

El Capullo

12.IX.36.-22.° C. — La oruga confecciona un envoltorio sedoso, blanco, escondido en una hoja doblada.

Tabla sinóptica

Fecha	Largo	Temperatura media	Duración de cada estadio
Desove	24 julio		
Eclósión	13 agosto	1,40 mm	20.° C
1ª ecdisis	21 agosto	2,30 mm	20.° C
2ª ecdisis	27 agosto	3,25 mm	22.° C
3ª ecdisis	31 agosto	6,30 mm	20.° C
4ª ecdisis	4 septiembre	11,90 mm	23.° C
Se encapulló	12 septiembre		
Temperatura media durante el estado larval 21,2.°C.			Vida larval 30 días.

La Crisálida

La crisálida mide 9,75 mm de largo por 2,35 mm de ancho. Las alas bajan hasta 4,95 mm del vertice. Su color es ámbar rojizo más bien claro. La parte dorsal de la crisálida tiene en sus segmentos, espinas dispuestas como peñes, el cremaster es achatado, con arrugas transversales. Se le observan también ganchos curvados hacia la faz dorsal.

A los diez días, nació el imago; habiendo quedado la crisálida a una temperatura media de 21.° C. Determinada por Mr. Edward Meyrick, resultó ser *Eulia loxonephes* n. sp. (descrita en: Exotic Microlepid., vol. 5, 1937, p. 128).

New Neotropical Melolonthid Scarabs (Coleoptera)

by LAWRENCE W. SAYLOR, University of California

Phyllophaga morgani, n. sp.

Oblong oval to elongate oval, piceo-castaneous, pruinose or faintly shining, thorax and elytra clothed with very dense short suberect griseous pile, the latter of one length only. Head with clypeus and front closely variolately punctured, with moderately long erect hair on front and much shorter hairs on clypeus; clypeus almost semicircular, broadly reflexed; antennae 10-segmented, club flavous to rufopiceous, subequal to funicle. Thorax roundly dilated at sides, margin

not sinuate, entire and ciliate; front angles slightly acute, hind angles very angular but obtuse; disc very finely closely densely punctured, the elytra likewise. Pygidium moderately convex, pruinose, with moderately dense punctures, the latter with short suberect hairs; apex markedly reflexed, truncate, ciliate. Abdomen widely shallowly concave, densely finely punctured, with short suberect hairs; fifth segment at center greatly elevated towards the rear, with dense fine granules and small erect hairs; sixth three-fourths as long as fifth, deeply transversely concave, the surface polished and sparsely hairy; basal and apical margins of last abdominal with high thick raised carinas, the former arcuately interrupted at middle and both ciliate. Hind spurs free, acute, one three-fourths the length of the other. Claws narrowly cleft, upper tooth slightly wider and a little longer than apical tooth. Tarsal segments one to three of the front legs spinose on the inner side. Length 17-19 mm. Width 9-9.5 mm.

Type and paratype, both males, and in the authors collection, are from Madden Dam, Canal Zone, Panama, collected at light on V-14-36 by my father, Morgan M. Saylor, in whose honor the species is named. The present species is but one of some 2000 specimens of Panama scarabs, including twenty-two species of *Phyllophaga*, collected by my father in the Canal Zone.

Closely related to both *insulanus* and *phausi*: from the former species from Trinidad it differs in the shorter antennal club and the non-obtuse thoracic angles; it may be separated from the latter by the shorter antennal club, the equal-length pygidial hair, and the acute instead of rectangular anterior thoracic angles. Claws narrowly cleft; belongs in the *Phylalus*-group of the genus.

Phyllophaga tepanana, n. sp.

Male. — Elongate oval, wider behind, shining, color castaneous, head and thorax with extremely long erect fine hair, elytra with very minute sparse erect hair. Head densely grossly scabrosely punctured, the front a little more so than clypeus; front faintly tumid at center of clypeal suture; clypeus moderately long, sides almost subparallel, angles narrowly rounded, apex widely very shallowly emarginate, slightly reflexed. Antennae 10 segmented, club about one sixth longer than funicle. Thorax markedly dilated a little in front of middle, but obtusely rounded, margin slightly crenate, angles very obtuse; disc coarsely shallowly not densely punctured,

the punctures sparser on disc and near hind angles. Scutellum almost impunctate. Elytra moderately densely rugosely punctured. Pygidium convex, flattened near apex, disc sparsely moderately coarsely punctured, with minute fine procumbent hairs, apex rounded, slightly reflexed. Abdomen polished, very faintly, longitudinally, widely, shallowly sulcate, sparingly pilose at middle, fifth segment plane, with a small patch of dense punctures and fairly long hairs in basal half; sixth as long as preceding, longitudinally narrowly canaliculate, surface subrugosely sparsely punctured. Hind spurs free, acute. Hind tarsi short, equal in length to the hind tibiae, first segment shorter than second; front and middle tarsi longer than the tibiae. Claws almost cleft, with the upper tooth as long as the apical one, broader, acute and inclined a little at the tip towards the base, basal dilation obtuse, subrounded, not very obvious.

Female. — Color rufotestaceous to castaneous; antennal club equal to segments four to seven combined; thorax more roundly dilated at sides; pygidium polished, with a very obtuse gibbose area each side of middle towards the side margins, disc moderately finely sparsely punctured, with fine suberect hair, apex narrowly rounded, markedly reflexed and thickened, ciliate; abdomen semiflattened, polished, very sparsely hairy, plane, sixth segment slightly convex and equal to fifth; claws with upper tooth smaller, much sharper and more truly *Phyllophaga*-like and not cleft, the apex more acute. Otherwise similar to male. Length 12-17 mm.

Holotype male, from Chimaltenango, Guatemala, is in the authors collection. Allotype female and male paratype in collection of the British Museum of Natural History from Tepan, Guatemala, collected by Conradt (*Biologia material*, numbers 12c and 12g).

The male paratype is rufocastaneous, the elytra somewhat piceous; the female allotype is more rufotestaceous. The male also has several long erect hairs on the base of the elytra but is otherwise similar to the holotype. Although all the specimens look slightly different because of the body proportions and color, there can be no doubt of their identity as the opposite sexes of the same species.

P. tepanana is closely related to *casanacipennis* from Guatemala City, but differs in the shorter male antennal club, the pygidial characters of both sexes and in the male abdominal structure. The claws of

the male are almost *Phytalus*-like but are a little too widely cleft to go into that group of the genus: from *ambigenus* and *seniculus* both of which it most closely resembles in this group, it may be distinguished from the former by its shorter male antennal club and male abdominal characters and from the latter especially through the non-elongate segments of the antennal funicle.

Phyllophaga moei, n. sp.

Holotype male. — Oblong oval, slightly wider behind, rufopiceo-castaneous, shining, apparently glabrous above except for the moderately long hairs on the vertex and several very minute scattered hairs on the elytra and thoracic disc. Head coarsely rugosely contiguously punctured, behind vertex smooth; clypeus semirounded, moderately long, apex slightly emarginate, apical margin not at all reflexed, angles very broadly rounded. Antennae ten segmented, unicolorous rufocastaneous, club small and oval, not quite equal to segments two to seven combined. Thorax strongly transverse, front angles rectangular and almost slightly acute, hind angles obtusely angulate but very distinct, margin faintly sinuate forward of the submedian rounded lateral dilation, but straight behind the dilation, margin grossly crenate, ciliate; disc moderately coarsely fairly densely punctured, the punctures separated usually by one to three times their diameters, those near front margin somewhat smaller and a little more dense, a narrow transverse basal area, especially near the hind angles, relatively impunctate. Scutellum densely punctured, the elytra likewise punctured, rather coarsely rugose, striae (except sutural) hardly evident. Pygidium convex, apex subrounded, ciliate, hardly reflexed; disc very densely finely punctured, with short semierect hair and a few larger hairs near apex. Abdomen very convex, especially the fourth and fifth segments, slightly longitudinally canaliculate and polished at center of segments one to four and with dense fine recumbent hair near sides; segments two and three with a moderate obtuse concavity each side of middle; fourth segment more strongly convex in apical half, with a small gibbosity each side of middle; fifth segment slopingly declivous from the base, a narrow basal area only polished, the remaining three-fourths dull, densely finely punctured with dense short semierect hair; sixth as long as fifth at middle, widely transversely flattened, surface coarsely granulate, with a few erect hairs, apex carinate, slight interrupted at center of apex. Hind spurs free.

Tarsal claws with a submedian broad strong acute tooth, base rounded and not dilated. Long. 14 mm.

The unique type is from «Guerrero, Mexico», and is in the writers collection.

This species is in the *cribricollis* group (the *blanchardi* group now), whose species are so difficult of separation. The non-profoundly sinuate clypeus, non-pilose thoracic disc and non-dilated base of the tarsal claws will readily separate the present species from *callosiventris* and *verruciventris*, both species from Mexico. It is also different from its relative *gravidula* because of the non-pilose thorax and the callosities of the abdominal segments, and from *collaris* because of the larger size, more densely punctured thorax, and different abdominal characters. Named for my friend L. M. Moe.

Phyllophaga heteronycha pilidorsis, n. subsp.

Holotype male. — Similar to the typical form in all respects except: the male antennal club is equal to the funicle only and not to the entire stem; the fifth abdominal segment is very slightly evenly convex, neither foveate or declivous behind (as in typical form), and the abdomen is more densely hairy. Length 11-12 mm.

The type from «Mexico» is in the writers collection. A male paratype from «Omiteme, Guerrero, Mexico, collected in August at 8000 ft. by H. H. Smith» is in the British Museum (*Biologia* material number 12 j). The genitalia of the subspecies and the typical species are identical.

Phyllophaga emburyi, n. sp.

Oblong-oval, testaceous, shining, nude above. Head with front and clypeus moderately densely variolately punctured, not rugose, clypeus very broad, rather short, apex subtruncate, angles rounded; antennae nine-segmented, testaceous, segments three to five progressively longer, fifth twice length of fourth, sixth very short, club one fifth longer than the funicle. Thorax equally roundly dilated, margins entire, not ciliate, angles obtusely rounded; disc sparsely variolately punctured, the punctures separated by distances equal to one to three times their diameters. Elytra punctured as thorax. Pygidium evenly convex, polished, nude, rugosely wrinkled, punctured as thorax, apex obtusely rounded, ciliate. Abdomen polished, slightly flattened, sparsely setigerously punctured; fifth segment same as fourth, with a few more hairs; sixth segment slightly shorter than fifth, moderately densely punctured with

long hairs. Hind tibial spurs with one spur inserted on the inside of the tibiae two-fifths of the way from the apex, this spur long and reaching past the tibial apex and almost to the apex of the first tarsal segment, the spur suddenly widened and spatulate from apical third to apex, apex truncate; small spur inserted, as usual, on tibial apex, one half as long as the first hind tarsal segment and widened suddenly from base to apex, triangular in shape, apex truncate. Claws narrowly cleft, upper tooth much shorter than apical tooth and slightly wider, base moderately obtusely dilated. Length 9 mm.

The unique type from Monterey, Mexico (VI-3-35), in the authors collection, was collected and given to me by Mel Embury, after whom I take pleasure in naming the species.

Abundantly distinct from all described species known to the author by the long spatulate spur being inserted on the tibiae far before the apex instead of at or quite near the latter. Otherwise related to the *aegrotus* group in the antennae, general appearance, and in possessing the same general type of genitalia found in that difficult and complex group of species. Claws narrowly cleft; belongs in the *Phytalus*-group of the genus.

Phyllophaga guerrocans, n. sp.

Holotype male. — Elongate, subparallel, slightly wider behind, strongly shining, rufotestaceous to rufoflavous, thorax and head deep rufous, head with moderately short erect fine sparse hair, thorax and elytra apparently glabrous, but really with a very little sparse and fine minute hair, scattered irregularly over the surface. Front very coarsely punctured, with several much smaller punctures near vertex; clypeus moderately densely coarsely punctured, apex very narrowly rather deeply incised, angles very broadly rounded, apex slightly raised, not reflexed. Antennae 10-segmented, unicolorous, club not quite equal to segments two to seven combined. Mentum unusually deeply, narrowly bilobed. Thorax transverse, roundly dilated, sides not sinuate, margins crenate, angles very obtuse but evident, base strongly margined, disc at center sparsely, moderately, coarsely, almost umbilicately punctured, the punctures separated by one and one half to four times their diameters, much closer near sides and front, the disc also with several small irregularly placed, scarcely impressed tiny puncture-like foveae. Elytra moderately finely

regularly punctured, the punctures separated by one-half to two and a half times their diameters, costae subobsolete. Pygidium transverse, equally convex, moderately coarsely densely rugosely punctured, with short suberect hair in apical two-thirds, and a little longer hair in apical third. Abdomen fairly strongly convex, somewhat flavous in color, highly polished, with a few very fine punctures at center; fifth plane, slightly gradually declivous behind in apical fourth, with a small area of dark moderately dense transverse granules at center of apex; sixth segment slightly shorter than fifth, transversely impressed, with moderately dense transverse granules at center, apex highly carinate at middle, thickened, ciliate, not interrupted, base of the segment also thickened. Spurs free, long. Claws with tooth very slightly above middle, sharp and acute, slightly inclined towards the obtuse but very evident basal dilation. Length 18.5 mm.

The unique male type, in the writers collection, is from Chilpancingo, Guerrero, Mexico, collected in August.

May be distinguished: from *flavidipilosa* by the non-spinose antennal segments six and seven, non-sinuate lateral thoracic margins, and abdominal characters; from *parvicornis* by the non-opaque dorsal surface, deeply sinuate clypeus and densely punctured pygidium, and from *rajithorax* by the larger size, elytral hairs, short pygidial pile and non-longitudinally sulcate sixth abdominal segment.

Phyllophaga cazieriana, nov. nom.

P. cazieri Saylor, Pomona Jour. Ent. and Zool., Dec., 1936.

This name was unfortunately preoccupied by one of Von Blockers species from Arizona which was published a few weeks before my paper appeared, therefore this species from Mexico should be known hereafter as *cazieriana*.

Phyllophaga guayabillosa Saylor

P. guayabillos Saylor, Rev. Entom. Brazil., VI: 293, 1936.

In the description of this species the letter «a» was omitted by the printer and the name appeared as indicated above; since the name was correctly spelled in the manuscript and since proof of the latter was not seen by the author the name should stand as it was originally intended.

Phyllophaga vetula Horn

I have seen and dissected a male cotype of *P. longipilosa* Bates and it is the same as *P. vetula*, which latter name has priority.

Further fly parasites of *Dysdercus*

by CHARLES H. T. TOWNSEND, Itaquaquecetuba, S. Paulo

The work of Mr. Luiz O. T. Mendes, of Campinas, with cotton stainers has recently added 5 genera and 6 species to the list of parasites of these highly injurious insects. Four of the species are new, the descriptions of which follow.

Paraphoranthia politana, sp. n.

1 female, Sorocaba; reared from *Dysdercus mendesi*. Length, 5 mm. Head silvery but cheeks golden and lower face tinged with same, antennae and frontalia blackish or brown but latter gold tinged in oblique front view, palpi fulvous. Thorax silvery with 4 narrow black vittae better defined before suture, scutellum brownish. Abdomen blackish with silvery pollen showing best on anal segment and lateral or front parts of intermediate segments. Legs blackish. Wings brownish at base, squamae pale smoky. — This is the third Brazilian species of the genus reared from *Dysdercus*.

Alophoropsis brasiliensis, sp. n.

1 male, Tieté; 2 females, Sorocaba; reared from *D. ruficollis* and *mendesii*. Length, 4 to 5 mm. Head silver ashy but front rather brassy in male, frontalia and antennae blackish, palpi fulvous. Prescutum ashy with 2 narrow inner and 2 wider outer blackish vittae confluent anteriorly but less well defined in male, postscutum and scutellum soft blackish or brown with former thinly brownish pollinose in female. Abdomen brassy silvery pollinose except first segment. Legs blackish. Wings yellowish basally in female and with yellow veins except R1 but pale smoky bordering veins in male and R1 darker than the other veins, squamae faintly smoky. — First host record for the genus.

Euphorantha dysderci, sp. n.

1 male, 1 female, Sorocaba; reared from *D. ruficollis* and *mendesii*. Length, 6 to nearly 7 mm. Head golden in both sexes, frontalia and antennae blackish, palpi brown. Four heavy equal black thoracic vittae, mesoscutum otherwise silvery in female and tawny silvery in male, scutellum blackish. Abdomen blackish with faint brownish pollen showing