

# Revision of the genus *Paratropus* Gerstaecker (Coleoptera: Histeridae). II. Supplement

P. Kanaar

Kanaar, P. Revision of the genus *Paratropus* Gerstaecker (Coleoptera: Histeridae). II. Supplement. Zool. Med. Leiden 78 (9), 27.viii.2004: 181-203, figs 1-31.— ISSN 0024-0672.

P. Kanaar, Jan van Ruusbroecklaan 31, 2343 JM Oegstgeest, The Netherlands (e-mail: misterhister@hetnet.nl).

Key words: Coleoptera; Histeridae; *Paratropus*; Termitophiles; Myrmecophiles; Africa; Oriental region; new species.

A supplement to the "Revision of the genus *Paratropus* Gerstaecker" (Kanaar, 1997) is given. Additional faunistic data are presented. The following four new species are described and figured: *P. angulifrons* (Malaysia: Sabah), *P. strigosus* (Cameroon, Ghana), *P. tenuis* (Indonesia: Sumatra) and *P. transvaalensis* (South Africa: Transvaal).

## Introduction

After the publication of the "Revision of the genus *Paratropus* Gerstaecker" (Kanaar, 1997) more material was sent to me for identification. Among this material several new species were noticed, and therefore a supplement to my former revision was taken up. For the general information about this genus, the methods used, the morphological terminology, synonymies and bibliography the reader is referred to Kanaar (1997).

## Depositories and abbreviations

The material on which this study has been based has willingly been put at my disposal by the listed museums and private persons. Codes for the institutes (as far as mentioned in that work) are used according to Arnett c.s. (1993). Unless stated otherwise the specimens collected by Dr Cl. Girard have been collected in dead termitaria of *Macrotermes bellicosus* (Smeathman, 1781) and have been divided over the collections MNHN and CHPK. The specimens collected by Dr G. Goergen have been collected in *Macrotermes* mounts and have been divided over the collections IITA and CHPK. For the sake of brevity these data are not repeated every time in the relevant records.

- CNCI = Canadian National Collection of Insects, Arachnids and Nematodes, Ottawa.  
HNHM = Hungarian Museum of Natural History, Budapest.  
IITA = International Institute of Tropical Agriculture, Biological Control Centre for Africa, Insect Museum, Cotonou.  
LSAM = Louisiana State Arthropod Museum, Baton Rouge.  
MNHN = Muséum National d'Histoire Naturelle, Paris.  
MRAC = Musée Royal de l'Afrique centrale, Tervuren.  
NHMW = Naturhistorisches Museum, Wien.

- RMNH = Nationaal Natuurhistorisch Museum, Leiden (formerly: Rijksmuseum van Natuurlijke Historie)  
 TMSA = Transvaal Museum, Pretoria.  
 USNM = National Museum of Natural History, Smithsonian Institute, Washington.  
 ZFMK = Zoölogisches Forschungsinstitut und Museum Alexander Koenig, Bonn.  
 ZMAS = Zoological Museum, Russian Academy of Sciences, St. Petersburg.
- CHAT = Private Histeridae collection A. Tishechkin, Baton Rouge.  
 CHFP = Private Histeridae collection F. Penati, Morbegno.  
 CHML = Private Histeridae collection M. Lambert, La Celle St. Cloud.  
 CHND = Private Histeridae collection N. Dégallier, Montpellier.  
 CHPK = Private Histeridae collection P. Kanaar, Oegstgeest (legated to RMNH).  
 CHPV = Private Histeridae collection P. Vienna, Venice.  
 CHRP = Private Histeridae collection R. Peschel, Chemnitz.  
 CHSM = Private Histeridae collection S. Mazur, Warsaw.  
 CHTL = Private Histeridae collection T. Lackner, Amsterdam.  
 CHYG = Private Histeridae collection Y. Gomy, Nevers.
- PE-length = Distance from the anterior pronotal margin in the median line to an imaginary line through the tips of the elytra.  
 $\delta / \text{♀}$  = Specimen(s) of undetermined sex (mainly stored in alcohol).

### Species accounts

#### *Paratropus achanti* Théron, 1973

Material.— **Ivory Coast:** 14  $\delta \delta$ , 9  $\text{♀} \text{♀}$ , Lamto, Zougoussi, Canari trap n° 1, 22.iii-7.iv.1994, C. Girard; 18  $\delta \delta$ , 17  $\text{♀} \text{♀}$ , Lamto, Zougoussi, Canari trap n° 2, 22.iii-8.iv.1994, C. Girard; 22  $\delta \delta$ , 27  $\text{♀} \text{♀}$ , Lamto, Zougoussi, Canari trap n° 3, 22.iii-12.iv.1994, C. Girard; 1  $\delta$ , 1  $\text{♀}$ , Lamto, Canari trap n° 4, 6-18.iv.1994, C. Girard. **Benin:** 9  $\delta \delta$ , 10  $\text{♀} \text{♀}$ , 40  $\delta / \text{♀}$ , Attagon, 29.vii.2000, G. Goergen; 1  $\text{♀}$ , Pobé, 28.ii.2001, G. Goergen; 1  $\delta$ , 1  $\text{♀}$ , Pobé, xi.2001, G. Goergen; 19  $\delta \delta$ , 18  $\text{♀} \text{♀}$ , Attogon, i.2002, G. Goergen; 4  $\text{♀} \text{♀}$ , 62  $\delta / \text{♀}$ , Toffo, i.2002, G. Goergen; 3  $\delta \delta$ , 8  $\text{♀} \text{♀}$ , Niaouli, i.2002, G. Goergen; 3  $\delta \delta$ , 81  $\delta / \text{♀}$ , Toffo, ii.2002, G. Goergen; 27  $\delta \delta$ , 24  $\text{♀} \text{♀}$ , Niaouli I, ii.2002, G. Goergen; 19  $\delta \delta$ , 26  $\text{♀} \text{♀}$ , Niaouli II, ii.2002, G. Goergen; 1  $\delta$ , 1  $\delta / \text{♀}$ , Pénnéssoulou, vi.2002, G. Goergen; 6  $\delta \delta$ , 8  $\text{♀} \text{♀}$ , Pénnéssoulou, ix.2002, G. Goergen. **Nigeria:** 1  $\delta$  (CHYG), Ibadan IITA, light trap, campus, i.2000, G. Goergen.

Remark.— First records for Benin and Nigeria.

#### *Paratropus altilis* Lewis, 1901

Material.— **Kenya:** 1  $\text{♀}$  (CHPK), Kwale, Dist. Shimba Hills, Res. Makadera For., 25.vi.1971, B.D. Valentine. **Burkina:** 1  $\delta$  (ZMAS), Ouagadougou, 7.vi.[1]927, Olsyfiiev (with doubt).

Remark.— First records for Kenia and (with doubt) for Burkina.

*Paratropus angulifrons* spec. nov.  
(figs 1-8)

Material.— **Malaysia:** Holotype, ♂ (RMNH), [white label, printed:] “♂”; [white label, printed:] “BORNEO - Sabah/Batu Pungul Resort/24/26-VI-1996/Kodada, Ciampor leg.”; [red label, printed:] “HOLOTYPUS/*Paratropus/angulifrons* spec. nov./ P. Kanaar des. 2004”; 3 ♀♀ (CHND, CHPK), same locality, date and collectors (paratypes).

Length (without head, propygidium and pygidium) 2.5 mm, width 2.0 mm, height 1.4 mm. Rather narrowly oval, moderately convex. Shiny, colour reddish castaneous brown, sutures darker.

Head (fig. 3).— Mandibles punctulate. Labrum slightly emarginate, convex in both directions, punctulate at the sides. Clypeus in marked angle with frons, punctulate with smooth interstices, concave in both longitudinal and transversal directions, with a faint median ridge. Frontal stria semi-hexagonal with rounded angles, continuous with the supraorbital striae, that are slightly divergent anteriorly and continuous with the slightly crenulate occipital stria. Vertex and frons slightly convex, without frontal impression, punctulate, interstices smooth.

Pronotum (fig. 1).— In dorsal view nearly 2.0 times wider than long in the median line, without impressions before scutellum or in anterolateral angles. Pronotum with distinct, not dense double punctation, primary punctures decreasing in size towards sides and anterolateral angles. Interstices smooth. Lateral striae close to the margin. Marginal striae visible along the antennal fossae, elsewhere obsolete. Anterior stria complete, finely crenulate, close to the margin, continuous with the lateral striae.

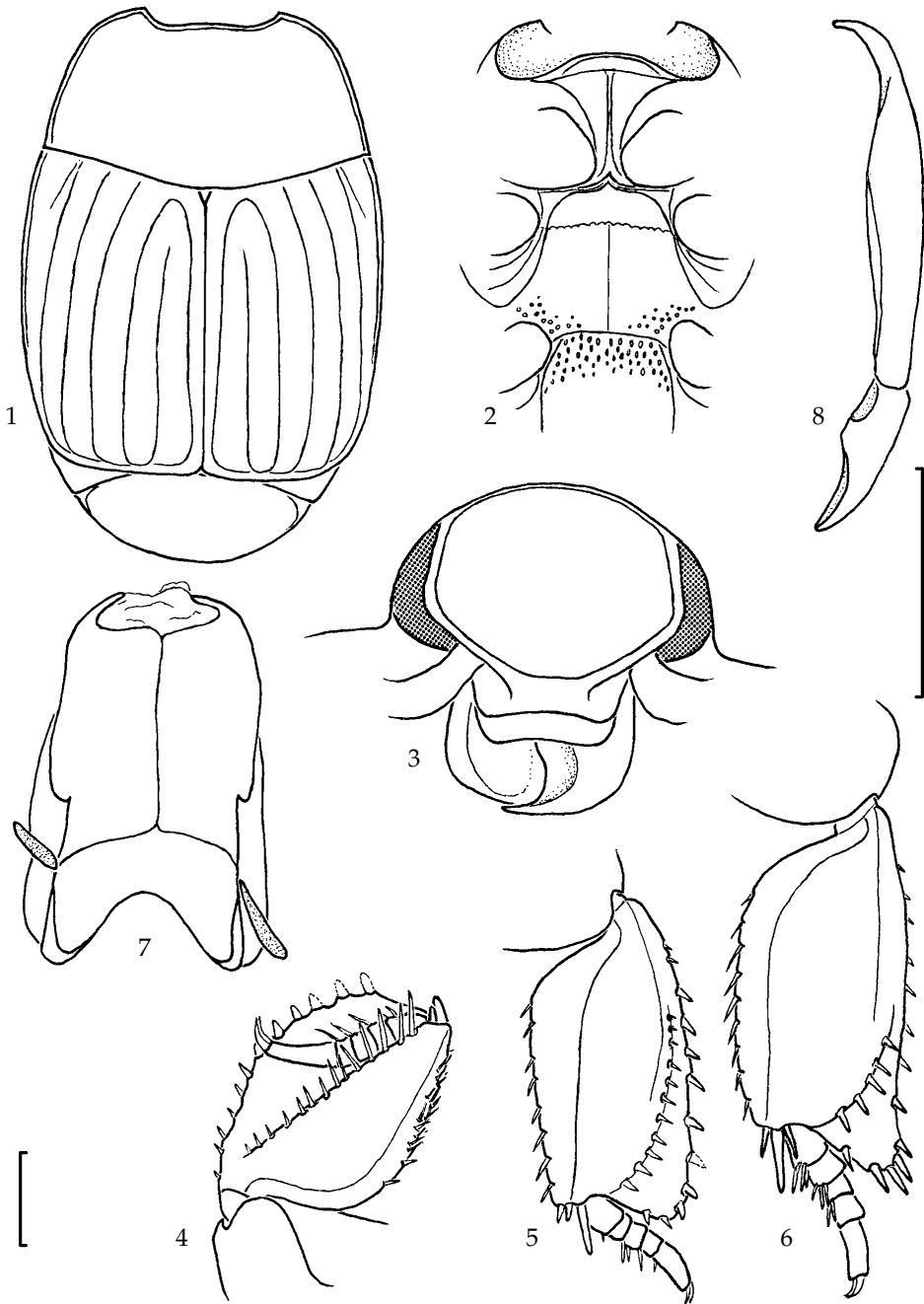
Elytra (fig. 1).— Punctulate, interstices smooth. Marginal epipleural striae present in posterior half, epipleural striae very fine, almost complete. Marginal elytral striae well-impressed, complete. Outer subhumeral striae complete, at the apex continuous with the apical striae, formed by the apical recurvatures of the dorsal striae. Inner subhumeral striae absent. Oblique humeral striae very fine. Course of the other crenulate elytral striae: fig. 1.

Propygidium.— With rather coarse, not dense double punctation, the larger punctures slightly elongate, irregularly scattered, diminishing in size posteriorly and laterally, interstices without linear microsculpture. Lateral sides with a fine arcuate stria.

Pygidium.— Deflexed, convex, with double punctation, the larger punctures elongate, interstices without linear microsculpture. Fine marginal stria complete.

Prosternum (fig. 2).— Punctulate, interstices smooth. Lobe distinctly deflexed, truncate, marginal stria distinct, complete. Prosternal keel narrow, distinctly convex in lateral view. Carinal prosternal striae fine, convergent anteriorly in their posterior half, thence very close and again a little divergent anteriorly. Lateral prosternal striae absent. Lateral marginal prosternal striae distinctly divergent and curved outward anteriorly.

Meso- and metasternum.— Striation: Fig. 2; meso- and metasternum distinctly, not densely punctate, punctures smaller on posterior central metasternal disc, interstices smooth. Inner lateral metasternal striae fluently passing into their recurrent arms, forming loops. Median suture of metasternum fine, metasternal median impression in anterior three fourths shallow and rather narrow, elongate.



Figs 1-8, *Paratropus angulifrons* spec. nov. (male) – 1, dorsal view (in part). 2, ventral view (in part). 3, head, dorsal view. 4, left protibia (inner face). 5, left mesotibia (outer face). 6, left metatibia (outer face). 7, eighth sternite (ventral view). 8, aedeagus (right lateral view). Scale lines 0.5 mm, left figs 1-2, right figs 3-8.

First visible abdominal sternite.— In the anterior half slightly impressed in longitudinal direction, this impressed area with a broad band of large, elongate punctures (fig. 2), diminishing in size and less elongate posteriorly. Posterior third with sparse punctures, interstices smooth. Posterior margin at the sides with some scattered indistinct punctures, but not in the extreme edge.

Legs.— Strongly broadened. Tibiae: Figs 4-6.

Aedeagus.— Fig. 8; eighth sternite: Fig. 7.

Female.— PE-length 2.3-2.34 mm. No metasternal impression. No distinct sexual dimorphism of the tibiae. The faint median ridge on the clypeus is absent. In two females the punctation of the metasternum is more distinct.

Eymology.— The name refers to the marked angle between frons and clypeus, and is a counterpart of the name of another rather elongate oriental species, *Paratropus planifrons* Reichensperger.

Remarks.— In my key (Kanaar, 1997) this species runs to couplet 56, but it does not fit to any of the two alternatives: It fits almost the first of the two offered alternatives but it is not an African species.

The faint median ridge on the clypeus of the holotype may be an individual aberration, as it is not present in the female paratypes.

*Paratropus boleti* Lewis, 1901

Material.— **Guinea:** 1 ♀ (CHAT), Mt. Nimba, Zougue River, 740m, 7°41'30"N 8°22'30"W, 22-28.xi.1990, FIT, Luc Leblanc. **Ghana:** 4 ♂♂ 1 ♀ (LSAM, CHPK), Ashanti Reg., Bobiri Forest Reserve, 6°42'N 1°20'W, 23-31.vii.2001, F.I.T. # 1, C. Carlton & V. Moseley; 3 ♂♂, 1 ♀ (LSAM, CHPK), idem, but F.I.T. # 3; 1 ♀ (LSAM), Ashanti Reg., Bobiri Forest Reserve, 6°42'N 1°20'W, 1-16.viii.2001, flight interception trap, E. Opuni-Frimpong; 1 ♂ (LSAM), idem, but 23.i-1.ii.2002.

Remarks.— The specimen from Guinea belongs to the variety B. The specimens from Ghana correspond to variety D, only the double punctation of the elytra is absent. First records for Guinea and Ghana.

*Paratropus caswelli* (Thérond, 1962)

Material.— **Ivory Coast:** 1 ♂, Lamto, Zougoussi, Canari trap n° 3, 22.iii-12.iv.1994, C. Girard; 1 ♀, Lamto, Canari traps n° 5, 6 and 7, 5-20.iv.1994, C. Girard; 1 ♀, Lamto, trap with dug in termite's comb, 27.iv-13.v.1994, C. Girard; 1 ♂, 1 ♀ (CHML), Comoé, termitarium, vi.2000. **Benin:** 2 ♂♂, 8 ♀♀, Attogon, 29.vii.2000, G. Goergen; 1 ♂, 3 ♀♀, Pobé, 28.ii.2001, G. Goergen; 4 ♂♂, 8 ♀♀, Attogon, i.2002, G. Goergen; 3 ♂♂, 5 ♀♀, Toffo, i.2002, G. Goergen; 1 ♂, 2 ♀♀, Niaouli, i.2002, G. Goergen; 2 ♂♂, 4 ♀♀, Toffo, ii.2002, G. Goergen; 4 ♂♂, 1 ♀, Niaouli I, ii.2002, G. Goergen; 1 ♂, Niaouli II, ii.2002, G. Goergen; 3 ♂♂, Pénnéssoulou, vi.2002, G. Goergen; 15 ♂♂, 13 ♀♀, Pénnéssoulou, ix.2002, G. Goergen. **Zaire:** 1 ♀ (ZFMK), Katanga, Belg. Congo (without date).

Remark.— First record for Benin.

*Paratropus cavifrons* Kanaar, 1997

Material.— **Ghana:** 1 ♂ (LSAM), Ashanti Reg., Bobiri Forest Reserve, 6°42'N 1°20'W, 23-31.vii.2001, F.I.T. # 2, C. Carlton & V. Moseley; 3 ♂♂ (LSAM, CHPK), idem but F.I.T. # 3; 1 ♀ (LSAM), idem, but

F.I.T. # 4; 3 ♂♂, 7 ♀♀ (LSAM, CHPK), Ashanti Reg., Bobiri Forest Reserve, 6°42'N 1°20'W, 1-16.viii.2001, flight interception trap, E. Opuni-Frimpong; 1 ♀ (LSAM), idem, but 5-10.ix.2001; 2 ♂♂ (LSAM), Ashanti Reg., Bobiri Forest Reserve, 6°42'N 1°20'W, 8-11.ii.2002, flight interception trap, E. Opuni-Frimpong & C. Carlton.

Remarks.— The specimens from Ghana have less sinuate supraorbital striae than those of the type-series and therefore the posterior parts of these striae are less distinctly convergent anteriorly. Also the antescutellar impression is less distinct than in the type-series. First record for Ghana.

*Paratropus chelonitis* Lewis, 1905

Material.— **Cameroon:** 1 ♂, 1 ♀ (CNCI), Ngaoundere, 8.iv.1976, R.E. Parrott. **South Africa:** 1 ♀ (CNCI), Lagoon, East London, 13.i.1976, R.E. Parrott.

Remark.— First records for Cameroon and South Africa.

*Paratropus congonis* Lewis, 1909

Material.— **Benin:** 1 ♀, Attagon, 29.vii.2000, G. Goergen (with doubt). **Ivory Coast:** 3 ♂♂, 2 ♀♀ (CHSM), Parc national de la Comoe, DFG-Projekt, Li 150-18, Krell (without date, various trap codes).

Remark.— First record (though with doubt) for Benin.

*Paratropus connectens* Kanaar, 1992

Material.— **Ivory Coast:** 6 ♂♂, 7 ♀♀, Lamto, Zougoussi, Canari trap n° 1, 22.iii-7.iv.1994, C. Girard; 10 ♂♂, 12 ♀♀, Lamto, Zougoussi, Canari trap n° 2, 22.iii-8.iv.1994, C. Girard; 17 ♂♂, 13 ♀♀, Lamto, Zougoussi, Canari trap n° 3, 22.iii-12.iv.1994, C. Girard; 4 ♂♂, 5 ♀♀, Lamto, Canari trap n° 4, 6-18.iv.1994, C. Girard; 8 ♂♂, 4 ♀♀, Lamto, Canari traps n° 5, 6 and 7, 5-20.iv.1994, C. Girard; 4 ♂♂, 2 ♀♀, Lamto, Canari trap n° 8, 6-23.iv.1994, C. Girard; 2 ♂♂, 5 ♀♀, Lamto, Canari trap n° 9, 6-26.iv.1994, C. Girard; 10 ♂♂, 5 ♀♀, Lamto, Canari trap n° 10, 27.iv-9.v.1994, C. Girard; 2 ♂♂, 7 ♀♀, Lamto, Canari trap n° 11, 27.iv-10.v.1994, C. Girard; 2 ♂♂, 3 ♀♀, Lamto, Canari trap n° 12, 27.iv-11.v.1994, C. Girard; 2 ♂♂, 1 ♀, Lamto, trap with dug in termite's comb, 27.iv-13.v.1994, C. Girard; 2 ♂♂, 2 km from Taabo, termitarium in damaged forest, 15.v.1994, C. Girard. **Benin:** 2 ♂♂, Pobé, 28.ii.2001, G. Goergen; 2 ♂♂, 4 ♀♀, Attogon, i.2002, G. Goergen; 2 ♂♂, 1 ♀, Toffo, i.2002, G. Goergen; 4 ♂♂, 2 ♀♀, Toffo, ii.2002, G. Goergen; 1 ♂, Niaouli II, ii.2002, G. Goergen.

Remark.— First record for Benin.

*Paratropus decipiens* Kanaar, 1992

Material.— **Benin:** 1 ♂, Pénnessoulou, ix.2002, G. Goergen.

Remark.— First record for Benin.

*Paratropus degallieri* Kanaar, 1993

Material.— **Ivory Coast:** 1 ♂, Lamto, Zougoussi, Canari trap n° 1, 22.iii-7.iv.1994, C. Girard; 1 ♂, 1 ♀, Lamto, Zougoussi, Canari trap n° 2, 22.iii-8.iv.1994, C. Girard; 1 ♂, 1 ♀, Lamto, Zougoussi, Canari trap

n° 3, 22.iii-12.iv.1994, C. Girard; 1 ♂, Lamto, Canari trap n° 10, 27.iv-9.v.1994, C. Girard. **Benin:** 11 ♂♂, 4 ♀♀, 1 ♂/♀, Attagon, 29.vii.2000, G. Goergen; 1 ♀, Pobé, 28.ii.2001, G. Goergen; 4 ♂♂, 1 ♀, Pobé, xi.2001, G. Goergen; 1 ♂, 2 ♀♀, Attogon, i.2002, G. Goergen; 1 ♂, Toffo, i.2002, G. Goergen; 3 ♂♂, 1 ♀, Niaouli, i.2002, G. Goergen; 4 ♂♂, 5 ♀♀, Toffo, ii.2002, G. Goergen; 3 ♂♂, Niaouli I, ii.2002, G. Goergen; 3 ♂♂, 2 ♀♀, Niaouli II, ii.2002, G. Goergen; 1 ♂, Pénnessoulou, ix.2002, G. Goergen.

Remark.— First record for Benin.

*Paratropus endroedyi* Théron, 1973

Material.— **Benin:** 1 ♀, Niaouli II, ii.2002, G. Goergen.

Remark.— First record for Benin.

*Paratropus femoralis* (Reichardt, 1936)

Material.— **Guinea:** 1 ♀ (CHAT), env. Kindia, Pasteuria, 11.iv.1982, at light, S. Muzzin. **Ivory Coast:** 1 ♂, 1 ♀, Lamto, Zougoussi, Canari trap n° 2, 22.iii-8.iv.1994, C. Girard; 2 ♂♂, 1 ♀, Lamto, Zougoussi, Canari trap n° 3, 22.iii-12.iv.1994, C. Girard; 2 ♂♂, 6 ♀♀, Lamto, Canari trap n° 4, 6-18.iv.1994, C. Girard; 1 ♂, 1 ♀, Lamto, Canari traps n° 5, 6 and 7, 5-20.iv.1994, C. Girard; 2 ♂♂, 1 ♀, Lamto, Canari trap n° 8, 6-23.iv.1994, C. Girard; 1 ♀, Lamto, Canari trap n° 9, 6-26.iv.1994, C. Girard; 1 ♂, 1 ♀, Lamto, Canari trap n° 10, 27.iv-9.v.1994, C. Girard; 1 ♂, 4 ♀♀, Lamto, Canari trap n° 11, 27.iv-10.v.1994, C. Girard; 2 ♂♂, 2 ♀♀, Lamto, Canari trap n° 12, 27.iv-11.v.1994, C. Girard; 1 ♂, 5 ♀♀, Lamto, trap with dug in termite's comb, 27.iv-13.v.1994, C. Girard; 3 ♂♂, 2 ♀♀, 2 km from Taabo, termitarium in damaged forest, 15.v.1994, C. Girard; 1 ♀, 4 ♂/♀ (collection T. Théry), Comoé, xi.2001, P. Moretto. **Cameroon:** 2 ♀♀ (CNCI), Ngaoundere, 8.iv.1976, R. E. Parrott. **Benin:** 9 ♂♂, 4 ♀♀, Pénnessoulou, ix.2002, G. Goergen.

Remark.— First record for Benin.

*Paratropus fungorum* Lewis, 1897

Material.— **Ghana:** 1 ♀ (CHYG), Pra River, fresh dead trunk, forest, 4.v.2000, G. Goergen.

Remark.— First record for Ghana.

*Paratropus girardi* Kanaar, 1992

Material.— **Ivory Coast:** 1 ♀, Lamto, Zougoussi, Canari trap n° 2, 22.iii-8.iv.1994, C. Girard; 1 ♂ (CHML), Comoé, termitarium, vi.2000. **Benin:** 8 ♂♂, 21 ♀♀, Attagon, 29.vii.2000, G. Goergen; 1 ♂, Pobé, 28.ii.2001, G. Goergen; 13 ♂♂, 19 ♀♀, Pobé, xi.2001, G. Goergen; 18 ♂♂, 15 ♀♀, Attogon, i.2002, G. Goergen; 1 ♀, 70 ♂/♀, Toffo, i.2002, G. Goergen; 5 ♀♀, Niaouli, i.2002, G. Goergen; 49 ♂/♀, Toffo, ii.2002, G. Goergen; 16 ♂♂, 24 ♀♀, Niaouli I, ii.2002, G. Goergen; 1 ♀, 43 ♂/♀, Niaouli II, ii.2002, G. Goergen; 5 ♂♂, 5 ♀♀, Pénnessoulou, vi.2002, G. Goergen; 8 ♂♂, 14 ♀♀, 2 ♂/♀, Pénnessoulou, ix.2002, G. Goergen.

Remark.— First record for Benin.

*Paratropus hervei* Kanaar, 1997

Material.— **Liberia:** 1 ♂ (USNM), Suakoko, 2.v.1952, Blickenstaff. **South Africa:** 1 ♂ (TMSA), Kruger Nat. P., Pumbe Sands, 24°13'S 31°56'E, 24.i.1995, E-Y:3096, ground trap with banana bait, Endrödy-

Younga (with some doubt). **Tanzania:** 1 ♂ (CHTL), NEE Tanzania, SSW of Pangani, Pande env., cost. "forest", 10.iii.2002, at light, M. Snizek (with some doubt).

Remarks.— In the specimen from Kruger National Park the tibiae are a little wider and the aedeagus less angulately bent ventrally. Maybe it is a subspecies, but more material from more countries is needed to confirm this supposition. First records (though with some doubt) for Tanzania and South Africa.

*Paratropus khandalensis* Kanaar, 1997

Material.— **China:** 12 ♂♂, 16 ♀♀ (CHTL, CHPK), Hong-Kong, 1993, G. de Rougemont.

Remarks.— In the following respects the specimens from Hong-Kong differ a little from the female paratype specimen in my collection: the spines on the tibiae are less robust, the distance between the discal marginal mesosternal stria and the inner lateral metasternal stria at their meeting points with the meso-metasternal suture is a little smaller, the meso-metasternal sutural stria is a little more bent anteriorly in the females, and the outer lateral metasternal stria is less divergent from the inner one. The carinal prosternal striae are closer together, but this character shows a rather large variability within this series.

The presence of this species at a great geographical distance from the type locality (NW India) is astonishing. Yet a careful comparison with the type specimen in my collection did not reveal other differences than those mentioned above. In my opinion these differences are too insignificant to justify the creation of a new species. Maybe the specimens of this series represent a subspecies, but more material from more countries between is needed to confirm this supposition. First record for China.

*Paratropus lacustris* (Desbordes, 1924)

Material.— **Ivory Coast:** 7 ♂♂, 12 ♀♀, Lamto, Zougoussi, Canari trap n° 1, 22.iii-7.iv.1994, C. Girard; 11 ♂♂, 7 ♀♀, Lamto, Zougoussi, Canari trap n° 2, 22.iii-8.iv.1994, C. Girard; 10 ♂♂, 9 ♀♀, Lamto, Zougoussi, Canari trap n° 3, 22.iii-12.iv.1994, C. Girard; 1 ♂, Lamto, Canari traps n° 5, 6 and 7, 5-20.iv.1994, C. Girard; 1 ♀, Lamto, Canari trap n° 10, 27.iv-9.v.1994, C. Girard; 1 ♂, Lamto, Canari trap n° 11, 27.iv-10.v.1994, C. Girard; 1 ♀, Lamto, Canari trap n° 12, 27.iv-11.v.1994, C. Girard; 1 ♀, Lamto, trap with dug in termite's comb, 27.iv-13.v.1994, C. Girard. **Ghana:** 1 ♂, 2 ♀♀ (LSAM), Ashanti Reg., Bobiri Forest Reserve, 6°42'N 1°20'W, 23.i-1.ii.2002, flight interception trap, E. Opuni-Frimpong.

Remark.— First record for Ghana.

*Paratropus longulus* Kanaar, 1993

Material.— **Ivory Coast:** 2 ♀♀, Lamto, Zougoussi, Canari trap n° 2, 22.iii-8.iv.1994, C. Girard; 2 ♂♂, 2 ♀♀, Lamto, Zougoussi, Canari trap n° 3, 22.iii-12.iv.1994, C. Girard; 1 ♂, 1 ♀, 2 km from Taabo, termitarium in damaged forest, 15.v.1994, C. Girard. **Benin:** 1 ♀, Attagon, 29.vii.2000, G. Goergen; 17 ♂♂, 13 ♀♀, Pobé, xi.2001, G. Goergen; 9 ♂♂, 9 ♀♀, 1 ♂/♀, Attogon, i.2002, G. Goergen; 22 ♂♂, 11 ♀♀, 18 ♂/♀, Toffo, i.2002, G. Goergen; 9 ♂♂, 8 ♀♀, Niaouli, i.2002, G. Goergen; 28 ♂♂, 19 ♀♀, 1 ♂/♀, Toffo, ii.2002, G. Goergen; 4 ♂♂, Niaouli I, ii.2002, G. Goergen; 1 ♀, Niaouli II, ii.2002, G. Goergen; 2 ♂♂, 3 ♀♀, 2 ♂/♀, Pénnessoulou, vi.2002, G. Goergen.

Remark.— First record for Benin.



*Paratropus mazuri* Kanaar, 1993

Material.— **Ivory Coast:** 1 ♂, Lamto, Zougoussi, Canari trap n° 1, 22.iii-7.iv.1994, C. Girard; 1 ♀, Lamto, Zougoussi, Canari trap n° 3, 22.iii-12.iv.1994, C. Girard; 1 ♀ (CHML), Comoé, termitarium, vi.2000. **Benin:** 1 ♂, 3 ♀♀, Attagon, 29.vii.2000, G. Goergen; 6 ♂♂, 9 ♀♀, Pobé, xi.2001, G. Goergen; 5 ♂♂, 6 ♀♀, Attogon, i.2002, G. Goergen; 27 ♂♂, 30 ♀♀, 1 ♂/♀, Toffo, i.2002, G. Goergen; 10 ♂♂, 8 ♀♀, Niaouli, i.2002, G. Goergen; 34 ♂♂, 20 ♀♀, 1 ♂/♀, Toffo, ii.2002, G. Goergen; 4 ♂♂, 6 ♀♀, Niaouli I, ii.2002, G. Goergen; 2 ♂♂, 2 ♀♀, Niaouli II, ii.2002, G. Goergen.

Remark.— First record for Benin.

*Paratropus namibiensis* Théron & Vienna, 1987

Material.— **South Africa:** 1 ♂ (CNCI), Transvaal, 30 km E Nylstroom, 15.xi-17.xii.1984, FIT, H. & A. Howden; 2 ♀♀ (TMSA), C. Transvaal, Nascott Game Res., 25°54'S 29°40'E, ground traps with faeces bait, E-Y: 2568, 28.xi.1985, G. du Plessis.

Remarks.— These specimens from Transvaal have complete third dorsal striae. In all other respects they are similar to specimens from Namibia. I consider them as a variety with less reduced dorsal striation. First record for South Africa.

*Paratropus nimbaensis* (Théron, 1963)

Material.— **Ivory Coast:** 1 ♂, Lamto, Zougoussi, Canari trap n° 1, 22.iii-7.iv.1994, C. Girard; 1 ♂, Lamto, Zougoussi, Canari trap n° 2, 22.iii-8.iv.1994, C. Girard; 1 ♂, Lamto, Zougoussi, Canari trap n° 3, 22.iii-12.iv.1994, C. Girard; 2 ♂♂, 4 ♀♀ (CHML, CHPK), Comoé, termitarium, vi.2000. **Benin:** 1 ♂, Pénnessoulou, vi.2002, G. Goergen; 1 ♂, 2 ♀♀, Pénnessoulou, ix.2002, G. Goergen.

Remark.— First record for Benin.

*Paratropus olexai* Kanaar, 1997

Material.— **Ghana:** 1 ♂ (LSAM), Ashanti Reg., Bobiri Forest Reserve, 6°42'N 1°20'W, 23-31.vii.2001, F.I.T. # 1, C. Carlton & V. Moseley; 1 ♂ (LSAM), idem, but F.I.T. # 2; 1 ♂ (CHPK), idem, but F.I.T. # 3; 1 ♂, 1 ♀ (LSAM, CHPK), Ashanti Reg., Bobiri Forest Reserve, 6°42'N 1°20'W, 1-16.viii.2001, flight interception trap, E. Opuni-Frimpong; 1 ♀ (LSAM), idem, but 22.viii-5.ix.2001; 7 ♂♂, 2 ♀♀ (LSAM, CHPK), idem, but 23.i-1.ii.2002; 3 ♂♂, 7 ♀♀ (LSAM, CHPK), idem, but 8-11.ii.2002, E. Opuni-Frimpong & C. Carlton; 1 ♂, 1 ♀ (LSAM), idem, but 11-15.ii.2002, E. Opuni-Frimpong.

Remark.— First record for Ghana.

*Paratropus opacipygus* Vienna, 1985

Material.— **Benin:** 1 ♀, Pobé, 28.ii.2001, G. Goergen; 2 ♀♀, Niaouli, i-2002, G. Goergen; 4 ♂♂, 6 ♀♀, Niaouli I, ii.2002, G. Goergen; 4 ♂♂, 3 ♀♀, Niaouli II, ii.2002, G. Goergen; 1 ♀, Pénnessoulou, vi.2002, G. Goergen. **Nigeria:** 1 ♂ (CNCI), (without locality), v.1962, at light, D.C. Eidt. **Zimbabwe:** 1 ♀ (CHRP), Kariba env., Mopani-Bay Camp, 480 m, 16°31'S 28°49'E, 20-21.iii.2000, at light, U. Heinig. **Namibia:** 1 ♀ (TMSA), Kaokoveld, 24 km NW Ohopoho, 17°53'S 13°50'E, ground traps, 6th day, E-Y: 626, 7.ii.1975, Endrödy-Younga.

Remark.— First records for Benin, Namibia and Zimbabwe.

*Paratropus orbicularis* (Olliff, 1883)

Material.— **Malaysia:** 1 ♂ / ♀ (NHMW), Sabah, Crocker Range, Nawar waterfall env. (9c), 17.vi.1996, vegetation debris and forest litter around fallen trees; 25 ♂♂, 41 ♀♀ (CHND, CHPK, CHTL), Sabah, Batu Pungul Resort, 24/26.vi.1998, Kodada & Ciampor.

Remarks.— This large series enables a more exact delimitation of the PE-length: Males 2.0-2.6 mm, females 2.5-2.9 mm.

*Paratropus orientis* Théron, 1975

Material.— **Benin:** 1 ♂, 1 ♀, Niaouli I, ii.2002, G. Goergen (with some doubt). **South Africa:** 1 ♂ (CNCI), E. Transvaal, 15 km NE Klaserie, Guernsey Farm, 18-31.xii.1985, S. & J. Peck; 1 ♂ (CNCI), Transvaal, Guernsey Farm 15 km E of Klaserie, 500 m, 25.xii.1985, H. & A. Howden; 1 ♂ (CHSM), idem, but 19-31.xii.1985, flight interception trap (with some doubt); 1 ♂, 1 ♀ (CNCI), E. Transvaal, 15 km NE Klaserie, Guernsey Farm, 18-30.xii.1985, woodland, evening car netting, S. & J. Peck; 1 ♂ (TMSA), N. Transvaal, Nylsvley, at river, 24°40'S 28°42'E, 27.x.1975, E-Y; 926, groundtraps with banana bait, replication 3, 22d day, Endrödy-Younga; 1 ♀ (TMSA), Kruger Nat. P., Punda Milia Sands, 22°38'S 31°04'E, 11.ii.1994, E-Y: 2996, ground traps with meat bait, 3d day, Endrödy-Younga; 1 ♂ (TMSA), Kruger Nat. P., Pumbe Sands, 24°13'S 31°56'E, 24.i.1995, E-Y: 3096, ground trap with banana bait, Endrödy-Younga; 1 ♀ (TMSA), idem, but ground traps with meat bait. **Ivory Coast:** 1 ♂, 1 ♀, N'Douci, 11.xii.1984, C. Girard; 25 ♂♂, 24 ♀♀ (CHSM, CHPK), Parc national de la Comoe, DFG-Projekt, Krell (without date, various trap codes). **Ghana:** 1 ♀ (LSAM), Ashanti Reg., Bobiri Forest Reserve, 6°42'N 1°20'W, 8-11.ii.2002, F.I.T., E. Opuni-Frimpong & C. Carlton. **Central African Republic:** 1 ♀ (CHND), Ndoki Nat. Park, 16.iii-6.iv.1996, at light, Ph. Moretto.

Remark.— First records for Ivory Coast, Benin, Ghana and Central African Republic.

*Paratropus ovides* (Marseul, 1862)

Material.— **Togo:** 1 ♀ (CHND), Fasao, 18-iv-1989; 1 ♀ (CHPV), Sokode, 400 m, xi.1991, Melandri. **Benin:** 3 ♂♂, 5 ♀♀, Niaouli I, ii.2002, G. Goergen; 4 ♂♂, Niaouli II, ii.2002, G. Goergen. **Nigeria:** 1 ♂, 2 ♀♀ (CNCI), Ibadan, 31.v.1962, D.C. Eidt; 1 ♀ (CNCI), idem, but 4.xi.1962; 2 ♀♀ (USNM), Ibadan, xi.1964, M. L. Jerath; 1 ♂ (USNM), Dekina, iv-v.1967, R.S. Anderson; 1 ♀ (USNM), Ile-Ife, 25.vii.1969, J.T. Medler. **Liberia:** 1 ♀ (USNM), Suakoko, 16-17.ii.1952, Blickenstaff; 1 ♀ (USNM), idem, but 18-19.iii.1952, light trap; 1 ♀ (USNM), idem, but 15.iv.1952; 1 ♂ (USNM), idem, but 21.iv.1952. **Ivory Coast:** 1 ♀ (CHSM), Parc national de la Comoe, DFG-Projekt, Krell (without date, trap code L37). **Tanzania:** 1 ♂ (ZFMK), Ngerengere, coll. Reichensperger (with some doubt).

Remarks.— First records for Benin and (with some doubt) for Tanzania. The specimen from Tanzania (Ngerengere) has very fine dorsal and prosternal carinal striae. The fourth dorsal striae are abbreviated posteriorly, the fifth dorsal striae are obsolete. The male metasternal impression is more distinct than usually. In all other respects it is similar to West- and Central African specimens, including the genitalia.

*Paratropus parallelinervis* Vienna, 1985

Material.— **Ivory Coast:** 6 ♂♂, 7 ♀♀, Lamto, Zougoussi, Canari trap n° 1, 22.iii-7.iv.1994, C. Girard; 2 ♀♀, Lamto, Canari trap n° 10, 27.iv-9.v.1994, C. Girard. **Benin:** 1 ♂, Niaouli I, ii.2002, G. Goergen. **Liberia:** 1 ♀ (USNM), Suakoko, 4.iv.1952, Blickenstaff; 1 ♀ (USNM), idem, but 2.v.1952.

Remark.— First records for Benin and Liberia.

*Paratropus penatii* Kanaar, 1997

Material.— **Ivory Coast:** 1 ♂ (CHSM), Parc national de la Comoe, DFG-Projekt, Krell (without date, trap code MB 35).

Remark.— First record for Ivory Coast.

*Paratropus perlinskii* Mazur, 1972

Material.— **Ivory Coast:** 1 ♀, Lamto, Zougoussi, Canari trap n° 1, 22.iii-7.iv.1994, C. Girard; 7 ♂♂, 6 ♀♀, Lamto, Zougoussi, Canari trap n° 2, 22.iii-8.iv.1994, C. Girard; 9 ♂♂, 6 ♀♀, Lamto, Zougoussi, Canari trap n° 3, 22.iii-12.iv.1994, C. Girard; 2 ♂♂, 4 ♀♀, Lamto, Canari trap n° 4, 6-18.iv.1994, C. Girard; 1 ♀, Lamto, Canari traps n° 5, 6 and 7, 5-20.iv.1994, C. Girard; 2 ♂♂, 5 ♀♀, Lamto, Canari trap n° 8, 6-23.iv.1994, C. Girard; 2 ♂♂, 3 ♀♀, Lamto, Canari trap n° 10, 27.iv-9.v.1994, C. Girard; 1 ♂, 2 ♀♀, Lamto, Canari trap n° 11, 27.iv-10.v.1994, C. Girard; 2 ♂♂, Lamto, Canari trap n° 12, 27.iv-11.v.1994, C. Girard. **Benin:** 1 ♀, Pobé, xi.2001, G. Goergen; 1 ♂, 2 ♀♀, Attogon, i.2002, G. Goergen; 19 ♂♂, 11 ♀♀, Toffo, i.2002, G. Goergen; 1 ♀, Niaouli, i.2002, G. Goergen; 2 ♂♂, 1 ♀, Toffo, ii.2002, G. Goergen; 11 ♂♂, 16 ♀♀, Niaouli I, ii.2002, G. Goergen; 11 ♂♂, 21 ♀♀, Niaouli II, ii.2002, G. Goergen; 1 ♀, Pénnessoulou, ix.2002, G. Goergen. **Liberia:** 1 ♂ (USNM), Suakoko, 31.iii.1952, Blickenstaff; 1 ♂ (USNM), tdem, but 2.iv.1952; 1 ♀ (USNM), idem, but 9.iv.1952. **Nigeria:** 1 ♀ (CNCI), Ibadan, 31.v.1962, D. C. Eidt; 1 ♀ (CNCI), idem, but 21.ix.1962. **Central African Republic:** 1 ♀ (CHND), Ndoki Nat. Park, 16.iii-6.iv.1996, at light, Ph. Moretto.

Remark.— First record for Benin.

*Paratropus persimilis* Kanaar, 1992

Material.— **Ivory Coast:** 1 ♀, Lamto, Canari trap n° 11, 27.iv-10.v.1994, C. Girard; 1 ♂, Lamto, Canari trap n° 12, 27.iv-11.v.1994, C. Girard; 1 ♀, 2 km from Taabo, termitarium in damaged forest, 15.v.1994, C. Girard; 4 ♂♂, 1 ♀ (CHML, CHPK), Comoé, termitarium, vi.2000; 1 ♀ (CHSM), Parc national de la Comoe, DFG-Projekt, Li 150-18, Krell (without date, trap code Z410) (with doubt). **Guinea:** 1 ♀ (CHAT), Mt. Nimba, Gouan River, 514 m, 7°42'50"N 8°23'30"W, 7-15.i.1991, FIT, Luc Leblanc. **Benin:** 13 ♂♂, 17 ♀♀, 1 ♂/♀, Attagou, 29.vii.2000, G. Goergen; 20 ♂♂, 20 ♀♀, 2 ♂/♀, Pobé, 28.ii.2001, G. Goergen; 19 ♂♂, 14 ♀♀, Pobé, xi.2001, G. Goergen; 2 ♂♂, 4 ♀♀, Attogon, i.2002, G. Goergen; 3 ♂♂, 6 ♀♀, Toffo, i.2002, G. Goergen; 1 ♀, Niaouli, i.2002, G. Goergen; 4 ♂♂, 2 ♀♀, Toffo, ii.2002, G. Goergen; 4 ♂♂, 5 ♀♀, Niaouli I, ii.2002, G. Goergen; 2 ♂♂, 4 ♀♀, Niaouli II, ii.2002, G. Goergen; 26 ♂♂, 25 ♀♀, Pénnessoulou, vi.2002, G. Goergen; 18 ♂♂, 20 ♀♀, Pénnessoulou, ix.2002, G. Goergen.

Remark.— First record for Benin.

*Paratropus picinus* Bickhardt, 1912

Material.— **Malaysia:** 2 ♀♀ (CHND, CHPK), Sabah, Batu Pungul Resort, 24-26.vi.1998, Kodada, Ciampor.

*Paratropus saegerianus* Kanaar, 1997

Material.— **Benin:** 4 ♂♂, 1 ♀, Niaouli, i.2002, G. Goergen; 3 ♂♂, 2 ♀♀, Niaouli II, ii.2002, G. Goergen. **Nigeria:** 1 ♀ (CHYG), Ibadan IITA, light trap, campus, ii.1999, G. Goergen.

Remark.— First record for Benin.

*Paratropus strigatus* (Schmidt, 1895)

Material.— **Guinea:** 1 ♀ (CHAT), Mt. Nimba, 7°41-42'N 8°23'W, xii.1990-iii.1991, 514-740 m, L. Leblanc. **Ghana:** 1 ♂, 2 ♀♀ (LSAM, CHPK), Ashanti Reg., Bobiri Forest Reserve, 6°42'N 1°20'W, 1-16.viii.2001, flight interception trap, E. Opuni-Frimpong; 1 ♂ (LSAM), idem, but 22.viii-5.ix.2001; 1 ♂, 1 ♀ (LSAM), idem, but 8-11.ii.2002 and E. Opuni-Frimpong & C. Carlton; 1 ♀ (LSAM), idem, but 11-15.ii.2002, E. Opuni-Frimpong.

Remark.— First records for Guinea and Ghana.

*Paratropus strigosus* spec. nov.  
(figs 9-16)

Material.— **Cameroon:** Holotype, ♂ (CHYG), left antenna, right antennal flagellum and club, four tarsal segments of left metatarsus missing; left metatibia loose, glued apart, prothorax loose of remainder of the body, [white label, hand-written:] “♂”; [white label with blue squares, hand-written:] “CAMEROUN/Rés. de Campo/13.XI-12.XII.1991”; [white label with blue squares, hand-written:] “Cône sous piège/Malaise pyramide/H. P. Aberlenc”; [white label, printed:] “COLLECTION/Y. GOMY”; [red label, printed and hand-written:] “HOLOTYPUS/*Paratropus/strigosus* sp. n./P. Kanaar des. 2004”; 1 ♀ (CHPK), Réserve de Campo, Camp Akok, 2°38'59"N 9°54'21"E, 31.x >13.xi.1991, cône sel no 15 sous-bois de forêt primaire (paratype). **Ghana:** 1 ♀ (LSAM), Ashanti Reg., Bobiri Forest Reserve, 6°42'N 1°20'W, 8-11.ii.2002, flight interception trap, E. Opuni-Frimpong & C. Carlton.

Length (without head, propygidium and pygidium) 2.0 mm, width 1.6 mm, height 1.1 mm. Narrowly oval, moderately convex. Shiny, colour castaneous brown, sutures darker, legs and antennae a little lighter.

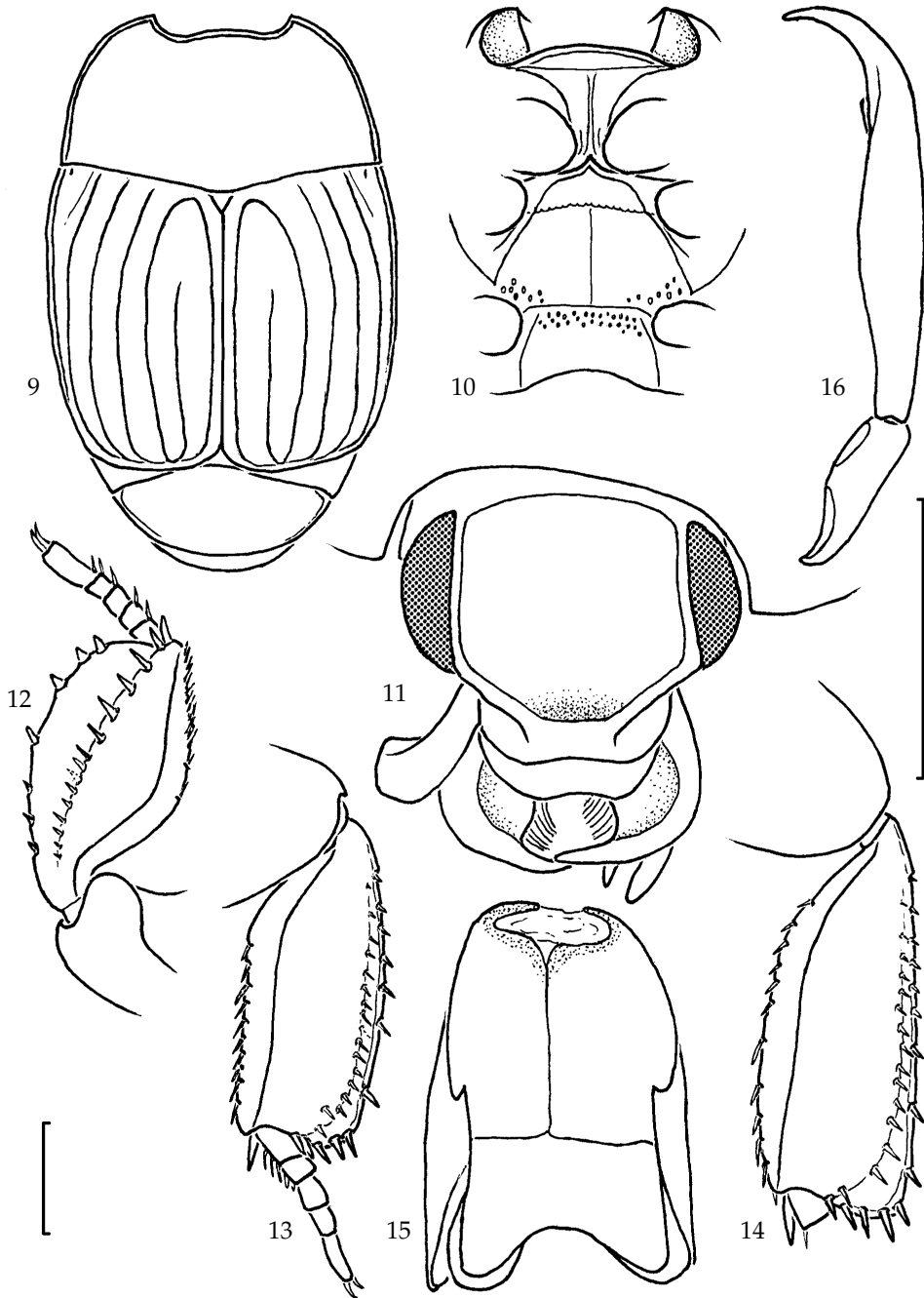
Head (fig. 11).— Mandibles punctulate. Labrum slightly emarginate, convex in transversal direction. Clypeus punctulate with interstitial linear microsculpture, slightly concave in transversal direction, in slight angle with frons. Frontal stria semihexagonal, continuous with the almost parallel supraorbital striae, these continuous with the occipital stria. Vertex slightly convex, frons distinctly impressed behind frontal stria. Vertex and frons with double punctation, interstices with indistinct linear microsculpture.

Pronotum (fig. 9).— In dorsal view 2.0 times wider than long in the median line, with faint impressions before scutellum and in anterolateral angles. Pronotum with fine, not dense double punctation, primary punctures larger before scutellum and base. Interstices smooth. Lateral striae close to the margin. Marginal striae complete. Anterior stria complete, close to the margin, continuous with the lateral striae.

Elytra (fig. 9).— Punctulate, mixed with slightly larger punctures near the apex. Interstices without distinct linear microsculpture. Marginal epipleural and epipleural striae distinct, well-impressed. Marginal elytral striae fine, complete. Outer subhumeral striae complete, subcariniform, at the apex continuous with the apical striae, formed by the apical recurvatures of the dorsal striae. Inner subhumeral striae very short, basal. Course of the other punctato-crenulate elytral striae: fig. 9.

Propygidium.— With rather coarse double punctation, the larger punctures irregularly scattered, diminishing in size posteriorly and laterally, interstices without linear microsculpture. Lateral sides with a fine stria.

Pygidium.— Deflexed, convex, with double punctation, the larger punctures smaller than those on propygidium, interstices without linear microsculpture. Fine marginal stria interrupted at the apex.



Figs 9-16, *Paratropus strigosus* spec. nov. (male) – 9, dorsal view (in part). 10, ventral view (in part). 11, head, dorsal view. 12, left protibia (inner face). 13, left mesotibia (outer face). 14, left metatibia (outer face). 15, eighth sternite (ventral view). 16, aedeagus (right lateral view). Scale lines 0.5 mm, left figs 9-10, right figs 11-16.

Prosternum (fig. 10).— Punctulate, interstices with indistinct linear microsculpture. Lobe short, slightly deflexed, truncate, marginal stria fine, complete, close to the margin. Prosternal keel almost straight in lateral view. Carinal prosternal striae very fine, rather indistinct, almost in touch anteriorly. Lateral prosternal striae fine, basal. Lateral marginal prosternal striae distinctly divergent and curved outward anteriorly.

Meso- and metasternum.— Striation: fig. 10; meso- and metasternum punctulate, interstices smooth. Metasternal hind angles with a group of elongate larger punctures. Median suture of metasternum fine, metasternal median impression in anterior three-fourths large and deep. Lateral parts of metasternum with coarse punctures (not shown in the figure).

First visible abdominal sternite.— In the anterior half distinctly impressed in longitudinal direction. Anterior margin with a band of moderate punctures (fig. 10). Disc with fine double punctation, the larger punctures diminishing in size posteriorly, interstices without linear microsculpture. Posterior margin without a row of punctures in the very margin.

Legs.— Moderately broadened. Tibiae: figs 12-14.

Aedeagus.— Fig. 16; eighth sternite: fig. 15.

Females.— PE-lengths 2.0 mm. No metasternal impression. Tibiae barely wider than in the male. In the female from Cameroon the carinal prosternal striae are still closer set than in the holotype and the frontal impression is a little shallower.

Etymology.— The name refers to the rather narrow body form of this species, as compared with the general habitus in this genus.

Remarks.— In my key (Kanaar, 1997) this species runs to couplet 64: *P. congonis* Lewis / *P. strigatus* (Schmidt). *P. strigosus* differs from these species by the narrower bodyform, the shorter prosternal lobe and the shape of the aedeagus. In fact it resembles more closely *P. tishchekini* Kanaar, 1997. *P. strigosus* differs from the latter by the less transverse vertex with parallel supraorbital striae, the non-divergent carinal prosternal striae, the shorter spines on the tibiae and the presence of a deep and large male metasternal impression.

*Paratropus tenuis* spec. nov.  
(figs 17- 24)

Material.— **Indonesia:** Holotype, ♂ (CHSM), two segments of left protarsus missing, [white label, printed:] “♂”; [white label, printed:] “SUMATRA: Aceh # 25a/Mt Leuser NP, 300-/500 m, Ketambe, 23-/ 30.xi.1989, Löbl/ Agosti, Burckhardt”; [red label, printed:] “HOLOTYPUS/*Paratropus/tenuis* spec. nov./P. Kanaar des. 2004”.

Length (without head, propygidium and pygidium) 2.5 mm, width 1.9 mm, height 1.4 mm. Rather narrowly oval, moderately convex. Shiny, colour reddish brown, sutures darker.

Head (fig. 19).— Mandibles punctulate. Labrum slightly emarginate, convex in transversal direction, with a smooth elevated convex anterior margin, and dense microsculpture along the base. Clypeus in marked angle with frons, punctulate with smooth interstices, concave in both longitudinal and transversal directions. Frontal stria semihexagonal with slightly rounded angles, continuous with the supraorbital striae, that are almost parallel in their posterior half and slightly divergent anteriorly,

and that are continuous with the fine occipital stria. Vertex and frons slightly convex, without frontal impression, punctulate, interstices smooth.

Pronotum (fig. 17).— In dorsal view 1.7 times wider than long in the median line, without impressions before scutellum or in anterolateral angles. Pronotum with sparse fine double punctation, primary punctures slightly larger along the posterior margin, decreasing in size towards sides and anterolateral angles. Interstices smooth. Lateral striae distinct, above the antennal fossae finer and closer to the margin. Marginal striae complete, ascending and ending above the antennal fossae and here replaced by the fine marginal striae along these fossae, these striae continued for some distance along the anterior margin. Anterior stria complete, close to the margin, continuous with the lateral striae.

Elytra (fig. 17).— Sparsely and indistinctly punctulate, interstices smooth. Marginal epipleural striae obsolete, epipleural striae very fine, complete. Marginal elytral striae fine, complete. Outer subhumeral striae subcariniform, complete, at the apex continuous with the apical striae, formed by the apical recurvatures of the dorsal striae. Inner subhumeral striae absent. Oblique humeral striae fine. Course of the other well-impressed elytral striae: fig. 17.

Propygidium.— With rather sparse double punctation, the larger punctures distinct, slightly elongate and slightly ocellate, irregularly scattered, diminishing in size posteriorly and laterally, interstices without linear microsculpture. Lateral sides with a fine arcuate stria.

Pygidium.— Deflexed, convex, with sparse double punctation, the larger punctures slightly elongate, much smaller than those on propygidium. Interstices without linear microsculpture. Fine marginal stria complete.

Prosternum (fig. 18).— Sparsely punctulate, interstices smooth. Lobe distinctly deflexed, in front slightly rounded, marginal stria distinct, complete. Prosternal keel narrow, distinctly convex in lateral view. Carinal prosternal striae fine, convergent anteriorly in their posterior third, thence very close and parallel, in the anterior third almost mutually in touch. Lateral prosternal striae absent. Lateral marginal prosternal striae distinctly divergent and curved outward anteriorly.

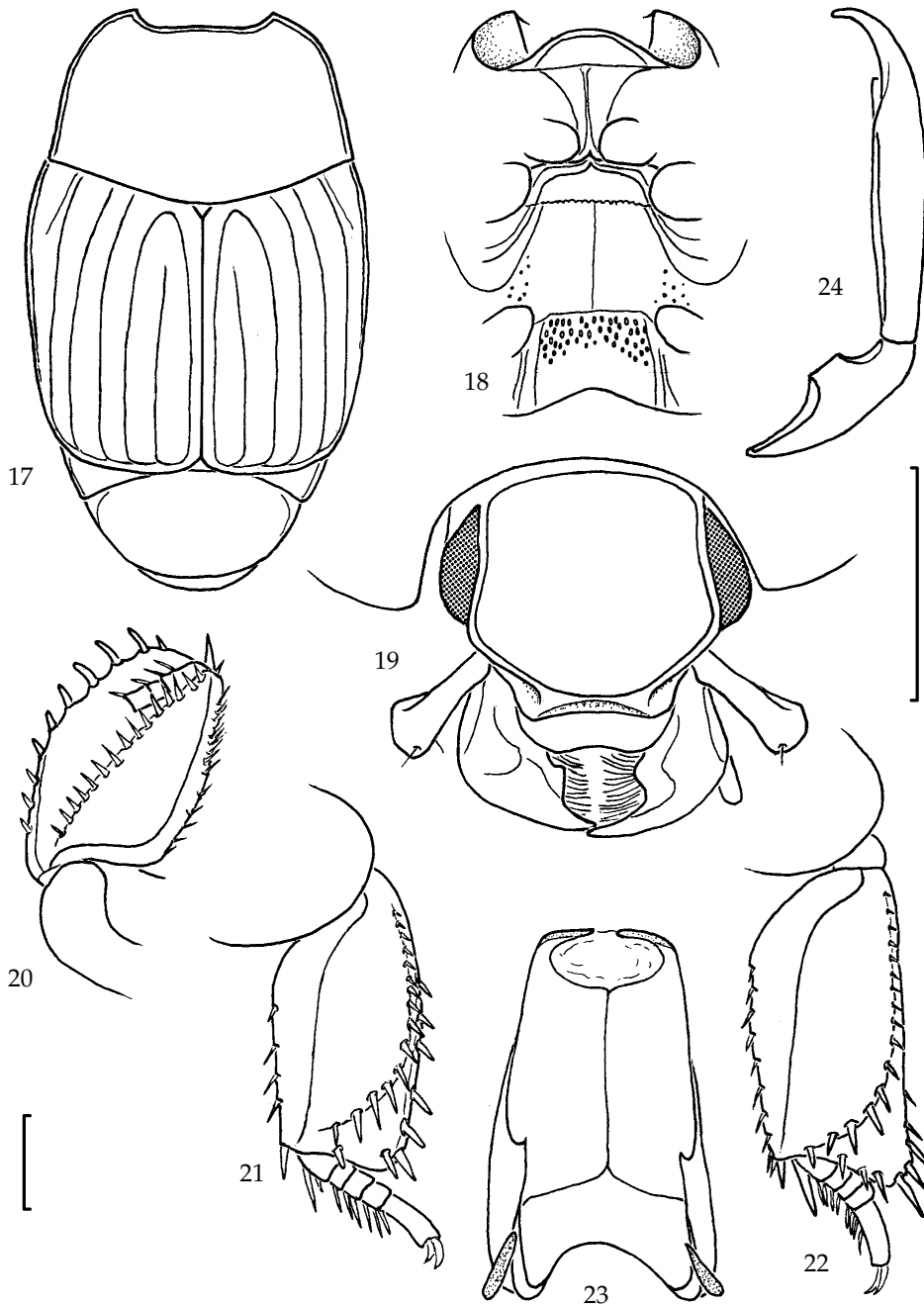
Meso- and metasternum.— Striation: fig. 18; meso- and metasternal discs sparsely punctulate, with some slightly larger punctures before the metacoxae, interstices smooth. Inner lateral metasternal striae meeting the crenulate meso-metasternal sutural stria at some distance medially from the discal marginal mesosternal stria, and fluently passing into their recurrent arms, forming loops. Median suture of metasternum fine, metasternal median impression in anterior third very shallow and ill-delimited. Lateral parts of metasternum with larger punctures, especially within the loops (not shown in the figure).

First visible abdominal sternite.— In the anterior half impressed in longitudinal direction, with extensions of this impression along the lateral striae. In this impressed area large, elongate, slightly ocellate punctures are present (fig. 18), diminishing in size posteriorly. Posterior part sparsely punctulate, interstices smooth. Posterior margin without a row of punctures.

Legs.— Strongly broadened. Tibiae: figs 20-22.

Aedeagus.— Fig. 24; eighth sternite: fig. 23.

The female is not known.



Figs 17-24, *Paratropus tenuis* spec. nov. (male) – 17, dorsal view (in part). 18, ventral view (in part). 19, head, dorsal view. 20, left protibia (inner face). 21, left mesotibia (outer face). 22, left metatibia (outer face). 23, eighth sternite (ventral view). 24, aedeagus (right lateral view). Scale lines 0.5 mm, left figs 17-18, right figs 19-24.



**Etymology.**— The name refers to the rather narrow body form, as compared with the general habitus in this genus.

**Remarks.**— In my key (Kanaar, 1997) this species runs to couplet 81, but it fits neither of the two presented alternatives: Though the supraorbital striae are about parallel in their posterior half the frons is not impressed. In many respects *P. tenuis* resembles *P. angulifrons* spec. nov. It differs from the latter by the slightly narrower bodyform with longer pronotum, the more parallel course of the supraorbital striae, the point of meeting of the inner lateral metasternal striae with the meso-metasternal sutural stria, the non-punctate metasternal disc and the almost obsolete male metasternal impression.

*Paratropus termitophilus* (Desbordes, 1925)

**Material.**— **Vietnam:** 1 ♂ (HNHM), Tuyen Quang Prov., 3 km SE of Pac Ban village, Na Hang Nature Reserve, 105°25'E 22°20'N, 380 m, from beneath bark by spraying insecticide, 22-26.ii.1997, G. Csorba. **Laos:** 1 ♂, 1 ♀ (NHMW, CHPK), C.-Laos, Prov. Viangchan, Phou Khao Khouay NP, Nam Leuk, env. Tad Leuk Waterf., 1-8.vi.1996, 2000 m, flight intercept trap, Schillhammer (15c); 1 ♀ (CHTL), Khammouan prov., Nakai env., 17°43'N 105°09'E, 22.v-8.vi.2001, alt. 500-600 m, E. Jendek & O. Sausa. **Thailand:** 1 ♀ (CHTL), NE Loei prov., Phu Rua N.P., 1100 m, 17°30'N 101°21'E, 6-9.iv.1999, Hauk (with some doubt).

**Remark.**— First records for Vietnam, Laos and (though with some doubt) Thailand.

*Paratropus teunissenii* Kanaar, 1993

**Material.**— **Ivory Coast:** 1 ♂, Lamto, Zougoussi, Canari trap n° 3, 22.iii-12.iv.1994, C. Girard; 1 ♂, Lamto, Canari trap n° 8, 6-23.iv.1994, C. Girard; 1 ♀, Lamto, Canari trap n° 9, 6-26.iv.1994, C. Girard; 1 ♂, Lamto, Canari trap n° 12, 27.iv-11.v.1994, C. Girard. **Benin:** 2 ♂♂, 2 ♀♀, Attogon, i.2002, G. Goergen; 3 ♂♂, 4 ♀♀, Toffo, i.2002, G. Goergen; 1 ♂, 1 ♀, Niaouli, i.2002, G. Goergen; 11 ♂♂, 8 ♀♀, Toffo, ii.2002, G. Goergen; 3 ♂♂, Niaouli II, ii.2002, G. Goergen; 1 ♂, 1 ♀, Pénnessoulou, vi.2002, G. Goergen; 2 ♂♂, 10 ♀♀, Pénnessoulou, ix.2002, G. Goergen.

**Remark.**— First record for Benin.

*Paratropus transvalensis* spec. nov.  
(figs 25-32)

**Material.**— **South Africa:** Holotype, ♂ (TMSA), left antenna and left protarsus missing, last four abdominal segments loose from remainder of the body, [white label, printed:] "♂"; [white label, printed:] "S. Afr., c.Transvaal/Nascott Game Res./25.54 S - 29.40 E"; [white label, printed:] "17.4.1986; E-Y:2572/groundtraps, 50 days/leg. G. du Plessis"; [white label, printed:] "groundtrap with/ faeces bait"; [red label, printed and hand-written:] "HOLOTYPUS/*Paratropus/transvalensis*/P. Kanaar des. 2004".

Length (without head, propygidium and pygidium) 3.6 mm, width 3.2 mm, height 2.3 mm. Broadly oval, rather convex. Shiny, colour black, legs and antennae rufous.

**Head** (fig. 27).— Clypeus long, faintly concave in transversal direction, in a faint angle with anterior part of frons, finely punctate. Frons slightly impressed at either side of the median line, vertex slightly convex, both with dense punctation, interstices narrow, smooth with minute secondary punctures. Frontal stria distinct, slightly

hexagonal with rounded angles, continuous with the supraorbital striae that are almost parallel in their posterior half and slightly bending outwards in their anterior half; these striae in their turn continuous with the distinct occipital stria. Eyes moderately prominent in dorsal view.

Pronotum (fig. 25).— In dorsal view nearly 2.2 times wider than long in the median line, moderately convex, anterolateral angles slightly impressed, especially laterally above the antennal fossae, additional faint postocular pronotal impressions present. No prescutellar impression. Anterior margin slightly bisinuous in dorsal view, sides before the base convergent and almost straight, thence broadly rounded towards anterolateral angles. Lateral striae delimiting narrow lateral ridges and continuous with complete, slightly crenulate anterior stria. Marginal striae complete, fine, in front ascending on lateral ridge. Pronotal disc with a not very dense, rather fine double punctation, the larger punctures increasing in size towards the lateral margins and in a narrow band along the posterior margin. Interspaces without linear microsculpture.

Elytra (fig. 25).— Finely punctulate, mixed with slightly larger punctures on the posterior half and in the lateral interstriae, interspaces without linear microsculpture. Marginal epipleural stria obsolete, epipleural striae distinct, complete, marginal elytral striae very fine, obsolete posteriorly. Epipleura rather rugosely punctate. External subhumeral striae complete, rather cariniform, merging with the apical striae formed by the apical recurvatures of the dorsal striae 1-3. No distinct inner subhumeral striae. Course of the other punctate elytral striae: fig. 25. Fifth dorsal striae slightly widened, giving a somewhat geminate appearance.

Propygidium.— With dense double punctation, the larger punctures slightly ocellate, diminishing in size towards apex. Interstices without linear microsculpture.

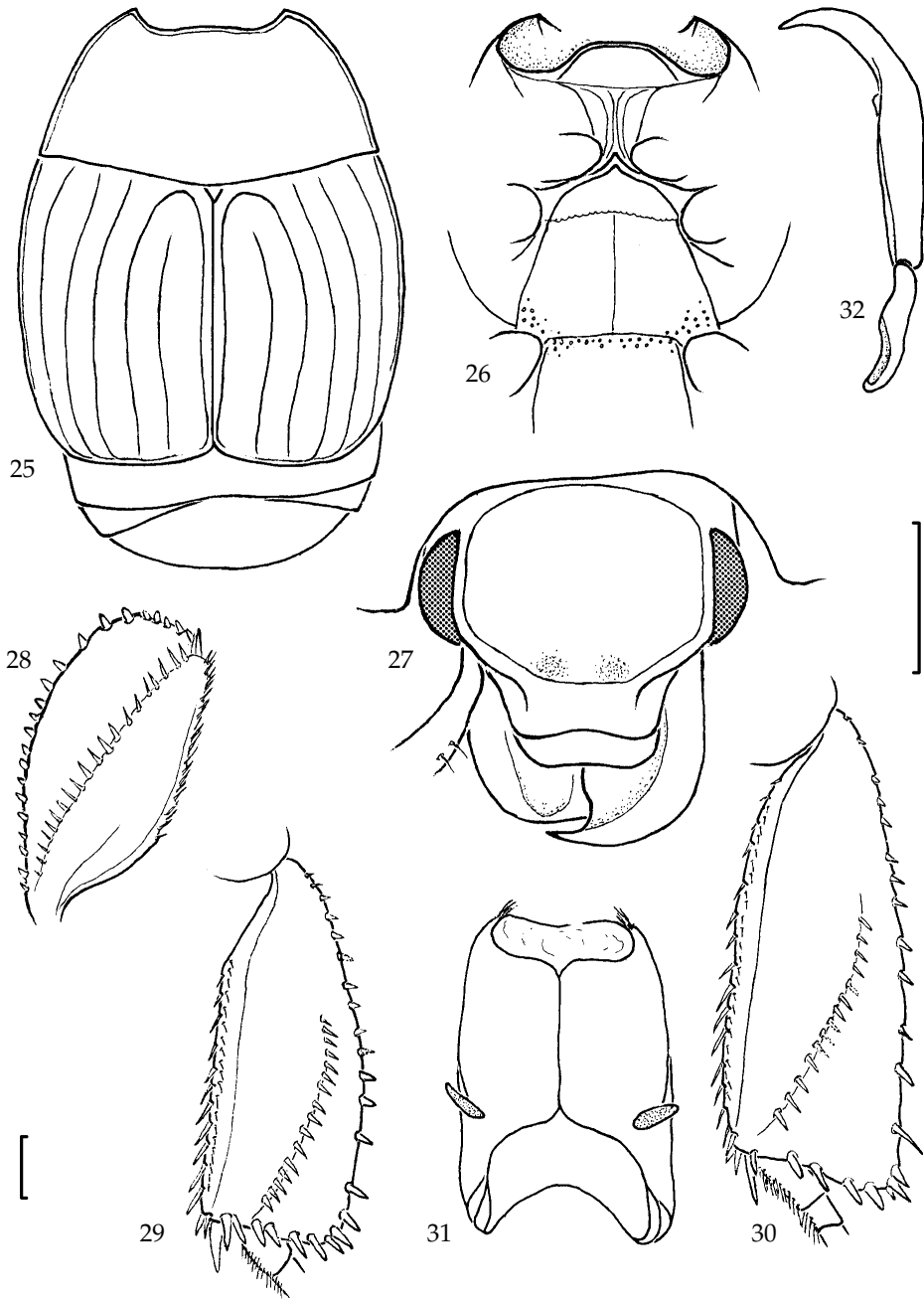
Pygidium.— Convex, deflexed, with dense double punctation, the larger punctures in the anterolateral angles of about the same size as those on the propygidium, these primary punctures diminishing in size towards median line and apex. Interstices without linear microsculpture. Marginal stria distinct, complete.

Prosternum (fig. 26).— Lobe rather long, rather deflexed, rounded-truncate, punctulate, interstices with linear microsculpture. Marginal stria distinct, complete. Prosternal keel slightly convex (almost straight) in lateral view, carinal prosternal striae fine, parallel, rather close, divergent both anteriorly and posteriorly. Lateral prosternal striae fine, complete, curving outward anteriorly. Lateral marginal prosternal striae distinct, from the base slightly divergent anteriorly, curving outward anteriorly. Prosternal keel finely punctate between the lateral prosternal striae, coarsely punctate laterally from these striae, interstices with indistinct linear microsculpture.

Meso- and metasternum.— Striation fig. 26. Meso- and metasternum punctulate, mixed with slightly larger punctures on mesosternum, and with large punctures on metasternum before the hindcoxae. Interstices smooth. A shallow rounded male median metasternal impression is present in the posterior third. Lateral parts of metasternum punctate, very coarsely and rugosely so at the sides behind the mesocoxae (not shown in the figure).

First visible abdominal sternite.— Disc punctulate, along the anterior margin with a row of moderate punctures, and some additional punctures in the anterolateral angles. Posterior margin without row of punctures in the middle. Interstices smooth.

Legs.— Distinctly broadened. Tibiae: figs 28-30.



Figs 25-32, *Paratropus transvalensis* spec. nov. (male) – 25, dorsal view (in part). 26, ventral view (in part). 27, head, dorsal view. 28, left protibia (inner face). 29, left mesotibia (outer face). 30, left metatibia (outer face). 31, eighth sternite (ventral view). 32, aedeagus (right lateral view). Scale lines 0.5 mm, left figs 25-26, right figs 27-32.

Aedeagus.— Stout, strongly bent ventrally (fig. 32); eight sternite: fig. 31.

Etymology.— The name refers to the country where the unique specimen has been captured.

Remarks.— The single specimen is rather worn. Besides the lost antenna and protarsus several tibial spines are missing. This species runs to the second alternative of couplet 62 in my key (Kanaar, 1997), but the planes of frons and clypeus form only a slight angle. Subsequently it runs to couplet 64: *P. congonis* Lewis / *P. strigatus* (Schmidt). *P. transvalensis* differs from the former by the following characters: Mesosternum less transverse and less punctate, discal marginal mesosternal stria more pointed anteriorly; prosternal lobe more truncate anteriorly; much greater body size. From *P. strigatus* it differs by the following characters: Frons much less deeply impressed; course of the discal marginal mesosternal stria less sinuous. From both species it differs by the less marked angle between frons and clypeus, the much coarser punctuation of frons and vertex, the presence of complete lateral prosternal striae, the presence of anterolateral- and postocular pronotal impressions, and the different shape of the aedeagus and the eighth sternite.

*Paratropus tuberculisternum* Kanaar, 1993

Material.— **Ivory Coast:** 1 ♂, Lamto, Zougoussi, Canari trap n° 1, 22.iii-7.iv.1994, C. Girard; 3 ♂♂, 2 ♀♀, Lamto, Zougoussi, Canari trap n° 2, 22.iii-8.iv.1994, C. Girard; 2 ♂♂, Lamto, Zougoussi, Canari trap n° 3, 22.iii-12.iv.1994, C. Girard; 1 ♂, 1 ♀, Lamto, Canari trap n° 4, 6-18.iv.1994, C. Girard; 2 ♂♂, 2 ♀♀, Lamto, Canari trap n° 8, 6-23.iv.1994, C. Girard; 2 ♀♀, Lamto, Canari trap n° 9, 6-26.iv.1994, C. Girard; 1 ♂, Lamto, Canari trap n° 10, 27.iv-9.v.1994, C. Girard; 2 ♂♂, 1 ♀, Lamto, Canari trap n° 11, 27.iv-10.v.1994, C. Girard; 1 ♀, Lamto, Canari trap n° 12, 27.iv-11.v.1994, C. Girard. **Benin:** 1 ♀, Attagon, 29.vii.2000, G. Goergen; 4 ♂♂, 9 ♀♀, Attogon, i.2002, G. Goergen; 38 ♂♂, 44 ♀♀, 19 ♂/♀, Toffo, i.2002, G. Goergen; 3 ♂♂, 3 ♀♀, Niaouli, i.2002, G. Goergen; 20 ♂♂, 21 ♀♀, 2 ♂/♀, Toffo, ii.2002, G. Goergen; 2 ♂♂, 11 ♀♀, Niaouli I, ii.2002, G. Goergen; 9 ♂♂, 4 ♀♀, Niaouli II, ii.2002, G. Goergen.

Remark.— First record for Benin.

*Paratropus verschureni* (Thérond, 1959)

Material.— **Ivory Coast:** 1 ♂, 2 km from Taabo, termitarium in damaged forest, 15.v.1994, C. Girard. **Benin:** 2 ♂♂, Pénnessoulou, vi.2002, G. Goergen.

Remark.— First record for Benin.

*Paratropus viennai* Kanaar, 1993

Material.— **Benin:** 1 ♀, Attagon, 29.vii.2000, G. Goergen; 1 ♂, 6 ♀♀, Pobé, xi.2001, G. Goergen; 21 ♂♂, 37 ♀♀, 1 ♂/♀, Attogon, i.2002, G. Goergen; 24 ♂♂, 19 ♀♀, 11 ♂/♀, Toffo, i.2002, G. Goergen; 3 ♂♂, 3 ♀♀, Niaouli, i.2002, G. Goergen; 141 ♂♂, 140 ♀♀, 32 ♂/♀, Toffo, ii.2002, G. Goergen; 3 ♀♀, Niaouli I, ii.2002, G. Goergen; 6 ♂♂, Niaouli II, ii.2002, G. Goergen; 1 ♂, 1 ♀, Pénnessoulou, vi.2002, G. Goergen; 1 ♂, Pénnessoulou, ix.2002, G. Goergen.

Remark.— First record for Benin.

*Paratropus zicsii* Kanaar, 1997

Material.— **Guinea:** 2 ♀♀ (CHAT), Mt. Nimba, 7°41–42'N 8°23'W, xii.1990–iii.1991, 514–740 m, L. Leblanc; 1 ♂ (CHAT), Mt. Nimba, Gouan River, 514 m, 7°42'50"N 8°23'30"W, 7–15.ii.1991, FIT, Luc Leblanc. **Ghana:** 1 ♂, 1 ♀ (LSAM), Ashanti Reg., Bobiri Forest Reserve, 6°42'N 1°20'W, 23–31.vii.2001, F.I.T. # 1, C. Carlton & V. Moseley; 7 ♂♂, 11 ♀♀ (LSAM, CHPK), idem, but F.I.T. # 3; 1 ♂, 2 ♀♀ (LSAM, CHPK), idem, but F.I.T. # 4; 1 ♂, 3 ♀♀ (LSAM, CHPK), idem, but F.I.T. # 5; 11 ♂♂, 9 ♀♀ (LSAM, CHPK), Ashanti Reg., Bobiri Forest Reserve, 6°42'N 1°20'W, 1–16.viii.2001, flight interception trap, E. Opuni-Frimpong; 1 ♂, 5 ♀♀ (LSAM), idem, but 16–22.viii.2001; 2 ♀♀ (LSAM), idem, but 22.viii–5.ix.2001; 1 ♀ (LSAM), idem, but 5–10.ix.2001; 6 ♂♂, 10 ♀♀ (LSAM, CHPK), idem, but 8–11.ii.2002, E. Opuni-Frimpong & C. Carlton; 5 ♂♂, 1 ♀ (LSAM, CHPK), idem, but 23.i–1.ii.2002, E. Opuni-Frimpong;

Remarks.— The anterolateral impression of the pronotum in the specimens of Guinea are less distinct than in the paratypes in my collection. First records for Guinea and Ghana.

**Other material examined**

Material.— **Equatorial Guinea:** 1 ♂ (MRAC), Micomeseng, 13–17.vii.1989, M. Alderweireldt.

Close to *P. nigrellus* (Schmidt, 1893), but posterior part of prosternal keel not depressed and mesosternum less transverse. The aedeagus is rather similar to that of *P. penatii* Kanaar, 1997. As an undoubted male of *P. nigrellus* is not known the exact status of this specimen cannot yet be assessed. Maybe it belongs to an undescribed species.

Material.— **South Africa:** 1 ♀ (CHSM), Transvaal, Guernsey Farm, 15 km E of Klaserie, 500 m, 19–31.xii.1985, flight interception trap, H. & A. Howden.

Close to *P. altilis* Lewis, 1901, but frons impressed, clypeus shorter, head and mesosternum more transverse, propygidium finely, not rugose-punctate.

Material.— **South Africa:** 1 ♀ (CHSM), E. Transvaal, Kruger Park, Satara, 15–17.xii.1985, S & J Rec., acacia grasslands, eve carnetting

Close to *P. viennai* Kanaar, 1993, but prosternal carinal striae less distinct and less distant, prosternal lobe more bent down.

Material.— **Tanzania:** 1 ♀ (ZFMK), Ngerengere, coll. Reichensperger.

Close to *P. verschureni* (Thérond, 1959), but mesosternum slightly different and tibiae more closely spinulate.

Material.— **South Africa:** 1 ♂ (USNM), Transvaal, Mooketsi, 14–18.ii.1968, Paul Spangler.

Close to *Paratropus therondi* (Vienna, 1985), but much smaller, the impression of the frons very shallow. The prosternal carinal striae are for the greater part obsolete,

the lateral prosternal striae are abbreviated anteriorly. The aedeagus seems to be a little less strongly curved than in *P. therondi*.

Material.— **Zaire:** 2 ♀♀ (ZFMK), Kinda, Katanga, Belgian Congo (without date).

Very close to *P. lacustris* (Desbordes, 1924), but hind margin of metasternum and anterior margin of first sternite punctate, mesosternum less transverse.

### Additions and refinements of the key

“l.c.” refers to the figures in my “Revision of the genus *Paratropus* Gerstaecker” (Kanaar, 1997).

45. Frons with deep impression; supraorbital striae strongly sinuous, more or less convergent anteriorly in their posterior half (l.c. fig. 429); carinal prosternal striae slightly divergent anteriorly, not connected ..... *P. cavifrons* Kanaar  
 – Frons not or very feebly impressed; supraorbital striae not strongly sinuous (l.c. fig. 569); carinal prosternal striae distinctly connected in front, forming rather wide loop (l.c. fig. 568) ..... *P. sternalis* Vienna
56. Sutural striae not interrupted anteriorly, fifth dorsal striae at least reaching basal elytral fourth ..... 56a  
 – Sutural striae broadly interrupted anteriorly, fifth dorsal striae (if present) apical, at most reaching the basal elytral half ..... 58
- 56a Frons not impressed (fig. 3). Mesosternum and metasternal disc distinctly punctate. Oriental species ..... *P. angulifrons* spec. nov.  
 – Frons impressed. Mesosternum and metasternal disc punctulate. African species . 57
57. (etcetera)
62. Supraorbital striae fluently passing into frontal stria, not bent outward before (l.c. fig. 343). Frons gradually passing into clypeus, with slight common depression. Oriental species ..... *P. planiceps* Reichensperger  
 – Supraorbital striae more or less bent outward before passing into frontal stria; planes of frons and clypeus forming a marked angle, if angle rather faint then frons and vertex densely and distinctly punctate. African species ..... 63
63. Sutural striae broadly interrupted anteriorly; apical ends of third, fourth and fifth dorsal striae progressively abbreviated (l.c. fig. 675); metatibiae rather triangular (l.c. fig. 680) ..... *P. lujai* (Desbordes)  
 – Sutural stria at most slightly interrupted; third, fourth and fifth dorsal striae not progressively abbreviated; metatibiae not rather triangular ..... 63a
- 63a Body form rather narrowly oval (fig. 9); PE-length about 2.0 mm; upper margins of tibiae (especially protibiae) oligospinulate (figs. 12-14) .... *P. strigosus* spec. nov.  
 – Body form broadly oval (fig. 25, l.c. figs 223, 245); PE-length at least 2.4 mm; upper margins of tibiae with more closely set spines ..... 63b
- 63b Angle between frons and clypeus rather faint. Frons and vertex densely and distinctly punctate. Anterolateral and faint postocular pronotal impressions present.

- Fine lateral prosternal striae complete (fig. 26) ..... *P. transvalensis* spec. nov.
- Angle between frons and vertex marked. Frons and vertex finely punctate. Anterolateral or postocular pronotal impressions absent. Lateral prosternal striae strongly reduced to basal traits or entirely absent ..... 64
64. (etcetera)
81. Supraorbital striae in their posterior half distinctly divergent anteriorly (l.c. fig. 138). Frons not impressed ..... *P. vallenduuki* Kanaar
- Supraorbital striae in their posterior half parallel or very little divergent anteriorly. Frons either impressed or not ..... 82
82. Carinal prosternal striae strongly divergent anteriorly; lateral marginal prosternal striae divergent at their origin from the procoxae, thence parallel and sulciform and again divergent anteriorly (l.c. fig. 167). African species ..... *P. erbelingi* Kanaar
- Carinal prosternal striae not strongly divergent anteriorly; lateral marginal prosternal striae from their origin divergent anteriorly (fig. 18, l.c. figs. 145, 156, 175). Oriental species ..... 82a
- 82a Frons not impressed (fig. 19); mesosternum less transverse (fig. 18); metasternum with only few small punctures before the metacoxae (fig. 18) ... *P. tenuis* spec. nov.
- Frons more or less impressed (l.c. figs 146, 157, 176); mesosternum more transverse (l.c. figs 145, 156, 175); metasternum with an area of distinct punctures before the metacoxae (l.c. figs. 145, 156, 175) ..... 83
83. (etcetera)

### Acknowledgements

Thanks are due to Dr C. Girard (Paris) and Dr G. Goergen (Cotonou) for the opportunity to study the extraordinary material that they collected and for the generous gift of specimens. For the loan of specimens I am indebted to Dr O. Merkl (Budapest) and Mrs V.M. Moseley-Bayless (Baton Rouge). I thank all my friends-histeridologists for sending me additional material for this study. Especially thanks are due to Mr A. Tishechkin (Baton Rouge) for his mediation to get in loan the material from CNCI, USNM, ZFMK and ZMAS, to Dr P. Vienna (Venice) for his mediation to get in loan the specimens from TMSA, to Mr R. Peschel (Chemnitz) for his mediation to get in loan the specimens from NHMW, and to Mr T. Lackner for his mediation to get in loan the specimen from MRAC.

### References

- Arnett Jr., R.H., G.A. Samuelson & G.M. Nishida, 1993. The insect and spider collections of the world. 1-220.— Flora & Fauna Publications, Gainesville FL.
- Kanaar, P., 1997. Revision of the genus *Paratropus* Gerstaecker (Coleoptera: Histeridae).— Zool. Verh. Leiden 315: 1-185 (1997)

Received: 22.iv.2004

Accepted: 29.iv.2004

Edited: C. van Achterberg

