ASBa	21	19	23	24	21.7
ASBM	15	15	18	14	15.5
ISD	58	64	60	60	60.5
L	88	90	90	91	89.7
W	89	93	90	—	90.6
AL1	27.6	30.5	26	27	27.8
AL2	30	30	30	27	29.2
AL3	48	50	48	43	47.2
AL4	42	48	39	40	42.2
ASens	55	48	—	48	50.3
PSens	90	80	83	70	80.7
DS	30-54	30-57	27-51	28-52	28.7-53.5
GEI	111	117	116	111	113.7
GEII	102	108	111	105	106.5
GEIII	117	125	120	111	118.2
TiI	138	144	144	145	142.7
TiII	123	—	132	135	126.6
TiIII	180	195	180	180	183.7
TaI	120	120	129	127	124
TaII	117	—	120	120	119
TaIII	126	129	132	135	130.5

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