

# ***Glipa sanfilippo* n. sp. (Coleoptera, Mordellidae), the largest species of the genus in Africa (Sierra Leone)**

M. E. Franciscolo

Franciscolo, M. E., 1997. *Glipa sanfilippo* n. sp. (Coleoptera, Mordellidae), the largest species of the genus in Africa (Sierra Leone). *Misc. Zool.*, 20.2: 85-92.

*Glipa sanfilippo* n. sp. (Coleoptera, Mordellidae), the largest species of the genus in Africa (Sierra Leone). – The mordellid fauna of Sierra Leone has recently been established to include 12 species in 10 genera thanks to the collecting efforts of the botanist W. Rossi. This work describes a new species of *Glipa* being the first one of this genus in Sierra Leone where it reaches its northernmost and westernmost distribution in Africa. *Glipa* is relatively rare in Africa (altogether six species) and can be regarded as a typical rain forest dweller there. A key to *Glipa* species in Africa is supplied.

Key words: *Glipa sanfilippo* n. sp., Coleoptera, Mordellidae, Sierra Leone, Key to African species.

(Rebut: 29 I 97; Acceptació definitiva: 29 IV 97)

Mario Enrico Franciscolo, Corso Firenze 44-6, 16136 Genova, Italy.

## Introduction

The mordellid fauna of Sierra Leone has received little attention to date (Pic, 1932; FRANCISCOLO, 1990, 1994).

Between 1980 and 1994, W. Rossi collected Mordellidae in a scanty quantity of specimens (17) but with remarkable results (11 genera new to Sierra Leone and eight new species).

The aim of this paper is to describe a new species of *Glipa* J. Leconte 1859 (LECONTE, 1859) from that collection and to present a classification key of the African species of the genus.

## Description of the species

*Glipa sanfilippo* n. sp.

### Material studied

One male, holotype, labelled "Sierra Leone, Western Area, base of Picket Hill on a dead log of *Hevea* (an introduced South American tree) in forest grown in an abandoned *Hevea* plantation, 19 II 1994, W. Rossi leg.", deposited in MCSNG, Genova (ICZN's recommend. 72-D).

### Dimensions

Head 2.45 x 3.00 mm; pronotum 2.65 x 3.35 mm; elytra 7.15 x 3.00 mm; total length without prepygidium and pygidium 12.25 mm; prepygidium 1.5 x 0.60 mm; pygidium 2.55 x 1.95 mm; total length 15.40 mm. Such a length places the new species as the largest mordellid from Africa; it seems to be second, world-wide, to *Glipa fukiensis* Ermisch, 1940 (ERMISCH, 1940: 167) reaching with prepygidium and pygidium 21.00 mm (according to XIANG FAN, 1992: 65, *Glipa shirozui* Nakane, 1949 (NAKANE, 1949: 39) is a junior synonym of *fukiensis* but the writer is not in agreement with such a synonymy).

### Description

(method as outlined in FRANCISCOLO, 1957; descriptions of parts figured are not repeated in the text)

Habitus (fig. 1). Ground colour uniformly black, mandibles black, proximal maxillary palpomeres yellow, distal one dark brown with a narrow yellow distal papillary stripe; labial palpi dark brown; antennae dark brown, with tip of antennomeres 1-6 yellow;

eyes pale brown; profemora pale brown in their proximal two thirds; last two pro- and mesotarsomeres dark brown; pretarsal claws yellow, hind tibial spurs brown.

Ground pubescence uniformly black, sericeous decumbent, with some silvery casts; dorsal pubescent patterns golden (fig. 1), the medial band laterally continued along the 3rd morphological urosternon; metasternal plates with golden pubescence; 4th and 5th morph. urosterna golden-pubescent proximally; 6th one with black pubescence;

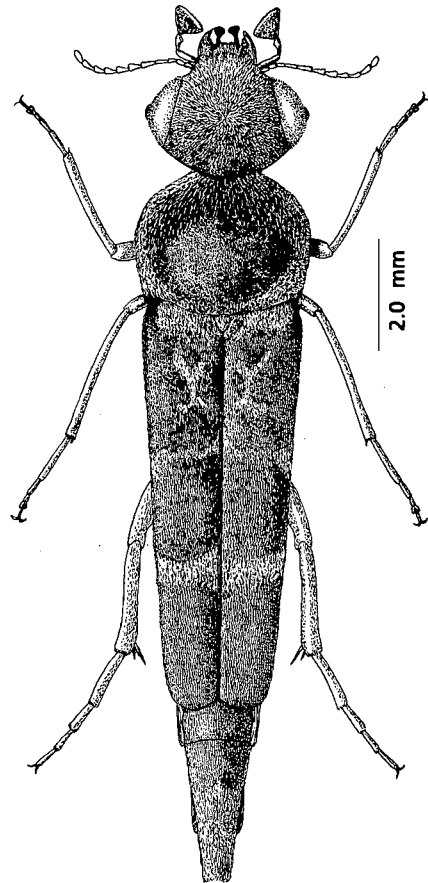


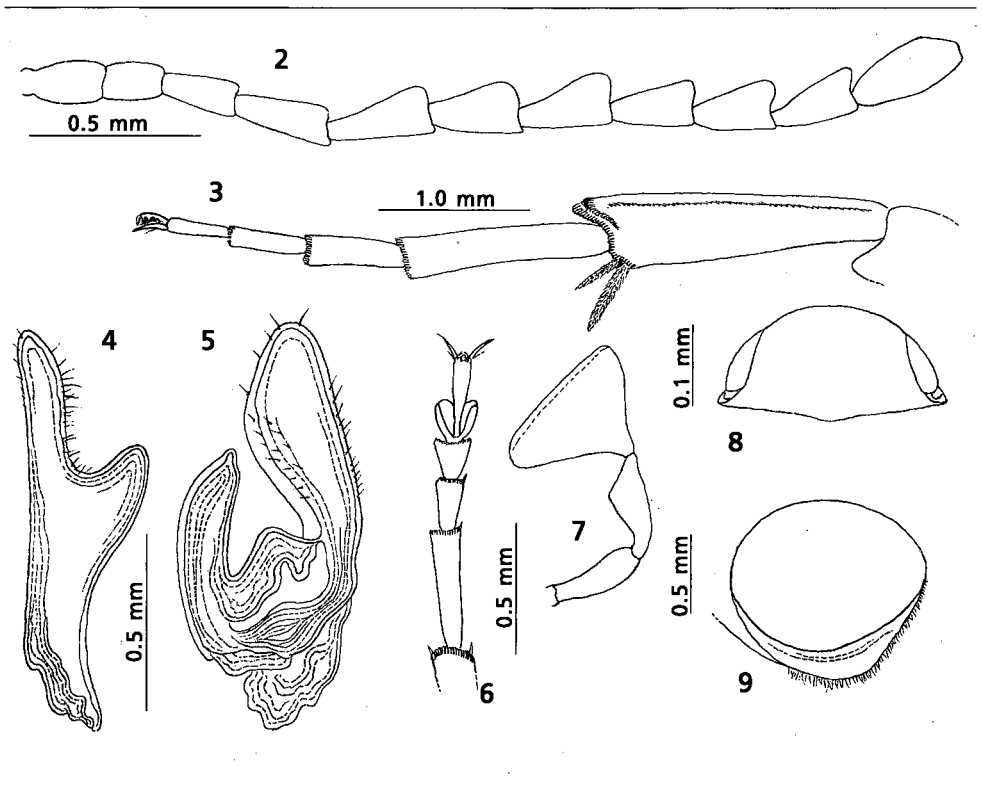
Fig. 1. *Glipa sanfilippo* n. sp., habitus of male holotype.

*Glipa sanfilippo* n. sp., habitus del holotipo macho.

hypopygium golden-pubescent in its distal two thirds; pygidium so pubescent in its distal two thirds; all legs with uniform golden pubescence. Head normal, transverse, slightly broader than long (ratio 1.22), narrower than pronotum, rather convex; occipital margin, seen from above, in a regular curve without protruding abutments; seen from behind slightly convex, with a median feeble abutment (fig. 8); temporal fringe and temporal edge as in figure 9. Sculpture consisting of densely arranged round points, interstices

very finely and transversely shagreened. Eyes broad, very minutely faceted (diameter of one facet 0.05 mm), densely hairy, with no hypocranial expansion; tempora obsolete. Labial distal palpomere triangular. Maxillary palps as in figure 7. Antennae when folded backwards hardly touching the anterior margin of pronotum (fig. 2)

Pronotum broader than long (ratio 1.26), subtrapezoidal, moderately attenuated anteriorly; sides, from above, regularly convex. Sculpture consisting of file-like, densely



Figs. 2-9. *Glipa sanfilippoï* n. sp., male holotype: 2. Right antenna; 3. Right metatibia and metatarsus, laterally; 4. Left paramere, from right; 5. Right paramere, from right; 6. Protarsus, dorsally; 7. Last three maxillary palpomeres, right, dorsally; 8. Head, seen from the occiput; 9. Right eye, laterally.

*Glipa sanfilippoï* sp. n., holotipo macho: 2. Antena derecha; 3. Metatibia y metatarso derechos, vista lateral; 4. Parámetro izquierdo, por la derecha; 5. Parámetro derecho, por la derecha; 6. Protarso, vista dorsal; 7. Tres últimos palpómeros maxilares, derecha, vista dorsal; 8. Cabeza, vista desde el occipucio; 9. Ojo derecho, vista lateral.

arranged and deep punctures; interstices minutely reticulate; anterior lobe moderately protruding, not dilated at the anterior angles, obsolete at their vertices; anterior angles obtuse ( $120^\circ$ ), strongly rounded off at vertices; sides, laterally seen, straight; posterior angles sharp, broadly obtuse ( $115^\circ$ ). Basal lobe absent, the basal margin in form of a quite flat regular curve.

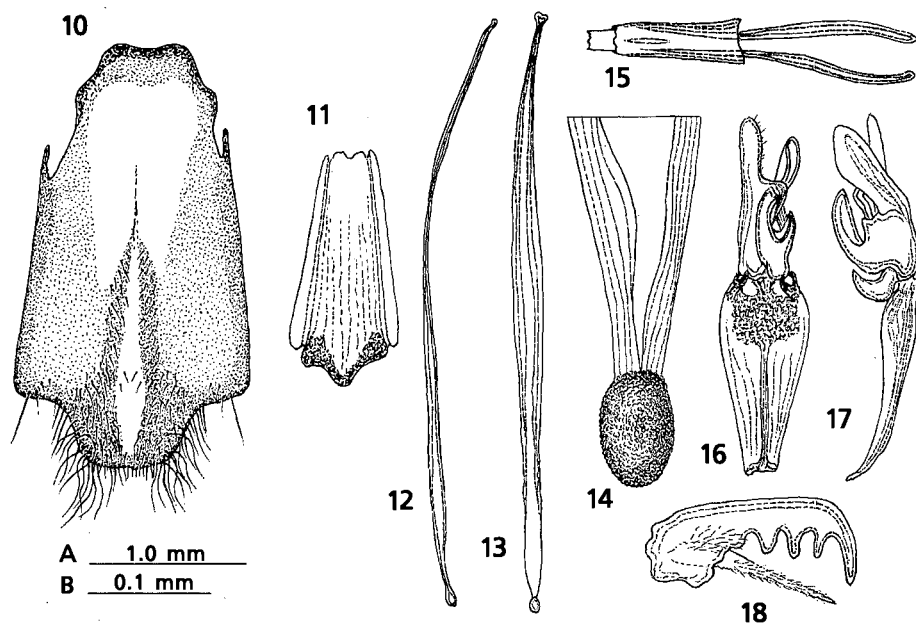
Scutellum triangular, rounded at sides, golden-pubescent.

Elytra 2.38 times as long as their combined breadth at shoulders, moderately con-

vex; sides straight, gradually converging at apices, these separately rounded; sculpture of the usual file-like type; interstices transversely shagreened.

Metepisterna subtrapezoidal, 3.5 times as broad at middle as elytral epipleurae; metepisterno-metasternal suture slightly convex. Metacoxal process strongly bifid, with the two distal tips acuminate and bent outwards.

Length of morphological urosterna: 3rd, 1.35 mm; 4th, 1.30 mm; 5th, 1.45 mm; 6th, 1.20 mm; 7th, 1.8 mm. Pygidium twice long as hypopygium, stout, not carinate, broadly



Figs. 10-18. *Glipa sanfilippoii* n. sp., male holotype: 10. 8th introflexed urosternon, ventrally; 11. 9th introflexed urosternon, ventrally; 12. Penis laterally from left; 13. Penis dorsally; 14. Apex of penis, dorsally; 15. Tubular process of phallobase, dorsally; 16. Phallobase with paramera connected, dorsally; 17. Same, laterally from right; 18. Pretarsal right inner claw, from right. (Scales: A, figs. 10-13, 15-17; B, figs. 14, 18.)

*Glipa sanfilippoii* sp. n., holotipo macho: 10. 8° urosternon curvado internamente, vista ventral; 11. 9° urosternon curvado internamente, vista ventral; 12. Pene lateralmente, por la izquierda; 13. Pene dorsalmente; 14. Ápice del pene, vista dorsal; 15. Proceso tubular de la falobase, vista dorsal; 16. Falobase con parámetros conectados, vista dorsal; 17. Idem, lateralmente, por la derecha; 18. Pinza interna derecha propretarsal, por la derecha. (Scales: A, figs. 10-13, 15-17; B, figs. 14, 18.)

truncate at tip, laterally seen straight, lateral grooves extremely thin. Hypopygium sternally smooth, tip rounded.

Paramera of type C (figs. 4, 5). Phallobase with paramera connected as in figures 16, 17; 8th introflexed morph. urosternon figure 10; 9th one figure 11; penis figures 12-14; tubular process of phallobase figure 15.

Pro- and mesotarsi in full agreement with the genus pattern (fig. 6, protarsus); all pretarsal claws quadridentate with acuminate basipulvillus (fig. 18, inner right propretarsal claw). Protibiae straight; mesotibiae much longer than mesotarsi (ratio 1.32). Hind legs figure 3. For tarsal ratios see figure 1.

#### Etymology

Dedicated to the late Nino Sanfilippo with whom many entomological adventures were shared for over 60 years.

#### Discussion

The exceptional dimensions (females, are usually much longer than males), the absolutely unusual pubescent pattern and the very short antennae show that the new species clearly belongs to a quite separate clade; unfortunately, the male copulatory sclerites of the other five African species

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#### Key to African *Glipa* J. Leconte, 1859

##### *Clave de las Glipa J. Leconte, 1859 africanas*

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1. Total length, prepygidium and pygidium included, not exceeding 11.5 mm; pygidium constantly with coloured pubescence at its proximal half; head, seen from occiput, either concave or moderately bisinuate; antennae, folded backwards, reaching the hind margin of pronotum; pronotal coloured pubescence leaving four or two, central, symmetrically arranged, dark areas; prepygidium covered by elytra; anterior margin of elytra without coloured pubescent markings; coloured pubescent bands on elytra never more than three

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Total length, prepygidium and pygidium included, 15.4 mm; pygidium with dark pubescence on its proximal part and with golden-whitish pubescence on its distal two thirds. Head seen from the occiput with a mediana moderately protruding abutment (fig. 8. *hoc opus*); antennae, folded backwards, barely attaining anterior margin of pronotum; lateral and basal sides of pronotum margined by golden whitish pubescence, disk with dark pubescence; prepygidium dorsally exposed, not covered by elytra; anterior margin of elytra with a transverse band of golden-whitish pubescence, slightly interrupted at the side of scutellum; golden whitish pubescent bands arranged in four groups on elytra in a rather complex pattern (habitus figure 1 *hoc opus*).

Sierra Leone

*sanfilippoi* n. sp.

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| 2. Pygidium stout, strongly rounded at sides, 1.25 times long as large at its proximal margin; head with dense grey-yellow pubescence leaving a large black area on disc; habitus as in figure 7, Ermisch, 1952: 21. Length 6.8 mm (7.15 mm pygidium included). Zaire  | <i>latepyga</i> Ermisch, 1952: 20      |
| Pygidium either moderately rounded at sides or with straight convergent sides, from 1.6 to 2.4 times long as large at its proximal margin; head without a large round black area on disc   | 3                                      |
| 3. Hypopygium medially deeply sulcate (figure 9 in Ermisch, 1952: 25). Habitus figure 8, Ermisch, 1952: 23. Length 5.8-8.5 mm (7-4-10.8 pygidium included). Cameroon, Togo, Zaire  | <i>bifasciata</i> Pic, 1920: 29        |
| Hypopygium not medially sulcate  | 4                                      |
| 4. Pronotum with golden-whitish pubescence leaving two lateral and two sagittal symmetrically arranged black areas. Elytra black with very marked golden or silver pubescent pattern arranged in three bands; legs black. Pronotum constantly broader than basal margin of elytra  | 5                                      |
| Pronotum with pale white-yellow pubescence leaving two lateral, symmetrically arranged areas of dark pubescence. Elytra pale brown with two evanescent bands of greyish pubescence; legs reddish yellow. Pronotum as large as the basal margin of elytra. Habitus: figure 2, Ermisch, 1955: 30. Length 6.5 mm (7.65 with pygidium. Zaire | <i>brunneipennis</i> Ermisch, 1955: 29 |
| 5. Pygidium 1.6 times long as large at its proximal margin, sharply truncate at tip, 1.6 times long as hypopygium; pronotum quite transverse (1.5 times large as long). 1.25 times large as basal margin of elytra. Habitus: figure 10, Ermisch, 1952: 27. Length 8.6 mm (10.6 pygidium included). Zaire                                 | <i>atriventris</i> Pic, 1923: 29       |
| Pygidium 2.4 times long as large at its proximal margin, strongly acuminate, twice long as hypopygium; pronotum moderately transverse (1.2 times large as long). 1.13 time large as basal margin of elytra. Habitus: figure 11, Ermisch, 1952: 29. Length 7.3-8.0 mm (9.4-9.5 pygidium included). Zaire, Cameroon                        | <i>basilewskyi</i> Ermisch, 1952: 29   |

safely assigned to *Glipa* have not yet been studied.

The new species is certainly not biologically associated with *Hevea's* wood; the relatively undisturbed small rain forest patch of

Picket Hill in Sierra Leone acted as a refuge and the dead log of the imported *Hevea* was a good occasional niche for the adult.

*Glipa* has its northernmost and westernmost distribution in Africa in Sierra Leone.

### Check-list of Mordellidae from Sierra Leone

1. *Plesitomoxia* n. sp. veris. (cfr. FRANCISCOLO, 1990: 207).
2. *Mordella* (?) *leonensis* Pic, 1932 (Pic, 1932): 30.
3. *Neocurtimorda belcastroi* Franciscolo, 1994 (FRANCISCOLO, 1994): 381.
4. *Ophthalmoglipa aurocaudata* (FAIRMAIRE, 1897: 145).
5. *Glipa sanfilippoi* n. sp., *hoc opus*.
6. *Glipidiomorpha septentrionalis* Franciscolo, 1994 (FRANCISCOLO, 1994): 385.
7. *Mordellistena* (s. str.) n. sp. veris. (cfr. FRANCISCOLO, 1990: 211).
8. *Mordellina* (*Pseudomordellistena*) *parcestrigosa* Franciscolo, 1994 (FRANCISCOLO, 1994): 391.
9. *Mordellina* (*Pseudomordellistena*) *brachyaoantha* Franciscolo, 1994 (FRANCISCOLO, 1994): 393.
10. *Neomordellistena* n. sp. veris. (cfr. FRANCISCOLO, 1994: 389).
11. *Dellamora walteriana* Franciscolo, 1990 (FRANCISCOLO, 1990): 207
12. *Pselaphokentron aculeatum* Franciscolo, 1990 (FRANCISCOLO, 1990): 211.
13. *Calycina* (*Calycellina* ?) *rufa* Pic, 1932 (Pic, 1932): 28.

Species 2, 3, 5, 6, 8, 9, 11, 12 and 13 are endemic to Sierra Leone. Species 1, 7 and 10 were not described since only female specimens were available. Species 4 is known also from Ashanti, Togo, Gabon, St. Thome and Principe Islands, Cameroon, Lower Congo, Uele, Ubangi. Genus assignment of species 2 and 13 is still uncertain; revision of type specimens is necessary.

### Acknowledgements

Thanks are due to Prof. Walter Rossi, Università de L'Aquila, Italy for having submitted so much interesting material collected during his numerous expeditions to Sierra Leone under the sponsorship of Accademia Nazionale dei Lincei, Rome; to Dr. Valter Raineri, curator, Museo Civico di Storia Naturale G. Doria, Genova for help in bibliographical research and to Dr. Roberto Poggi, Director of the same Museum, for his critical reading of the manuscript.

### Resumen

*Glipa sanfilippoi* sp. n., la especie mayor del género en África (Sierra Leone)

La fauna de mordelidos de Sierra Leone se ha establecido recientemente en 12 especies incluidas en 10 géneros gracias a los esfuerzos de recolección del botánico W. Rossi. En este trabajo se describe una nueva especie de *Glipa* J. Leconte, 1859, la primera de éste género en Sierra Leone, donde alcanza su límite de distribución más hacia el norte y más occidental de África. *Glipa* es relativamente rara en África (en total seis especies) y puede considerarse allí un habitante típico de la selva tropical. Se da también una clave de identificación de las especies de *Glipa* en África.

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