

Review of the southern African species of *Thinodromus* (Coleoptera: Staphylinidae: Oxytelinae)

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Abstract. Previously unrevised types of several species of the genus *Thinodromus* Kraatz, 1857, *Trogophloeus montiumdraconis* Scheerpeltz, 1974, *Trogophloeus rhodesianus* Scheerpeltz, 1974 and *Trogophloeus sudanensis* Scheerpeltz, 1974, are examined, redescribed and illustrated, all primarily from the southern half of continental Africa. Lectotypes are designated for *Trogophloeus tibialis* Fauvel, 1907 and *Trogophloeus capensis* Bernhauer, 1934, the latter is found to be conspecific with *Trogophloeus montiumdraconis* Scheerpeltz, 1974, syn. nov. The previously unknown female of *Thinodromus dasyis* Gildenkov, 2000 and the male of *T. facilis* Gildenkov, 2000 are documented, *T. kedougouensis* Makranczy, 2009, syn. nov., is conditionally placed in synonymy with *T. nigerius* Gildenkov, 2000. Two species are described as new: *T. gildenkovi* sp. nov. from Botswana (North-East) and *T. meridionalis* sp. nov. from South Africa (KwaZulu-Natal prov.). The external morphologies of all these species are illustrated by SEM images, some by colour habitus photographs, and all terminalia and genitalia by line drawings.

Key words. Coleoptera, Staphylinidae, Oxytelinae, *Thinodromus*, taxonomy, new species, new synonymy, Afrotropical Region

Introduction

A planned article on the species of the genus *Thinodromus* Kraatz, 1857 of Madagascar necessitated study of some already described species from the Afrotropical Region, most importantly the southern part of Africa. The present article is mostly about the identities of previously unrevised types and in methodology a direct continuation of the article published by the author four years earlier on the West-Central African species (MAKRANCZY 2009). My hope is that these articles will form the groundwork for uncovering relationships among *Thinodromus* in the continental part of the Afrotropical Region.

The genus *Thinodromus* exhibits an unusually large degree of morphological diversity and this clouds generic boundaries between closely related genera (MAKRANCZY 2006). The

most important diagnostic feature is the five-segmented tarsus with the basal three articles strongly compressed (Figs 19–20). The additional species that will be treated here also seem to be rather closely related and represent an excellent opportunity to revisit the homologies established in the earlier article (MAKRANCZY 2009): the inner sac sclerites used in diagnosis here for the first time in a group of sibling oxytelines. For such an attempt closely related species are desirable because homology statements become increasingly difficult with greater divergence. The richness of characters in the genitalia of *Thinodromus* species suggests that a reasonable portion of the characters discussed have diagnostic value. This is desirable because species of *Thinodromus* appear to demonstrate extensive intraspecific variation, making it difficult to distinguish species based on external features.

In the judgement of relatedness primarily the genital structures are considered. In the set of African *Thinodromus* species described by the present author in 2009, only *T. gabonicus* Makranczy, 2009 had a longer series, and that series (from nearby localities) varied greatly in punctuation density and size, surface microsculpture differed considerably in expression. It was also seen that even the setation can be different between obviously closely related congeners. For this reason, no attempt is made to relate the species based on such external traits. With an unknown number of still undescribed species from the region, only genital characteristics, and primarily the sclerites in the male aedeagi are suitable for specific identification.

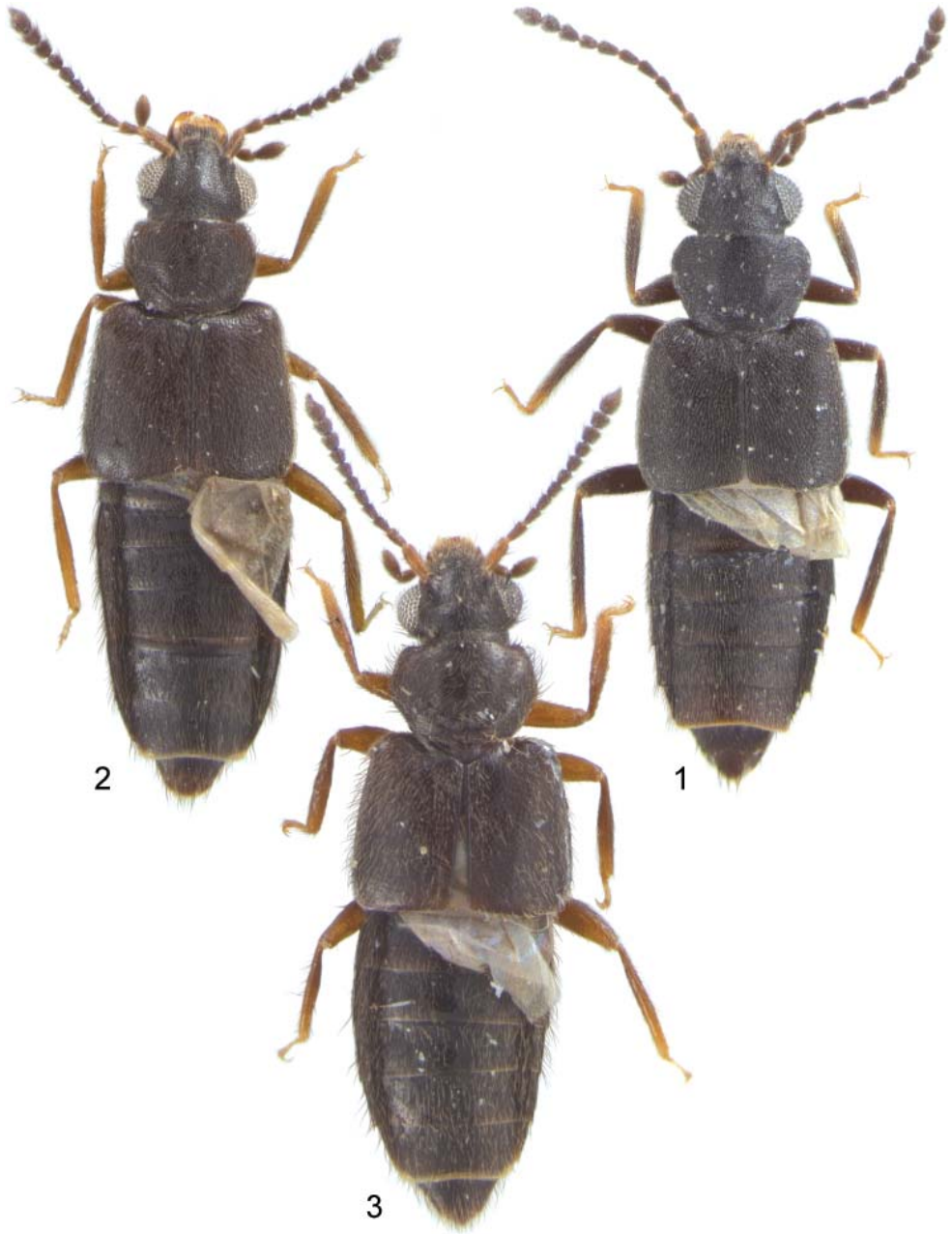
Material and methods

Material from the following sources was used:

BMNH	The Natural History Museum, London, United Kingdom;
CMNH	Carnegie Museum of Natural History, Pittsburgh, PA, USA;
CNCI	Canadian National Collection of Insects, Ottawa, ON, Canada;
FMNH	Field Museum of Natural History, Chicago, IL, USA;
ISNB	Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium;
MGSC	Mikhail Gildenkov collection, Smolensk, Russia;
MHNG	Muséum d'histoire naturelle, Genève, Switzerland;
MNHN	Muséum National d'Histoire Naturelle, Paris, France;
MRAC	Musée Royal de l'Afrique Centrale, Tervuren, Belgium;
MZHF	Zoological Museum, University of Helsinki, Finland;
NHMW	Naturhistorisches Museum Wien, Wien, Austria;
SMNS	Staatliches Museum für Naturkunde, Stuttgart, Germany;
TMSA	Ditsong (formerly Transvaal) Museum, Pretoria, South Africa;
ZMHB	Museum für Naturkunde der Humboldt Universität, Berlin, Germany;
ZMLU	Museum of Zoology, Lund University, Lund, Sweden.

When exact label data are listed, “\” separates labels and “;” separates lines. Texts within brackets “[]” are explanatory and were not included on the original labels. An effort was made to supplement locality data with geographical coordinates; this was done mostly via various internet resources, often verified by Google Earth (<http://www.google.com/earth/index.html>).

Measurements are defined as follows: HW = head width including eyes; TW = head width at temples; PW = maximum width of pronotum; SW = approximate width of shoulders; AW = maximum width of abdomen; HL = head length at midline from front margin of clypeus



Figs 1–3. Habitus of *Thinodromus* species. 1 – *T. gildenkovi* sp. nov., male; 2 – *T. meridionalis* sp. nov., female; 3 – *T. facilis* Gildenkov, 2000, female.

to the neck; EL = eye length; TL = temple length; PL = length of pronotum at mid-line; SL = length of elytron from shoulder; SC = length of elytron from hind apex of scutellum; BL = approximate body length; FB = forebody length (combined length of head, pronotum and elytra). All measured from dorsal view.

For descriptions and measurements a Leica MZ 12.5 stereoscopic microscope was used. For the line drawings, structures were dissected and permanently mounted in Euparal on plastic cards pinned with the specimens. Genitalic preparation is detailed in MAKRANCZY (2006) and aedeagal internal sac sclerite homology follows MAKRANCZY (2009): BA = basal sclerites, BM = basomedial sclerites, ML = medial lamellae, MA = medioapical sclerites, AC = apical copulatory sclerite. Details of illustration methods are also discussed in the latter article. Drawing was done with a Jenalab (Carl Zeiss, Jena) compound microscope and drawing tube (camera lucida). Most SEM images were taken from uncoated specimens with a Hitachi S-2600 N scanning electron microscope, with the exception of the full body image of a *Thinodromus capensis* (Bernhauer, 1934) female for which a Zeiss EVO LS15 scanning electron microscope with a BSA detector was used. A set of images was taken before mounting cards pasted over with sticky tape was invented for a more even and darker background. The newer set is immediately recognizable by its smooth and dark background, this comprises the majority of the micrographs presented here. For colour habitus photographs a Leica DFC 490 camera was attached to a Leica MZ16 stereoscopic microscope and layers mounted with ZereneStacker.

Taxonomy

Thinodromus dasys Gildenkov, 2000

(Figs 5–6, 26–27, 40–42, 46–47, 82)

Thinodromus (*Thinodromus*) *dasys* Gildenkov, 2000: 51.

Thinodromus dasys: MAKRANCZY (2009: 38).

Material examined. REPUBLIC OF SOUTH AFRICA: N Transvaal [Limpopo prov. = north part of former Transvaal], Woodside, Letsitele [23°53'S, 30°24'E]; 17.iii.1976, leg. R.E. Parrott (2 ♂♂ 1 ♀, CNCI; 1 ♂, MGSC), same but 15.iii.1976 (1 ♂, CNCI); N Transvaal, Kruger N.P., Satara [rest camp] [24°23'30"S, 31°46'30"E, 270m]; 7.iii.1976, leg. R.E. Parrott (1 ♂, CNCI); N Transvaal, Kruger N.P., Skukuza research camp, 24°59'S, 31°36'E, 25.ii.1995, leg. S. Endrődy-Younga (E-Y 3120), UV light & trap (1 ♂ 1 ♀, TMSA, 1 ♂, ZMHB), same but 25°00'S, 31°35'E, 19.ii.1995 (E-Y 3102) (4 ♂♂ 1 ♀, TMSA; 1 ♂, SMNS; 1 ♀, ZMHB), same but 24°59'S, 31°35'E, 22.i.1995, leg. C.L. Bellamy (E-Y 3090) (3 ♂♂ 2 ♀♀ TMSA; 1 ♀, SMNS; 1 ♂ 1 ♀, NHMW), same but 7.iii.1996, leg. S. Endrődy-Younga (E-Y 3220), UV light (1 ♂ 1 ♀, TMSA), same but 1.iii.1995 (E-Y 3123), UV light & trap (2 ♂♂ 1 ♀, TMSA), same but 3.iii.1996 (E-Y 3208), UV light (1 ♂, TMSA); Natal, Hluhluwe N.P., 28°02'S, 32°05'E, 4–6.ii.1994, leg. M. Uhlig, lux (1 ♀, ZMHB). **ZIMBABWE** (former Rhodesia): Atlantica, 16mi W Salisbury [= Harare] [17°52'S, 30°49'E, 1370m], i.1974, leg. M.B. Fenton (1 ♂, CNCI).

Redescription. Measurements (in mm, n = 10): HW = 0.63 (0.59–0.65); TW = 0.57 (0.54–0.58); PW = 0.73 (0.68–0.76); SW = 0.85 (0.81–0.90); AW = 0.97 (0.90–1.03); HL = 0.40 (0.38–0.42); EL = 0.25 (0.23–0.26); TL = 0.033 (0.03–0.035); PL = 0.53 (0.49–0.55); SL = 0.84 (0.79–0.87); SC = 0.79 (0.72–0.82); FB = 1.82 (1.65–1.88); BL = 3.50 (2.81–3.98). *Lustre and colour:* Body rather shining but covered with pubescence on some parts not appearing so lustrous. Forebody almost pitch black, even antennae, mouthparts and legs (including

tarsi) blackish dark brown. Abdomen also blackish dark brown but apices of tergites (where more transparent) slightly reddish. *Shape and sculpture*: Head (Fig. 5) rather transverse, eyes prominent and occupy most of sides. Temples short but conspicuous, marked by a more or less discernible smooth rim around posterior edge of eyes; this rim forms with the rest of temple a moderately sharp edge. Pronotum transverse but slightly less so than in majority of species, first half of sides and anterior corners broadly rounded, side margin slightly concave in hind half, posterior angles rounded but not so obtuse, therefore discernible. Horseshoe-shaped impression deep but not too broad, runs into a pair of depressions at sides of disc, two smaller impressions in middle of disc. Deflexed margin rather wide, conspicuous laterally and present at hind margin all along. Elytra (Fig. 6) combined somewhat broader than long, slightly dilated posteriorly. Posterior elytral margin with a slightly pulled out membranous lobe near outer corner. Abdomen seems to be more constricted at base than usual for the genus and more parallel-sided. Apex of tergite VII with palisade fringe (widest medially). *Punctuation and microsculpture*: Head punctuation deep with punctures of quite uneven sizes and interspaces, latter occupies about half of the surface and free of microsculpture, rather shiny. Pronotum with similar punctuation, some scabrous microsculpture in posterior corner. Elytra with even larger and deeper punctures, yet with ample shiny interspaces. Abdominal terga very roughly but sparsely punctured, puncture sizes decrease towards apical margin. Almost indiscernible traces of fine coriaceous microsculpture in the transversal groove posteriad basal ridges on tergites. *Pubescence*: Forebody with setae of varying sizes, rather sparse and mostly dark but predominantly long, erect setae; short interommatidial setae present without longer setae. Abdomen with sparse but long setae, with a few exceptionally long ones at apices of tergites. Finer and shorter setae only on head, pronotal disc and abdominal tergum bases. *Primary and secondary sexual features*: Female antennae (Fig. 26) rather transverse, middle antennomeres (articles 4–5) about as long as broad, penultimate antennomeres (articles 9–10) about half longer than broad. Male antennae (Fig. 27) with middle antennomeres (articles 4–5) distinctly elongate, penultimate antennomeres (articles 9–10) slightly broader than long. Male: MA of aedeagal internal sac elongate, somewhat spoon-like widened at apex, ML very transverse, BM extremely elongate, broadening medially, BA moderately long, distally widening, AC reverse V-shaped with arms forming an acute angle (Figs 40–42), sternite VIII (Fig. 46), tergite X (Fig. 47); female: ringstructure (Fig. 82).

Differential diagnosis. Of the here treated species, *T. dasys* is closely allied to *T. gildenkovi* sp. nov., although their external appearances differ greatly. *Thinodromus dasys* is also remarkably similar to *T. decorsei* (Cameron, 1948), this species appears to be its sibling, supported by the slightly pointed but not widened tip and the widened, lamellar basal loops of the female ringstructure (a bit more elongate in *T. dasys*), the sclerotization pattern of the basal part of the parameres, similar size and shape of the AC but in *T. decorsei* with an apical projection, MA elongate with spoon-like apex in both species, BM also very elongate, BM almost identical in shape, the medial tooth adjacent to ML is similar but slightly more bulky in *T. dasys*. The subapical edge of the median lobe body (on frontal side between paramere bases) is quite similar in both species, but the central sclerotized plate has a bifurcate apex in *T. dasys*.

Distribution. This species is known from the eastern Republic of South Africa and Zimbabwe.

Remarks. The original description was based on a single male specimen and now both sexes are known. This species was also referred to in MAKRANCZY (2009) as the closest known relative of *Thinodromus decorsei* (Cameron, 1948) giving the present treatment an extra value from a phylogenetic point of view. The specimen from Natal is without elytra.

Thinodromus gildenkovi sp. nov.

(Figs 1, 20–21, 24–25, 32–33, 43–45, 48–49, 84)

Type locality. Botswana, North-East Prov., river Shashe, 20 mi NW Francistown.

Type material. HOLOTYPE: ♂, “Botswana (B24); [North-East Prov.] R. Shashe, 20 mls.; NW. Francistown [approx. 21°01'04"S, 27°14'22"E, 1050 m]; 24.iv.1972 \ at; light \ Southern; African Exp.; B.M. 1972-I \ *Thinodromus*; af. segnis (Er.); 1999; det. M. Gildenkov” (BMNH). PARATYPES (3 specimens): same data as holotype (2 ♀♀, BMNH; 1 ♂, MGSC).

Description. *Measurements* (in mm, n = 3): HW = 0.60 (0.585–0.60); TW = 0.53 (0.51–0.545); PW = 0.69 (0.655–0.70); SW = 0.85 (0.81–0.88); AW = 0.92 (0.88–0.95); HL = 0.39 (0.38–0.40); EL = 0.24 (0.225–0.24); TL = 0.03 (0.025–0.04); PL = 0.51 (0.49–0.53); SL = 0.83 (0.80–0.85); SC = 0.75 (0.72–0.78); FB = 1.73 (1.64–1.80); BL = 3.17 (3.00–3.47). *Lustre and colour:* Body (Fig. 1) rather dull, due not only to punctation but extremely fine and dense setation providing greyish, dusted appearance. Forebody and abdomen pitch black, legs dark brown but both ends of tibiae (plus tarsi) significantly lighter, reddish-yellowish. Mouthparts and antennae dark brown, basal antennomeres not lighter, but even a little darker. *Shape and sculpture:* Head (Fig. 32) strongly transverse, eyes large, occupy sides of head, leaving free just discernible temples. Pronotum strongly transverse, first half of sides and anterior corners broadly rounded, hind half a little concave; posterior corner obtuse-angled and rounded but conspicuous. Horseshoe-shaped impression deep but rather broad, therefore less prominent, pronotal disc laterally with shallow depressions, middle of disc slightly elevated, this point often more shiny than surroundings, with two smaller impressions laterally. Deflexed margin thin, laterally discernible on whole length, just slightly more apparent in posterior half, on posterior margin present but hardly visible (covered by setation). Elytra (Fig. 33) combined significantly broader than long, dilated towards apex, with a small round impression posterior of scutellum and a larger oblique depressed area at anterior half of disc. Apical margin of elytron with a concavity and membranous lobe in outer 1/3, not apparent on whole width. Apex of abdominal tergite VII (Fig. 21) with palisade fringe (widest medially). *Punctation and microsculpture:* Head punctation rather dense, interspaces mostly just a fraction of puncture diameters. Punctures varying in size but deep, surface covered by coriaceous microsculpture. Pronotal punctures a little larger but almost as dense, microsculpture becomes stronger, more scabrous along sides and posterior edge. Elytral punctures larger and dense, despite small interspaces some microsculpture obvious. Abdominal tergites with punctures smaller and less dense than on elytra but in interspaces with coriaceous microsculpture turning stronger in grooves behind basal ridges. *Pubescence:* Body covered by remarkably short and rather dense setation, setae with not so even sizes but equal spacing therefore appearing uniform, some longer setae near posterior margins of abdominal terga; setae rather pressed down, their direction most obvious on head where uniformly anterior. *Primary and secondary sexual features.* Male antennae unusually elongate, middle antennomeres (articles 4–5)

about twice as long as broad and penultimate antennomeres (articles 9–10) a little bit longer than broad in male (Fig. 25), female antennae (Fig. 24) a little less elongate. Male: MA of aedeagal internal sac appears short and stout, ML very transverse, BM tiny and thin, but a distal, wider sclerite seems to be disassociated from it, they may have been modified from a single sclerite, BA rather long and more or less straight, AC reverse V-shaped with arms open in nearly right angle (Figs 43–45), sternite VIII (Fig. 48), tergite X (Fig. 49); female: ringstructure and spermatheca (Fig. 84).

Differential diagnosis. *Thinodromus gildenkovi* sp. nov. is rather closely allied to *T. dasys*, the female ringstructure is of similar shape, although the basal loops are with more rounded and uniformly lamellar apex, the apical part is not slightly pointed but rather evenly curved in *T. gildenkovi*, although in the proximity of the apex the pores have more dense patches in both species. The aedeagus of both species is of the same general shape and similar sclerotization pattern in the parameres, although the latter differs in form on the backside flaps. The central sclerotized plate in the subapical edge of the median lobe body is not pointed but more or less truncate/concave at the apex, the apical part of this structure is rather elongate. The medial tooth adjacent to ML is similarly bulky but other associated sclerites are different, as well as BA much more slender and elongate in *T. gildenkovi* sp. nov., lacking the incrassate and truncate apex. AC is more elongate in this species, but of the same general shape, without apical projection.

Etymology. Named after Mikhail Yurievich Gildenkov (Smolensk, Russia), who added greatly to our knowledge of the Oxytelinae, primarily by his pioneering studies on Palaearctic *Carpelimus* Leach, 1819 and for his helpful contributions toward the work presented here.

Distribution. Only known from Botswana.

Thinodromus rhodesianus (Scheerpeltz, 1974)

(Figs 10–12, 50–54)

Trogophloeus (Carpalimus) rhodesianus Scheerpeltz, 1974a: 56.

Type material examined. HOLOTYPE: ♂, “S. Afr. S. Rhodesia [Zimbabwe]; Victoria Falls [approx. 17°55'34"S, 25°51'22"E, 900 m]; 16-17.V.[19]51. No. 308 \ Swedish South Africa; Expedition; 1950-1951; [P.] Brinck - [G.] Rudebeck \ *Trogophloeus*; (*Carpalimus*); *rhodesianus*; n.sp. \ Holotypus \ Typus; *Trogophloeus*; *rhodesianus*; O. Scheerpeltz \ *Trogophloeus*; (*Carpalimus*); *rhodesianus* n.sp.; det. Scheerpeltz. 1968 \ Zool. Mus. Lund Sweden; Staphylinidae; Type No.; 589:1 \ ZML 2002; 122” (ZMLU).

Redescription. *Measurements* (in mm, n = 1): HW = 0.58; TW = 0.50; PW = 0.67; SW = 0.80; AW = 0.91; HL = 0.38; EL = 0.23; TL = 0.03; PL = 0.49; SL = 0.83; SC = 0.78; FB = 1.72; BL = 3.35. *Lustre and colour*: Body rather dull due not only to punctuation but very fine and dense setation giving a somewhat dusted appearance. Head and abdomen blackish dark brown, pronotum and elytra dark brown with some reddish tint. Mouthparts and antennae dark brown, latter with basal antennomeres not lighter than rest. Legs dark brown but apices of tibiae plus tarsi lighter, medium to light brown. *Shape and sculpture*: Head (Fig. 10) quite transverse, eyes large, occupy sides of head, leaving free just discernible temples. Pronotum transverse, first half of sides and anterior corners broadly rounded, hind half just a little concave; posterior corner obtuse-angled and rounded, feebly marked. Horseshoe-shaped impression deep but rather broad, therefore less prominent, pronotal disc laterally with larger,

shallow depressions extending towards anterior corners, middle of disc with two smaller impressions. Deflexed margin thin but evenly apparent along whole side length, on posterior margin present, slightly obvious. Elytra (Fig. 12) combined significantly broader than long, dilated towards apex, with a small, very shallow round impression posteriad scutellum and feeble impressions directed from shoulder to 2/3 of suture length. Posterior elytral margin in the outer 1/3 with thin membranous lobe (not apparent on whole width) pulled out. Apex of abdominal tergite VII with palisade fringe (widest medially). *Punctuation and microsculpture*: Head punctuation rather dense, interspaces only a fraction of puncture diameters. Punctures medium sized but deep, surface covered by coriaceous microsculpture. Pronotal punctures a little larger but almost as dense, microsculpture becomes stronger, more scabrous along sides and posterior edge. Elytral punctures larger and dense, despite small interspaces some microsculpture obvious. Abdominal tergites with smaller punctures and less dense than on elytra but in interspaces with coriaceous microsculpture turning stronger in grooves behind basal ridges. *Pubescence*: Body covered by remarkably short and rather dense setation, setae with more or less even sizes and density except some longer setae near posterior margins of abdominal terga; setae rather pressed down, their direction most obvious on head where uniformly forward. *Primary and secondary sexual features*: Male antennae (Fig. 11) rather elongate, middle antennomeres (articles 4–5) nearly twice as long as broad, penultimate antennomeres (articles 9–10) a tiny bit longer than broad. Male: MA of aedeagal internal sac thin and very elongate with outward curving ends, ML moderately transverse, BM very elongate on apical part (conspicuously broadening near base), BA rather elongate and more or less straight, AC reverse V-shaped with arms in acute angle and with forward directing apical projection (Figs 52–54), sternite VIII (Fig. 50), tergite X (Fig. 51); female: unknown.

Differential diagnosis. *Thinodromus rhodesianus* can be considered to be more distantly allied to *T. dasys*, *T. gildenkovi* sp. nov. and *T. decorsei*, but differences are numerous. The female of this species is unknown, so it cannot be compared to those of the aforementioned three taxa. In the male aedeagus, the apex of the subapical edge of the median lobe body is rather elongate (in this respect most similar to *T. gildenkovi* sp. nov., less to the others), incrassate and truncate at its apex. Possessing an apical projection of AC relates the species to *T. decorsei*, while a rather strong laterally directed “emargination” in the sclerotization in the basal 1/3 of the parameres unite all four species. The sibling of this species is *T. makokouensis* Makranczy, 2009 (with also only the male known), the most striking difference between them is the more emarginate apex of male sternite VIII in *T. makokouensis*, AC with a strong perpendicular apical projection in *T. rhodesianus* (but otherwise similar shape), basal part of the parameres with a very similar form and sclerotization, apical lobe of the subapical edge of median lobe body is similarly elongate, but less constricted at its base in *T. makokouensis*. The apex of the paramere of *T. rhodesianus* is much more narrowed, while broader and evenly rounded in *T. makokouensis*.

Distribution. Known only from Zimbabwe, but as the type locality lies on the border with Zambia, it surely occurs there, also.

Remarks. The closest known relative of this species appears to be *T. makokouensis* Makranczy, 2009. Females are unknown from both species.

***Thinodromus sudanensis* (Scheerpeltz, 1974)**

(Figs 17–18, 22, 77–78)

Trogophloeus (*Carpalimus*) *sudanensis* Scheerpeltz, 1974b: 5.*Thinodromus sudanensis*: GILDENKOV (2000: 51).

Type material examined. HOLOTYPE: ♀, “Sudan; Dahr[Bahr] el Ghazal.; Wau [04°10'N, 10°10'E] \ 19.2.1963; [R.] Linnavuori \ *Trogophloeus*; (*Carpalimus*); *sudanensis*; nov.spec. \ ex coll.; Scheerpeltz \ Typus; *Trogophloeus*; *sudanensis*; O. Scheerpeltz \ Holotypus; *Trogophloeus*; *sudanensis* Scheerpeltz; ver. Makranczy, 2011 \ *Thinodromus*; *sudanensis* (Scheerpeltz); det. Makranczy, 2011” (MZHF). PARATYPE: ♀, “Sudan; Dahr[Bahr] el Ghazal.; Wau \ 19.2.1963; [R.] Linnavuori \ *Trogophloeus*; (*Carpalimus*); *sudanensis*; n.sp. \ ex coll.; Scheerpeltz \ Typus; *Trogophloeus*; *sudanensis*; O. Scheerpeltz \ *sudanensis*; Schp. \ Paratypus; *Trogophloeus*; *sudanensis* Scheerpeltz; ver. Makranczy, 2011 \ *Thinodromus*; *sudanensis* (Scheerpeltz); det. Makranczy, 2011” (NHMW).

Redescription. *Measurements* (in mm, n = 2): HW = 0.63 (0.625–0.63); TW = 0.53 (0.515–0.54); PW = 0.70 (0.68–0.72); SW = 0.81 (0.79–0.83); AW = 0.91 (0.88–0.94); HL = 0.39 (0.37–0.40); EL = 0.25 (0.25–0.255); TL = 0.02 (0.015–0.02); PL = 0.50 (0.48–0.51); SL = 0.79 (0.77–0.80); SC = 0.75 (0.73–0.77); BL = 3.35 (3.19–3.51); FB = 1.74 (1.67–1.80). *Lustre and colour*: Body rather shining due to shiny interspaces of not so dense punctation. Forebody and abdomen pitch black with almost absence of brownish or reddish tint. Mouthparts and antennae dark brown, legs reddish medium brown with apices of tibiae and tarsi much lighter, reddish medium brown. *Shape and sculpture*: Head (Fig. 17) rather transverse, eyes occupy sides, temples barely discernible. Pronotum transverse, sides straight in posterior half, posterior corners rounded, inconspicuous, first half of sides and anterior corners strongly rounded. Sides of a rather deep horseshoe-shaped impression anteriorly with an adjoining shallow depression on lateral parts of disc; center of disc marked by a pair of smaller, similarly shallow impressions. Deflexed margin wider than usual and fully apparent laterally, although more prominent in posterior half. Elytra (Fig. 18) combined significantly broader than long, gently dilated towards apex; a shallow oval impression posterior of scutellum and a feeble oblique impression across anterior half of disc. Posterior elytral margin with wider membranous lobe not apparent on whole length but conspicuously pulled out near outer corner in a small concavity of posterior margin. Apex of abdominal tergite VII with palisade fringe (widest medially). *Punctation and microsculpture*: Head punctation medium large and medium deep, but with rather sparse interspaces roughly equal to puncture diameters. Pronotal punctation with similarly sparse and medium deep, somewhat varying sized punctures, only posterior corners with some discernible scabrous microsculpture. Elytra with very large and deep punctures, more close to each other (interspaces less than 1/3 of puncture diameters), but surface without microsculpture, so shiny. Abdominal tergites with medium deep and medium sparse punctation, interspaces often larger than puncture diameters; traces of microsculpture only in transversal grooves posteriad basal ridges. *Pubescence*: Forebody, even the eyes, covered by conspicuously long, erect, often strong and dark setae, mostly of uniform size and sparse spacing. Setae on head and posterior part of pronotum appear shorter and more dense. On abdominal terga with setae sparse, long and erect, on posterior edge a row of very long setae. *Primary and secondary sexual features*: Female antennae (Fig. 22) moderately elongate, middle antennomeres (articles 4–5) about as long as wide, penultimate antennomeres (articles 9–10) slightly transverse. Male: unknown; female: tergite X (Fig. 77), spermatheca and ringstructure (Fig. 78).

Differential diagnosis. As the male of *T. sudanensis* is unknown, it is rather difficult to compare it to the other species. Judging by the female genitalia, the most similar species must be *T. gabonicus* as both share a more “heart-shaped” ringstructure, with that of *T. sudanensis* being much wider at the base. The apex of the ringstructure is more square and less broad in *T. gabonicus*, while rather equally rounded and with the highest density of pores on both sides of the apex in *T. sudanensis*; the inner arms of the basal loop are also wider in the latter species. These are the only two species known with such heart-shaped ringstructures, with the apex not pointed and not widened, so it is expected that their male genitalia might also bear similarities.

Distribution. Only known from South Sudan.

Remarks. SCHEERPELTZ (1974) mentioned two specimens in the original description, a holotype and a paratype with the same collecting data, without noting their sex. Two specimens were found in the Scheerpeltz collection in NHMW, both bearing labels reading “Typus”, and I therefore consider them type specimens. The one intended to be the paratype can be recognized by the “bottom label” (i.e. the label which is usually attached to the first specimen of the series retained by Scheerpeltz). The holotype does not bear this label, as Scheerpeltz probably intended to return it to MZHF from where the material was on loan. Both type specimens are females and now labelled accordingly. In the catalogue of the MZHF collection by SILFVERBERG (1988), the holotype is listed as being already present in the MZHF (erroneously listed as “*sudanicus*”, the last entry on p. 25.), but this is not true according to the information I got from J. Muona in February 2013. The holotype is now forwarded to MZHF.

Thinodromus tibialis (Fauvel, 1907)

(Figs 28–31, 55–59, 81)

Trogophloeus tibialis Fauvel, 1907: 13.

Thinodromus tibialis: HERMAN (1970: 387).

Type material examined. LECTOTYPE (here designated): ♂, “Naivasha [approx. 00°43'13"S, 36°25'43"E, 1900m]; 12 \ tibialis; Fvl. \ Coll. et det A. Fauvel; Trogophloeus; tibialis Fauv.; R.I.Sc.N.B. 17.479 \ Ex-Typis \ Lectotypus; Trogophloeus; tibialis Fauvel; des. Makranczy, 2001 \ Thinodromus; tibialis (Fauvel); det. Makranczy, 2001” (ISNB). PARALECTOTYPES (3 specimens): “Naivasha; 12 \ Coll. et det A. Fauvel; Trogophloeus; tibialis Fauv.; R.I.Sc.N.B. 17.479 \ Ex-Typis \ Paralectotypus; Trogophloeus; tibialis Fauvel; des. Makranczy, 2001 \ Thinodromus; tibialis (Fauvel); det. Makranczy, 2001” (1 ♀, ISNB), “Afrique Or^{le} Anglaise; Naivasha; (Rift-Valley); Ch. Alluaud XII. 1903 \ Coll. et det A. Fauvel; Trogophloeus; tibialis Fauv.; R.I.Sc.N.B. 17.479 \ Ex-Typis \ Paralectotypus; Trogophloeus; tibialis Fauvel; des. Makranczy, 2001 \ Thinodromus; tibialis (Fauvel); det. Makranczy, 2001” (1 ♀, ISNB), “Afrique or. Anglaise; Naivasha; Rift-Valley [04°10'N, 10°10'E]; Ch. Alluaud XII.1903 \ Paralectotypus; Thinodromus; tibialis Fauvel; des. Makranczy, 2001” (1 ♂, coll. Jarrige, MNHN).

Redescription. *Measurements* (in mm, n = 3): HW = 0.49 (0.48–0.50); TW = 0.47 (0.46–0.47); PW = 0.59 (0.57–0.60); SW = 0.75 (0.74–0.76); AW = 0.82 (0.81–0.83); HL = 0.34 (0.33–0.35); EL = 0.19 (0.18–0.20); TL = 0.03 (0.025–0.04); PL = 0.42 (0.41–0.425); SL = 0.73 (0.72–0.75); SC = 0.70 (0.69–0.71); FB = 1.55 (1.52–1.58); BL = 3.04 (2.95–3.10). *Lustre and colour*: Moderately shining, due to setation of body and traces of microsculpture on elytra. Head and abdomen blackish dark brown but apices of tergites (because of more transparency) reddish. Pronotum and elytra reddish dark brown, elytral apex appears somewhat darker. Mouthparts and antennae uniformly medium to dark brown, first antennomere

conspicuously brighter, orange/light brown. Legs medium brown, middle of tibiae darkest. *Shape and sculpture*: Head (Fig. 28) quite small and short, eyes occupy most of side, leaving a small but significant, remarkably rounded temple. Pronotum transverse, first half of sides and anterior corners broadly rounded, posterior constriction of sides towards base a bit stronger than in most congeners, posterior corner more gently rounded, conspicuous. Horseshoe-shaped impression rather deep and sides (while also deep, gradually constricting) obliquely run towards margins at 1/4 of pronotal length (but not reach it). Anterior half of disc centre with three smaller impressions, not well marked. Deflexed margin very thin but apparent along whole length of sides and in the same extent along basal edge. Elytra (Fig. 31) combined a little broader than long, dilated posteriorly; with a shallow indefinitely bordered impression posteriad scutellum plus very slight, indefinite, oblique depression from shoulder area to middle of suture. Posterior elytral margin with membranous lobe only apparent in outer half, conspicuously pulled out near outer corners. Apex of abdominal tergite VII with palisade fringe (widest medially). *Punctuation and microsculpture*: Head with medium large but rather dense punctuation, interspaces a fraction of puncture diameters, but shiny. Pronotum with on average slightly larger punctures but also larger interspaces; only appearance of microsculpture the slightly scabrous posterior pronotal corners. Elytra with even larger (and more uniform) punctures, even less dense (except scutellar area and shoulders) than on pronotum. Abdominal terga medially as deeply punctured as elytra but punctures become smaller towards apices; almost without trace of microsculpture in grooves behind basal ridges. *Pubescence*: Whole body with fairly long, semi-erect setation, but only apices of tergites with really long setae. Sizes of setae do not differ greatly on the forebody, but abdominal terga have much finer and smaller setae also near the bases. *Primary and secondary sexual features*: Female antennae (Fig. 29) moderately elongate, middle antennomeres (articles 4–5) roughly as long as wide, penultimate antennomeres (articles 9–10) slightly transverse. Male antennae (Fig. 30) just a little bit more slender. Male: MA of aedeagal internal sac elongate, curved, spoon-like, ML less transverse than in other species, BM very elongate, gently broadening medially, BA rather short, more or less straight, AC reverse V-shaped but at tip obtuse-angled, arms curved inwards (Figs 55–57), sternite VIII (Fig. 58), tergite X (Fig. 59); female: ringstructure (Fig. 81).

Differential diagnosis. *Thinodromus tibialis* is most similar to *T. meridionalis*, both with the frontal edge of the parameres gently pulled ahead while being evenly rounded, the parameres of these species are unusually and evenly broad. Other shared features include a spoon-like broadened apical formation of MA, conspicuous laterally enlarged flap-like appendages of a sclerite adjacent to the otherwise rather small ML. The most important genitalic differences for both male and female are listed under *T. meridionalis* sp. nov. Other slight differences are deemed to be due to the specimens being too few, rather old and in less than perfect condition. This is especially true for *T. tibialis*, where all known specimens are more than a 100 years old and plates of the terminalia seem to be with membranous apical edges slightly deformed/shrunk, and do not allow solid conclusions for a diagnosis.

Distribution. The species is still only known from its original type material from Kenya.

Remarks. When describing the species, A. Fauvel likely received the series of specimens from Ch. Alluaud with fewer sets of locality labels, and hence hand-copied the collecting data

to the specimens he retained in his collection, now deposited in ISNB. The single specimen examined by me in MNHN (being likely part of the original Alluaud collection) does not have any identification label by Fauvel, but clearly bears the original locality label according to which Fauvel prepared the hand-written copies for the specimens now deposited in ISNB. As all specimens are conspecific and there is no contradictory evidence, I consider all mentioned specimens as syntypes. Because additional syntypes may still exist, I am designating here the single male from Fauvel's collection as the lectotype.

Thinodromus nigerius Gildenkov, 2000

(Figs 13–16, 75–76, 83)

Thinodromus (Thinodromus) nigerius Gildenkov, 2000: 54.

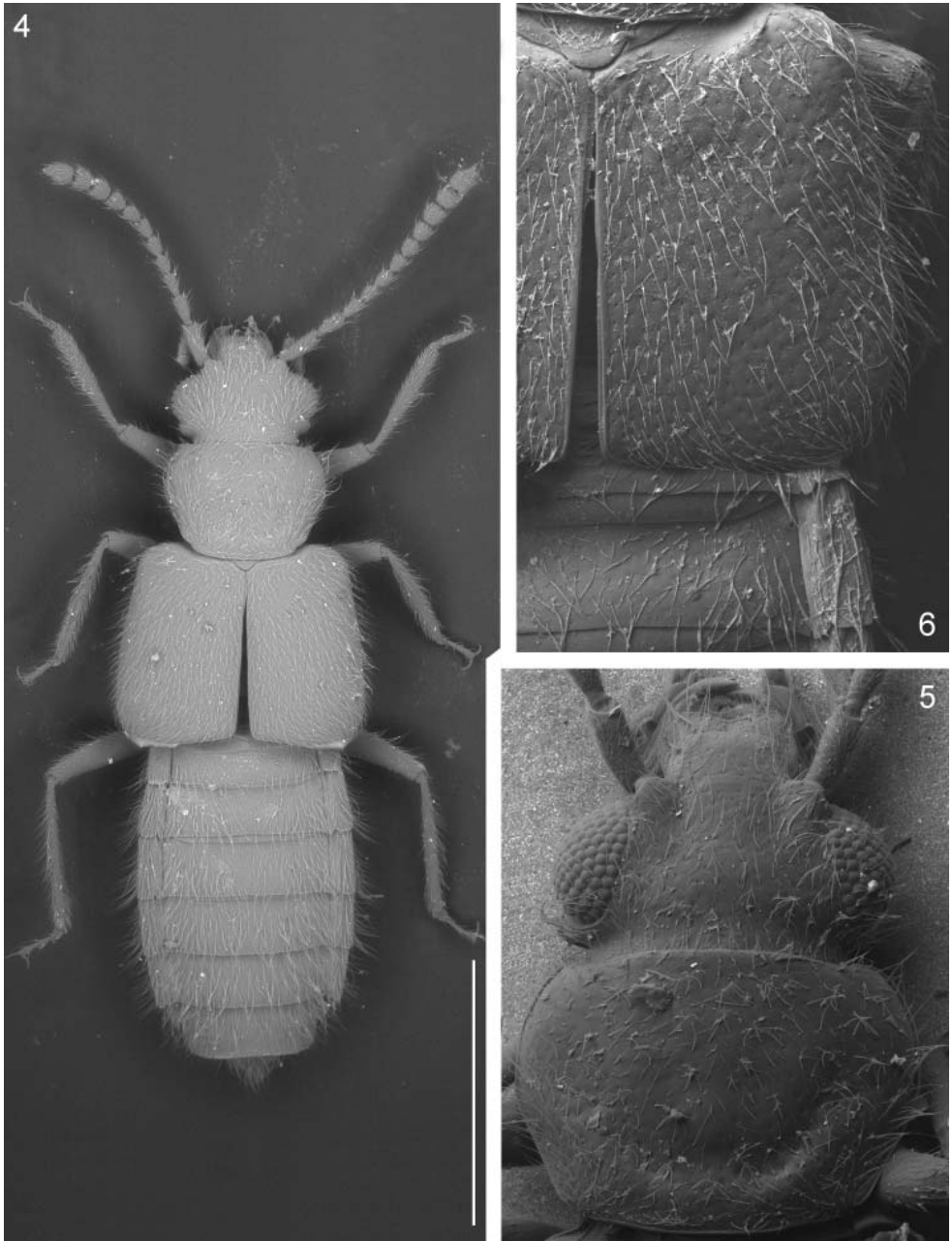
Thinodromus kedougouensis Makranczy, 2009: 44, **syn. nov.**

Thinodromus nigerius: MAKRANCZY (2009: 53).

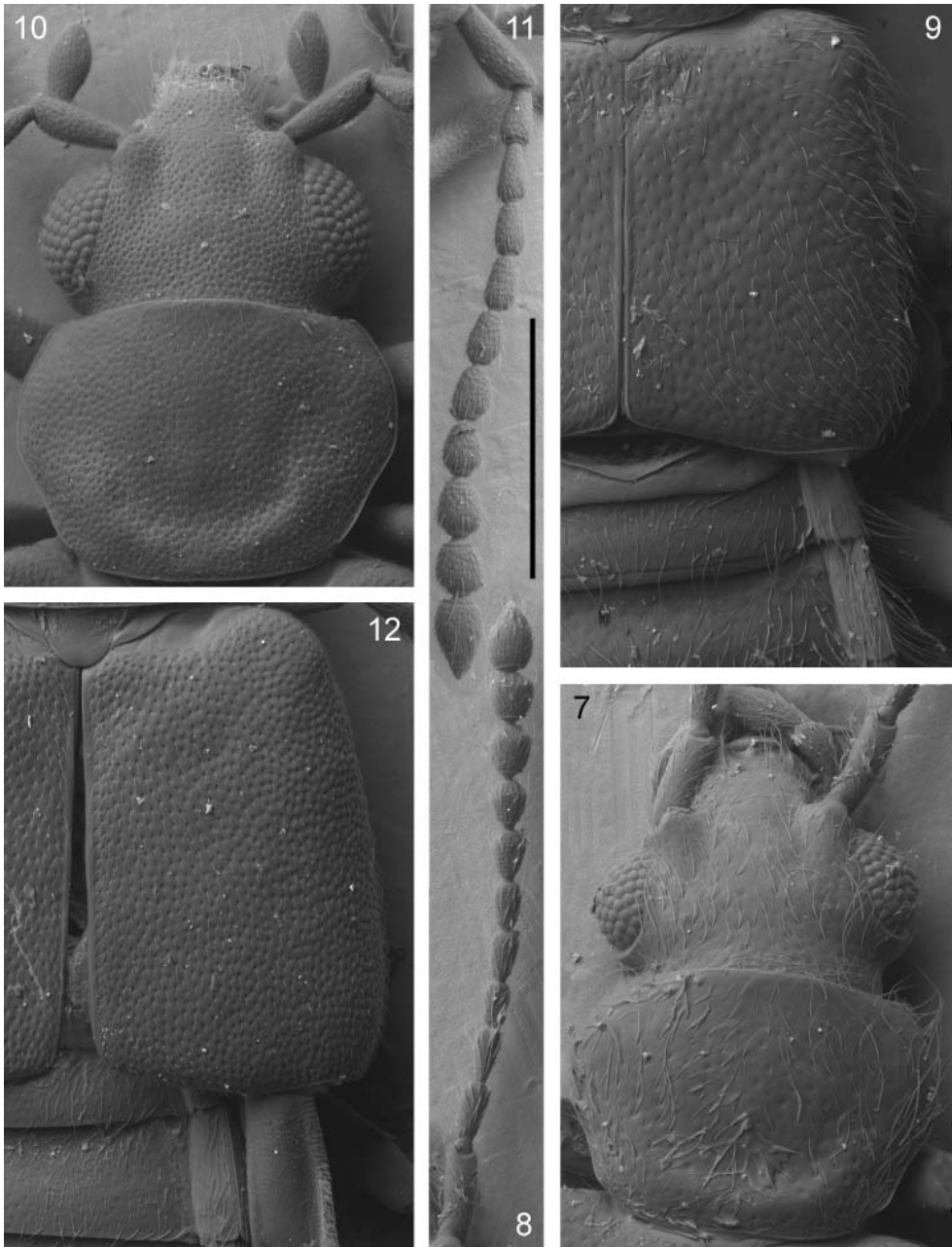
Material examined. **CÔTE D'IVOIRE:** Kafolo, Comoé (river) [09°35'N, 04°18'W], 28.iv.1988, leg. F.-T. Krell (1 ♀, SMNS). **GHANA:** Kumasi [06°41'N, 01°37'W], 6.vii.1967, leg. S. Endrödy-Younga (1 ♀, MHNG). **BÉNIN:** Departement Zou, Za-Kpota & Covè, Zou riv., bridge at road Abomey - Covè, 07°12'04.5"N, 02°17'19.8"E, 7.ii.2006, leg. Goergen, Komarek & Hounguè (3 ♂♂ 1 ♀, NHMW). **NIGERIA:** Federal Capital Territory, Abuja [09°04'N, 07°29'E], 2 November 1998, R. D. Ward (1 ♂, CMNH), same but 1-7 October 1998 (1 ♀, CMNH). **REPUBLIC OF SOUTH AFRICA:** N Transvaal [=Limpopo prov.], Kruger N.P., Skukuza research camp [Sabie river, 270m], 24°59'S, 31°35'E, 7.iii.1996, leg. S. Endrödy-Younga (E-Y 3220), UV light (1 ♂ 2 ♀♀, TMSA; 1 ♂ 1 ♀, SMNS), same but 25°00'S, 31°35'E, 19.ii.1995 (E-Y 3102), UV light & trap (1 ♂, TMSA), Rep. S. Africa: E. Transvaal, Kruger Pk., Skukuza [24°59'S, 31°36'E], 12–14.xii.1985, FMHD #85-848, leg. S. Peck (P# 85-281), thorn scrub & riverine light traps (1 ♀, FMNH).

Taxonomic note. In 2009, I attempted to interpret the identity of *Thinodromus nigerius* Gildenkov, 2000 based on two male specimens from Côte d'Ivoire and Nigeria (see redescription in MAKRANCZY 2009: 53). Immediately after the publication of the paper, I received two more *Thinodromus* specimens from Nigeria, a male (Figs 13, 15–16) and a female (Fig. 14, without elytra). These specimens doubtlessly belong to the same taxon that I discussed as *T. nigerius*. The study of the previously unavailable female ringstructure (Fig. 83), i.e. the only diagnostic female genitalic feature in this group of species, revealed that it is closely similar to that of *T. kedougouensis* Makranczy, 2009 described from Senegal. Therefore, it seems that we are dealing with a single externally variable species and the known specimens are just parts of its morphological continuum. Specimens previously mentioned by me as *T. nigerius* (see Figs 19, 20, 21, 31, 32, 68 in MAKRANCZY (2009) for terminalia and genitalia) and *T. kedougouensis* (Figs 47, 48, 49, 55, 56 in MAKRANCZY (2009), and Figs 75–76 and 83 here) seem therefore to be conspecific. This is also supported by the examined specimens from Bénin (all from the same collecting event and likely from the same microhabitat) which contain two conspecific males (based on morphology of the genitalia), with entirely different antennae: one has shorter antenna much similar to that illustrated in the original description of *T. nigerius*, the other has much more elongate antenna, as that in Fig. 15 in this study.

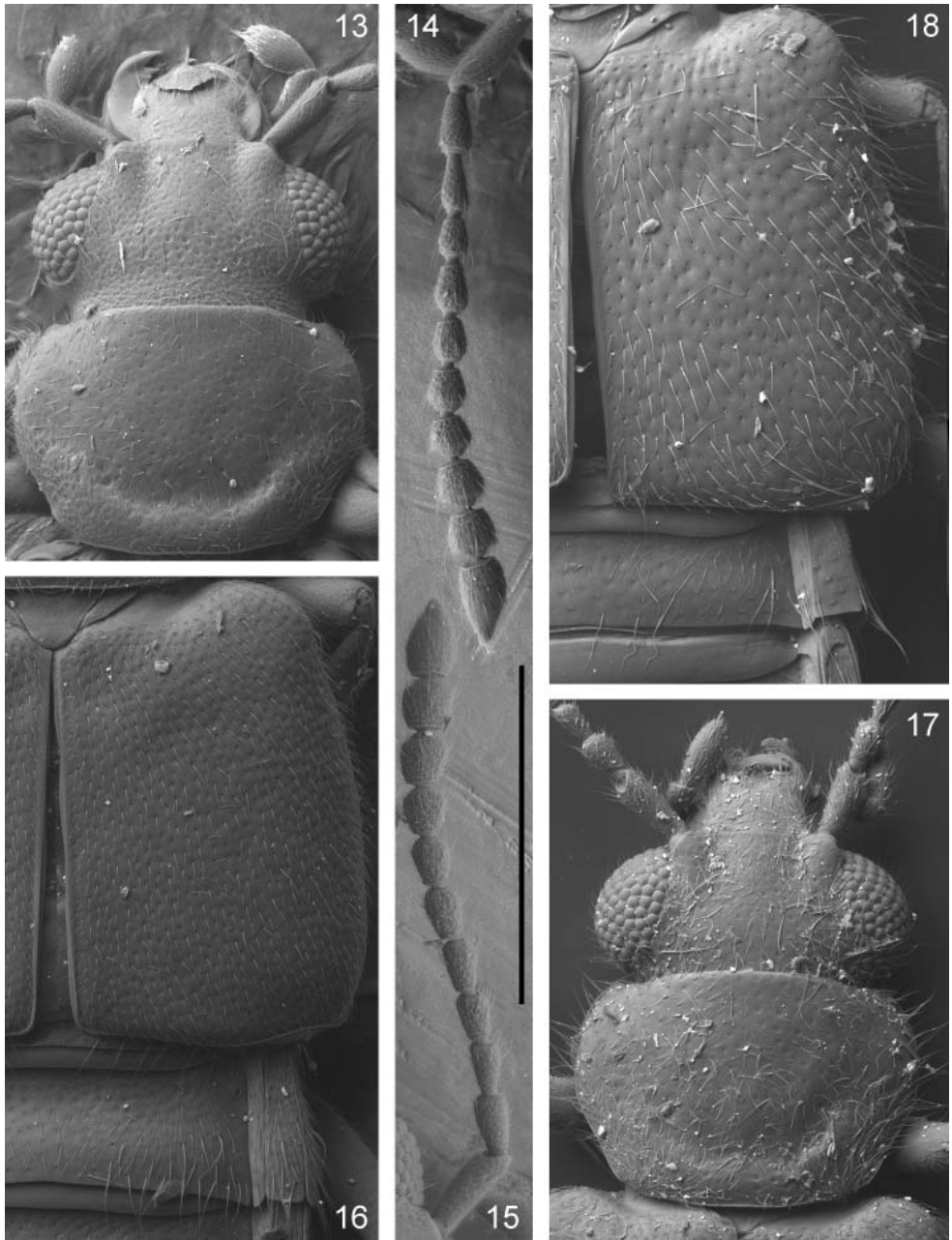
For the reasons given above, *T. kedougouensis* Makranczy, 2009 is here conditionally synonymized with *T. nigerius* Gildenkov, 2000. The synonymy needs to be confirmed by more material from the type locality of *T. nigerius*.



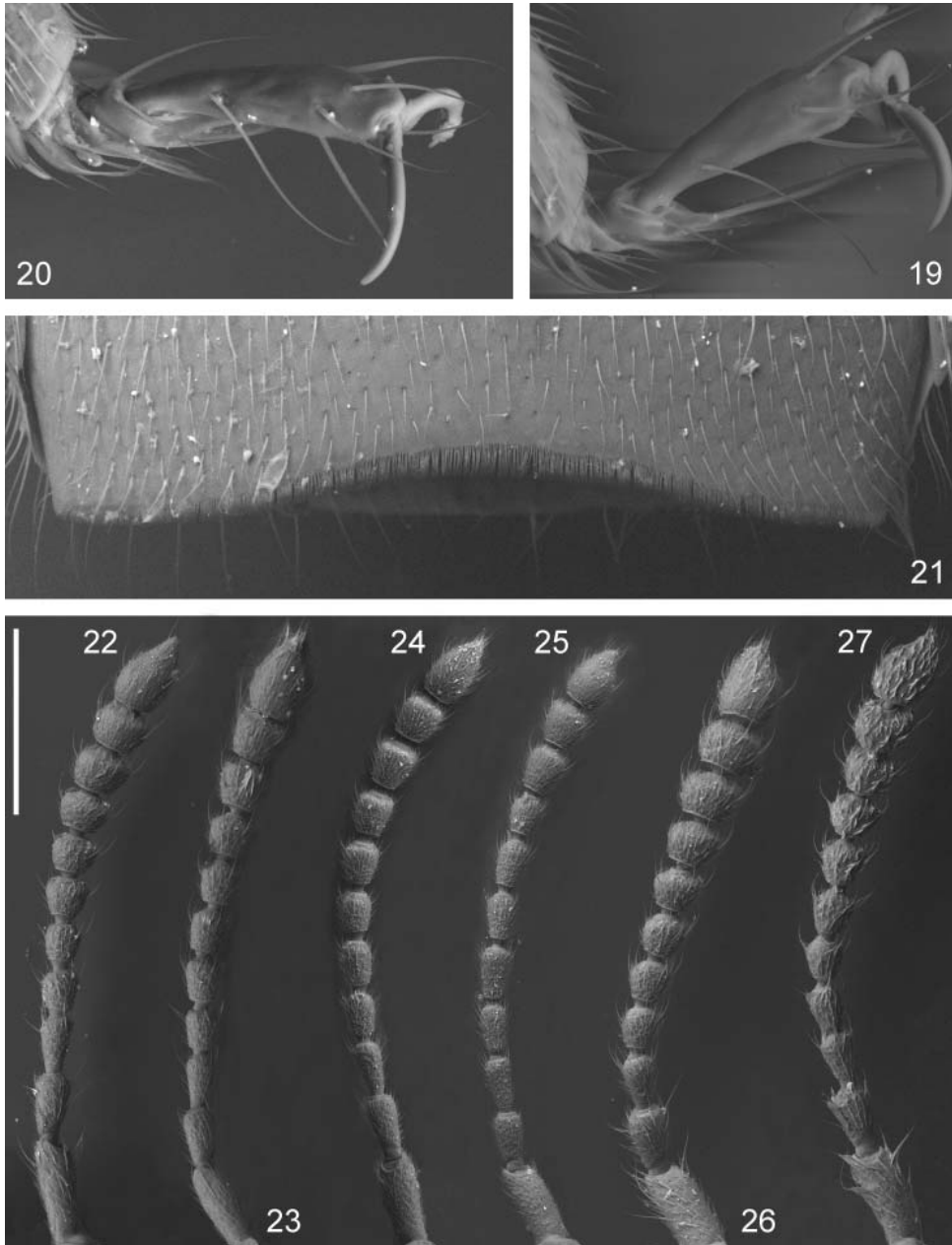
Figs 4–6. 4 – *Thinodromus capensis* (Bernhauer, 1934), female; 5–6 – *T. dasys* Gildenkov, 2000, female (5 – head and pronotum; 6 – elytron and abdominal base). Scale bar: 0.5 mm for 5–6, 1.0 mm for 4.



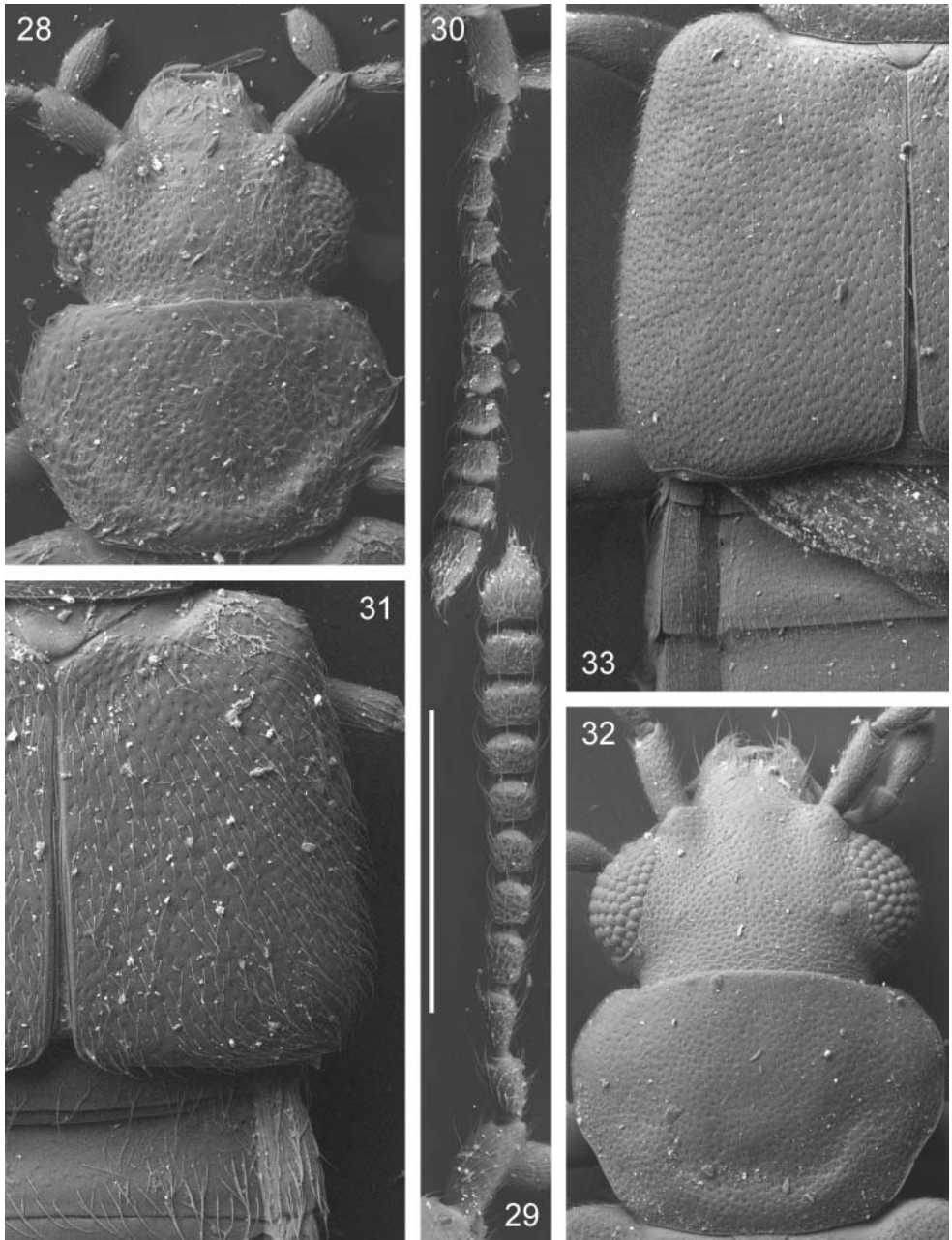
Figs 7–12. 7–9 – *Thinodromus capensis* (Bernhauer, 1934), male (7 – head and pronotum; 8 – antenna; 9 – elytron and abdominal base); 10–12 – *T. rhodesianus* (Scheerpeltz, 1974), male (10 – head and pronotum; 11 – antenna; 12 – elytron and abdominal base). Scale bar: 0.44 mm for 7, 9–12, and 0.50 mm for 8.



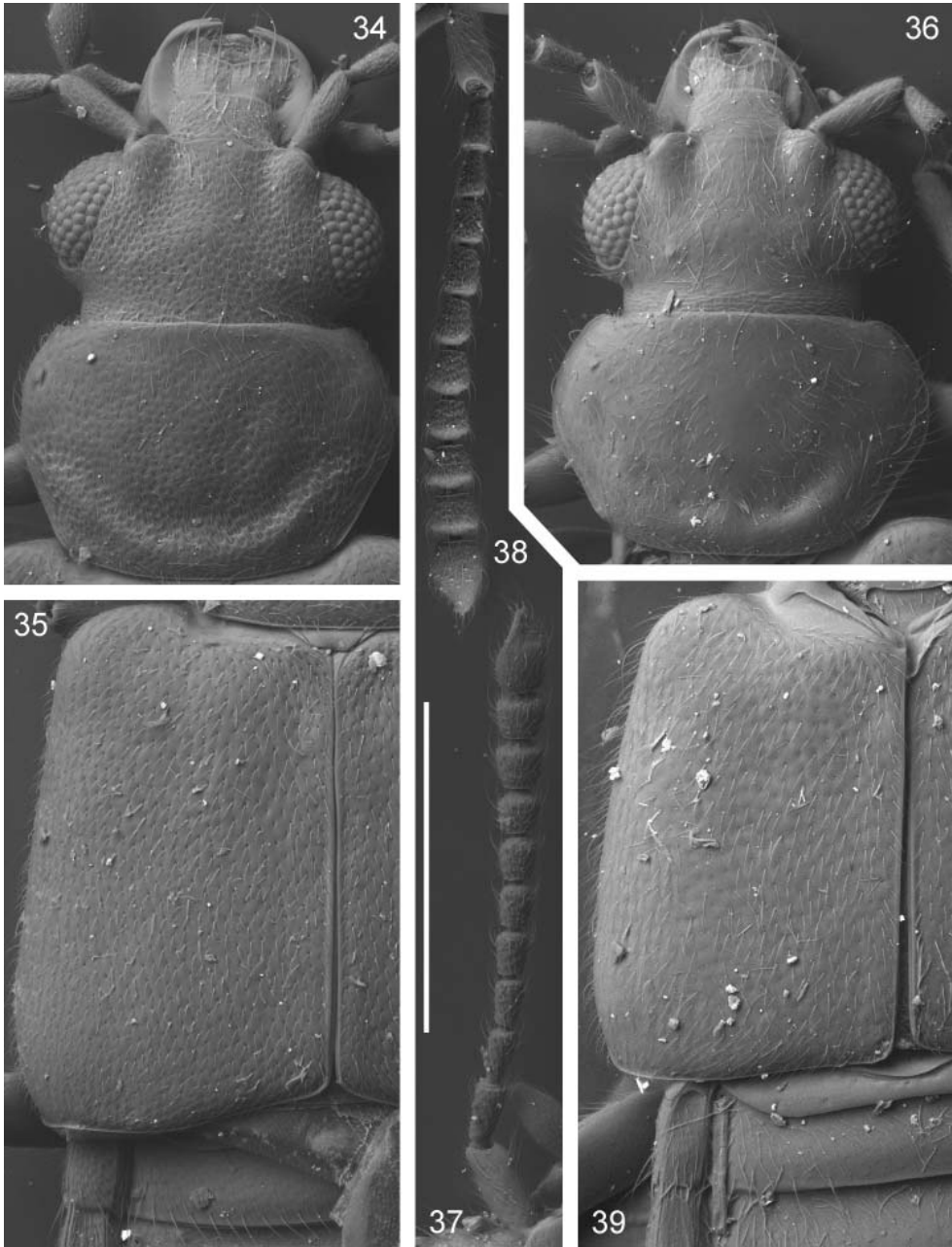
Figs 13–18. 13–16 – *Thinodromus nigerius* Gildenkov, 2000 (13 – head and pronotum; 14 – female antenna; 15 – male antenna; 16 – elytron and abdominal base); 17–18 – *T. sudanensis* (Scheerpeltz, 1974) (17 – head and pronotum; 18 – elytron and abdominal base). Scale bar: 0.5 mm for 13–16, 0.7 mm for 17–18.



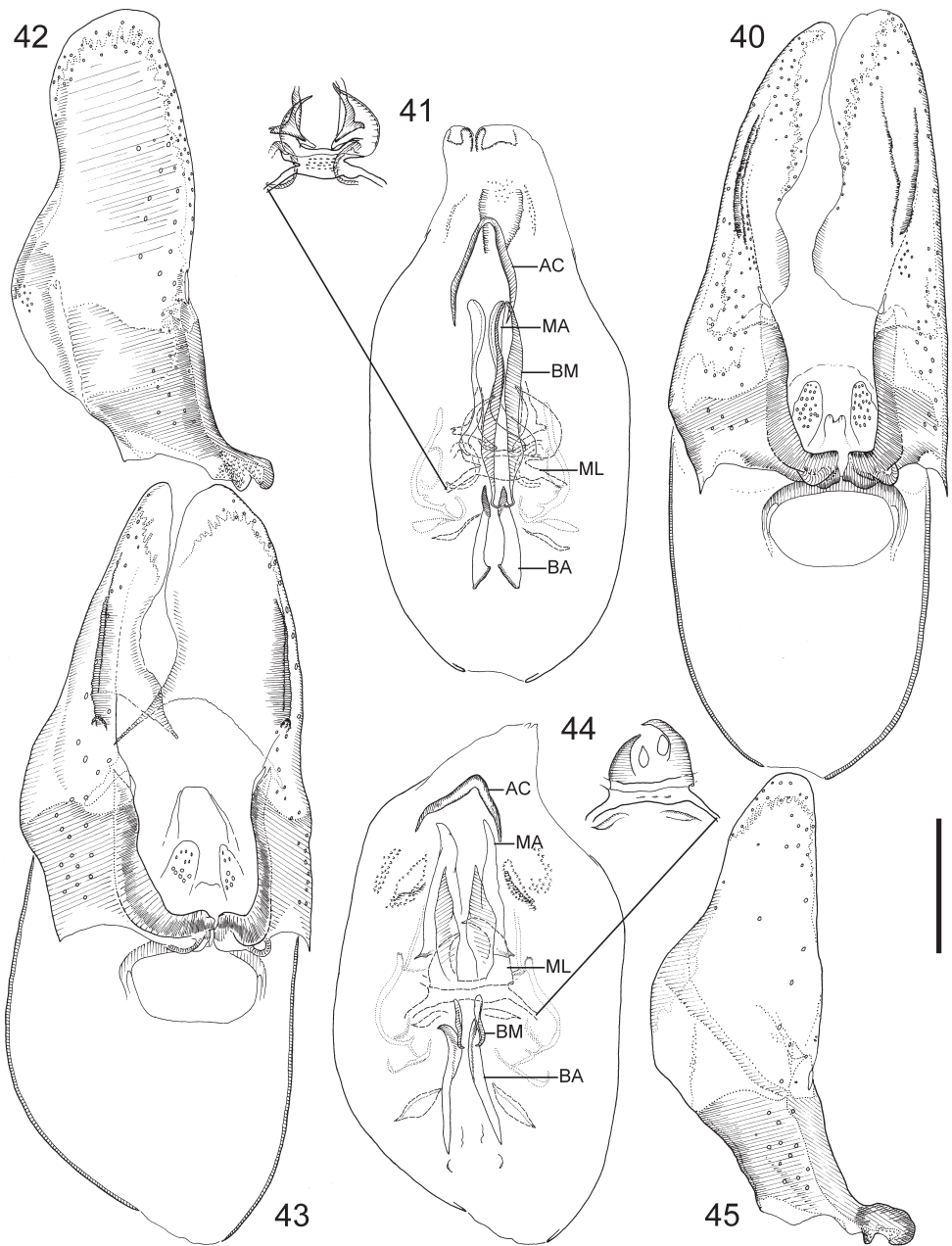
Figs 19–27. 19 – *Thinodromus facilis* Gildenkov, 2000, female protarsus; 20 – *T. gildenkovi* sp. nov., male protarsus; 21 – *T. gildenkovi* sp. nov., male, fringe of tergite VII. Antennae. 22 – *T. sudanensis* (Scheerpeltz, 1974), female; 23 – *T. meridionalis* sp. nov., female; 24–25 – *T. gildenkovi* sp. nov. (24 – female; 25 – male); 26–27 – *T. dasys* Gildenkov, 2000 (26 – female; 27 – male) Scale bar: 0.065 mm for 19, 0.08 mm for 20, 0.12 mm for 21, 0.24 mm for 24–25, 0.3 mm for 22 and 26–27, 0.33 mm for 23.



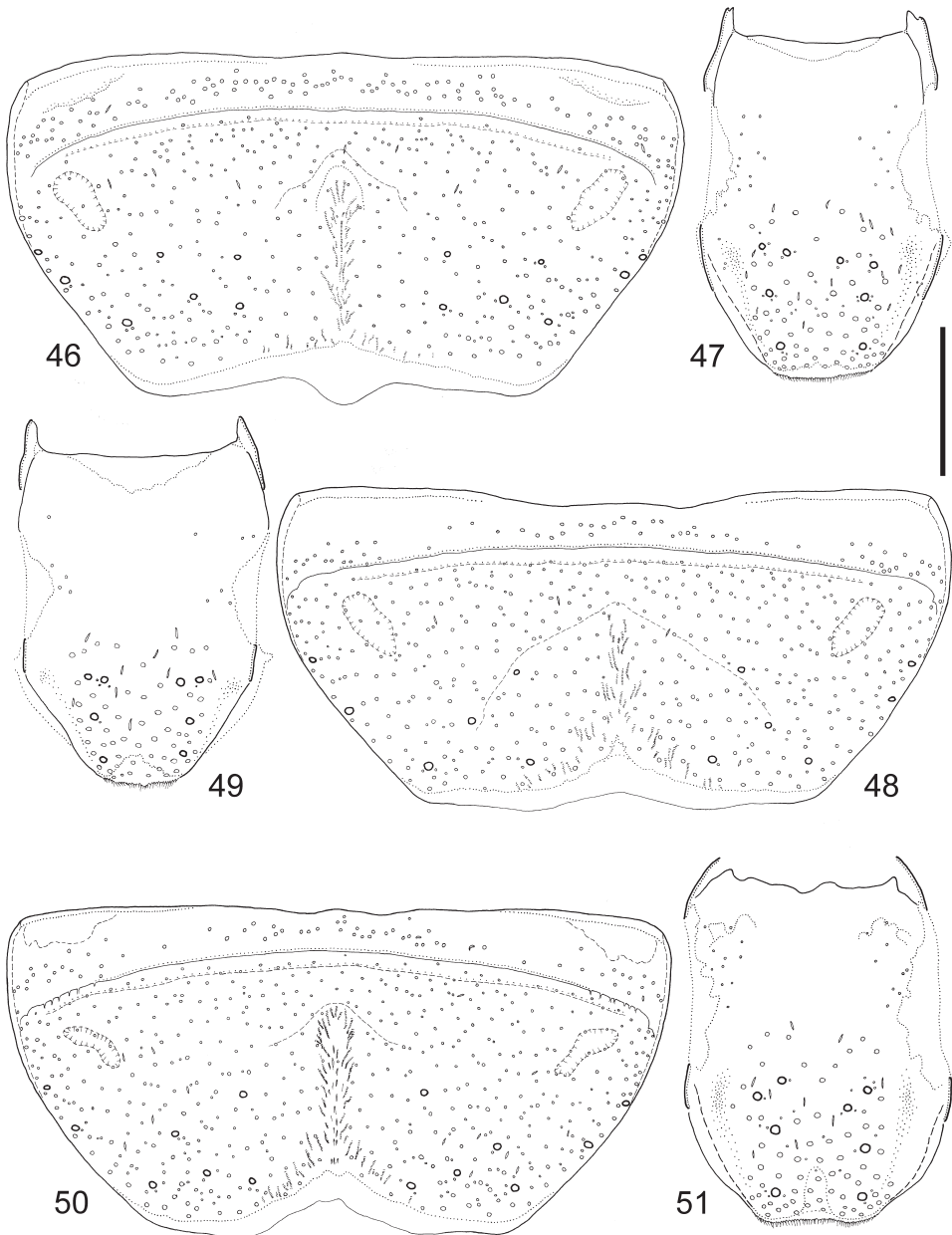
Figs 28–33. 28–31 – *Thinodromus tibialis* (Fauvel, 1907) (28 – head and pronotum; 29 – female antenna; 30 – male antenna; 31 – elytron and abdominal base); 32–33 – *T. gildenkovi* sp. nov. (32 – head and pronotum; 33 – elytron and abdominal base). Scale bar: 0.45 mm for 28–31, 0.55 mm for 32–33.



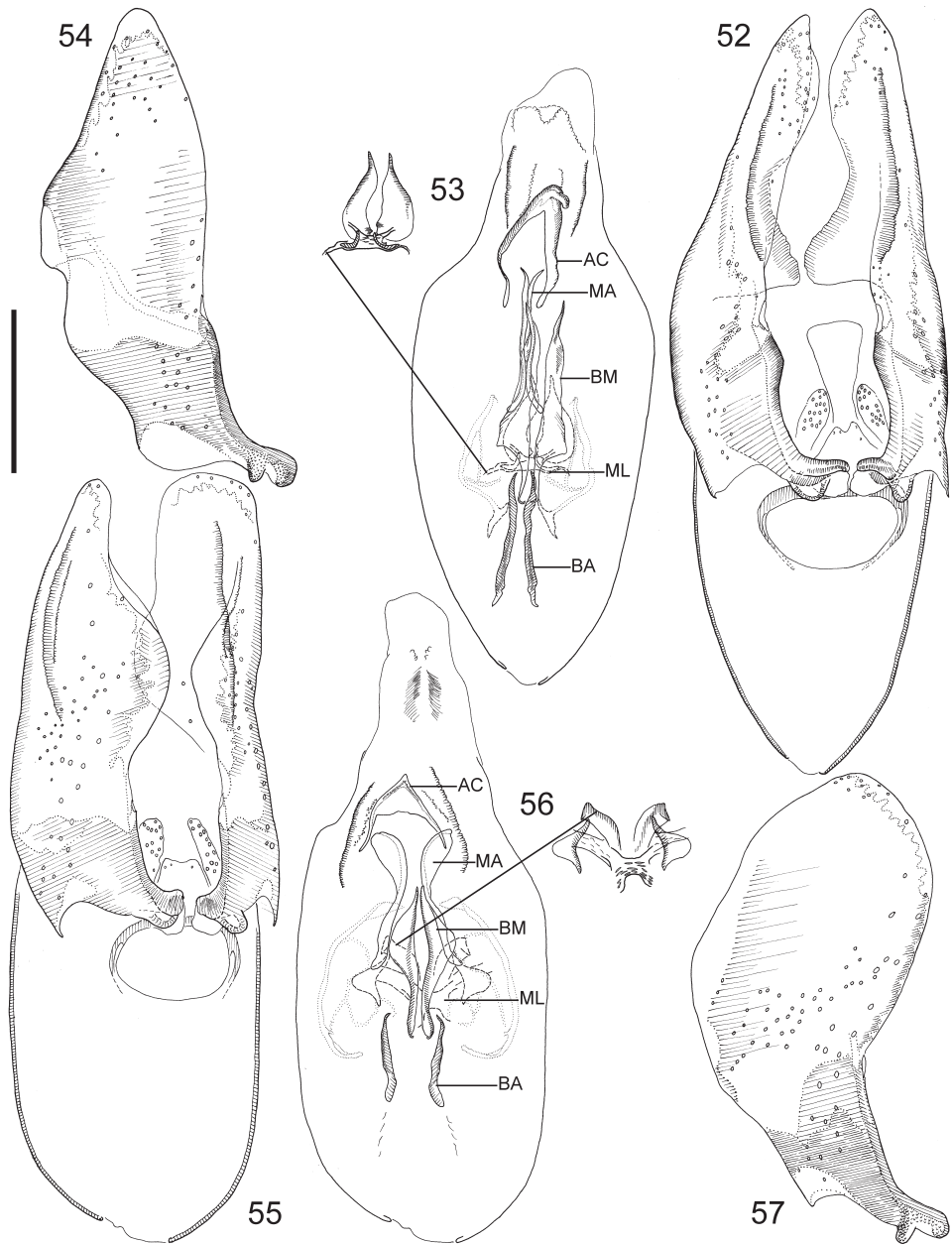
Figs 34–39. 34–35 – *Thinodromus meridionalis* sp. nov. (34 – head and pronotum; 35 – elytron and abdominal base); 36–39 – *T. facilis* Gilddenkov, 2000 (36 – head and pronotum; 37 – female antenna; 38 – male antenna; 39 – elytron and abdominal base). Scale bar: 0.47 mm for 34–35, 0.50 mm for 37–38, 0.53 mm for 36, 39.



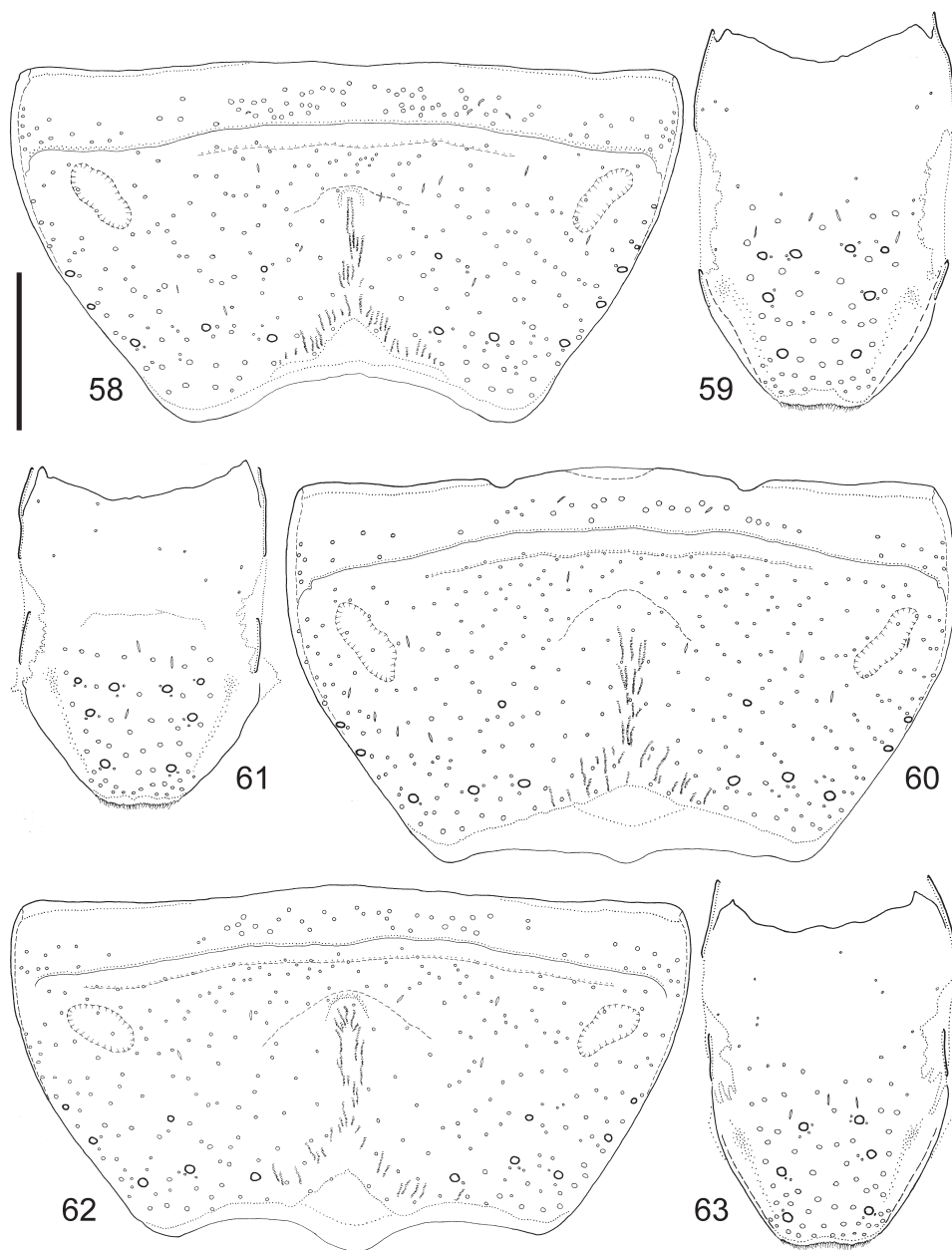
Figs. 40–45. 40–42 – *Thiodromus dasys* Gildenkov, 2000, male (40–41 – aedeagus; 42 – paramere); 43–45 – *T. gildenkovi* sp. nov., male (43–44 – aedeagus; 45 – paramere). Abbreviations: AC – apical copulatory sclerite; BA – basal sclerites, BM – basomedial sclerites, MA – medioapical sclerites ML – medial lamellae. Scale bar: 0.10 mm for 43–45, 0.12 mm for 40–42.



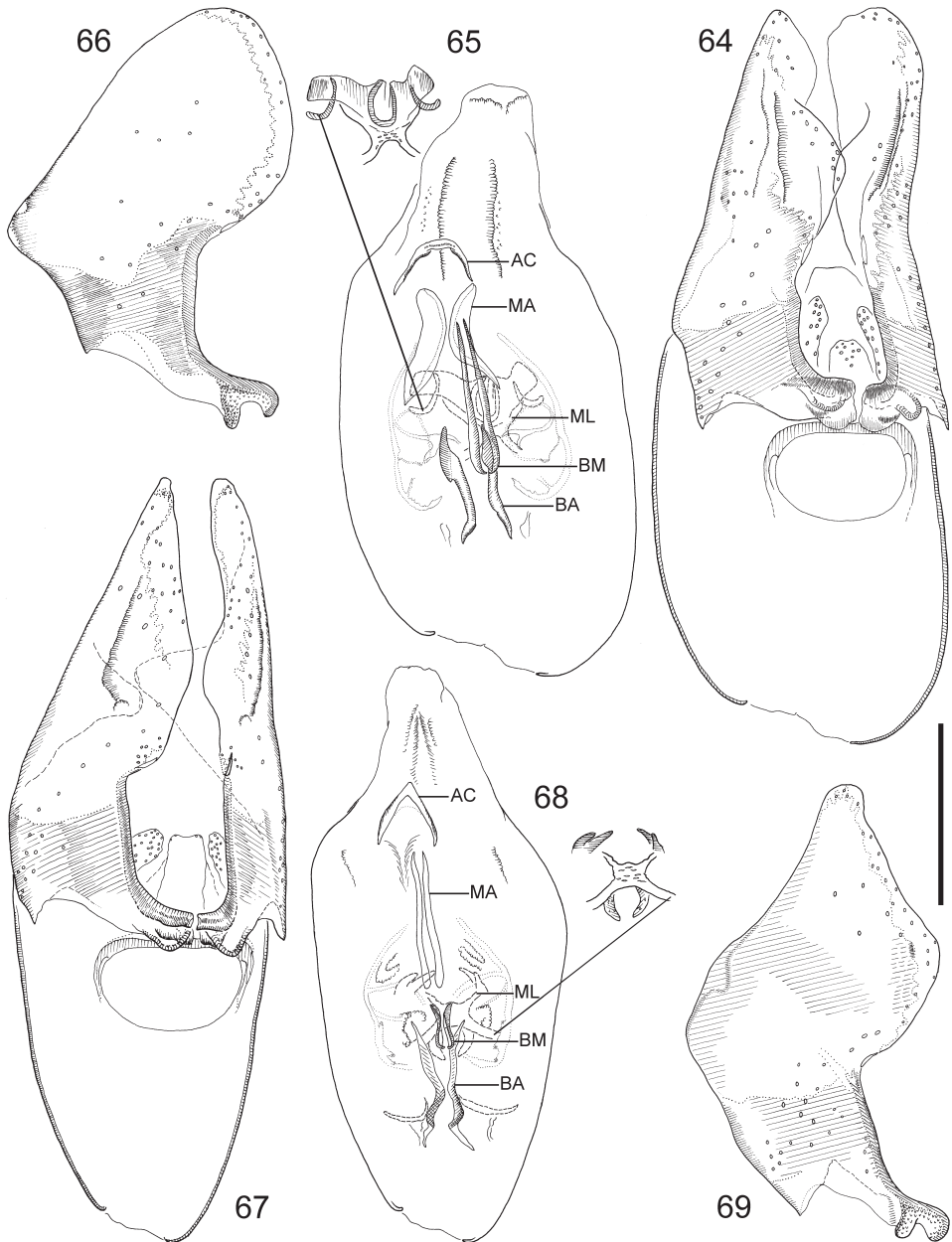
Figs 46–51. 46–47 – *Thinodromus dasys* Gildenkov, 2000, male (46 – sternite VIII; 47 – tergite X); 48–49 – *T. gildenkovi* sp. nov., male (48 – sternite VIII; 49 – tergite X); 50–51 – *T. rhodesianus* (Scheerpeltz, 1974), male (50 – sternite VIII; 51 – tergite X). Scale bar: 0.10 mm for 49 and 51, 0.13 mm for 47–48 and 50, 0.15 mm for 46.



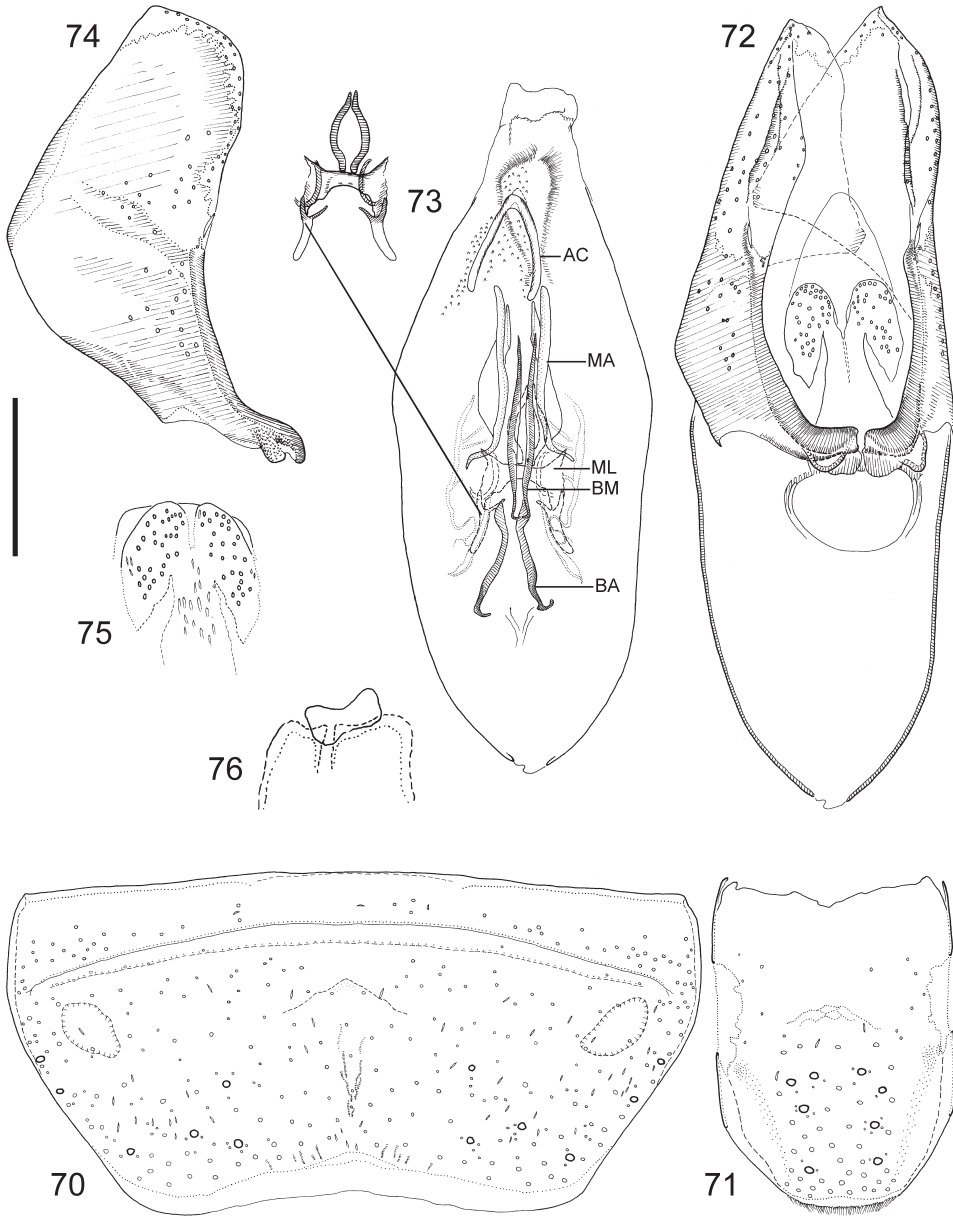
Figs 52–57. 52–54 – *Thinodromus rhodesianus* (Scheerpeltz, 1974), male (52–53 – aedeagus; 54 – paramere); 55–57 – *T. tibialis* (Fauvel, 1907), male (55–56 – aedeagus; 57 – paramere). Abbreviations: AC – apical copulatory sclerite; BA – basal sclerites, BM – basomedial sclerites, MA – medioapical sclerites ML – medial lamellae. Scale bar: 0.10 mm for 55–57, 0.12 mm for 52–54.



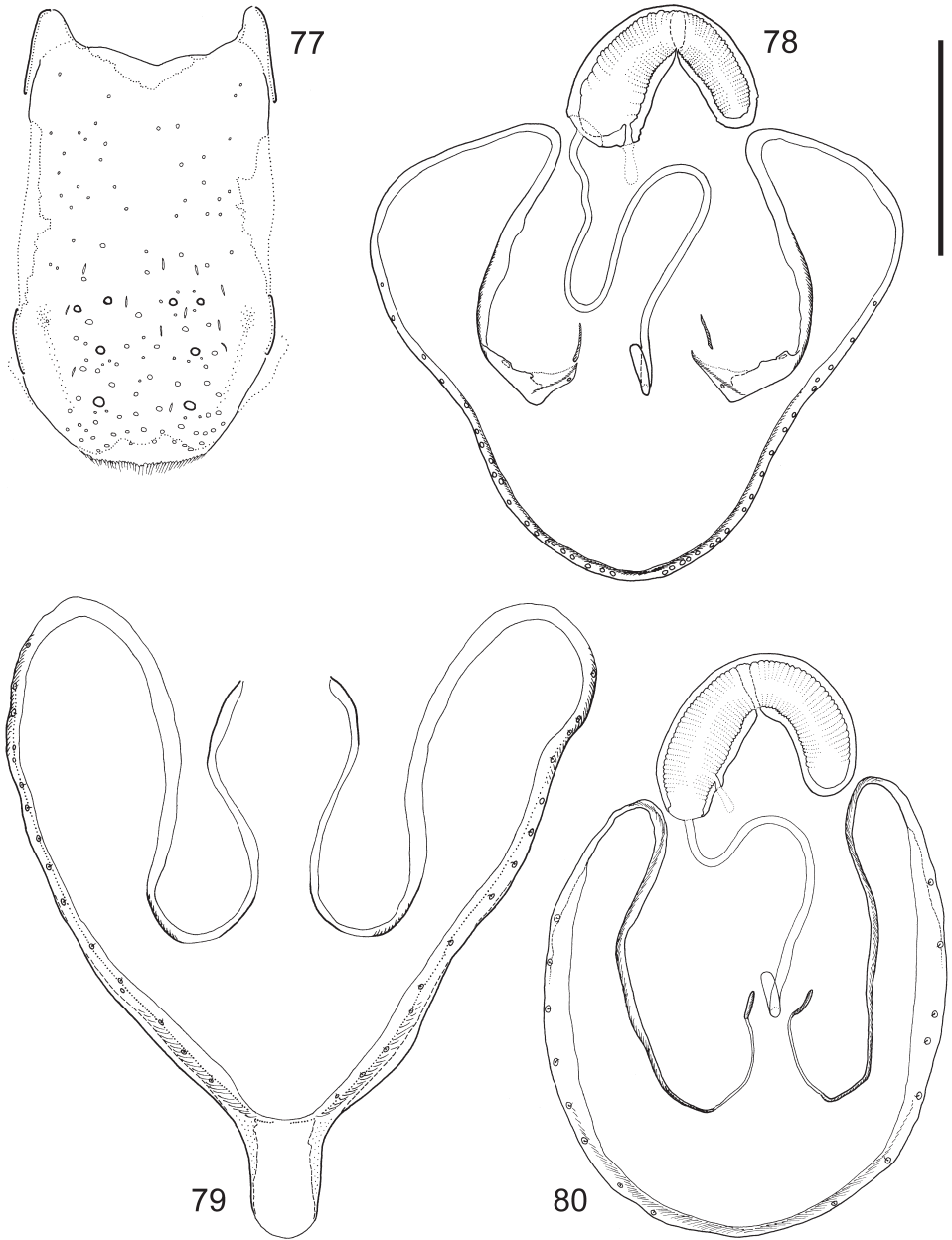
Figs 58–63. 58–59 – *Thinodromus tibialis* (Fauvel, 1907), male (58 – sternite VIII; 59 – tergite X); 60–61 – *T. meridionalis* sp. nov., male (60 – sternite VIII; 61 – tergite X); 62–63 – *T. facilis* Gilddenkov, 2000, male (62 – sternite VIII; 63 – tergite X). Scale bar: 0.10 mm for 59–61 and 63, 0.15 mm for 58 and 62.



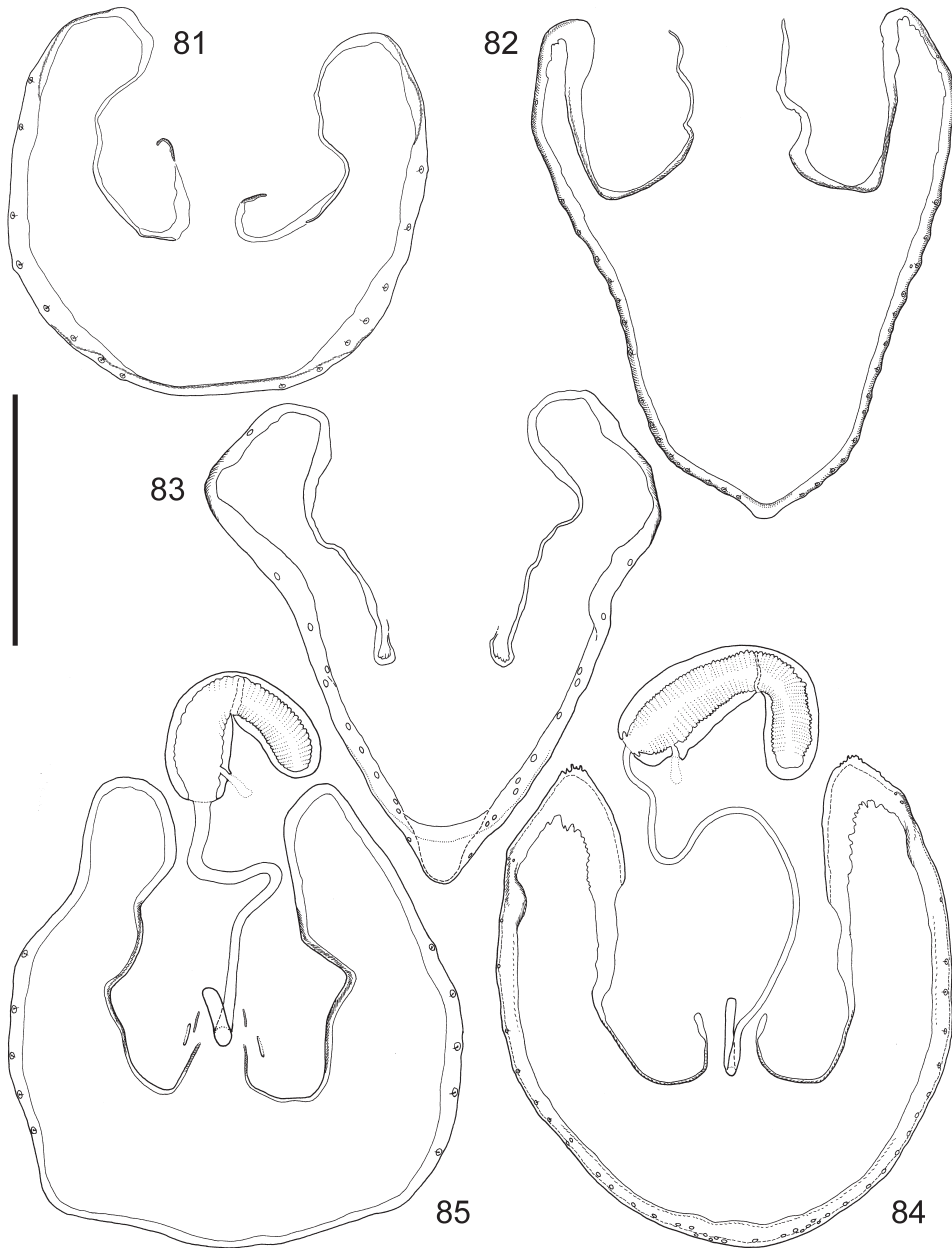
Figs 64–69. 64–66 – *Thiodromus meridionalis* sp. nov., male (64–65 – aedeagus; 66 – paramere); 67–69 – *T. facilis* Gilidenkov, 2000, male (67–68 – aedeagus; 69 – paramere). Abbreviations: AC – apical copulatory sclerite; BA – basal sclerites, BM – basomedial sclerites, MA – medioapical sclerites ML – medial lamellae. Scale bar: 0.10 mm for 64–66, 0.12 mm for 67–69.



Figs 70–76. 70–74 – *Thinodromus capensis* (Bernhauer, 1934), male (70 – sternite VIII; 71 – tergite X; 72–73 – aedeagus; 74 – paramere); 75–76 – *T. nigerius* Gildenkov, 2000, male (75 – sclerotized subapical plate of aedeagus; 76 – apical copulatory sclerite). Abbreviations: AC – apical copulatory sclerite; BA – basal sclerites, BM – basomedial sclerites, MA – medioapical sclerites ML – medial lamellae. Scale bar: 0.05 mm for 76, 0.08 mm for 75, 0.11 mm for 72–74, 0.12 mm for 71, 0.14 mm for 70.



Figs 77–80. 77–78 – *Thinodromus sudanensis* (Scheerpeltz, 1974), female (77 – tergite X; 78 – ringstructure and spermatheca); 79 – *T. capensis* (Bernhauer, 1934), female ringstructure; 80 – *T. meridionalis* sp. nov., female ringstructure with spermatheca. Scale bar: 0.09 mm for 79–80, 0.11 mm for 78, 0.14 mm for 77.



Figs 81–85. 81–83 – female ringstructures. 81 – *Thinodromus tibialis* (Fauvel, 1907); 82 – *T. dasys* Gildenkov, 2000; 83 – *T. nigerius* Gildenkov, 2000. 84–85 – female ringstructures with spermathecae. 84 – *T. facilis* Gildenkov, 2000; 85 – *T. gildenkovi* sp. nov. Scale bar: 0.10 mm for 85, 0.12 mm for 81 and 83–84, 0.14 mm for 82.

Misidentifications of *Thinodromus capensis*

The identity of *Thinodromus capensis* was unclear for a long time, and three different species were identified under this name by previous authors. Below I am treating *T. capensis* as well as both species with which it was previously confused in detail.

Thinodromus capensis (Bernhauer, 1934)

(Figs 4, 7–9, 70–74, 79)

Trogophloeus (*Carpalimus*) *capensis* Bernhauer, 1934: 486.

Thinodromus capensis: GILDENKOV (2000: 54).

Trogophloeus (*Carpalimus*) *montiumdraconis* Scheerpeltz, 1974a: 57, **syn. n.**

Thinodromus montiumdraconis: GILDENKOV (2000: 51).

Type material examined. *Trogophloeus* (*Carpalimus*) *capensis* Bernhauer – LECTOTYPE (here designated): ♀, “Port St. John[s] [31°37’S, 29°32’E]; Pondoland.; Aug. 7-13.1923 \ S. Africa.; R.E. Turner; Brit. Mus.; 1923-422. \ capensis; Brh. Typus; Carpalimus \ capensis Brnh.; Cotyp. \ Chicago NHMus; M. Bernhauer; Collection \ Lectotypus; Trogophloeus; capensis Bernhauer; des. Makranczy, 2013 \ Thinodromus; capensis (Bernhauer); det. Makranczy, 2013” (FMNH). *Trogophloeus* (*Carpalimus*) *montiumdraconis* Scheerpeltz – HOLOTYPE: ♂, “S. Afr. [Eastern] Cape Prov.; Drakensbergen 5 miles; ENE Rhodes [30°45’28”S, 28°02’25”E, 1970 m]; 10.III.[19]51. No. 222 \ Swedish South Africa; Expedition; 1950-1951; [P.] Brinck - [G.] Rudebeck \ Trogophloeus; (*Carpalimus*); montiumdraconis; n.sp. \ Holotypus \ Typus; Trogophloeus; montium-; draconis; O. Scheerpeltz \ Trogophloeus; (*Carpalimus*); montiumdraconis; n.sp.; det. Scheerpeltz. 1968 \ Zool. Mus. Lund Sweden; Staphylinidae; Type No.; 590:1 \ ZML 2002; 121” (ZMLU).

Other material examined. REPUBLIC OF SOUTH AFRICA: [Western] Cape, Swartberg, Meiringspoort, cent., 33°25’S, 22°33’E 1.xi.1993, leg. S. Endrödy-Younga (E-Y 2925), shorewashing (1 ♂, TMSA; 1 ♀, BMNH); Eastern Cape (Transkei), Dwesa Nat. Res. [= Dwesa-Cwebe Wildlife Reserve] (The Haven), 4-6.xii.2003, leg. W. Schawaller (1 ♀, SMNS); Natal, Cathedral Peak, 28°57’S, 29°12’E 18.iii.1976, leg. S. Endrödy-Younga (E-Y 1101), air plankton (1 ♀, TMSA).

Redescription. *Measurements* (in mm, n = 5): HW = 0.56 (0.545–0.595); TW = 0.50 (0.475–0.53); PW = 0.62 (0.60–0.65); SW = 0.78 (0.76–0.81); AW = 0.86 (0.83–0.90); HL = 0.36 (0.33–0.39); EL = 0.19 (0.18–0.20); TL = 0.06 (0.055–0.065); PL = 0.46 (0.44–0.47); SL = 0.76 (0.74–0.80); SC = 0.70 (0.67–0.74); FB = 1.60 (1.54–1.68); BL = 3.02 (2.78–3.25).

Lustre and colour: Body (Fig. 4) rather shining because of large unsculptured interspaces of punctures, but loosely covered by long pubescence. Head and abdomen blackish dark brown with a reddish tint, apices of abdominal segments seem lighter, reddish-yellowish. Pronotum reddish dark brown, deflexed side margin and centre of disc appear darker. Elytra medium to dark brown, with strong reddish tint, shoulders, scutellar area and a stripe from 2/3 suture length to the outer posterior corner appear darker; a conspicuously brighter, more narrow stripe extends along posterior edge from sutural corner till almost the outer posterior corner). Mouthparts and antennae medium to light brown, first (and partly second) antennomere lighter; legs almost unicolorous medium to light brown. *Shape and sculpture:* Head (Fig. 7) rather small (appearing less transverse than in other species), eyes less prominent but still occupy most of sides. Temples well discernible, marked by an unusually broad, smooth rim around posterior edge of eyes, not shaded by setation. This rim meets the rest of temple in a sharp, curved edge. Pronotum transverse, but less so as in most species, first half of sides and anterior corners broadly rounded, side margin slightly concave in the hind half, posterior corners rounded but still discernible for the angle being less obtuse. Horseshoe-shaped im-

pression deep and rather broad but does not continue anteriorly along sides nor approaches the side margin much, therefore appears as a broad transversal groove across hind part of disc. Deflexed margin most apparent at posterior corners but discernible anteriorly in posterior 3/5 of pronotal length; posterior margin well visible but not too broad. Elytra (Fig. 9) combined somewhat broader than long, slightly dilated posteriorly. Posterior elytral margin with an unusually broad membranous lobe all along the outer 2/5. Abdomen seems to be a little bit constricted at base and unusually parallel-sided as opposed to other species where strongly narrowing behind middle. Apex of tergite VII with palisade fringe (widest medially). *Punctuation and microsculpture*: Head punctuation deep with punctures of very uneven sizes and interspaces, but latter occupies at least half of the surface and free of microsculpture, very shiny. Pronotum with similar punctuation, only a tiny patch in posterior corner with some scabrous microsculpture. Elytra with even larger and deeper punctures, yet with ample shiny interspaces. Abdominal terga very roughly but sparsely punctured, puncture sizes decrease towards apical margin. Almost no traces of microsculpture in groove behind basal ridges of terga (punctuation very dense here). *Pubescence*: Forebody with lighter coloured setae of varying size, rather sparse but predominantly long, erect setae; short interommatidial setae present without longer setae. Abdomen with sparse but long setae, with a few exceptionally long ones at apices of terga. On head, pronotal disc and abdominal tergum bases some shorter and finer setae noticeable. *Primary and secondary sexual features*: Male antennae (Fig. 8) rather elongate, middle antennomeres (articles 4–5) almost twice as long as broad, penultimate antennomeres (articles 9–10) about as long as broad. Female antenna (on Fig. 4) with middle antennomeres (articles 4–5) less than a half longer than broad, penultimate antennomeres (articles 9–10) just imperceptibly broader than long. Male: MA of aedeagal internal sac elongate, outward curved at proximal end, ML transverse, BM very elongate and pin-like, BA long, slender with slight curve, proximal part tuberculate, distal end with foot-like formation, AC reverse V-shaped with arms in acute angle (Figs 72–74), sternite VIII (Fig. 70), tergite X (Fig. 71); female: ringstructure (Fig. 79).

Differential diagnosis. *Thinodromus capensis* appears to be allied to *T. nigerius*. Besides the obviously similar apices of the female ringstructures, the most important similarity that unites these species is the formation of the subapical edge of median lobe body that contains a single sclerotized plate with an apical incision/desclerotization along the midline. For comparison with *T. nigerius* the sclerotized subapical plate of median lobe (Fig. 75) and the apical copulatory sclerite (Fig. 76) of the latter species are provided here, these are drawn from a South African specimen. Other shared character states include male sternite VIII with a more or less truncate apex, without much trace of any modification in the middle as regards sclerotization (most species have there either a projection or incision, and almost all with an inwards pulled border of the stronger sclerotized part of the plate). AC similar, but its arms a little incrassate at the base in *T. gabonicus*, most other internal sclerites rather thread-like in both species. The examined material markedly varies in the form of the temples, but are consistent in the lighter marked sutural corner that distinguishes the taxon from all other described southern African species.

Distribution. This species is still only known from the Republic of South Africa.

Remarks. The identity of *Thinodromus capensis* has long been controversial. The descrip-

tion does not state how many specimens were at hand, but gives “Pondoland: Port St. Johns (7th-13th August 1923) (R. E. Turner)” as the specimen data. Of the two specimens marked as types by previous curators (one female in FMNH and another female in BMNH), only the FMNH specimen bears the locality data corresponding to the original description and is considered to be the only syntype. This specimen is designated here as the lectotype. The BMNH specimen bears different collecting dates which indicates it comes from a collecting event not referred to in the original description. Moreover, this specimen doubtlessly represents a different species described below as *T. meridionalis* sp. nov. SCHEERPELTZ’s (1974) use of the name *T. capensis* agrees with the identity of the BMNH specimen and therefore refers to *T. meridionalis* sp. nov. Bernhauer later identified one more specimen from Angola as *T. capensis*, which W. O. Steel found not to be conspecific with the BMNH specimen considered as type of *T. capensis*. This specimen is identified here as *T. facilis* (see below).

***Thinodromus meridionalis* sp. nov.**

(Figs 2, 23, 34–35, 60–61, 64–66, 80)

Trogophloeus (Carpalimus) capensis: SCHEERPELTZ (1974: 59, misidentified).

Type locality. South Africa, KwaZulu-Natal prov., Albert Falls, Umgeni river E of Pietermaritzburg, approx. 29°37'14"S, 30°27'28"E, 600 m.

Type material. HOLOTYPE: ♂, “S. Afr. Natal; Albert Falls, Umgeni; River, E Pietermaritz-; burg; 13.IV.[19]51 No. 272 \ Swedish South Africa; Expedition; 1950-1951; [P.] Brinck - [G.] Rudebeck \ capensis; Bernh.” (MZLU). Note. The male holotype is missing both antennae but the first three antennomeres of the right one. PARATYPES (3 specimens): “S. Afr. Cape Prov.; Buffeljags River, 4; miles E Swellendam [approx. 34°01'43"S, 20°30'08"E, 100 m]; 27.II.[19]51 No. 185 \ Swedish South Africa; Expedition; 1950-1951; [P.] Brinck - [G.] Rudebeck \ capensis; Bernh. \ Trogophloeus; (Carpalimus); capensis Bernh.; det. Scheerpeltz, 1968” (1 ♀, MZLU); “Type [paper disc, curator label] \ Taken in; flood drift \ S. Africa.; R.E. Turner; Brit. Mus.; 1923-414. \ Port St. John[s]; Pondoland. [approx. 31°36'43"S, 29°32'16"E, 10 m]; Aug 1-6.1923. \ Trogophloeus; capensis Brnh.; Typ. \ Syn-; Type [paper disc, curator label]” (1 ♀, BMNH); South Africa, Bushmanland, Onseepkans, 28°45'S, 19°15'E, 28.viii.1976, leg. S. Endrödy-Younga (E-Y 1177), shorewashing (1 ♀, TMSA).

Description. *Measurements* (in mm, n = 3): HW = 0.48 (0.46–0.50); TW = 0.43 (0.41–0.45); PW = 0.53 (0.51–0.55); SW = 0.68 (0.63–0.73); AW = 0.75 (0.70–0.82); HL = 0.30 (0.28–0.31); EL = 0.17 (0.16–0.175); TL = 0.04 (0.03–0.04); PL = 0.39 (0.37–0.41); SL = 0.70 (0.65–0.76); SC = 0.64 (0.60–0.69); FB = 1.35 (1.31–1.38); BL = 2.54 (2.31–2.70). *Lustre and colour:* Body (Fig. 2) moderately shining. Head brownish black, abdomen the same with reddish tint, pronotum blackish dark brown with slight reddish tint, elytra the same but apex a little darker. Antennae and mouthparts dark brown, legs uniformly medium brown. *Shape and sculpture:* Head and pronotum (Fig. 34) rather small compared to most species, eyes largely occupy side of head, temples small but discernible. Pronotum transverse, first half of sides and anterior corners broadly rounded, sides straight in posterior half, posterior corners blunt, not conspicuous; first half of sides and anterior corners strongly rounded. A rather deep and broad horseshoe-shaped impression anteriorly runs towards middle of sides with a little adjoining depression near anterior corners. Middle of disc with two shallow impressions on either side. Deflexed margin thin, apparent in posterior 3/5 of side and at posterior edge near corners. Elytra (Fig. 35) combined a little broader than long, dilated towards apex, with slight longitudinal impressions posterior of scutellum and a rather inconspicuous depres-

sion at anterior 1/3 of disc. Posterior elytral margin with conspicuous membranous lobe in outer half, pulled out slightly near outer corner. Apex of abdominal tergite VII with palisade fringe (widest medially). *Punctuation and microsculpture*: Head punctuation rather deep and dense, punctures of medium size, interspaces only a portion of diameters. Pronotal punctures larger, similarly deep but more sparse, interspaces on average half of puncture diameters; in posterior corners finely sculptured/punctured area replaces punctuation. On elytra moderately deep and dense punctuation with mostly microsculpture-free, shiny interspaces; punctures of rather uneven sizes, interspaces on average half of puncture diameters. Abdominal tergites fairly deeply punctured but predominantly shiny due to lack of microsculpture and interspaces nearing diameters of punctures. Traces of microsculpture only immediately posteriad of basal ridges. *Pubescence*: Forebody pubescent with medium long and quite even sized setae, mostly pressed down and anteriorly directed on head and pronotum. Setation on abdomen more varied, row of conspicuously long setae on posterior edges of tergites. *Primary and secondary sexual features*: Female antennae (Fig. 23) slightly elongate, middle antennomeres (articles 4–5) a little longer than broad, penultimate antennomeres (articles 9–10) just slightly broader than long. Male: MA of aedeagal internal sac medium large, curved, spoon-like, ML small, not so transverse, BM rather elongate, pin-like, with proximal part feebly thicker than distal, BA long, S-shaped (proximal part slightly inward curving), AC small, rather evenly arched, reverse U-shaped (Figs 64–66), sternite VIII (Fig. 60), tergite X (Fig. 61); female: ringstructure and spermatheca (Fig. 80).

Differential diagnosis. *Thinodromus meridionalis* is closely allied to *T. tibialis* (shared features are listed there) but the male aedeagus in *T. meridionalis* sp. nov. is with AC not pointed at apex, BM thread-like, while in *T. tibialis* the AC apex is pointed and has a membranous proximal broadening, BM widened in the apical 2/3. *Thinodromus meridionalis* sp. nov. has some rather conspicuous incisions on the basal edge of male sternite VIII, on both ends of the medial 1/3, in *T. tibialis* the basal edge is straight. Regarding the female ringstructure, both species have almost perfectly round apical arch of the ringstructure and no apical broadening or angle, but the basal loop appears to be broader and shorter in *T. tibialis*, in *T. meridionalis* sp. nov. the basal turns are more narrowly rounded. *T. tibialis* is otherwise a slightly larger species.

Etymology. The name is derived from the Latin word for “southern”.

Distribution. Only known from the Republic of South Africa.

Thinodromus facilis Gildenkov, 2000

(Figs 3, 19, 36–39, 62–63, 67–69, 85)

Thinodromus (*Thinodromus*) *facilis* Gildenkov, 2000: 54.

Material examined. **DEMOCRATIC REPUBLIC OF CONGO:** Congo Belge, P.N.G. [Parc National de la Garamba] Miss. H. De Saeger, II/fc/17 [cellule biologique II, 03°58'N, 29°22'E, 730m], 15.ii.1952, [dry gallery forest along the river banks of the river Garamba, dominated by *Irvingia* and *Nauclea*], leg. H. De Saeger (3173), Berlèse: dry leaves littering the ground in shade (1 ♂, MRAC). **ANGOLA:** (distr. Benguela), Marco de Canavezes iii.1956; leg. E. Luna de Carvalho (10656.2) (1 ♂ 2 ♀♀, MRAC; 1 ♀, MGSC), Angola [Cuanza Sul or Kwanza-Sul,] Quirimbo [10°41'S, 14°16'E], v.1934; leg. K. Jordan (1 ♂, BMNH). **ZAMBIA:** South Luangwa NP, Mfuwe Crocodile Farm, 450m, 13°06'03"S, 31°47'32"E, 24.iii.1993, leg. M. Uhlig, lux (1 ♂, ZMHB). **REPUBLIC OF SOUTH AFRICA:** E. Transvaal, Kruger Pk., Skukuza [24°59'S, 31°36'E], (12–14)-xii-1985, FMHD #85-848, thorn scrub & riverine light traps, S. Peck P# 85-281 (1 ♀, FMNH).

Redescription. *Measurements* (in mm, n = 10): HW = 0.49 (0.47–0.51); TW = 0.45 (0.43–0.47); PW = 0.58 (0.56–0.60); SW = 0.70 (0.67–0.73); AW = 0.79 (0.76–0.82); HL = 0.31 (0.28–0.33); EL = 0.18 (0.175–0.20); TL = 0.03 (0.02–0.035); PL = 0.41 (0.39–0.43); SL = 0.67 (0.64–0.70); SC = 0.62 (0.58–0.66); FB = 1.42 (1.36–1.50); BL = 2.72 (2.23–3.06). *Lustre and colour*: Body (Fig. 3) rather shining due to varied but generally small punctures on head and pronotum and microsculpture-free (albeit smaller) interspaces on elytra. On abdomen punctation varies from tiny to medium-sized, but very sparse, interspaces large and smooth giving this body part a shiny appearance. Head and abdomen blackish dark brown, abdominal terga slightly reddish at the more transparent apices. Pronotum and elytra reddish dark brown, elytral apex may appear darker than rest. Mouthparts and legs reddish medium to dark brown, antennae dark brown except first (and partly second) antennomere brighter, reddish medium brown. *Shape and sculpture*: Head (Fig. 36) quite transverse, eyes large and almost occupy sides, temples tiny. Pronotum transverse, first half of sides and anterior corners broadly rounded, hind corners also strongly obtuse-angled and rounded, therefore almost indiscernible. Pronotal side in hind half almost straight, with almost imperceptible concavity. Deflexed margin generally thin but visible all along sides and posterior edge, widest and most conspicuous in posterior half of sides. Horseshoe-shaped impression deep but not too wide, sides curve towards (but not reaching) middle of sides; with a feebly depressed area right in front of these arms and two indefinite impressions in middle of disc. Elytra (Fig. 39) combined significantly broader than long, dilated towards apex, with small round impression posteriad scutellum and a feeble oblique depression across anterior half of elytral disc. Posterior elytral margin in outer 2/5 with membranous lobe pulled out in it. Apex of abdominal tergite VII with palisade fringe (widest medially). *Punctuation and microsculpture*: Punctuation of main body parts characterized by greatly varying sized punctures. Head rather shiny, with generally small, scattered punctures, hardly any trace of microsculpture. Puncture diameters much less than interspaces. On pronotum even more scattered and more varying sized punctures, with signs of slightly scabrous microsculpture in the hind corners. Elytral punctuation consists of rather dense, large and deep (but still varying sized) punctures, with interspaces only a fraction of puncture diameters. Signs of microsculpture only in the scutellar area and outer posterior corners, otherwise look uneven surfaced but almost as shiny as head and pronotum. Abdominal punctation rather strong, at tergite bases with smaller but denser punctures, posteriorly punctures larger and deeper, towards apex more scattered. *Pubescence*: Semi-erect setation comes closest to what the author described as “two-sized” setation (cf. *Thinodromus makokouensis* Makranczy, 2009 and *T. odzalensis* Makranczy, 2009); on all body parts very fine but medium long semi-erect setae mix with few but long and stronger, erect setae. *Primary and secondary sexual features*: Female antennae (Fig. 37) moderately elongate, middle antennomeres (articles 4–5) about half longer than wide, penultimate antennomeres (articles 9–10) slightly transverse (almost as long as wide). Male antennae (Fig. 38) only imperceptibly more slender. Male: MA of aedeagal internal sac long and thin, thread-like, ML much less transverse than usual, BM very tiny, BA somewhat curved in S-shape, AC smaller, reverse V-shaped with arms open in slightly less than right angle (Figs 67–69), sternite VIII (Fig. 62), tergite X (Fig. 63); female: ringstructure and spermatheca (Fig. 85).

Differential diagnosis. *Thinodromus facilis* appears to be allied to *T. mateui* Makranczy, 2009, based on similarities in the general shape of the parameres, AC size and shape, ML being less transverse than usual, the whole structure of the apical part of the median lobe and also the female ringstructure. However, *T. facilis* differs from *T. mateui* in the much larger and longer BM, more curved (S-shaped) BA, parameres more slender and elongate (especially at apex). The female ringstructure of *T. facilis* is apparently completely devoid of any pores on the much less curved apical arch, while that of *T. mateui* has a more rounded apex with at least some scattered pores on it. Some other minor differences are suspected to be due to imperfect condition of the existing specimens and therefore not used here. It must also be noted that *T. mateui* is the smallest member of the so far discovered species in this group of Afrotropical species.

Distribution. This species appears to be wide-ranging and common in southern Africa, so far documented from the Democratic Republic of Congo, Angola, Zambia and the Republic of South Africa.

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