REVISION OF THE GENERIC GROUP OF THE TRIGONOPOID PLATYNOTINA (COLEOPTERA: TENEBRIONIDAE: PLATYNOTINI) FROM SOUTH AFRICA. PART II. GENERA EVIROPODUS KOCH, WARCHALOWSKIELLUS GEN. NOV., SCHELODONTES KOCH AND ZOPHODES FÄHRAEUS.

DARIUSZ IWAN

Museum and Institute of Zoology, Polish Academy of Sciences, Wilcza 64, 00-679 Warszawa, Poland; e-mail: darek@robal.miiz.waw.pl

Abstract.—Four genera of the trigonopoid Platynotina are revised: Eviropodus Koch (type species: Trigonopus alternans F&hraeus, 1870), Warchalowskiellus gen. nov. (type species: Trigonopus longulus Mulsant et Rey, 1853), Schelodontes Koch (type species: Trigonopus immundus Mulsant et Rey, 1853) and Zophodes Fähraeus (type species: Zophodes tristis Fähraeus, 1870). Five species are described: Eviropodus punctatus, Warchalowskiellus invenustus, Schelodontes dormitorius, S. marseuli and S. parvis. The following synonymies are proposed: Eviropodus funebris (Mulsant et Rey, 1853) (= Trigonopus alternans F&hraeus, 1870), Warchalowskiellus longulus (Mulsant et Rey, 1853) (= Schelodontes exceptionalis Koch, 1956), Warchalowskiellus chevrolati (Mulsant et Rey, 1853) (= Schelodontes ampicoliss Fairmaire, 1897) and Schelodontes verreauxi (Mulsant et Rey, 1853) (= Schelodontes frater Koch, 1956). Keys for species determination are provided.

Key words.—entomology, taxonomy, revision, Coleoptera, Tenebrionidae, trigonopoid Platynotina, South Africa.

INTRODUCTION

The first genus within this group of genera – Zophodes – was described by Fähraeus in 1870, with species Z. tristis.

Later, besides publications of Mulsant and Rey (1853) and Fairmaire (1897), which contained descriptions of species of the genus Trigonopus (9 of them later transferred by Koch to the genera Eviropodus and Schelodontes), 3 papers – catalogues were published: Gemminger and Harold (1870) and Gebien (1910; 1938).

Koch (1956) published a revision in which he presented in detail his subdivision of the tribe Platynotini into subtribes and generic groups. One of the groups distinguished was the trigonopoid Platynotina from southern Africa (Cape Province). In this group, apart from the already known genera (Trigonopus Mulsant et Rey, Zophodes Fähraeus and Melanopterus Mulsant et Rey), he described another five genera: Selinopodus, Atroerates, Schelodontes, Eviropodus and Amblychirus. Koch included the following species in Eviropodus: Trigonopus alternans Fähraeus (type species), T. funebris Mulsant et Rey and newly described Eviropodus clanceyi and E. lawrenceae; in Schelodontes: Trigonopus ampicollis Fairmaire, T. chevrolati Muls. et Rey, T. immundus Muls. et Rey, T. longulus Muls. et Rey, T. mannerheimi Muls. et Rey, T. morosus Muls. et Rey, T. nigerrimus Muls. et Rey, T. verreauxi Muls. et Rey. and newly described Schelodontes apicalis, S. exceptionalis, S. frater, S. gemmeus, S. grandis, S. mulsanti, S. oblitus, S. omeri, S. rotundicollis, S. simplimanus and S. terrenus. The previously monotypic genus Zophodes was extended by newly described Z. fitzsimonsi.

ACKNOWLEDGEMENTS AND DEPOSITORYS OF THE MATERIAL EXAMINED

I am grateful to the following curators and institutions for the loan of specimens used in this study:

CNCI – Canadian National Collection of Insects, Biosystematics Research Institute, Research Branch, Agriculture Canada, Ottawa, Canada (A. Smetana)

HBC – Zoologisches Staatssammlung, München, Germany, in permanent loan to Prof. Hans J. Bremer (H. J. Bremer)

HNHM – Hungarian Natural History Museum, Budapest, Hungary (O. Merkl)

JFC – Julio Ferrer Collection, Stockholm, Sweden (J. Ferrer)

MHNG – Muséum d’Histoire Naturelle, Genève, Switzerland (I. Löbl)

MNHN – Muséum National d’Histoire Naturelle, Paris, France (C. Girard)

MRAC – Musee Royal de l’Afrique Centrale, Tervuren, Belgé (H. M. André).

http://rcin.org.pl
NNIC – Namibian National Insect Collection State Museum Windhoek, Namibia (E. Marais)
TM – Transvaal Museum, Pretoria, South Africa (S. Endrody-Younga)
SAM – South African Museum, Cape Town, South Africa (M. Cochrane)
ZMS – Naturhistoriska Riksmuseet, Stockholm, Sweden (B. Gustafsson, J. Ferrer)
MIZPAN – Muzeum i Instytut Zoologii PAN, Warszawa, Polska
MZLU – Museum of Zoology, Lund University, Lund, Sweden (R. Danielsson)

I wish to thank M. Szczepeńska for her excellent habitus illustration.

The paper was sponsored by the State Committee for Scientific Research (grant no. 6 P204 027 04).

ABBREVIATIONS

Means and ratios are based on all specimens listed under “Material examined” (10 males and 10 females if were more specimens). The following abbreviations have been used in the descriptions:
pl/pb – pronotum length/breadth ratio;
el/eb – elytra length/breadth ratio;
el/pl – length ratio elytra/pronotum;
e/h – breadth ratio elytra/pronotum;
lbp – length of basal part of aedeagal tegmen;
lap – length of apical part of aedeagal tegmen;
l – length of lacinia (from suture of apical and basal parts to apex);
l – total length of lacinia;
bcl/lcl – coxites1 breadth/length ratio;
lb/lcl – length ratio paraproct/coxites1;
m – male;
f – female.

SYSTEMATICS

The interpretation of the genera Schelodontes, Eviropodus and Zophodes presented in this paper differs from that proposed by Koch (1956). When interpreting the genera just named, Koch applied the following characters:
A. Border of pronotal base: 0 – entire, 1 – completely absent or widely interrupted in middle;
B. Anterior margin (base) of elytra: 0 – unbordered, 1 – bordered;
C. Denticle on male hind femur: 0 – absent, 1 – present;
D. Outer apical denticle of male fore tibia: 0 – straight, somewhat produced outwards, 1 – sharp, strongly produced outwards, additionally a mid denticle may be present;
E. Male hind tibia: 0 – straight, 1 – strongly bent inwards;
F. Mentum: 0 – mid part narrowed anteriad, lateral wings wide, well visible, 1 – mid part wide, lateral wings narrow, poorly visible;
G. Outer margin of fore tibia: 0 – simple, 1 – with a lateral fold.

All presented characters were polarized by the author of present revision, on the basis of a study of out groups – genera of the trigonopoid Platynotina (0 – plesiomorphy, 1 – apomorphy).

Table 1. Character matrix showing the hitherto interpretation of the studied genera.

<table>
<thead>
<tr>
<th>Character</th>
<th>Schelodontes</th>
<th>Eviropodus</th>
<th>Zophodes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td></td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>B.</td>
<td></td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>C.</td>
<td></td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>D.</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>E.</td>
<td></td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>F.</td>
<td></td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>G.</td>
<td></td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Explanations:
0/1 – both character states present.

These characters are extremely variable. It is often difficult to determine character states, e.g. in the case of bordering of elytra or the structure of male fore tibia.

The border of pronotal base as a character is present in several states (assuming that the sequence of changes is only one, i.e. disappearance of the bordering):
a. entire, clearly visible on whole length (Eviropodus tunebriss, E. punctatus, E. clanceyi, Warehalowskiielus longulus, Zophodes fitzsimonsi);
b. disappearing, narrowly interrupted at middle (Z. tristis);
c. disappearing laterally between the mid pronotal base and posterior angles (W. oblitus, W. invenustus);
d. widely interrupted, visible only at posterior angles or invisible (most species of Schelodontes, E. lawrenceus, W. chevrollati).

The border of anterior margin of elytra (between scutellum and humeral angle) is a character whose states may be regarded as stages of the process of formation, but also of disappearance; the border is very clearly visible in all species of genera Zophodes and Eviropodus, and most species of the genus Warehalowskiielus; it is absent in members of the genus Schelodontes, W. omeri and W. invenustus.

To define the above genera, I propose additional the following characters:
H. Shape of pronotal base (character only partly used by Koch): 0 – straight or slightly bisinuate, 1 – arcuate (middle of pronotum protrudes beyond the level of posterior angles);
I. Shape of anterior margin of elytra: 0 – straight, 1 – arcuate (middle of pronotum protrudes beyond the level of posterior angles);
J. Position of scutellum relative to humeral angles: 0 – at the same level or more elevated, 1 – below humeral angles, pronotum base V-shaped;
K. Posterior convexity of elytra: 0 – a part of interval IX visible from underside; 1 – a part of intervals VIII and IX visible from underside.
The proposed classification differs from the Koch’s in establishing a new genus *Warchalowskiellus*, which includes species which were formerly classified by Koch in the genus *Schelodontes* (*longulus*, *chevrolati*, *oblitus* and *omeri*). The decision results from their synapomorphies (characters B, E, F and new characters H, I, J, K) and the resulting relationships within the four genera discussed. In the previous system, according to Koch’s interpretation, only character E could be regarded as a synapomorphy.

The placement of the species *Trigonopus morosus* Mulsant and Rey, 1853 is still unclear. Koch (1956) has left this species in the genus *Schelodontes*. I studied a type of *T. morosus* (a single specimens, female), and in my opinion it should be places to separate genus.

**Eviropodus** Koch, 1956

*Eviropodus* Koch, 1956: 84.

**Type species.** *Trigonopus alternans* Fähraeus, 1870 (designated by Koch 1956: 84)

**Diagnosis.** Abruptly convex upper edge of the anterior margin of elytra (forming a ridge) (Fig. 15) places the genus *Eviropodus* close to *Schelodontes*, *Zophodes* and *Warchalowskiellus*. These genera differ from *Schelodontes* in the presence of the border of this margin.

Arcuately emarginate pronotal base (posterior angles strongly produced posteriad) (Fig. 20), posteriad directed humeral angles, clearly below scutellum level and widened
male fore tarsi distinguish Eviropodus from the genera listed above.

**Description.** Body small, colour dark brown to black, underside lighter. Pronotum and prothorax matte, elytra and underside of body shiny. Body very strongly convex, elytra tucked in posteriorly (parts of intervals VIII and IX visible from underside). Head widest anterior to eyes, genal canthus wider than eyes (Fig. 14). Mid part of the mentum narrowed anteriorly, lateral margins (wings) wide. Eyes narrowed laterally, 3–4 facets between gena and temple. Antenna similar to that in the Trigonopus. Frontal suture not recorded, clearly visible only laterally. Pronotum with sides weakly rounded; base acutely bent anteriorly (posterior angles produced posteriorly); anterior angles rounded, produced posteriorly; basal border entire (except in E. clampet). Scutellum located above the line connecting humeral angles. Elytra wider than pronotum (except in E. lawrenceus), especially in females; humeral angles straight, produced outwards; upper edge of anterior elytral margin abruptly convex from humeral angle almost to the scutellum – forming a bordered ridge (Fig. 15); lower edge practically not convex; intervals very poorly convex, punctation on disc delicate, practically invisible, in apical part dense, punctures medium-sized; elytral striae punctate-sulcate; upper margin of epipleura convex in their apical part, clearly visible. Mid part of prosternum strongly convex; process produced on segments 4; fore tibia evenly widened towards apex, with border interrupted at apex. Last abdominal ventricle bordered. Legs of both sexes have tibiae with spinules on underside, mid and hind tibia with two longitudinal ridges on outer margin. Male legs, fore tarsi distinctly widened with glabrous gutter ventrally only on segment 4; fore tibia evenly widened towards apex, with a ridge on their inner margin (Figs 16, 17). General structure of aedeagus and female reproductive system as in other members of the trigonopoid Platynotina.

**Distribution.** South Africa (western part of Transvaal, Orange Free State, north-eastern part of Cape Province), Botswana (Gaborones), Lesotho.

**KEY FOR SPECIES DETERMINATION**

1. Pronotal punctures clearly visible (Figs 5, 8, 11); border of pronotal base entire (Fig. 28) ........................................ 2
   - Pronotal punctures practically invisible (Fig. 2); border of pronotal base disappearing (Fig. 26) ........................................ lawrenceus

2. Lateral border of pronotum narrower than width of antennal segment 3; elytra wider than pronotum .................................. 3
   - Lateral border of pronotum of the same width as antennal segment 3; elytra narrower than pronotum ................................ clampet

3. Pronotal punctures of the same diameter on disc and at sides, punctuation dense and strong (Fig. 11), punctures often fuse at sides ........................................ punctatus
   - Pronotal punctures small on disc, larger at sides, punctuation sparse and evanescent on disc, denser at sides (Fig. 5), punctures separated from each other at sides ........................................ funebris

**Eviropodus funebris** (Mulsant et Rey, 1853) (Figs 4–6, 13–20, 23, 163)


**Eviropodus funebris** (Mulsant et Rey) von Koch 1956: 84.


**Eviropodus alternans** (Fähraeus): Koch 1956: 84.

**Terra typica.** Natal (South Africa).

**Diagnosis.** *E. funebris* is similar to *E. lawrenceus* and *E. punctatus* by the shape of the body and pronotum, and to *E. clampet* by the punctuation of the head and pronotum. *E. funebris* differs from *E. lawrenceus* in bordering of the pronotal base and the sculpture of the body surface, and from *E. punctatus* in having more delicate punctuation of the head and pronotum. It is easily separated from *E. clampet* by the body shape (elytra wider than pronotum in *E. funebris*).

**Description.** Body length 8.5–10.0 mm, el/eb = 0.58–0.64, el/pl = 1.15–1.28, el/pl = 2.07–2.26, el/pb = 1.00–1.06. Head and pronotum sparsely and “evanescently” punctate, punctures small (Figs 4–6). Pronotal punctures small, the smallest distance between punctures equal to 2–3 puncture diameters, most often 4–5 mm on disc; punctures larger, clearly separated from each other at sides. Pronotum with lateral border roll-like, fairly wide (ca. 0.88 × width of antennal segment 3) (Fig. 20). Elytral punctuation as in fig. 6; anterior margin as in fig. 15. Male legs, fore tibia as in figs 16–17, mid tibia as in figs 18–19, hind tibia with slightly convex outer margin (Fig. 23). Aedeagus: lap/lbp/11 = 1.0/2.2/0.4; female internal genitalia: lp/lcl = 3.6, bcl/lcl = 2.7, cl/c/e2/c3/c4/e4/c3 = 1.0/1.1/1.3/9.0/3.


**Material examined.** Caffraria, J. Wahh., Typus, Trigonopus alternans Fahrh., Naturhistoriska Riksmuseet Stockholm Loan no 1216/95 (examined).

**Material examined.** Caffraria, J. Wahh., Trigonopus funebris Muls., Naturhistoriska Riksmuseet Stockholm Loan no 1222/95; no 1223/95, (ZMS) 2 m; Museum Paris, Transvaal, Johannesburg, R. Ellenberger 1928, (MNHN) 9 m, 5 f; Transvaal, Museum Paris, (MNHN) 1 m; Wolmarans Stad 35 Km. East, Transvaal 30.03.1994. Colin R. Owen; Melanopterus trivialis Fhrs.; no. 236, (JFC) 2 f; Zambesi; 88; Mus. Zool. Polonicum Warszawa 12/45, (MIZPAN) 1 m; Zambesi; Holub; 88; Mus. Zool. Polonicum Warszawa 12/45, (MIZPAN) 1 m; Transvaal, Olifants Nek.; Trigonopus armatus Muls. R. det. dr. Kaszab, (HNHM) 1 m; Florida Trans.; Sam-Col-AC 11851, (SAM) 3 m; Smithfield Orange R. C. Kannemeyer; Sam-Col-AC 11847,11846, (SAM) 1 m, 3 f; Aschanti; Trigonopus brevior Fmn. det. dr. Kaszab., (HNHM) 1 f; S. Afr. Transvaal c. 15 miles NE Pretoria 27.XI–5.XII.1954., coll. G. Rudebeck.
Eviropodus clanceyi Koch, 1956
(Figs 7–9, 27–28, 163)


**Locus typicus.** Estcourt, Natal (South Africa).

**Diagnosis.** *E. clanceyi* is close to *E. funebris* having similar punctuation of head and pronotum, and to *E. punctatus* by the sculpture of elytra. *E. clanceyi* differs from all its congeners in the body shape (elytra narrower than pronotum) and strongly widened lateral border of pronotum.

**Description.** Body length 10.0 mm, pl/pb = 0.63, el/eb = 1.41, el/pl = 2.06, eb/pb = 0.92. Head densely punctate (Fig. 7). Pronotum with “evanescent” punctuation, the smallest distance between punctures equal to 2–3 puncture diameters, most often 4–5 on disc; punctures larger, clearly separated from each other at sides (Fig. 8); lateral border roll-like, wide, equal to width of antennal segment 3. Elytral punctuation as in Fig. 12. Outer margin of hind tibia with ridges (Fig. 22). Apical part of elytra as in Fig. 21. Aedeagus: $l_p/l_b/l_p = 1.0/2.1/0.4$; female genitalia as in *funebris*, ovipositor: $l_p/l_b = 3.8$, $b_c/l_b = 2.4$, $c_2/c_3/c_4/c_5 = 1.0/1.3/2.0/0.3$.


**Distribution.** Mathebats (Mathebats), South Africa (Natal: Drakensberg) (Fig. 163).


**Distribution.** South Africa (Cape Province: Mount Frere; Natal: Estcourt) (Fig. 163).

*Eviropodus lawrenceus* Koch, 1956
(Figs 1–3, 25–26, 163)


**Locus typicus.** Nelspruit, Transvaal (South Africa).

**Diagnosis.** *E. lawrenceus* is close to *E. funebris* and *E. punctatus* having similar body shape but it differs in the punctation of the head, pronotum and elytra.

**Description.** Body length 9.3 mm, pl/pb = 0.64, el/eb = 1.21, el/pl = 1.95, eb/pb = 1.04. Head sparsely punctate, punctures small, distance between them equal to 3–5 puncture diameters (Fig. 1). Pronotum extremely sparsely punctate, punctation on disc practically invisible (Fig. 2); lateral border roll-like, fairly wide (ca. 0.86 × width of antennal segment 3); basal border disappearing (Fig. 26). Elytral punctation as in fig. 3. Hind tibia with outer margin smooth, obtuse (Fig. 25).


**Distribution.** South Africa (Transvaal: Nelspruit) (Fig. 163).

*Warchalowskiiellus* gen. nov.

**Type species.** *Trigonopus longulus* Mulsant et Rey, 1853; gender masculine.
Name derivation. This genus is named for Prof. Andrzej Warchalowski, an outstanding Polish coleopterist and a very friendly man.

Diagnosis. Warchalowskiellus, like Schelodontes, Eviropodus and Zophodes has an abruptly convex upper edge of the anterior margin of elytra (forming a ridge) (Figs 33, 43, 49) and narrow tarsi of both sexes (except Eviropodus). The shape of anterior margin of elytra (V-like) and the position of the scutellum (below the level of humeri) place Warchalowskiellus close to Schelodontes and Zophodes, and distinguish it from Eviropodus.

Warchalowskiellus is the closest to Schelodontes by the structure of male fore tibia (outer margin with a lateral fold) (Figs 29, 39, 47, 58), and differs in the shape of the pronotal base (almost straight in Warchalowskiellus) (Figs 32, 42, 46, 51, 57) and the anterior elytral margin (bordered in Warchalowskiellus).

Description. Medium and small species, length 6.0–11.0 mm. Body very strongly convex; elytra often wider than pronotum (especially in females); colour dark brown, underside lighter. Head widest at eye level. Mid part of the mentum narrowed anteriorly; median keel strongly convex, with a sharp dorsal edge; lateral wings wide, clearly visible. Eyes narrowed laterally, 2–3 facets between gena and temple. Structure of antenna as in Trigonopus. Fronto-clypeal suture poorly marked, clearly visible only in side view. Pronotum with sides rounded, narrowing anteriorly; anterior angles moderately produced anteriorly; posterior angles almost forming right-angle, blunt; base nearly straight, slightly emarginate medially. Scutellum located nearly below the line connecting humeral angles. Elytra with base V-shaped, the arms of "V" forming an obtuse angle (much wider than in Schelodontes); upper edge of anterior elytral margin strongly convex (forming a ridge) and bordered; lower margin obtuse; humeral angles sharp, produced outwards; elytra tucked in posteriorly (part of interval IX, and even VIII visible from underside). Prosternal process produced towards mesosternum, with border interrupted at apex. Episternum strongly punctate, punctures of irregular shape, most often elongate. Last abdominal ventrite bordered. Legs of both sexes have all tarsi narrow (underside of all segments with glabrous gutters); tibia without spines on underside, lateral margins in their apical part tucked in; mid and hind tibiae with two longitudinal ridges on outer margin; outer margin of male fore tibia with a strongly protruding apical denticle and a lateral fold running from the base. General structure of aedeagus and female reproductive system as in the other trigonopoid Platynotina.

Distribution. South Africa (Cape Province, Natal, Transvaal).

Key for species determination

1. Punctures in elytral striae very small (Figs 33, 49, 61) ...................................... 2
2. Outer margin of hind tibia with two longitudinal ridges (Fig. 35) ...................................... 3
3. Upper margin of hind tibia obtuse ................................ invenustus
4. Border of pronotal base widely interrupted medially (Fig. 51) ........................................ omeri
5. Border of pronotal base complete (Fig. 42) ........................................................... longulus

Warchalowskiellus chevrolati (Mulsant et Rey, 1853) comb. nov. (Figs 29–37, 164)

Schelodontes chevrolati (Mulsant et Rey); Koch 1956: 82.
Trigonopus ampicollis Fairmaire, 1897: 118. – Gebien 1910: 271; 1938: 292 syn. nov.
Schelodontes ampicollis (Fairmaire); Koch 1956: 82.

Locus typicus. Port Elizabeth (South Africa, Cape Province).

Diagnosis. Elytral punctation places chevrolati close to oblitus and invenustus.

The species differs in the structure of the elytral epipleura (disappearing in chevrolati and invenustus, strongly convex at apex in oblitus) and outer margin of hind tibia (with two longitudinal ridges in chevrolati and oblitus, obtuse in invenustus).

Description. Body length 8.5–10.5 mm, pl/pb = 0.65–0.73, el/eb = 1.24–1.31, el/pl = 1.86–2.00, eb/pb = 0.96–1.06. Upperside of body strongly shiny (especially elytral intervals), pronotum with a greasy sheen; head and pronotum densely punctate; large punctures on head and pronotal margins (distance between punctures equal to or smaller than puncture diameter); evanescent punctation on pronotal disc, punctures smaller, shallower (distance between them equal to 2–4 puncture diameters); elytral striae punctate-sulcate, punctures in rows small but clearly visible; elytral intervals poorly convex, flattened, punctuation very delicate, barely visible. Underside of body very shiny, prosternum densely punctate and rugose medially, prosternal margins and abdominal ventrites practically smooth, punctuation barely visible. Femora and tibiae sparsely punctate, punctures small and medium-sized, shallow. Antennal segment 3 ca. 1.7× as long as segment 2. Mentum as in fig. 37. Pronotum as in fig. 32; sides rounded; disc evenly, slightly convex, with shallow and narrow longitudinal grooves at margins; lateral border rather wide, ca. 0.8× as wide as antennal segment 3; basal border widely interrupted medially. Elytra with anterior margin bordered, sometimes blurred; bordering roll flat and thin; elytral striae always terminate before the anterior margin in a widening and concavity (Fig. 33). Upper edge of elytral epipleura disappearing in their apical part, invisible (Fig. 36). Male fore tibia evenly widened towards apex, slightly bent inwards, inner margin sharp, somewhat widened, with a marginal row of sparse and long setae, inner apical angle
with a denticle (Figs 29, 30); outer margin of hind tibia with two longitudinal ridges (Fig. 35); inner side of hind femora without denticle. Female fore tibia as in fig. 31. Aedeagus as in fig. 34. lap/lbp/l = 1.0/2.3/0.3; ovipositor: lp/lcl = 4.0, bcl/lcl = 1.8, cl/c2/c3/c4/c5 = 1.0/0.4/0.7/1.3/0.4.

**Types.** Trigonopus chevrolati Mulsant et Rey 1853 – Lectotype (male), MNHN: "Trigonopus chevrolati cap.b.sp. Du 66; Chevalot Riv.; Museum Paris Coll. De Marsenal 1890". Paralectotypes: Trigonopus chevrolati; Trigonopus Chevrolati Muls. op p 136,16 type Cap. bon. Spei 841 Dr Dege; Museum Paris 1906 Coll. Léon Faivre, (MNHN) 1 f; Afrique Delandane; Museum Paris Afrique Australe Delandane, (MNHN) 1 f, Cap. b.sp.; Trigonopus Chevrolati Muls. C.B.Esp.; coll. R. Oberthür ex coll. Deyrolle, (MNHN) 4 m, 1 f; Caffraria; coll. R. Oberthür ex coll. Deyrolle, (MNHN) 1 m, 1 f; (present designation, examined).

**Trigonopus amphillicolis** Fairmaire 1897 – Lectotype (male), MNHN: "Trigonopus amphillicolis Farm. 1897 Caffraria; Port Elizabeth Dr. Martin; Museum Paris 1906 Coll. Léon Faivre". Parallectotypes: Port Elizabeth Dr. Martin; Trigonopus amphillicolis Farm.; Museum Paris 1906 Coll. Léon Faivre, (MNHN) 1 m; Port Elizabeth Dr. Martin; Cap.; Cotype; Museum Paris 1906 Coll. Léon Faivre, (MNHN) 1 m; Port Elizabeth Dr. Martin; Cap.; nova spec.; Cotype; Trigonopus amphillicolis Fairm.; Trigonopus amphillicolis Fairm.; F. Pierre det. Museum Paris 1906 Coll. Léon Faivre, (MNHN) 1 f; (present designation, examined).


**Distribution.** South Africa (Cape Province, Transvaal) (Fig. 164).

**Warchalowskii longulus** (Mulsant et Rey, 1853) comb. nov. (Figs 38–45, 164)


**Terra typica.** Cap de Bonne Espérance [South Africa, Cape Province].

**Diagnosis.** *P. longulus* is close to *omeri* by coarse punctuation of elytral striae but it differs from its remaining congeners in the complete of basal borders of pronotum.

**Description.** Body length 8.0–10.0 mm, pl/pb = 0.67–0.77, cl/cb = 1.36–1.42, eb/pl = 1.80–1.98, eb/pb = 0.99–1.03. Upperside of body slightly shiny, pronotum with a greasy sheen; head, pronotum and elytral striae densely and coarsely punctate (distance between punctures on pronotum equal to or slightly shorter than puncture diameter); punctuation of elytral intervals very delicate, barely visible. Underside of body more shiny, prosternum densely punctate and rugose medially, protermal margins and abdominal ventrites delicately and sparsely punctate. Femora and tibiae sparsely punctate, punctures of medium size. Head as in fig. 45; antennal segment 3 ca. 1.5 × as long as segment 2; mentum as in fig. 38. Pronotal sides slightly rounded, elongate; disc evenly, rather feebly convex; without longitudinal grooves at margins; lateral border relatively wide, ca. 0.75 × as wide as antennal segment 3; base completely bordered (Fig. 42). Anterior margin of elytron bordered (Fig. 43); elytral intervals well convex; upper margin of elytral epipleura completely disappearing in their apical part. Male legs, fore tibia slightly bent inwards, inner margin sharp, somewhat widened, with a marginal row of sparse and long setae, inner apical angle with a denticle (Figs 39–40); inner side of fore femora with sparse striae (Fig. 44); inner side of hind femora without denticle. Female fore tibia as in fig. 41. Outer margin of hind tibia with two longitudinal ridges. Aedeagus structure similar to that in *chevrolati*; lap/lbp/l = 1.0/2.3/0.3; ovipositor: lp/lcl = 3.0, bcl/lcl = 2.7, cl/c2/c3/c4/c5 = 1.0/1.3/1.5/2.3/1.0; plate c4 much elon­gate, protruding above the upper margin of c3 as long as c1.

**Notes.** Specimens from Rockhurst (Grahamstown), Carlisle Bridge Fish have wider lateral border of pronotum (equal antennal segment 3) and sparsely punctuation of pronotal disc (distance between punctures equal to 1–3 puncture diameters).

**Type.** Holotype (female), MNHN: "Trigonopus longulus Muls. 4 p 134 type Cap.b.Sp. 346 D.Drege; Museum Paris 1906 Coll. Léon Faivre" (examined).


**Distribution.** South Africa (Natal, Cape Province) (Fig. 164).

**Warchalowskii obtius** (Koch, 1956) comb. nov. (Figs 46–50, 164)


**Terra typica.** Molteno (South Africa, Cape Province).

**Diagnosis.** *W. obtius* resembles *invenustus* in the structure of the pronotum; it is similar to *chevrolati* and *invenustus* due to its elytral punctuation.

It differs from the remaining members of the genus in the structure of elytral epipleura (strongly convex at apex in *obtius*).
**Description.** Body length 9.0–11.0 mm, pl/pb = 0.68–0.71, el/eb = 1.30–1.43, el/pl = 1.56–2.11, ch/pb = 0.98–1.05. Upperside of body shiny; head and pronotum rather densely punctate; elytral striae punctate-sulcate, punctures in rows small; punctuation of elytral intervals very delicate, barely visible. Underside of body more shiny; prosternum densely punctate and rugose medially, prosternal margins and abdominal ventrites delicately and sparsely punctate. Femora and tibiae sparsely punctate, punctures medium-sized. Antennal segment 3 ca. 1.8× as long as segment 2. Pronotum as in fig. 46; sides rounded; disc evenly, feebly convex, without longitudinal grooves at margins; lateral border wider, ca. 1.1× wider than antennal segment 3; basal border incomplete, blurred in middle, poorly visible. Anterior part of elytra as in fig. 49; intervals poorly convex; upper edge of elytral epipleura in their apical part convex, clearly visible. Male fore tibia evenly widened towards apex, slightly bent inwards, inner margin with a row of sparse and long setae, inner apical angle with a denticle (Figs 47, 48); outer margin of hind tibia with two longitudinal ridges; inner side of hind femora with denticle. Aedeagus: lbp/lap = 2.5; ovipositor as in fig. 50; lp/lcl = 3.3, bet/lcl = 1.9, c1/c2/c3/c4/c4-c3 = 1.0/1.2/1.6/1.0/0.9.

**Types.** Holotype (♂), TM: “Molteno, A. Roberts; Holotype, No: 3667, Schelodontes oblits Koch.” Paratype: Kei River 1883; Schelodontes oblits Koch (TN) 1 m.


**Distribution.** South Africa (Cape Province: Willowmore District; Natal: Durban) (Fig. 164).

**Warbalskiellus omeri** (Koch, 1956) comb. nov. (Figs 51–56, 164)

Schelodontes omeri Koch, 1956: 428.

**Locus typicus.** Somerset East (South Africa, Cape Province).

**Diagnosis.** W. omeri is similar to oblits, which has a denticle on the male hind femur. Coarse punctuation of the elytral striae place the species close to longulus.

This species differs from oblits by the punctuation of elytral striae and the structure of elytral epipleura, and from longulus by the border of the pronotal base (complete in longulus) and male hind femora (with denticle in omeri).

**Description.** Body length 8.5–11.0 mm, pl/pb = 0.71–0.80, el/eb = 1.34–1.44, el/pl = 1.70–1.94, pronotum wider than elytra (eh/pb = 0.96–0.98). Upperside of body feebly shiny, with greasy sheen, pronotum mat; head, pronotum and rows densely and coarsely punctate (distance between pronotum punctures equal to 1–2 puncture diameters; diameter of punctures in rows equal to 1/4 interval width); intervals delicately punctate. Underside of body feebly shiny, prosternum mat and rugose medially, abdominal ventrites and sides of prosternum delicately punctate (sparsely, punctures small); episternum sparsely punctate, punctures large; femora and tibiae sparsely punctate, punctures large. Head widest at eye level; 4–5 facets between gena and temple; antennal segment 3 ca. 1.7× as long as segment 2. Pronotum as in fig. 51; sides slightly rounded; anterior angles straight, strongly rounded, not produced anteriad; lateral border relatively wide, ca. 0.71× as wide as antennal segment 3; bordering of base widely interrupted in middle, clearly visible only at posterior angles. Elytral humeri straight, strongly protruding outwards (Fig. 54). Mesosternum with narrow and deep median groove, which does not reach posterior margin; sides of mesosternal process strongly convex. Upper margin of elytral epipleura disappears at apex. Male legs, fore tibia evenly widened towards apex, slightly bent inwards; inner margin sharp, poorly widened, with sparse, long setae and apical denticle (Figs 52, 53); hind femora with denticle on inner side (Figs 55, 56). Legs of both sexes with outer margin of hind tibia with two longitudinal ridges. Aedeagus: lap/lbp/lh = 1.0/2.5/0.5; ovipositor; lp/lcl = 4.4, bet/lcl = 2.5, c1/c2/c3/c4/c4-c3 = 1.0/1.2/2.0/2.0/0.4.

**Types.** Paratype: Sheldon-Grahamstown Eastern Cape Prov. South Africa Zumpt 8.1950; (HNHM) 1 m; (examined).

**Material examined.** S.Afr. Cape Prov. 15 miles S Middleton 16.51 No.144; Swedish South Africa Expedition 1950–1951 Brinck-Rudebeck; Schelodontes omeri Koch C. Koch det., (MZLU) 2 m, 3 f; Dunbrody; Museum Paris 1906 Coll. Léon Fairmaire, (MNHN) 1 m; T. avicollis Klug Cap.B. Oberthiir ex coll. Deyrolle. (MNHN) 1 f; Trigonopus Cape Du 66; Caffrerie Castelnau; Museum Paris Coll. De Marsule 1890, (MNHN) 1 f; Somers E. June 84; Sam-Col-AO 11568; Trigonopus chevrolati Muls., (SAM) 3 f; Beapra 86; Sam-Col-AO 11869, (SAM) 2 m, 1 f; Mt. Zebra, Nl. Park, Cape Prov. R. S. A., 13/14.VII.89, G. Minet Recolt (TM) 6 m, 4 f; S. Afr. Cape Prov. Cradock 20 km S, 32.14 S – 25.44 E, 11.X. 1984, leg. R. Müller, (TM) 1 m; S. Afr. Cape Prov. Cradock, 6 km E, 32.40 S – 26.01 E, 11.10.84, E-Y 2143, ground & vegetation, leg. R. Müller, (TM) 1 m.

**Distribution.** South Africa (Cape Province: Albany, Bedford, Cradock, Somerset East, Uitenhage) (Fig. 164).
Warthalowskiiellus invenustus sp. nov.  
(Figs 57-61, 164)

**Name derivation.** Latin adjective, *invenustus*: without grace.

**Locus typicus.** Humansdorp (South Africa, Cape Province).

**Diagnosis.** Due to its pronotal structure (evenly convex, without longitudinal concavity along lateral borders, anterior angles rounded and slightly produced anteriad) the species resembles *oblitus*, *longulus*, *chevrolati* and *omeri*. This species is the closest to *oblitus* by the specific disappearing border of pronotal base – only small portions visible in the middle and near posterior angles. *W. invenustus* differs from all its congeners in the structure of the outer margin of hind tibia (obtuse in *invenustus*, with two longitudinal ridges in the other species).

**Description.** Relatively small beetles, body length 7.5–8.5 mm, pl/pb = 0.70–0.74, el/eb = 1.24–1.25, el/pl = 1.68–1.79, eb/pb = 0.95–1.00). Upperside of body shiny; head, pronotum and intervals distinctly punctate (distance between punctures equal to 2–3 puncture diameters, punctures medium-sized); underside of body strongly shiny, abdominal ventrites with rugosity and evanescent punctation (large punctures at anterior margins, small at posterior ones); prosternum rugose medially, prosternal sides with distinct punctuation (sparsely, punctures medium-sized); episternum densely and coarsely punctate; femora and tibiae sparsely punctate, punctation evanescent. Head as in fig. 60; 3–4 facets between gena and temple; antennal segment 3 ca. 1.7 × as long as segment 2. Pronotum (Fig. 57) moderately, evenly convex; without longitudinal concavity along lateral borders; sides strongly rounded; anterior angles blunt, not produced anteriad; posterior angles widely obtuse, rounded; lateral border not very wide, ca. 0.40 × as wide as antennal segment 3; bordering of base wide, disappearing, small parts visibly in the middle and near posterior angles. Elytral humeri straight, protruding outwards (Fig. 61); striae strongly incised, punctures in rows invisible; intervals flat, practically not convex; upper margin of elytral epipleura disappears and invisible apically. Mesosternum with very shallow, wide median groove, which does not reach posterior margin; sides of mesosternal process almost flat, slightly convex. Male fore tibia evenly widened towards apex, inner margin sharp, widened in the middle, pubescent at apex; hind femora simple, without denticle on inner side (Figs 58, 59); outer margin of hind tibiae of both sexes without longitudinal ridges, smooth.

**Types.** Holotype (male), JFC: “S. Afr., Cape Prov., 8 miles W Humansdorp, 1.III.51. No.193; Swedish South Africa Expedition 1950–1951 Brinck-Rudebeck”.

Figures 57–61. Warthalowskiiellus invenustus. (57) pronotum, (58) dorsal and (59) ventral view of male fore tibia, (60) head, (61) anterior part of elytron.

**Distribution.** South Africa (Cape Province) (Fig. 164).

*Schelodontes* Koch, 1956

*Schelodontes* Koch, 1956: 81.

**Type species.** *Trigonopus immundus* Mulsant et Rey, 1853 (designated by Koch 1956: 81).

**Diagnosis.** In *Schelodontes*, like the genera *Eviropodus*, *Zophodes* and *Warchalowskiellus*, the anterior elytral margin has an abruptly convex upper edge (forming a ridge); like in *Zophodes* and *Warchalowskiellus* all tarsi in both sexes are narrow.

*Schelodontes* is the closest to *Warchalowskiellus* having the anterior margin of elytra V-shaped. The genera differ in the structure of the pronotum (with longitudinal concavity present along lateral border; strongly widened at angles in *Schelodontes*) and the punctuation of the body surface (mixed in *Warchalowskiellus* – pronotum coarsely, elytra delicately punctate; uniformly in *Schelodontes*, except *rotundicollii* and *mulsanti*).

*Schelodontes* differs from the remaining genera in a peculiar, arcuate shape of the pronotal base (slightly arcuate in some species of *Warchalowskiellus*).

**Description.** The smallest beetles among the trigonooid Platynotina, body length 6.0–12.0 mm (exceptionally in *S. grandis* 13.0–15.0 mm); colour dark brown to black, often with a light brown or grey shagreen (dust of the substratum where they live); underside lighter. Puncture much vari-

---

able, from very coarse, through evanescent, to very delicate, practically invisible. Body very strongly convex, elytra tucked in posteriorly, a part of interval IX visible from under­side; elytra wider than pronotum (especially in females). Head widest at eye level or anterior to eyes. Mid part of mentum narrowed anteriad, lateral margins (wings) wide. Eyes narrowed laterally. 1–5 facets between gena and temple. Antenna similar to that in the Trigonopus. Fronto­typical suture poorly marked. Pronotum with sides rounded, in the case of the niggerimus-group almost parallel at base; pronotum base acutely bent posteriorly; basal border widely interrupted. Scutellum located considerably below the line connecting humeral angles. Upper edge of anterior margin of elytra, from humeral angle almost to scutellum strongly con­vex as a sharp ridge, smooth; lower edge practically not con­vex; humeral angles sharp, protruding outwards, rarely rounded and not protruding (in apicalis and gemmeus). Prosternal process produced towards mesosternum, with border interrupted at apex. Last abdominal ventrite border­ed. Legs of both sexes have all tarsi narrow (underside of all segments with glabrous gutters); tibiae without spirules on underside, lateral margins in their apical part tucked in. Male legs, inner side of fore tibia with widened ridge near longitudinal concavity; and strongly protruding apical dent­icle; mid tibia with two longitudinal ridges on outer margin; hind femora sometimes with a denticle on their inner margin. General structure of aedeagus and female reproductive sys­tem as in the remaining trigonopoid Platynota.

**Key for species determination**

1. Pronotal punctuation dense and strong, evenly arranged on disc, only somewhat denser close to lateral margins; punctures large, distance between them equal to or smaller than 2 × puncture diameter (Fig. 62) .......... 2
   - Pronotal punctuation sparse and delicate, sometimes completely disappearing on disc; punctures small, distance between them longer than 2 × puncture diameter (Fig. 72) .......................................................... 5

2. Anterior pronotal angles slightly rounded, moderately produced anteriad (Figs 62, 79); mesosternum evenly convex posteriorly, poorly convex laterally; male hind femur simple ........................................ 3
   - Anterior pronotal angles sharp, strongly produced an­teriad (Fig. 119); mesosternum with median concavity posteriorly, strongly convex laterally; male hind femur with denticle on inner side (Figs 121, 122) .... terrenus

3. Upper margin of elytral epipleura convex in its apical part; humeral angles straight, not protruding outwards (Fig. 78, 139); male fore tibia evenly widened towards apex or with widened median ridge on inner side (Figs 84, 134) ....................... 4
   - Upper margin of elytral epipleura disappears in its apical part; humeral angles sharp, protruding outwards (Fig. 66); male fore tibia acutely bent inwards on its apical part (Figs 63, 64) ............... immundus

4. Lateral pronotal margins with wide and deep longitudi­nal concavity (strongly widened at anterior and poster­ior angles) (Fig. 79); male fore tibia evenly widened towards apex (Figs 83, 84); male mid tibia simple, without apical denticle (Figs 81, 82) . simplimanus
   - Lateral pronotal margins with narrow and shallow long­itudinal concavity (slightly widened at anterior and posterior angles) (Fig. 133); male fore tibia with widened median ridge on inner side (Figs 134, 135); male mid tibia with apical denticle inside (Figs 136, 137) .................................................. verreauxi

5. Humeral angles of elytra slightly rounded, not protrud­ing outwards (Figs 71, 77) ......................... 6
   - Humeral angles of elytra straight, protruding outwards (Figs 118, 129) ......................... 7

6. Anterior pronotal angles rounded; lateral border of pronotum ca. 0.70 × wider than antennal segment 3 (Fig. 72); outer margin of hind tibia smooth, obtuse (Fig. 67) .... gemmeus
   - Anterior pronotal angles sharp; lateral border of pronotum ca. 0.5 × wider than antennal segment 3 (Fig. 76); outer margin of hind tibia with two longitudi­nal ridges ................. apicalis

7. Pronotal surface mat, very delicately punctate, punctures almost invisible; lateral border of pronotum strongly widened at posterior angles, over 2 × wider than in middle; pronotals sides parallel at base (Figs 103, 112, 113); anterior pronotal angles rounded; mid part of mentum with strongly convex blunt median keel (Fig. 111) .......... 8
   - Pronotals surface shiny, distinctly punctate; lateral bor­der of pronotum slightly widened at posterior angles, less than 1.5 × wider than in middle; pronotals sides rounded (Figs 88, 93, 100); anterior pronotal angles sharp, produced anteriad; mid part of mentum with moderately convex sharp median keel ................................. 11

8. Body size 13.0–15.0 mm; lateral border of pronotum ca. 1.1 × width of antennal segment 3; pronotal punctuation very delicate, but visible; elytral intervals slightly con­vex, delicately punctate; elytral striae punctate-sul­cate (Fig. 118); male hind femur with very large and bent outside denticle (Figs 114, 115); male fore tibia as in figs 116, 117 ........................................ grandis
   - Body size 8.0–12.0 mm; lateral border of pronotum ca. 0.7 × width of antennal segment 3; pronotal punctuation disappearing; elytral intervals flat, not convex, smooth, punctures invisible; elytral striae sulcate (Fig. 109); male hind femur with small or medium-sized, bent outwards denticle (Fig. 105); male fore tibia as in figs 106, 107 .......... 9

9. Upper margin of elytral epipleura clearly visible in its apical part; male hind femur with small denticle inside (Figs 86, 87) .... parvus
   - Upper margin of elytral epipleura invisible in its apical part; male hind femur with large denticle inside (Figs 104, 105) .................. 10

10. Lateral border of pronotum little narrowed in middle (Fig. 112); lateral pronotal margins with wide and deep longitudinal concavity; elytral striae clearly visible

---

**Distribution.** South Africa (southern and central part of Cape Province, southern part of Orange Free State).
Schelodontes gemmeulus Koch, 1956
(Figs 67–72, 166)

Schelodontes gemmeulus Koch, 1956: 433.

Locus typicus. Willowmore (South Africa, Cape Province).

Diagnosis. S. gemmeulus is close to apicalis having similar punctuation of the body surface, obtuse elytral humeri and the presence of the denticle on male hind femur.

S. gemmeulus differs from apicalis in the pronotal shape (obtuse anterior angles and wider lateral border in gemmeulus), the structure of legs — male fore tibia (cf. Figs) and hind tibia (outer margin obtuse in gemmeulus, with ridges in apicalis).

Description. Body length 7.5–8.7 mm, pl/pb = 0.68–0.74, e/eb = 1.15–1.28, e/pl = 1.64–1.81, eb/pb = 1.01–1.05. Upperside of body shiny; head densely punctate, punctures medium-sized; pronotum and intervals sparsely and delicately punctate (distance between punctures equal to 3–5 puncture diameters, punctures small); underside of body slightly shiny, abdominal ventrites with rugosity and evanescent punctuation (large punctures at anterior margins, small, delicate at posterior ones); prosternum and intervals sparsely and delicately punctate, sides rugose; punctuation of pronotal episternum practically invisible; femora and tibiae sparsely punctate, punctuation evanescent. Head widest at eyes level; 1–2 facets between gena and temple; antennal segment 3 ca. 2.0× as long as segment 2. Pronotum (Fig. 72) distinctly convex with narrow longitudinal concavity along lateral borders, deeper and widened at angles; sides slightly rounded, subparallel basally; anterior angles obtuse; posterior angles straight, rounded; lateral border of moderately wide, ca. 0.70× as wide as antennal segment 3 (distinctly widest at posterior angles); bordering of base widely interrupted. Elytral humeri strongly rounded, not protruding outwards (Fig. 71); striae punctate-sulcate, with very small punctures; intervals practically not convex, flat; apical part as in fig. 70. Mesosternum with a very shallow, wide median groove, which does not reach posterior margin; sides of mesosternal process almost flat, slightly convex. Male legs, fore tibia with a large apical denticle on outer margin; outer margin of male hind femur with denticle (Figs 68, 69); outer margin of hind tibiae of both sexes without two longitudinal ridges (Fig. 67). Aedeagus: lap/lbp = 1.0/2.3; ovipositor: lp/lcl = 2.5, cl/c2 = 1.9, e/lcl = 1.0/0.6/0.7/1.7/0.7.

Type. Holotype (female) TM: “Willowmore Capland Dr. Brauns; Holotype No. 3748, Schelodontes gemmeulus Koch; 521” (examined).

Material examined. Willowmore, Capland, Dr. Braunsch (TM) 3 m.

Distribution. South Africa (Cape Province: Willowmore) (Fig. 166).

Schelodontes apicalis Koch, 1956
(Figs 73–77, 166)


Locus typicus. Willowmore (South Africa, Cape Province).

Diagnosis. Delicate punctuation of the body surface and the presence of the denticle on male hind femur place apicalis close to the group formed by mulsanti, rotundicolli, mannerheimi, gemmeulus and marseueli. S. apicalis, like gemmeulus, differs from the remaining members of the group in the structure of elytral humeri (obtuse). The two species differ in the pronotal shape and the structure of male fore tibia.

Description. Body length 8.0–9.6 mm, pl/pb = 0.67–0.70, e/eb = 1.15–1.27, e/pl = 1.70–1.76, eb/pb = 1.00–1.09. Upperside of body shiny; head densely punctate, punctures medium-sized; pronotum and intervals sparsely and delicately punctate (distance between punctures equal to 3–4 puncture diameters, punctures small); underside of body slightly shiny, abdominal ventrites with rugosity and evanescent punctuation (large punctures at anterior margins, small, delicate at posterior ones); prosternum delicately punctate in middle, sides rugose: episternum smooth, punctuation practically invisible; femora and tibiae sparsely punctate, punctuation evanescent. Head widest anterior to eyes; 1–2 facets between gena and temple; antennal segment 3 ca. 1.5× as long as segment 2. Pronotum (Fig. 70) distinctly convex with longitudinal concavity along lateral borders, deeper and widened at angles; sides rounded; anterior angles sharp, slightly produced anteriad; posterior angles straight, rounded; lateral border of medium width, ca. 0.50× as wide as antennal segment 3; bordering of base widely interrupted, visible only at poste-

rior angles. Elytral humeri straight, strongly rounded, not protruding outwards (Fig. 77); striae punctate-sulcate, strongly incised, punctures practically invisible; intervals not convex, flat. Mesosternum with a very shallow, wide median groove, which does not reach posterior margin; sides of mesosternal process almost flat, slightly convex. Upper margin of elytral epipleura clearly visible and strongly convex at apex. Male legs, fore tibia with a large apical denticle on outer margin; outer margin of male hind femur with denticle; outer margin of hind tibiae of both sexes with two longitudinal ridges. Aedeagus as in figs 74, 75: lbp/lap = 2.3; ovipositor as in fig. 73: lp/lc1 = 3.0, bc1/lc1 = 1.9, c1/c2/c3/c4/c4-c3 = 1.0/0.7/1.0/2.0/0.8.

**Type.** Paratype: Paratypus 1956 *Schelodontes apicalis* Koch.; Willowmore, Capland, Dr. Brauns; Paratype No. 3733, *Schelodontes apicalis* Koch; 521 Paratype, *Schelodontes apicalis* Koch, (HNHM) 1 f; (examined).

**Material examined.** Willowmore, Capland, Dr. Brauns, (TM) 2 m, 3 f.

**Distribution.** South Africa (Cape Province: Willowmore) (Fig. 149).

*Schelodontes immundus* (Mulsant et Rey, 1853)
(Figs 62–66, 167)


**Terra typica.** Cap de Bonne Espérance [South Africa, Cape Province].

**Diagnosis.** *S. immundus* resembles *terrenus, simplimanus*, and *verreauxi* due to pronotal and elytral sculpture, and the border of pronotum. The structure of elytral epipleura (upper margin disappearing at apex) (Fig. 67), strong
episternal punctuation and rectangular; slightly protruding elytral humeri (Fig. 66) place *immundus* close to *terrenus*, and separate it from *simplimanus* and *verreauxi*.

*S. immundus* differs from *terrenus* in the structure of male legs (fore tibia and hind femora) and in rectangular, not produced pronotal anterior angles (Fig. 62).

**Description.** Body length 10.0-11.5 mm, pl/pb = 0.72-0.80, cl/eb = 1.26-1.33, cl/pl = 1.58-1.77, pronotum wider than elytra in males (eb/pl = 0.93-0.96), elytra more convex, as wide as pronotum in females (eb/pl = 1.00). Upperside of body slightly shiny, with a greasy sheen, coarsely and densely punctate; pronotum and elytral intervals with distance between punctures smaller than puncture diameter, diameter of punctures in striae ca. 1.5× diameter of punctures on intervals. Underside of body more shiny, prosternum rugose in middle; prosternal margins and abdominal ventrites not very strongly punctate (sparsely, but punctures large). Head widest anterior to eyes; 3-4 facets between gena and temple; antennal segment 3 ca. 2× as long as segment 2. Pronotum as in fig. 62; sides slightly rounded; anterior angles straight, rounded, not produced anteriad; a deep concavity present along lateral border, considerably widened at anterior and posterior angles; lateral border of pronotum very narrow, ca. 0.25× as wide as antennal segment 3; parts of basal border visible only at posterior angles. Elytral humeri rectangular; slightly protruding outwards (Fig. 66). Upper margin of elytral epipleura disappears at apex (Fig. 65). Mesosternum with a narrow and shallow median concavity does not reach posterior margin; sides of mesosternal process slightly convex. Male legs, fore tibia arcuate, inner margin sharp, strongly widened, with sparse, long setae and strongly elongate apical angle (Figs 63, 64); hind femora simple, without denticle on inner side; hind tibia with two longitudinal, rather strongly convex ridges on outer margin. Aedeagus: lap/lbp = 1.0±2.3.

**Types.** Lectotype (male), MNHN: “Trigonopus immundus; Trigonopus immundus Mt op 4, 144.19 type Ca b Spei 477 D. Drege; Museum Paris 1906 Coll. Léon Faureau.” Parallectotype: Cap. De B. Esp.; Museum Paris 1906 Coll. Léon Faureau, (MNHN) 1 m; present designation, examined.

**Material examined.** Capfd; Verreauxi Muls. R. det. dr. Kaszab, (HNHM) 1 f; S. Africa Natal; Trigonopus immundus Muls. det. dr. Kaszab, (HNHM) 1 m; Dunby; Museum Paris 1906 Coll. Léon Faureau, (MNHN) 1 m; Uitenhage, Cape Col., Marshall Coll. 1911-263, (TM) 1 m.

**Distribution.** South Africa (Cape Province: Port Elizabeth, Uitenhage) (Fig. 167).

*Schelodontes verreauxi* (Mulsant et Rey, 1853) (Figs 135-144, 167)

**Trigonopus Verreauxi** Mulsant et Rey, 1853; – Gemminger et Harold 1870: 1912; Gebien 1910: 272, 1918: 292.

**Schelodontes verreauxi** (Mulsant et Rey); Koch 1856: 82.

**Schelodontes frater** Koch, 1956: 419 syn. nov.

**Terra typica.** Cap de Benne Espérance [South Africa, Cape Province].

**Diagnosis.** *S. verreauxi* is similar to *terrenus*, *simplimanus* and *immundus* due to pronotal and elytral sculpture, and the border of the pronotum. The structure of elytral epipleura (upper margin clearly visible at apex) (Fig. 138), sparse punctuation of the episternum and an obtuse-angled, slightly rounded and not protruding elytral humeri (Fig. 139) place *verreauxi* close to *simplimanus*, and separate it from *terrenus* and *immundus*.

*S. verreauxi* differs from *simplimanus* in the structure of male fore tibia and in the shape of the pronotum.

**Description.** Body length 6.5-9.5 mm, pl/pb = 0.72-0.87, cl/eb = 1.18-1.36, cl/pl = 1.74-1.88, pronotum narrower than elytra in males (eb/pl = 1.01-1.07), elytra strongly convex, much wider than pronotum in females (eb/pl = 1.08-1.14). Upperside of body shiny, pronotum with a greasy sheen, coarsely and densely punctate; pronotum and elytral intervals with distance between punctures equal to puncture diameter, puncture diameter in striae equal to 2 diameters of punctures on intervals. Underside of body more shiny, prosternum rugose in middle; prosternal margins and abdominal ventrites delicately punctate (sparsely, punctures small); episternum sparsely punctate; femora and tibiae strongly punctate. Head widest anterior to eyes; mentum as in fig. 142; 4-5 facets between gena and temple; antennal segment 3 ca. 2× as long as segment 2. Pronotum as in fig. 133; sides rounded; anterior angles straight, strongly rounded, not produced anteriad; a very deep longitudinal concavity present along lateral border, considerably widened at anterior and posterior angles; lateral border of pronotum very narrow, ca. 0.25× as wide as antennal segment 3; parts of basal border visible only at posterior angles. Elytral humeri obtuse-angled, rounded, not protruding outwards (Fig. 139). Upper margin of elytral epipleura clearly visible at apex (Fig. 138). Mesosternum with a narrow and shallow median concavity does not reach posterior margin; sides of mesosternal process almost flat. Male legs, fore tibia evenly widened apically, not arcuate, inner margin sharp, strongly widened, with sparse, short setae at apex and not elongate apical angle (Figs 134, 135); mid tibia as in figs 136, 137; hind femora simple, without denticle on inner side. Legs of both sexes, outer margin of hind tibia with two longitudinal, rather strongly convex ridges (Figs 143, 144). Aedeagus as in fig. 141, lap/lbp = 1.0±2.2; ovipositor as in fig. 140, lp/lcl = 2.72, bc/lcl = 2.0, cl/c2/c3/c4 = 1.0±7.1/4.


**Schelodontes frater** Koch, 1956 – Paratypes: Cape Col Ashton, Purcell, Paratypus, Schelodontes frater sp. n. C. Koch, (TM) 1 m, Bredasdorp, H. Fry, Paratypus, Schelodontes frater sp. n. C. Koch, (TM) 1 f (examined).

**Material examined.** Betw. Riversdale & Heidelberg, C. P., IX, 1950, D. Dickens, 34.08 S – 21.10 E, (TM) 1 m.

**Distribution.** South Africa (Cape Province: Montagu, Bredasdorp) (Fig. 167).
**Schelodontes simplimanus** Koch, 1956  
(Figs 78–85, 167)

**Locus typicus.** Mossel Bay (South Africa, Cape Province).

**Diagnosis.** The smallest species among the trigonopoidea Platynotina, body length 6.0–8.0 mm, pronotum comparatively wide (pl/pb = 0.60–0.76), el/eb = 1.18–1.35, pl/pl = 1.74–2.02, pronotum wider than elytra in males (eb/pb = 0.92–0.97), elytra strongly convex, wider than pronotum in females (eb/pb = 1.01–1.08). Upperside of body shiny, coarsely and densely punctate; pronotum and elytral intervals with distance between punctures smaller than puncture diameter, diameter of punctures in striae 1.5–2.0 times diameter of punctures on intervals. Underside of body more shiny, prosternum rugose in middle; prosternal margins and abdominal ventrites delicately punctate (sparsely, punctures small); episternum sparsely punctate; femora and tibiae strongly punctate. Pronotum as in fig. 79; sides distinctly rounded; anterior angles straight, strongly rounded, slightly produced anteriad. Head, antennae, prontal bordering, elytral humeri (Fig. 78) and epipleura (Fig. 85), mesosternum, male mid and hind femora as in *verreauxi*. Male legs, fore tibia evenly widened towards apex, not arcuate, inner margin sharp and straight, inner apical angle not elongate, with a small denticle (Figs 83, 84); mid tibia as in figs 81, 82; hind tibia as in fig. 80. Aedeagus: lap/lbp = 1.0/2.4; ovipositor: lp/lcl = 3.1, bcl/lcl = 2.2, c1/c2/c3/c4 = 1.0/1.1/0.9/1.6.

**Material examinata.** Mossel Bay SE 3422 Aa Cape R. S. A. 22. Mar.1973; H 12409; Namibian National Insect Collection State Museum P. O. Box 1203 Windhoek, Namibia, Namibia (NNIC) 3 m, 3 f; H 12368; Oudtshoorn SE 3222 Ca Cape R. S. A. 19–23. Mar. 1973.; Namibian National Insect Collection State Museum P. O. Box 1203 Windhoek, Namibia, Namibia (NNIC) 1 f; Trigonopus; Caffriere; Museum Paris Coll. De Marseul 1890, (MNHN) 1 m; 180; I 47; Eurynotus acrerus Buy; Museum Paris Cap De Bonne Espérance Buquet 1847, (MNHN) 1 m; Trigonopus verreauxi Cafraria; Museum Paris Coll. M. Sedillot, (MNHN) 1 m; Trigonopus; Caffriere Castelnaud; Museum Paris Coll. De Marseul 1890, (MNHN) 1 m.

**Distribution.** South Africa (Cape Province: Mossel Bay, Oudtshoorn) (Fig. 167).

**Schelodontes terrenus** Koch, 1956  
(Figs 119–126, 167)

**Locus typicus.** Grahamstown (South Africa, Cape Province).

**Diagnosis.** *S. terrenus* resembles *immundus, simplimanus* and *verreauxi* in its sculpture of pronotal and elytral surface (punctures large, densely arranged), and in prontal bordering (very narrow laterally and widely interrupted basally).

*S. terrenus* is easily separated from the species just named by the shape of anterior pronotal angles (sharp, very strongly produced anteriad), mesosternum with median deep concavity reaching posterior margin (Fig. 120), male hind femur with denticle on inner side.

**Description.** Body length 9.5–11.0 mm, pl/pb = 0.73–0.84, el/eb = 1.26–1.44, el/pl = 1.60–1.83, pronotum wider than elytra in males (eb/pb = 0.95–0.98), elytra strongly convex, wider than pronotum in females (eb/pb = 1.02–1.04). Upperside of body shiny, with a greasy sheen, coarsely and densely punctate; pronotum with distance between punctures shorter than puncture diameter, elytral intervals with distance between punctures equal to 1–2 puncture diameters, elytral striae with diameter of punctures equal to 2–3 diameters of punctures on intervals. Underside of body more shiny; prosternum rugose in middle; prosternal margins and abdominal ventrites not very strongly punctate; episternum densely punctate, punctures large. Head widest anterior to eyes; 3–4 facets between gena and temple; antenna similar to that in *Trigonopus*, segment 3 ca. 2× as long as segment 2. Pronotum as in fig. 119; sides slightly rounded; anterior angles sharp, very strongly produced anteriad; a deep concavity present along lateral border, much widened at posterior and anterior angles; lateral border very narrow, ca. 0.25× as wide as antennal segment 3; parts of basal border visible only at posterior angles. Elytral humeri straight, slightly protruding outwards (Fig. 124). Upper margin of elytral epipleura disappears at apex. Mesosternum with a narrow and deep median concavity reaching posterior margin; sides of mesosternal process strongly convex (Fig. 120). Last abdominal ventrite as in fig. 123. Male legs, fore tibia evenly widened towards apex, not arcuate, inner margin sharp and straight, inner apical angle not elongate, with a small denticle (Figs 125, 126); hind tibia with two longitudinal ridges on outer margin. Aedeagus: lap/lbp = 1.0/2.4; ovipositor: lp/lcl = 4.3, bcl/lcl = 2.9, c1/c2/c3/c4 = 1.0/2.2/1.6.

**Types.** Lectotype, (male) SAM: “Grahams Town 1892; Sam-COL-AO 12195”. Paratype: Grahamstown C.P. R.F. Lawrence Feb. 1933; Sam-COL-AO 12200, (SAM) 1 f; Graham T. Schonland 192.; T. immundus sec. typ.; Sam-Col-AO 12199, (SAM) 1 f. (present designation, examined).

**Material examinata.** Miss Walton Oct.–Nov.1928 Resolution Grahamstown; Schelodontes terrenus Koch C. Koch. det.; Sam-Col-AO 12193,12194, (SAM) 5 m, 7 f; Resolution Grahamstown Miss Walton 1930; Sam-Col-AO 12196, (SAM) 1 f; Graham Town 1893; Sam-Col-AO 12197, (SAM) 1 f.

**Distribution.** South Africa (Cape Province: Albany) (Fig. 167).

**Schelodontes mannerheimi** (Mulsant et Rey, 1953)  
(Figs 88–92, 167)


*Schelodontes mannerheimi* (Mulsant et Rey): Koch 1956: 82.
**Terra typica.** Cap de Bonne Espérance [South Africa, Cape Province].

**Diagnosis.** See diagnosis of *S. marseuli*.

**Description.** Body length 9.0–11.0 mm, pl/pb = 0.74–0.81, el/eb = 1.27–1.28, el/pl = 1.56–1.76, elytra less convex, narrower than pronotum in males (eb/pb = 0.96–0.99), elytra more convex, equal to or wider than pronotum in females (eb/pb = 1.00–1.03). Sheen and punctuation of upper- and underside of body as in *mulsanti*. Head widest anterior to eyes; 2–3 facets between gena and temple; antennal segment 3 ca. 2 × as long as segment 2; keel of the mid part of mentum strongly convex, its upper edge sharp. Pronotum (Fig. 88) distinctly convex; a very deep and narrow longitudinal concavity present along lateral border, strongly widened at anterior angles; pronotal sides rounded, narrowed anteriorly; anterior angles sharp, rather strongly produced anteriorly and acutely bent inwards; posterior angles obtuse, rounded; lateral border narrower, ca. 0.40 × as wide as antennal segment 3; basal border widely interrupted medially, parts of it visible only at posterior angles. Pronotal base narrower than anterior elytral margin. Structure of elytra as in *mulsanti*. Mesosternal process with lateral margins strongly convex. Male fore tibia evenly widened towards apex, slightly bent inwards, with a concavity on inner margin with and a large apical denticle on outer margin (Figs 89, 90); outer margin of hind tibia with two longitudinal ridges; male hind femur with a large denticle on inner side (Figs 91, 92). Aedeagus: lap/lbp = 1.0/1.7; ovipositor: lp/lc1 = 2.5, bc1/lc1 = 2.1, c1/c2/c3/c4 = 0.1/1.3/0.9/1.7.


**Distribution.** South Africa (Cape Province; George, Uniondale) (Fig. 167).

**Schelodontes rotundicollis** Koch, 1956

(Figs 93–97, 166)

**Locus typicus.** Naauwpoort (South Africa, Cape Province).

**Diagnosis.** *S. rotundicollis* is close to the group of species *mulsanti*, *mannerheimi* and *marseuli* having similar the structure of the pronotum (wide longitudinal concavity along lateral borders, strongly produced anterior angles), delicate punctuation of body surface, sharp humeral angle of elytra and the presence of denticle on the male hind femur. Like *mulsanti*, the species has pronotal base wider than anterior elytral margin and a relatively wide lateral pronotal border; shape of anterior pronotal angles (strongly produced anteriorly and slightly bent inwards) place *rotundicollis* close to *mannerheimi* and *marseuli*.

Very wide and deep longitudinal concavity along lateral pronotal borders distinguish *rotundicollis* from the above mentioned species.

**Description.** Body length 8.0–9.0 mm, pl/pb = 0.67–0.75, el/eb = 1.24–1.35, el/pl = 1.67–1.91, elytra less convex, narrower than pronotum in males (eb/pb = 0.94–0.97), elytra more convex, equal to or wider than pronotum in females (eb/pb = 1.00–1.02). Sheen and punctuation of body surface, on the upper- and underside as in *mulsanti*. Head widest at eye level; 4–5 facets between gena and temple strongly protruding outwards; antennal segment 3 ca. 1.7 × as long as segment 2; keel of mid part of mentum strongly convex, its upper edge sharp. Pronotum (Fig. 93) distinctly convex; deep and wide longitudinal concavity along lateral borders strongly widened at angles; pronotal sides rounded, narrowing anteriorly; anterior angles sharp, rather strongly produced anteriorly; posterior angles straight, rounded; width of lateral border (in the middle) ca. 0.75 × as wide as antennal segment 3; bordering of base widely interrupted medially. Pronotal base wider than anterior elytral margin. Structure of elytra as in *mulsanti*. Mesosternum with very narrow and wide median concavity does not reach posterior margin; lateral margins of mesosternal process almost flat, slightly convex. Male fore tibia somewhat bent inwards, with a large apical denticle on outer margin, inner margin with longitudinal groove (Figs 96, 97); hind tibia with two longitudinal ridges on outer margin; male hind femur with a large denticle on inner side (Figs 94, 95). Aedeagus: lap/lbp = 1.0/2.5; ovipositor: lp/lc1 = 3.2, bc1/lc1 = 1.7, c1/c2/c3/c4 = 0.1/1.1/1.1/1.5.

**Type.** Paratype – Nauwpoort C.P. 27.X.1948. Koch & van Son; Paratype: Paratypus Schelodontes rotundicollis Koch, (HNHM) 1 m; (examined).

**Material examined.** Museum Paris, Colonie Du Cap, Steynsburg R. Ellenberger 1915; Aout; Janvier; (MNHN) 5 m, 4 f; Cap. B. Spei; Chevrolati Muls.; Naturhistoriska Riksmuseet Stockholm, Loan no 1218/95, (ZMS) 1 m; Afr. austr.; Trigonopus chevrolati Muls., H. Gebien det. 1930.; Mus. Zool. Polonicum Warszawa 12/45, (MIZPAN) 1 m, 1 f; Kradock Cap; Trigonopus chevrolati Muls. R. det. dr. Z. Kaszab, (HNHM) 1 f; Caffraria: coll. R. Oberthur ex coll. Deyrolle, (MNHN) 1 m; S. Afr. Cape Karoo, Farm Zwartskraal, 33.10 S - 22.32 E, 25.10. 1979; E -Y: 1671a, groundtraps with meat bait, 45 days, leg. R. Osthuizen, (TM) 1 m, 2 f; Willowmore, Capland, Dr H. Brauns, (TM) 1 m, 1 f.

**Distribution.** South Africa (Cape Province; Cradock, Steynsburg, Willowmore) (Fig. 166).

**Schelodontes marseuli** sp. nov.

(Figs 98–102, 166)

**Terra typica.** Caffraria [South Africa].
Name derivation. It is named in honour of Sylvain Augustin De Marseul, a French entomologist; the original specimen comes from his collection.

Diagnosis. Pronotal structure (longitudinal concavity along lateral borders, strongly produced anterior angles), delicate punctation of body surface, sharp humeral angles of elytra and the presence of the denticle on the male hind femur place *marseuli* close to the species group *mulsan-ti*, *rotundicollis* and *mannerheimi*.

Like *mannerheimi*, *marseuli* has pronotal base narrower than anterior elytral margin, rather narrow lateral pronotal border and similar anterior pronotal angles (elongate and hook-like bent inwards); *marseuli* differs from *mannerheimi* in the structure of the male fore tibia.
Description. Body length 8.5 mm, pl/pb = 0.76, el/eb = 1.26, el/pl = 1.52, elytra less convex, narrower than pronotum in male (eh/pb = 0.92). Sheen and punctation of body surface on the upper- and underside as in mulsanti. Head widest anterior to eyes; 3–4 facets between gena and temple; antennal segment 3 ca. 1.5× as long as segment 2; keel of the middle part of mentum strongly convex, its upper edge sharp. Pronotum as in fig. 100; sides rounded, narrowing anteriad; anterior angles sharp, rather strongly produced anteriad and hook-like bent inwards; posterior angles obtuse, rounded; disc distinctly convex; deep and narrow concavity along lateral borders (strongly widened at anterior angles and poorly but distinctly widened at posterior angles); lateral border narrow, ca. 0.40× as wide as antennal segment 3; bordering of base widely interrupted medially. Pronotal base narrower than anterior margin of elytra. Structure of elytra as in mulsanti. Mesosternal process with lateral margins strongly convex. Male fore tibia slightly widened in middle, with a large apical denticle on outer margin, inner margin with deep longitudinal groove (Figs 98, 99); outer margin of hind tibia with two longitudinal ridges; male hind femur with a small denticle on inner side (Figs 101, 102).

Type. Holotype (male), MNHN: “Trigonop, Cape; Caffraria; Museum Paris Coll. De Marseul 1890”.

Distribution. South Africa [Cape Town] (Fig. 166).

Schelodontes mulsanti Koch, 1956 (Figs 127–132, 166)

Schelodontes mulsanti Koch, 1956: 431.

Locus typicus. Willowmore (South Africa, Cape Province).

Diagnosis. The structure of the pronotum (wide longitudinal concavity along lateral borders, strongly produced anterior angles), delicate punctuation of body surface, sharp humeral angle of elytra and the presence of the denticle on the male hind femur place mulsanti close to the species group rotundicollis, mannerheimi and marseuli.

The pronotal base wider than the anterior elytral margin, relatively wide lateral border of the pronotum, are shared by mulsanti and rotundicollis; the species differs in the shape of anterior angles of pronotum, male fore tibia and hind femora.

Description. Body length 8.5–9.0 mm, pl/pb = 0.72–0.75, el/eb = 1.31–1.37, el/pl = 1.75–1.76, elytra less convex, narrower than pronotum in males (eb/pb = 0.96–0.97). Upperside of body shiny, pronotum and proternum with a greasy sheen; head densely punctate, punctures mediumsized; pronotum and intervals sparsely and delicately punctate (distance between punctures equal to 3–4 puncture diameters, punctures small); underside of body slightly shiny; proternum rugose in middle; proternum sides delicately punctate, punctation practically invisible; abdominal ventrites with longitudinal delicate rugosity and evanescent punctuation (punctures large at anterior margins, and small at posterior one); femora and tibiae sparsely punctate, punctuation evanescent. Head widest at eye level; 4–5 facets between gena and temple, strongly protruding outwards; antennal segment 3 ca. 2× as long as segment 2; keel of the mid part of mentum strongly convex, its upper edge sharp. Pronotum (Fig. 132) distinctly convex; longitudinal concavity along lateral borders slightly widened at angles; pronotal sides rounded, narrowing anteriad; anterior angles sharp, rather strongly produced anteriad; posterior angles straight, rounded; width of lateral border (in the middle) ca. 0.60× as wide as antennal segment 3; bordering of base widely interrupted medially. Pronotal base wider than anterior elytral margin. Sharp humeri of elytra protruding outwards, striae much incised, punctures in rows small, poorly visible; intervals practically not convex, flat (Fig. 129). Mesosternum with very shallow, wide groove in the middle, the groove does not reach the posterior margin; lateral margins of mesosternal process almost flat, slightly convex. Upper margin of elytral epipleura strongly convex at apex, clearly visible. Male fore tibia slightly bent inwards, with a large apical denticle on their outer margin, without concavity on the inner margin (Figs 130, 131); outer margin of hind tibia with two longitudinal ridges; male hind femur with a medium-sized denticle on inner side (Figs 127, 128). Aedeagus: lap/lbp = 1.0/2.3.


Distribution. South Africa (Cape Province: Willowmore, Cradock) (Fig. 166).

Schelodontes nigerrimus (Mulsant et Rey, 1853) (Figs 103–110, 165)


Schelodontes nigerrimus Mulsant et Rey: Koch 1956: 82.

Terra typica. Cap de Bonne Esperance [South Africa, Cape Province].

Diagnosis. S. nigerrimus, like dormitorius, parvus and grandis, is characterized by a specific pronotal shape and sculpture (sides parallel at base, surface mat, delicately punctate, with a thick, roll-like border). This group has the mentum with strongly convex, blunt median keel; elongate, arcuately bent inwards male fore tibia and male hind femora with the denticle on inner side.

S. nigerrimus, together with dormitorius and parvus, differs from grandis in smaller body length, very delicately punctuation of the pronotum and elytra (practically invisible), and the shape of the denticle on male hind femur (bent outwards in grandis, inwards in above species).
The complete disappearance of striae in the posterior part of elytra is the character that distinguished *nigerrimus* from the remaining species of the group, and also of the genus.

**Description.** Body length 9.0–12.0 mm, both elytra and pronotum rather elongate (pl/pb = 0.73–0.80, el/eb = 1.32–1.43), el/pl = 1.71–1.86, elytra more convex and wider than pronotum in females (eb/pb = 0.96–1.03). Body surface flat, with greasy sheen. Head and pronotum very delicately punctate, punctures barely visible; elytral intervals smooth, dense punctuation visible only in the apical part; underside slightly shiny, prosternum sides and process delicately punctate, middle of prosternum rugose; episternum sparsely punctate, punctures medium-sized; abdominal ventrites delicately punctate, with delicately rugosity near anterior margins; femora and tibiae sparsely punctate, punctures medium-sized (distance between punctures equal to 4–5 puncture diameters). Head widest anterior to eyes; 2–3 facets between gena and temple; antennal segment 3 ca. 2.0x as long as segment 2; keel of the mid part of mentum strongly convex, its upper edge blunt, rounded. Pronotum as in fig. 103; sides poorly rounded to almost parallel on basal 1/3; posterior angles straight, anterior angles obtuse, rounded, somewhat produced anterioriad; longitudinal concavity along lateral borders narrow and shallow; lateral borders roll-like convex, fairly wide, ca. 0.71x as wide as antennal segment 3, considerably widened at posterior angles; bordering of base widely interrupted in middle. Elytral humeri sharp, strongly protruding outwards (Fig. 109); intervals flat, striae punctate-sulcate, vanishing posteriorly forming a smooth surface; upper margin of elytral epipleura invisible in apical part (Fig. 108). Episternum with narrow and shallow longitudinal concavity along lateral. Mesosternal process between insertions of mid coxae rather strongly convex, without median groove (Fig. 110). Male legs, fore tibia slightly widened, arcuately bent rather strongly convex, without median groove (Fig. 110). Male legs, fore tibia slightly widened, arcuately bent rather strongly convex, without median groove (Fig. 110). Male legs, fore tibia slightly widened, arcuately bent rather strongly convex, without median groove (Fig. 110). Male legs, fore tibia slightly widened, arcuately bent rather strongly convex, without median groove (Fig. 110).


**Distribution.** South Africa (Cape Province: Caledon, Mossel Bay, Oudtshoorn, Prince Albert, Riversdale) (Fig. 165).

---

**Schelodontes dormitorius** sp. nov.  
(Figs 111–112, 165, 168)

**Locus typicus.** Oudtshoorn (South Africa, Cape Province).

**Name derivation.** Latin adjective, *dormitorius*: sleepy.

**Diagnosis.** *S. dormitorius* belongs to the group that includes also *nigerrimus*, *parvus* and *grandis* (see diagnosis of *nigerrimus*); it differs from the latter in the body size, the punctuation of the pronotum and elytra and in the shape of the denticle on the male hind femur.

Very wide and deep longitudinal concavity along lateral borders of the pronotum distinguish *dormitorius* from *nigerrimus* and *parvus*.

**Description.** Body length 8.5–10.5 mm, pronotum moderately elongate (pl/pb = 0.66–0.72, el/eb = 1.27–1.39), el/pl = 1.78–1.94, elytra more convex and wider than pronotum in females (eb/pb = 0.92–1.00). Sculpture of body surface (both upper- and underside), shape of head, structure of antenna as in *nigerrimus*. Mentum as in fig. 111. Pronotum as in fig. 112; sides slightly but distinctly rounded; posterior angles straight, anterior angles obtuse, rounded, somewhat produced anterioriad; longitudinal concavity along lateral borders wide and rather deep, slightly widened at posterior and anterior angles; lateral border roll-like convex, without median groove. Legs structure as in *nigerrimus*. Aedeagus: lap/lbp = 1.0/2.0; ovipositor: lp/lc1 = 4.7, bc1/lc1 = 3.4, c1/e2/c3/c4 = 1.0/1.3/1.4/2.0.

**Types.** Lectotype (male), MNHN: “Trigonopus nigerrimus; Trigonopus nigerrimus type Mt 4p 130,13 Dj C sp eurynotus; Museum Paris 1906 Coll. Léon Fairmaire".

Paratypetypes: Type Mulsant nigerrimus.; trignonopus nigerrimus Mls., Cap. b. sp.; Museum Paris, Coll. De Marsule 1890, (MNHN) 1 m; Caffrarie, coll. R. Oberthur ex coll. Demolle. (NNIC) 2 m, 3 f; Cap De B. esp.; Museum Paris, 1906 Coll. Léon Fairmaire, (MNHN) 2 m; (present designation, examined).


http://rcin.org.pl
day, leg. Endrödy-Younga (TM) 1 f; Grootkraal, 14.VIII.84, Südafrika, Cape Prov., G. J. Minet (TM) 1 m.

**Distribution.** South Africa (Cape Province: Oudtshoorn) (Fig. 165).

**Schelodontes parvus** sp. nov.  
(Figs 86-87, 165)

**Locus typicus.** Swartbergpas Platberg Alt (South Africa, Cape Province).

**Name derivation.** Latin adjective, *parvus*: small.

**Diagnosis.** *S. parvus* forms the group together with *nigerrimus, dormitorius* and *grandis* (see diagnosis of *nigerrimus*); it differs from the latter in its body size, the punctation of the pronotum and elytra and the shape of the denticle on the male hind femur.

Male hind femur with small, rectangular denticle on inner side, body size (small) and more convex upper margin of elytral epipleura distinguish *parvus* from *nigerrimus* and *dormitorius*.

Figures 133–144. *Schelodontes verreauxi*. (133) pronotum, (134) dorsal and (135) ventral view of male fore tibia, (136) ventral and (137) latero-dorsal view of male mid tibia, (138) apical part of elytron, (139) anterior part of elytron, (140) ovipositor, (141) ventral view of apical part of aedeagus, (142) mentum, (143) ventral and (144) latero-dorsal view of male hind tibia.
**Description.** Body length 8.0–9.5 mm, moderately elongate pronotum (pl/pb = 0.71–0.78, el/eb = 1.28–1.33), el/pl = 1.71–1.86, elytra more convex and wider than pronotum in females (eb/pb = 0.96–1.02). Sculpture of body surface (both upper- and underside), shape of head, structure of antenna as in *nigerinus*. Pronotal sides slightly rounded; posterior angles straight, anterior angles obtuse, rounded, slightly produced anteriad; longitudinal concavity along lateral borders rather deep, slightly widened at posterior and anterior angles; lateral border roll-like convex, rather wide, ca. 0.71 x as wide as antennal segment 3, widened at posterior angles; bordering of base widely interrupted in middle. Elytral humeri sharp, strongly protruding outwards; intervals flat; striae punctate-sulcate, somewhat obliterated posteriorly, but visible. Episternum with narrow and rather deep longitudinal concavity along lateral margins. Upper margin of elytral epipleuron slightly convex, clearly visible apically. Mesosternal process between insertions of mid coxae moderately convex, without median groove. Structure of male fore tibia as in *nigerinus*, male hind femora with small denticle on inner side (Figs 86, 87). Aedeagus: lap/lbp = 1.0/2.0.

**Types.** Holotype (male), MZLU: "S. Afr. Cape Prov. Swartbergpaa Platberg alt: ab. 5000 ft. 5.1.51. No. 120; Swedish South Africa Expedition 1950–1951 Brinck-Rudebeck; Schelodontes helobatoides C. Koch det.". Paratypes: S. Afr. Cape Prov. Swartbergpaa Platberg Alt: ab. 5000 ft. 5.1.51. No. 120; Swedish South Africa Expedition 1950–1951 Brinck-Rudebeck; Schelodontes helobatoides C. Koch det., (MZLU) 1 m, 1 f.

**Distribution.** South Africa (Cape Province: Swartberge) (Fig. 165).

Schelodontes grandis Koch, 1956 (Figs 113–118, 165)


**Locus typicus.** Klipplaat (South Africa, Cape Province).

**Diagnosis.** The species forms the group together with *nigerinus, dormitorius* and *parvus* (see diagnosis of *nigerinus*).

It differs from them in larger body size, stronger punctation of the pronotum and elytra, wider bordering of the pronotum and in the shape of the denticle on male hind femur.

**Description.** Body length 13.0–15.0 mm, strongly elongate pronotum (pl/pb = 0.78–0.81, el/eb = 1.28–1.34, el/pl = 1.66–1.74, elytra more convex and wider than pronotum in females (eb/pb = 0.98–1.12). Body surface mat, with a greasy sheen. Head and pronotum delicately punctate, punctures clearly visible (distance between punctures equal to 3–4 puncture diameters); elytral intervals with very small, sparsely distributed punctures, dense punctation visible in apical part; underside slightly shiny, prosternum with rugosity in middle, sides of prosternum and process delicately punctate; episternum sparsely punctate, punctures medium-sized; abdominal ventrites delicately punctate, with delicately rugosity near anterior margins; femora and tibiae distinctly punctate, punctures medium-sized (distance between punctures equal to 3–4 puncture diameters). Head widest anterior to eyes: 1–2 facets between gena and temple; antennal segment 3 ca. 2.2 x as long as segment 2; keel of the mid part of mentum strongly convex, its upper edge blunt, rounded. Pronotum as in fig. 113; sides almost parallel at basal half, than very slightly widened towards apex; posterior angles straight, anterior angles obtuse, rounded, slightly produced anteriad; longitudinal concavity along lateral borders narrow and deep, strongly widened at posterior and anterior angles; lateral border roll-like convex, very wide (ca. 1.14 x wider than antennal segment 3), considerably widened at posterior angles; bordering of base widely interrupted in middle. Elytral humeri sharp, strongly protruding outwards (Fig. 118); intervals flat, striae punctate-sulcate, punctures in rows distinctly visible; upper margin of elytral epipleura invisible apically. Episternum with shallow and narrow longitudinal concavity along lateral margins. Mesosternal process between insertions of mid coxae flat. Male fore tibia arcuately bent inwards, inner margin sharp, with sparse, long setae and sharp, elongate apical angle (Figs 116, 117); male hind femora hairy on inner side, provided with a very large, sharp denticle which is bent outwards (Figs 114, 115). Legs of both sexes, outer margin of hind femora with two longitudinal, poorly convex ridges. Aedeagus: lap/lbp = 1.0/2.1; ovipositor: lp/lcl = 4.1, bcl/lcl = 3.7, cl/c2/c3/c4 = 1.0/1.4/1.3/3.2.

**Material examined.** Marginicollis Dep Cap.B.I Coll (Solier), (MNHG) 1 m; Cap. B. Spei.; Drege; marginicollis Muls.; Naturhistoriska Riksmuseet Stockholm Loan no 1243/95, (ZMS) 1 f; Capland; Trigonopus capicola Muls R. det. dr. Kaszab., (HNHM) 1 f.

**Distribution.** South Africa (Cape Province: Jansenville) (Fig. 165).

Zophodes Fähraeus, 1870


**Type species.** Zophodes tristis Fähraeus, 1870 (by monotypy).

**Diagnosis.** The genus, like the genera *Eviropodus*, *Schelodontes* and *Warchaltowskiihlus*, has the upper edge of anterior elytral margin sharply convex (except *Eviropodus*), all tarsi of both sexes narrow and bordered base of elytra (except *Schelodontes*).

Zophodes differs from the remaining genera in the structure of male fore and hind tibiae.

**Description.** Body length 9.0–11.5 mm; colour dark brown to black, often with light brown or grey shagreen (dust of substratum where the beetles live); underside lighter. Upperside of body mat; punctuation of pronotum and elytra very dense (distance between punctures equal to or smaller than puncture diameter), punctures large. Underside of body more shiny; prosternum rugose in middle; prosternal sides and abdominal ventrites not very

http://rcin.org.pl
strongly punctate (sparsely, but punctures large); whole femora and tibiae at apices sparsely, but strongly punctate. Head widest anterior to eyes; mid part of mentum strongly widened anteriorly, lateral wings practically invisible; eyes narrowed laterally; structure of antenna as in *Trigonopus*; frontoclypeal suture poorly marked, clearly visible only in side view. Pronotum rather strongly, evenly convex; sides slightly rounded; base almost straight; pronotal bordering very narrow. Scutellum located at the level of line connecting humeral angles. Body very strongly convex; elytra wider than pronotum (especially in females), tucked in posteriorly (a part of intervals VIII and IX visible from underside); upper edge of anterior margin from humeral angle almost to scutellum strongly convex (forms sharp ridge), bordered; lower edge practically not convex; humeral angles sharp, protruding outwards; epipleura very narrow apically, upper margin convex and clearly visible at apex. Prosternal process protruding towards mesosternum, with border interrupted at apex. Last abdominal ventrite bordered. Male legs, fore tibia widened in middle, with very large and sharp apical denticle that strongly protrudes outwards; mid and hind tibiae with very strongly convex, sharp ridges on their outer margin; hind tibiae acutely bent inwards; hind femora simple, without denticle on inner side. Legs of both sexes with all tarsi narrow (with glabrous gutters ventrally on all segments). General structure of aedeagus and female reproductive system as in the remaining trigonopoid Platynotina.

**Distribution.** South Africa (southern part of Transvaal).

**KEY FOR SPECIES DETERMINATION**

1. Anterior margin of mentum strongly emarginate medially; basal border of pronotum narrowly interrupted in middle (Fig. 147); scutellum densely punctate; outer margin of male fore tibia with median denticle, inner margin straight (Figs 150, 151); male hind tibia sparsely setose on inner side (Fig. 149) ............ *Zophodes tristis* fitteris

- Anterior margin of mentum shallowly concave medially; basal border of pronotal emargination (Fig. 158); scutellum smooth, impunctate; outer margin of male fore tibia slightly widened in middle, inner margin with median denticle (Figs 156, 157); male hind tibiae densely setose on inner side (Fig. 161) ............ *Zophodes fitzsimonsi*

**Zophodes tristis** Fähraeus, 1870
(Figs 145-155, 163)


**Terra typica.** Caffraria [South Africa].

**Diagnosis.** The species, like *fitzsimonsi*, has sharply convex and bordered anterior margin of elytra, wide mid part of mentum, male fore tibia widened medially and at apex and male hind tibia strongly bent inwards.

**Z. tristis** differs from *fitzsimonsi* in the shape of the mentum, the bordering of pronotal base, scutellum punctation, the structure of fore and hind tibiae.

**Description.** Small beetles, body length 9.0–10.5 mm, body stout, relatively wide (pl/pb = 0.57–0.69, eb/eb = 1.11–1.25), el/pl = 1.72–1.83, elytra stronger convex in females (eb/pb = 0.95–1.05). Anterior margin of mid part of mentum strongly emarginate medially (Figs 153, 154); 3–4 facets between gena and temple; antennal segment 3 ca. 1.8× as long as segment 2. Pronotum as in fig. 147; sides slightly rounded; anterior angles straight, slightly produced anteriad; posterior angles obtuse, strongly rounded; lateral border very narrow, ca. 0.25× width of antennal segment 3; bordering of base very narrowly interrupted in middle. Scutellum densely punctate. Anterior part of elytra as in fig. 146; epipleuron as in fig. 155. Male legs, fore tibia with median denticle on outer margin, inner margin straight, with a ridge and a shallow concavity (Figs 150, 151); mid tibia as in fig. 148; hind tibiae sparsely setose on inner side (Fig. 149). Female fore tibia as in fig. 152. Aedeagus: lap/lbp = 1.0/2.4; ovipositor (Fig. 145): lp/lcl = 3.3, bc1/lcl = 1.9, c1/c2/c3/c4/c4-c3 = 1.0/0.70/0.8/1.6, plate c4 strongly elongate.

**Type.** Holotype (female), ZMS: “Caffraria; J. Wahlb.; Typus; Zophodes n. gen. tristis n. sp.; Naturhistoriska Riksmuseet Stockholm Loan no 1244/95”; (examined).

**Material examined.** Ranterdsorp: Zophodes tristis Fahr. Dr. Z. Kaszab det.; 540 Zophodes tristis Fahr., (HNHM) 1 m; Lashumo; Trigonopus Verreauxi Muls. det. dr. Kaszab, (HNHM) 1 f.

**Distribution.** South Africa (Transvaal: Lichtenburg, Ventersdorp) (Fig. 163).

**Zophodes fitzsimonsi** Koch, 1956
(Figs 156–163)


**Locus typicus.** Pretoria (South Africa, Transvaal).

**Diagnosis.** See diagnosis of *tristis*.

**Description.** Small beetles, body length 9.0–11.5 mm, body stout, relatively wide (pl/pb = 0.63–0.68, el/eb = 1.20–1.29), el/pl = 1.71–2.02, elytra stronger convex in females (eb/pb = 0.97–1.04). Head as in fig. 159; anterior margin of mid part of mentum shallowly marginated medially; 2–3 facets between gena and temple; antennal segment 3 ca. 1.8× as long as segment 2. Pronotum as in fig. 158; sides slightly rounded; anterior angles straight, slightly produced anteriad; posterior angles straight, blunt; lateral border very narrow, ca. 0.33× width of antennal segment 3; bordering of base entire. Scutellum smooth, impunctate. Legs of both sexes, fore tibia widened in middle of outer margin, with very large apical denticle that is strongly produced outwards, and in males with sharp median denticle on inner margin (Figs 156, 157); female fore tibia as in fig. 162. Male hind tibia densely setose on inner side (Fig. 161). Aedeagus (Fig. 160): lap/lbp = 1.0/2.1; ovipositor: lp/lcl = 4.4, bc1/lcl = 2.5, c1/c2/c3/c4/c4-c3 = 1.0/1.2/1.6/2.0, plate c4 strongly elongate.
Figures 145–162. Zophodes spp. 145–155. Z. tristis, 156–162. Z. fitzsimonsi. (145) ovipositor, (146) anterior part of elytron, (147, 158) pronotum, (148) latero-dorsal view of male mid tibia, (149, 161) latero-dorsal view of male hind tibia, (150, 156) dorsal and (151, 157) ventral view of male fore tibia, (152, 162) dorsal view of female fore tibia, (153) dorsal and (154) latero-dorsal view of mentum, (155) elytral epipleuron (e), parts of 8 and 9 intervals (VIII, IX), (159) head, (160) ventral view of apical part of aedeagus.
**Types.** Holotype (female), TM: “Holotypus; Zophodes fitzsimonsi, Petoria, 10.VIII.1928, G. v. Son; Holotype no: 3759, Zophodes fitzsimonsi Koch”. Paratypes: Pretoria 19 G. van Son; Paratype; fitzsimonsi Koch; Paratypus Zophodes Fitzsimonsi Koch, (HNHM) 1 m, 1 f, (TM) 1 m.


**Distribution.** South Africa (Transvaal: Pretoria) (Fig. 163).
Figure 167. Distribution of *Schelodontes mannerheimi* (solid triangle), *S. simplimanus* (open triangle), *S. verreauxi* (solid circle), *S. immundus* (open circle) and *S. terrenus* (solid/open circle).

REFERENCES


Received: December 14 1997
Accepted: April 14, 1998

Corresponding Editor: S. A. Ślipiński
Issue Editor: D. Iwan

Figure 168. *Schelodontes dormitorius* (by M. Szezepeńska). Male.


http://rcin.org.pl