

SYNONYMIES IN THE HOLARCTIC *THINOBIUS MAJOR*
AND *LINEARIS* SPECIES GROUPS
(COLEOPTERA: STAPHYLINIDAE: OXYTELINAE)

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A cleanup effort for taxonomy of the Central European species of the genus *Thinobius* Kiesenwetter, 1844 resulted in a series of previously unpublished synonymies. The new edition of “Die Käfer Mitteleuropas, Band 4” interpreted the names in their correct identities, but the research that lead to these could not be presented there in detail, in part also because of extralimital taxa involved, this is supplied with the present contribution. One species is described as new to science: *Thinobius paramicros* sp. n. (Algeria: Tamanrasset), for earlier erroneous use of *T. algiricus* Fauvel. The following new synonymies are proposed: *T. angusticeps* Fauvel, 1889 = *Thinobius (Thinophilus) allocerus* Eppelsheim, 1893, syn. n., = *Trogophloeus alaskanus* Fall, 1926, syn. n., *T. major* Kraatz, 1857 = *Thinobius diversicornis* Fauvel, 1889, syn. n., = *Thinobius sahlbergi* Scheerpeltz, 1959, syn. n., *T. micros* Fauvel, 1871 = *Thinobius algiricus* Fauvel, 1898, syn. n., *T. petzi* Bernhauer, 1908 = *Thinobius tingitanus* Peyrerimhoff, 1925, syn. n., = *Thinobius (Thiphonilus) anatolicus* Smetana, 1967, syn. n. *T. procerus* Eppelsheim, 1893 = *Trogophloeus teres* Fall, 1926, syn. n., and lectotypes are designated for the following ten nominal species: *Thinobius micros* Fauvel, 1871, *Thinobius diversicornis* Fauvel, 1889, *Thinobius (Thinophilus) allocerus* Eppelsheim, 1893, *Thinobius (Thinophilus) procerus* Eppelsheim, 1893, *Thinobius algiricus* Fauvel, 1898, *Thinobius silvaticus* Bernhauer, 1899, *Thinobius bicolor* Joy, 1911, *Thinobius longicornis* Joy, 1913, *Thinobius franzi* Scheerpeltz, 1947 and *Thinobius peezi* Scheerpeltz, 1957. A neotype for *Thinobius angusticeps* Fauvel, 1889 is designated from France (Alpes-Maritimes).

Key words: Coleoptera, Staphylinidae, Oxytelinae, *Thinobius*, new species, new synonyms, lectotypes, neotype, Palaearctic and Nearctic regions.

INTRODUCTION

The genus *Thinobius* Kiesenwetter, 1844 contains a very diverse assemblage of more than 100 species, with multiple amount still undescribed. In the Northern temperate areas the state of research is definitely ahead of that in other regions, but this is manifested merely in more published names. It was, therefore, not surprising that when the task to deal with the nomenclatural issues has fallen onto the present writer, a lot of new synonymies were to be discovered during the course of a decade. With the relevant part in the new edition of “Band 4” of the prestigious “Die Käfer Mitteleuropas” series (SCHÜLKE & MAKRANCZY 2011), the primary goal was to achieve a state of knowledge where the still problematic names are correctly used, but the taxo-

onomic research itself was to be published separately. Such an approach is even more necessitated by the fact that a number of extralimital taxa (described from outside Central Europe) are involved, and these issues should ideally be dealt with in a different context.

In the present publication the synonymies in two species groups are treated. The Central European members of the *Thinobius linearis* species group were revised by MAKRANCZY and SCHÜLKE (2001), but even this group demands a little more attention after the past twelve years. The members of the *T. major* species group have never been revised, in fact, at present it is a loose assemblage of species, lacking sound delimitation or concept. In the absence of even a most preliminary phylogeny hypothesis the author is forced to go along with this, at least for the time being.

The taxonomy of the less derived lineages of *Thinobius* requires a lot more study. As the below outlined results suggest the species were poorly understood and were a matter of enormous confusion for more than a century.

MATERIAL AND METHODS

The work presented hereby was spanning over more than a decade; of numerous non-type specimens studied, the data of those either directly relevant to the here made conclusions or representing interesting faunistic records are included.

Abbreviations of collections used in the present study are: BMNH = The Natural History Museum, London, UK; CNCI = Canadian National Collection of Insects, Ottawa, ON, Canada; SDEI = Deutsches Entomologisches Institut, Müncheberg, Germany; FMNH = Field Museum of Natural History, Chicago, IL, USA; HNHM = Hungarian Natural History Museum, Budapest, Hungary; ISNB = Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium; MCZN = Museum of Comparative Zoology, Harvard University, Cambridge, MA, USA; MHNG = Muséum d'Histoire Naturelle, Genève, Switzerland; MHNL = Muséum d'Histoire Naturelle de Lyon, Lyon, France; MNHP = Muséum National d'Histoire Naturelle, Paris, France; MZLU = Lund University, Lund, Sweden; NHMW = Naturhistorisches Museum Wien, Austria; NMPC = Department of Entomology, National Museum, Praha, Czech Republic; USNM = National Museum of Natural History (Smithsonian Institution), Washington D.C., USA; coll. Schülke = private collection of Michael Schülke, Berlin, Germany; coll. Shavrin = private collection of Alexey Shavrin, Daugavpils, Latvia.

For descriptions and measurements a Leica MZ 12.5 stereoscopic microscope was used. For the line drawings permanent preparations were made in Euparal mounting medium on plastic cards pinned with the specimens. The genital preparation techniques are detailed in MAKRANCZY (2006). Drawing was done with a Jenalab (Carl Zeiss, Jena) compound microscope and attached drawing tube (camera lucida). SEM images were taken of uncoated specimens with a Hitachi S-2600 N scanning electron microscope. For the colour habitus photographs either a Leica DFC 490 camera was attached to a Leica MZ16 stereoscopic microscope and layers montaged with AutoMontage or a Nikon D4 camera with Mitutoyo Plan Apo 20× ELDW lens was used and layers montaged with ZereneStacker.

Measurements are defined as follows: HW = head width with 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 the middle-line from front margin of clypeus to the beginning of neck; EL = eye length; TL = length of temple; PL = length of pronotum at the middle-line; SL = length of elytra from shoulder; SC = length of elytra from hind apex of scutellum; FB = forebody length (combined length of head, pronotum and elytra); BL = approximate body length. All measured from dorsal view.

The label data when reproduced literally are between “ ”, the symbol “\” is a separator between each individual label, while “;” means line breaks. Text within brackets [] is explanatory and was not included in the original labels.

TAXONOMY

Thinobius major (Kraatz, 1859) (Figs 1, 13, 20–22, 41)

Thinobius major KRAATZ, 1857: 883.

Thinobius brevicollis MULSANT & REY, 1870: 114 [=1871: 90]. (synonymized in Fauvel, 1889)

Thinobius diversicornis FAUVEL, 1889: 84, 86., **syn. n.**

Thinobius longicornis JOY, 1913a: 156., preoccupied.

Thinobius macroceros JOY, 1913b: 275., new name for *Thinobius longicornis* JOY, 1913 (synonymized in POPE, 1977, apparently based on the study of P. M. HAMMOND)

Thinobius franzi SCHEERPELTZ, 1947: 269. (new synonym in SCHÜLKE & MAKRANCZY, 2011)

Thinobius konecznii SCHEERPELTZ, 1958: 51. (synonymized in LOHSE, 1987)

Thinobius sahlbergi SCHEERPELTZ, 1959: 74., **syn. n.**

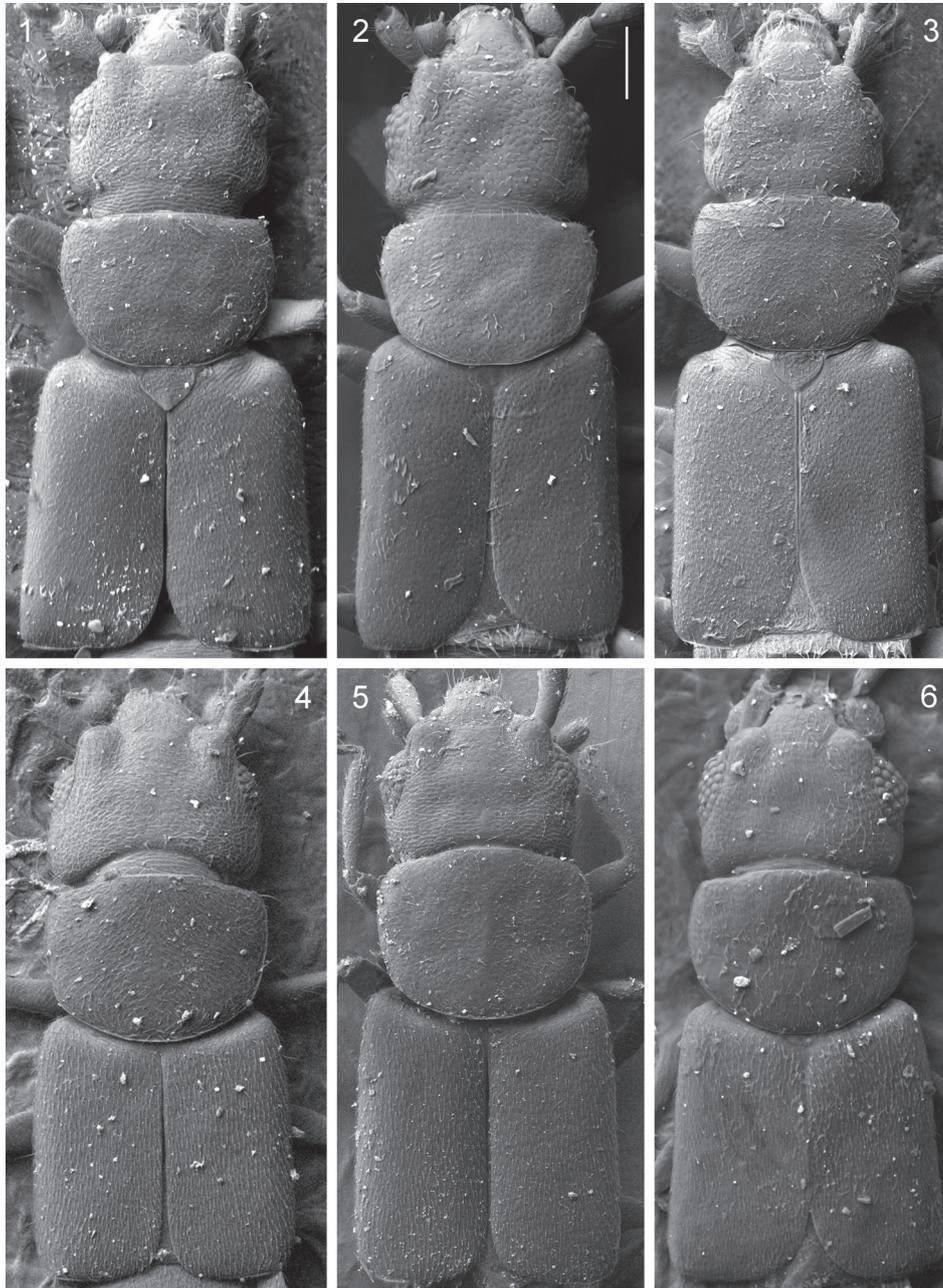
Thinobius tatricus SMETANA, 1973: 42. (synonymized in LOHSE, 1987)

Examined type material – *Thinobius major* Kraatz – Holotype (♀): “Germ. mer. \ major; mihi \ Coll. Kraatz \ *Thinobius*; (Platyderothinophilus); major; Kraatz \ det. Scheerpeltz \ Gezeichnet!; 17.IV.1942; O. Scheerpeltz \ Photographiert; 18.IV.1942; O. Scheerpeltz \ Holotypus \ Dtsch. Entomol.; Institut Berlin \ Holotypus; *Thinobius*; major Kraatz; ver. Makranczy, 2001 \ *Thinobius*; major Kraatz; det. Makranczy, 2010” (SDEI); *Thinobius diversicornis* FAUVEL – Lectotype (♀), by present designation: “Brandeis près; Prague inond.; de l’Elbe \ *diversicornis*; Fv1. \ second (additional); locality label; Gien bords; de la Loire \ Coll. et det. A. Fauvel; *Thinobius*; *diversicornis*; R.I.Sc.N.B. 17.479 \ Lectotypus; *Thinobius*; *diversicornis* Fauvel; des. Makranczy, 2002 \ *Thinobius*; major Kraatz; det. Makranczy, 2010” (ISNB); *Thinobius longicornis* JOY – Lectotype (♂), by present designation: “Type [red framed round curator label] \ Dalwhinnie; N.H.J. 1.5.13. \ *T. longicornis*; Joy. Type \ coll. Joy; B.M. 1933-386 \ *macroceros*. Joy \ Lectotypus; *Thinobius*; *longicornis* Joy; des. Makranczy, 2003 \ *Thinobius*; major Kraatz; det. Makranczy, 2010” (BMNH); *Thinobius franzi* SCHEERPELTZ – Lectotype (♂), by present designation: “\ Hohe Tauern; Grossglockner-; gebiet. 21.7.38. \ Nassfeld des; Pfandscharten-; baches unter; kleinen steinchen / an den höher ge-; legenen stellen die; nicht bei jedener; Hochwasser über-; schwemmt sind. \ cn. 2250-; 2300m \ leg. Dr. Franz; 21.7.1938 \ ex coll.; Scheerpeltz [blue label] \ Gezeichnet!; 2.V.1942; O. Scheerpeltz \ Typus; *Thinobius*; Franzi; O. Scheerpeltz [dark red card] \ Lectotypus; *Thinobius*; *franzi* Scheerpeltz; des. Makranczy, 2006 \ *Thinobius*; major Kraatz; det. Makranczy, 2010” (NHMW), Paralectotypes (12): same data as lectotype (5♂, 4♀, NHMW,

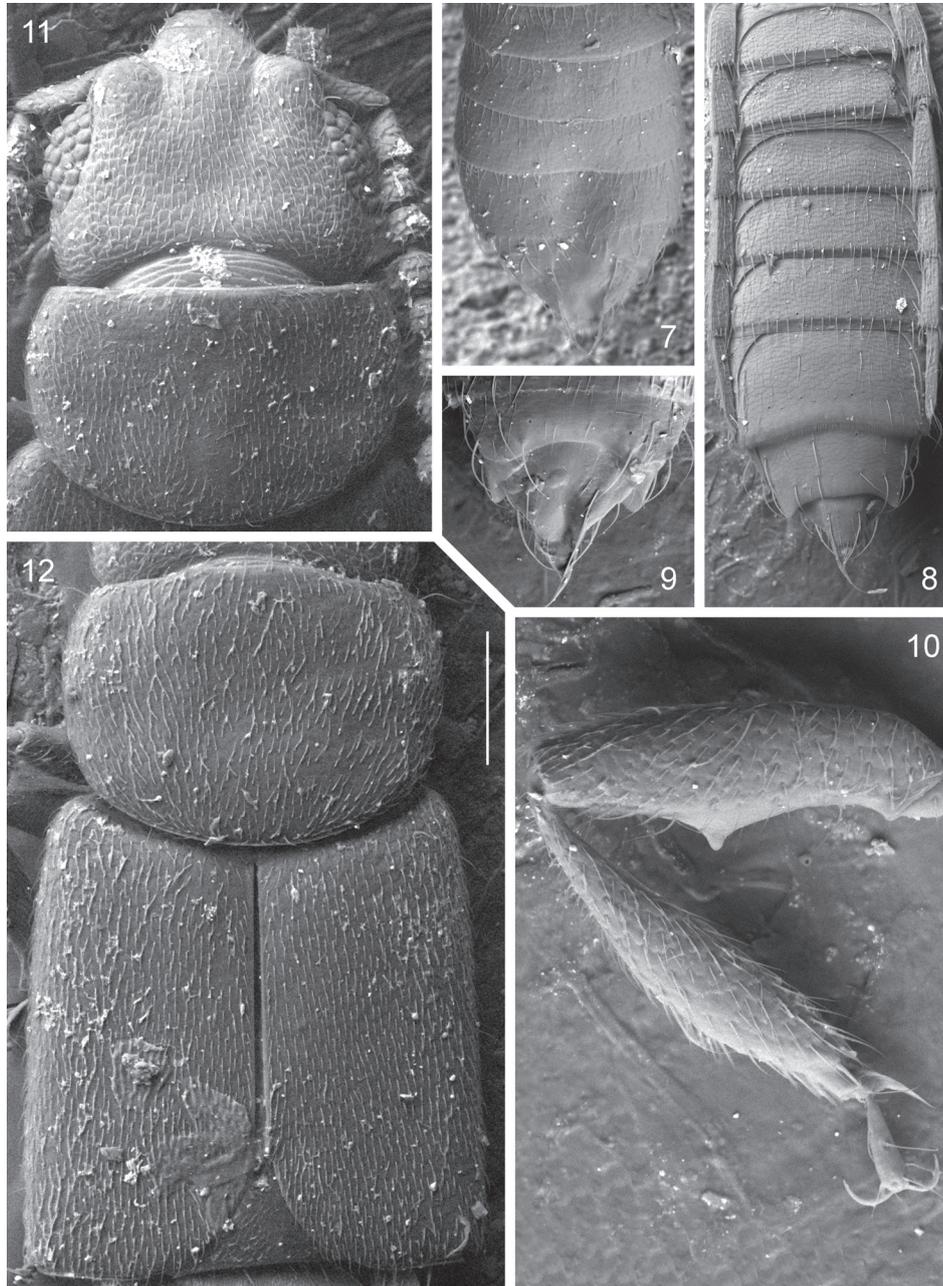
1♂, 1♀, FMNH, 1♂, coll. Schülke); *Thinobius konecznii* Scheerpeltz – Holotype (♂): “♂ \ Obstanzer See im; Kartitsch.O.T.[Ost-Tirol] [faded, partly unreadable]; 2000m. 8.7.48 \ ex coll.; Scheerpeltz \ Typus; Thinobius; Konecznii; O. Scheerpeltz \ Holotypus; Thinobius; konecznii Scheerpeltz; ver. Makranczy, 2006 \ Thinobius; major Kraatz; det. Makranczy, 2010” (NHMW); *Thinobius sahlbergi* Scheerpeltz – Holotype (♀): “Kantaika \ J. Sahlb. \ 110 \ maior \ Typus; Thinobius; Sahlbergi; O. Scheerpeltz \ Holotypus; Thinobius; sahlbergi Scheerpeltz; ver. Makranczy, 2013 \ Thinobius; major Kraatz; det. Makranczy, 2013” (NHMW); *Thinobius tatricus* Smetana – Paratypes: “Slov.[akia] N.[ízké] Tatry, Poľanská dol. [ina], Smetana 1959 [reverse:] 12.VII \ Paratype; Thinobius; tatricus m.; A. Smetana [19]71 \ A. Smetana; Collection; Acquired 1979 \ Paratype; CNC No. 16796 \ Thinobius; major Kraatz; det. Makranczy, 2011” (1♂, 1♀, CNCI), further 23 paratypes in CNCI, not examined, with data also: Slov. Vys. Tatry, Dol. Biel. vody, Smetana 1956 [reverse:] 2.VII.b / 1220 m n.m.; Slov. Vys. Tatry, Koprová dolina, Smetana 1956 [reverse:] 7.VII.a.

Other material – AUSTRIA: Styria, Ingering [47°14'N, 14°46.5'E], leg. K. A. Penecke (1♂, coll. Scheerpeltz, NHMW); RUSSIA: Sibérie arct., Kantaika [Хантайка, 68°06'59"N, 86°32'45"E], leg. J. Sahlberg (1♂, coll. Fauvel, ISNB); N-Cisbaikalia, Buryatia, Baikal Mts., Kurkula riv., [Peshekhodnyi stream,] 55°05'52.0[46.1]"N, 108°55'33.9"E, 725 m, 1–2. VII.2013, leg. I. V. Enushchenko (3, coll. Shavrin, 5, HNHM); N-Cisbaikalia, Buryatia, Baikal Mts., left side of Kurkula riv., [Vodopadnyi stream,] 55°05'52.0"N, 108°47'06.5"E, 981 m, 7–8.VII.2013, leg. I. V. Enushchenko (8, coll. Shavrin, 5 ♂, 2 ♀, 1, HNHM, 2, MHNG, 2, NHMW).

Redescription – Measurements (in mm, n = 9): HW = 0.34 (0.33–0.36); TW = 0.34 (0.32–0.355); PW = 0.37 (0.35–0.39); SW = 0.43 (0.40–0.45); AW = 0.48 (0.45–0.50); HL = 0.31 (0.30–0.32); EL = 0.10 (0.09–0.105); TL = 0.11 (0.105–0.12); PL = 0.29 (0.27–0.30); SL = 0.53 (0.48–0.57); SC = 0.47 (0.42–0.51); FB = 1.17 (1.07–1.24); BL = 2.20 (1.98–2.44). Body more or less unicoloured. Head and abdomen darkest, almost black, in few specimens may be lighter, reddish dark brown. Pronotum blackish dark brown, sometimes with more or less reddish tint, elytra dark brown, sometimes more blackish or more reddish, only rarely lighter. Legs, mouthparts and antennae dark to medium brown, tibiae and tarsi somewhat lighter, terminal antennomeres often a little darker. All main body parts with very fine coriaceous microsculpture intermixed with fine and rather dense punctation, making body moderately lustrous. Punctation strongest on head, less strong on pronotum, a little finer on elytra and somewhat indistinct on abdomen; on tergite VII both coriaceous microsculpture and punctation fading posteriorly (as also on mostly unexposed tergite VIII), making tip of abdomen much shinier than rest. Pubescence on forebody rather depressed, short, fine and dense (on elytra the most dense), on abdomen somewhat less dense but not longer hairs, apices of tergites with a row of conspicuously long hairs, abdominal sides and apex with a few darker and stronger bristles. Strong dark bristle on outer side of supraantennal tubercle at anterior border of eye and on posterior edge of vertex adjacent to temples, similar ones right behind anterior pronotal corner and on side at 3/5 length. Direction of setation on edges of head (especially at supraantennal tubercles) mostly lateral, on most of vertex antero-medial or medial except anterior neck where rather mixed. Pronotal setation mostly medially directed, but on posterior half of middle of disc antero-medial, posterior pronotal edge and anterior middle mostly anterior. Elytra and abdomen with posteriorly directed hairs. Antennae, legs and mouthparts with very short, not conspicuous setation, except for the stiff, darker hair slightly distad from middle of each tibia and ones near apices of femora. Elytra with the regular stiffer lateral setae inconspicuous, practically mixed in with other setae on side.



Figs 1–6. Forebodies of *Thinobius* species: 1 = *T. major* Kraatz, 1857, 2 = *T. angusticeps* Fauvel, 1889, 3 = *T. procerus* Eppelsheim, 1893, 4 = *T. bicolor* Joy, 1911, 5 = *T. petzi* Bernhauer, 1908, 6 = *T. micros* Fauvel, 1871. Scales: 0.07 mm for Fig. 6, 0.10 mm for Figs 2, 4–5, 0.14 mm for Figs 1, 3.



Figs 7–12. 7 = *Thinobius angusticeps* Fauvel, 1889, abdominal apex, ventral view. 8–10 = *T. procerus* Eppelsheim, 1893, 8 = abdomen, dorsal view, 9 = abdominal apex, ventral view, 10 = right hind leg. 11–12 = *T. paramicros* sp. n.: 11 = head, 12 = forebody and abdomen. Scales: 0.09 mm for Figs 11–12, 0.10 mm for Fig. 10, 0.22 mm for Figs 7, 9, 0.3 mm for Fig. 8.

Head (Fig. 1) slightly wider than long, temples usually straight, with a gentle curve on the side, rounded on posterior part. Anterior part of vertex slightly elevated and occasionally shinier. Anterior border of neck not marked with groove, only by change of microsculpture. Frontoclypeal suture appearing as fine, often shinier groove and dark line (visible only if head lighter) connecting supraantennal tubercles, similarly darker spots situated at both sides on middle of vertex. Supraantennal tubercles moderately developed, weakly separated from vertex. Antennae medium long (Fig. 13), 6th antennomere appearing smaller (less wide) than adjacent ones.

Pronotum weakly transverse, 1.30× wider than long, just a little wider than head, very gentle longitudinal impressions at sides of unmarked midline and some transversal impression before posterior pronotal margin. Anterior corners rather weakly rounded, posterior corners very broadly, sides gently arched. Pronotal marginal bead visible on posterior margin, anterior margin only gently arched (almost straight) with traces of a marginal bead in middle. Scutellum large, setose and dull. Elytra long, one elytron about twice as long as broad, quite flat and parallel-sided (very gently dilating posteriorly). Shoulders moderately developed. Along suture only with traces of marginal bead, mostly at moderately broadly rounded sutural corners. Legs of medium length, tarsal lobes thin but relatively long (almost reaching apex of last tarsomere), tibiae rather fusiform, appear much wider in middle than at ends.

Abdomen very weakly fusiform, sides more or less straight and parallel; widest in the middle, just very slightly less wide than elytra at broadest point. Posterior margin of tergite VII with light coloured and distinct palisade fringe. Primary and secondary sexual features: Sexes not appearing different in regular dorsal view. Posterior corners of tergite VIII (similar in both sexes) gently pulled out, posterior edge otherwise straight. Male sternite VIII as in Fig. 20, tergite IX as in Fig. 21, sternite IX as in Fig. 22. Aedeagus as in Fig. 41.

Distribution – The distribution of this species is still incompletely known, probably of the Siberian type (sensu DeLattin) with boreomontane disjunct areal in Europe. In Central Europe rarer and more local than *Thinobius angusticeps*, seems to occur only around the highest mountain ranges (with peaks of at least 2500 m elevation), but on the north also at lower lands. It is not yet known from the New World.

Remarks – “The type of *Thinobius brevicollis* Mulsant et Rey has been destroyed apparently a long time ago; there is no other specimen of this species in Rey’s collection” (H. Labrique, MHNL, pers. comm., Nov. 2009). The original type locality was “environs de Lyon, près d’Oullins, Rhone”. The collection of A. Fauvel (ISNB) includes a specimen from “Kantaika” with Fauvel’s handwritten determination label: “brevicollis; Rey ex. typ.” and it is not entirely unlikely that this actually refers to a direct comparison with the original type. The holotype of *T. tatricus* Smetana is either lost or misplaced (A. Davies, CNCI, pers. comm., Sep. 2010). LOHSE (1987) writes that the “types” of the three species that he synonymized (*T. franzi* Scheerpeltz, *T. konecznii* Scheerpeltz and *T. tatricus* Smetana) have been compared by their aedeagal characters. This is the last trace of the holotype, as it cannot be found in MHNG (where G. A. Lohse’s collection is housed) either (G. Cuccodoro, pers. comm., Oct. 2010); a paratype, the very same specimen as on the aedeagus illustration in the original description, has been examined.

Thinobius angusticeps FAUVEL, 1889
(Figs 2, 7, 14, 23–24, 27, 42, 46–47)

Thinobius angusticeps FAUVEL, 1889: 83, 84.

Thinobius (Thinophilus) allocerus EPPELSHEIM, 1893: 64., **syn. n.**

Thinobius silvaticus BERNHAUER, 1899: 436. (new synonym in SCHÜLKE & MAKRANCZY 2011)

Trogophloeus alaskanus FALL, 1926: 146., **syn. n.**

Thinobius peezi SCHEERPELTZ, 1957: 483. (new synonym in SCHÜLKE & MAKRANCZY 2011)

Examined type material – *Thinobius angusticeps* Fauvel – Neotype (♀), by present designation: “Torrent [= mountain stream] de Rabuons; Haute Tinée VII-48; [leg.] Fr.[anklin] Pierre \ angusticeps; J.J. [= Jean Jarrige] det. IL [= in litteris] \ Neotypus; *Thinobius*; angusticeps Fauvel; des. Makranczy, 2010 \ *Thinobius*; angusticeps Fauvel; det. Makranczy, 2010” (MNHP); *Thinobius (Thinophilus) allocerus* Eppelsheim – Lectotype (♂), by present designation: “♂ \ Ost-Sibirien; Quellgebiet; des Irkut.; Leder 1891. \ heterocerus; Epp. \ allocerus; Epp. Deutsch. ent.; Zeit. 1893. p. 64. \ c. Epplsh.; Steind. d. \ Gezeichnet!; 7.IV.1942; O. Scheerpeltz \ Typus \ Lectotypus; *Thinobius*; allocerus Eppelsheim; des. Makranczy, 2013 \ *Thinobius*; angusticeps Fauvel; det. Makranczy, 2013” (NHMW), Paralectotype (1): “♂ \ Ost-Sibirien; Quellgebiet; des Irkut.; Leder 1891. \ heterocerus; Epp. \ c. Epplsh.; Steind. d. \ Co-; typus \ Paralectotypus; *Thinobius*; allocerus Eppelsheim; des. Makranczy, 2013 \ *Thinobius*; angusticeps Fauvel; det. Makranczy, 2013” (NHMW); *Thinobius silvaticus* Bernhauer – Lectotype (♂), by present designation: “Bachergeb.; Bernhauer \ silvaticus Brh; Waldbach; Reifnig \ Type \ Gezeichnet!; 8.IV.1942; O. Scheerpeltz \ silvaticus Bernh.; det. O. Scheerpeltz, 1942 \ Chicago NHMus; M. Bernhauer; Collection \ Lectotypus; *Thinobius*; silvaticus Bernhauer; des. Makranczy, 2010 \ *Thinobius*; angusticeps Fauvel; det. Makranczy, 2010” (FMNH), Paralectotype (1): “Bachergeb.; Bernhauer \ silvaticus Brh.; Waldbach bei; Reifnig \ Type \ Type [blue card] \ Gezeichnet!; 2.IV.1942; O. Scheerpeltz \ Typus; *Thinobius*; silvaticus; Bernhauer [dark red card] \ ♀ \ Paralectotypus; *Thinobius*; silvaticus Bernhauer; des. Makranczy, 2010 \ *Thinobius*; angusticeps Fauvel; det. Makranczy, 2010” (1♀, NHMW); *Trogophloeus alaskanus* Fall – Holotype (♂): “McKin.[ley] P[ar]k [Station]; Alaska; 7[=VII.]-9-[19]24. \ Type; alaskanus \ M.C.Z.; Type; 24054 \ H.C. Fall; Collection \ Holotypus; *Trogophloeus*; alaskanus Fall; ver. Makranczy, 2000 \ *Thinobius*; angusticeps Fauvel; det. Makranczy, 2013” (MCZN); *Thinobius peezi* Scheerpeltz – Lectotype (♂), by present designation: “♂ \ Alprags, Östl.; Dolomiten. S. Tirol.; Ital.; Ende VII.49. Peez \ ex coll.; Scheerpeltz \ Typus; *Thinobius*; (Platyderothinophilus); Peezi; O. Scheerpeltz \ Lectotypus; *Thinobius*; peezi Scheerpeltz; des. Makranczy, 2000 \ *Thinobius*; angusticeps Fauvel; det. Makranczy, 2010” (NHMW), Paralectotypes (3): same data as lectotype (1 ♂, 2 ♀, NHMW).

Other material – CANADA: Banff Sp[rings], Alberta, VI.[19]11 (1, coll. Hubbard & Schwarz, USNM); Yukon Territory, Dempster Hwy., mi55, 3300’ 13.VII.1968, leg. J. M. Campbell & A. Smetana (1, CNCI); Yukon Territory, Dempster Hwy., mi32, 2700’ 15.VII.1968, leg. J. M. Campbell & A. Smetana (2 ♂, CNCI); Yukon Territory, Dempster Hwy., mi35, 2900’ 15.VII.1968, leg. J. M. Campbell & A. Smetana (5 ♂, 6 ♀, CNCI); ROMANIA: jud. Hunedoara, P.N. Retezat, 2 km W Lunca Rotunda, Lăpușnicu Mare, 45°19.0’N, 22°45.5’E, 1100 m, 29–30.V.2002, leg. Gy. Makranczy, from streambank sand and fine gravel, flotation (1 ♂, 1 ♀, HNHM); jud. Argeș, P.N. Pietra Craiului (Gr. Dâmbovița Gorges), 0.3 km ESE Rucăr, end of Cheile Dâmboviței, 45°23’08”N, 25°10’56”E, 740 m, 17.VII.2011, Gy. Makranczy (465), tip of gravel island in stream, sandy gravel, flotation (1, HNHM); RUSSIA: N-Cisbaikalia, Buryatia, Baikal Mts., left side of Kurkula riv., [Vodopadnyi stream,] 55°05’52.0”N, 108°47’06.5”E, 981 m, 7–8.VII.2013, leg. I. V. Enushchenko (1 ♀, 1, coll. Shavrin, 1 ♂, 1, HNHM).

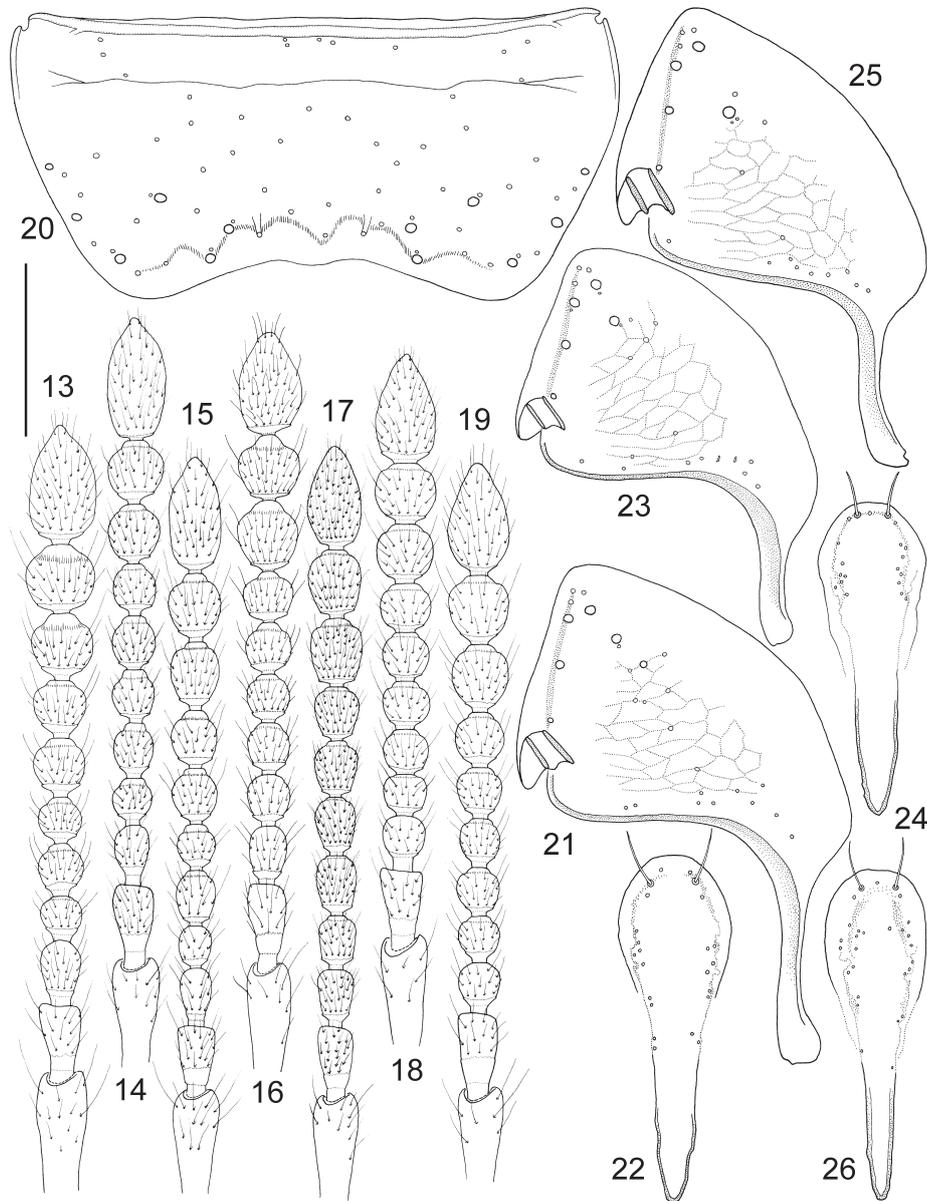
Redescription – Measurements (in mm, n = 10): HW = 0.30 (0.27–0.315); TW = 0.30 (0.27–0.32); PW = 0.32 (0.30–0.35); SW = 0.36 (0.32–0.39); AW = 0.41 (0.36–0.45); HL = 0.28 (0.25–0.29); EL = 0.09 (0.08–0.09); TL = 0.10 (0.09–0.10); PL = 0.25 (0.23–0.28); SL = 0.46 (0.41–0.50); SC = 0.41 (0.37–0.44); FB = 1.02 (0.88–1.09); BL = 1.98 (1.65–2.29). Body (Fig. 2) more or less unicoloured. Head, pronotum and abdomen blackish dark brown, elytra frequently lighter, dark brown or reddish with a darker, blackish spot behind scutellum extending to shoulders. Legs, mouthparts and antennae dark brown, only tarsi and tibiae (especially both ends) somewhat lighter. All main body parts with very fine coriaceous microsculpture intermixed with fine and rather dense punctation, making body moderately lustrous. Punctation on head (especially middle of vertex) stronger, moderately deep, pronotum slightly less strong and more dense, elytra even finer and denser, on abdomen more indistinct; on tergite VII both coriaceous microsculpture and punctation fading posteriorly (as also on mostly unexposed tergite VIII), making tip of abdomen much shinier than rest. Pubescence on forebody rather depressed, short, fine and dense (on elytra the most dense), on abdomen somewhat less dense but not longer hairs, apices of tergites with a row of conspicuously long hairs, abdominal sides and apex with a few darker and stronger bristles. Strong dark bristle on outer side of supraantennal tubercle at anterior border of eye and on posterior edge of vertex adjacent to temples, similar ones right behind anterior pronotal corner and on side at 3/5 length. Setation on head medially directed except midline and posterior part of vertex where more anterior. Pronotal setation mostly antero-medially directed, but on posterior pronotal edge and very posterior middle of disc direction more anterior. Elytra and abdomen with posteriorly directed hairs. Antennae, legs and mouthparts with very short, not conspicuous setation, except for the stiff, darker hair slightly distal from middle of each tibia and ones near apices of femora. Sides of elytra with three such stiff setae distributed on side, the middle one shifted towards apex from middle.

Head slightly wider than long, temples usually straight, sometimes with a gentle curve on the side, rounded on posterior part. Middle of vertex somewhat impressed. Anterior border of neck not marked with groove, only by change of microsculpture. Frontoclypeal suture appearing as fine, often shinier groove and dark line (visible only if head lighter) connecting supraantennal tubercles, similarly darker spots situated at both sides on middle of vertex. Supraantennal tubercles moderately developed, weakly separated from vertex. Antennae somewhat elongate (Fig. 14), 6th antennomere appearing as wide as adjacent ones.

Pronotum weakly transverse, 1.30× wider than long, just a tiny bit wider than head, pronotum with only traces of impressions at sides of unmarked midline and posterior margin. Anterior corners rather weakly rounded, posterior corners very broadly, sides gently arched. Pronotal marginal bead visible on posterior margin, anterior margin only gently arched (almost straight) with traces of a marginal bead in middle. Scutellum large, setose and dull. Elytra long, one elytron more than twice as long as broad, gently curved in cross-section and parallel-sided (very gently dilating posteriorly). Shoulders moderately developed. Along suture only with traces of marginal bead, mostly at broadly rounded sutural corners. Legs of medium length, tarsal lobes thin but relatively long, tibiae fusiform, appear much wider in middle than at ends.

Abdomen very weakly fusiform, sides more or less straight and parallel; widest in the middle, with just about the same width as elytra at broadest point. Posterior margin of tergite VII with light coloured and distinct palisade fringe.

Primary and secondary sexual features – Sexes not appearing different in regular dorsal view, but from ventral aspect the strong medio-apical incision of sternite VIII and the longitudinal impression along the whole length of sternite VII and in a much lesser extent on apex of sternite VI (Fig. 7) making the male rather easy to recognize and separate from



Figs 13–26. Antennae of *Thinobius* species: 13 = *T. major* Kraatz, 1857, 14 = *T. angusticeps* Fauvel, 1889, 15 = *T. procerus* Eppelsheim, 1893, 16 = *T. bicolor* Joy, 1911, 17 = *T. petzi* Bernhauer, 1908, 18 = *T. micros* Fauvel, 1871, 19 = *T. paramicros* sp. n. 20–22 = *T. major* Kraatz, 1857, male, 20 = sternite VIII, 21 = tergite IX, 22 = sternite IX. 23–24 = *T. angusticeps* Fauvel, 1889, male, 23 = tergite IX, 24 = sternite IX. 25–26 = *T. procerus* Eppelsheim, 1893, male, 25 = tergite IX, 26 = sternite IX. Scales: 0.05 mm for Figs 13, 15, 0.06 mm for Figs 14, 16–17, 26, 0.07 mm for Fig. 22, 0.08 mm for Figs 19, 25, 0.09 mm for Figs 20–21, 24, 0.10 mm for Figs 18, 23.

closely related species, e.g. the ventral abdominal apex of *T. procerus* Eppelsheim (Fig. 9). Posterior corners of tergite VIII (similar in both sexes) gently pulled out, posterior edge otherwise straight. Male sternite VIII as in Fig. 27, tergite IX as in Fig. 23, sternite IX as in Fig. 24. Aedeagus as in Fig. 42. Female genital appendage as in Fig. 46, spermatheca as in Fig. 47.

Distribution – The distribution of this species is probably of the Siberian type (sensu DeLattin) with boreomontane disjunct areal in Europe. As opposed to the previous species it is also known from the Nearctic region (missing in the southern areas). In Central Europe it usually occurs where peaks approach an elevation of 2000 m, but on the north could also be present on more flat landscapes.

Remarks – The original type locality of *Thinobius angusticeps* is Chamornix, France and the name was published for FOWLER'S (1888) suspected misuse of *T. major* Kraatz. (*T. major* was not known from Britain at that time.) The description indicates material seen from Charles Brisout de Barneville's collecting. No specimens were traced in FAUVEL'S collection (in ISNB) under this name and not even in Brisout's collection (in MNHP) (M. Tronquet, pers. comm., Sep. 2009) either. The article clearly states that Fauvel has not seen material from Britain. It was therefore felt necessary to designate a specimen from France as neotype of *Thinobius angusticeps*. The only such specimen available was in Jean Jarrige's collection (in MNHP, Figs 46–47), bearing an identification label "*angusticeps*" by Jean Jarrige himself (Marc Tronquet, pers. comm., Jan. 2010). The Torrent de Rabuons runs from the Lac de Rabuons, 2494 m, 44°16'10"N, 6°58'48"E to the Tinée river, 1120 m, 44°14'37"N, 6°56'22"E, France, département 06 (Alpes-Maritimes); the nearest town is Saint-Étienne-de-Tinée. For *Thinobius silvaticus* Bernhauer, only 2 genuine type specimens were located. One is a previously dissected male with rather distorted aedeagus. The other is a female with detached abdominal tip, but otherwise intact. The former specimen is chosen as lectotype.

Thinobius procerus Eppelsheim, 1859
(Figs 3, 8–10, 15, 25–26, 28, 43)

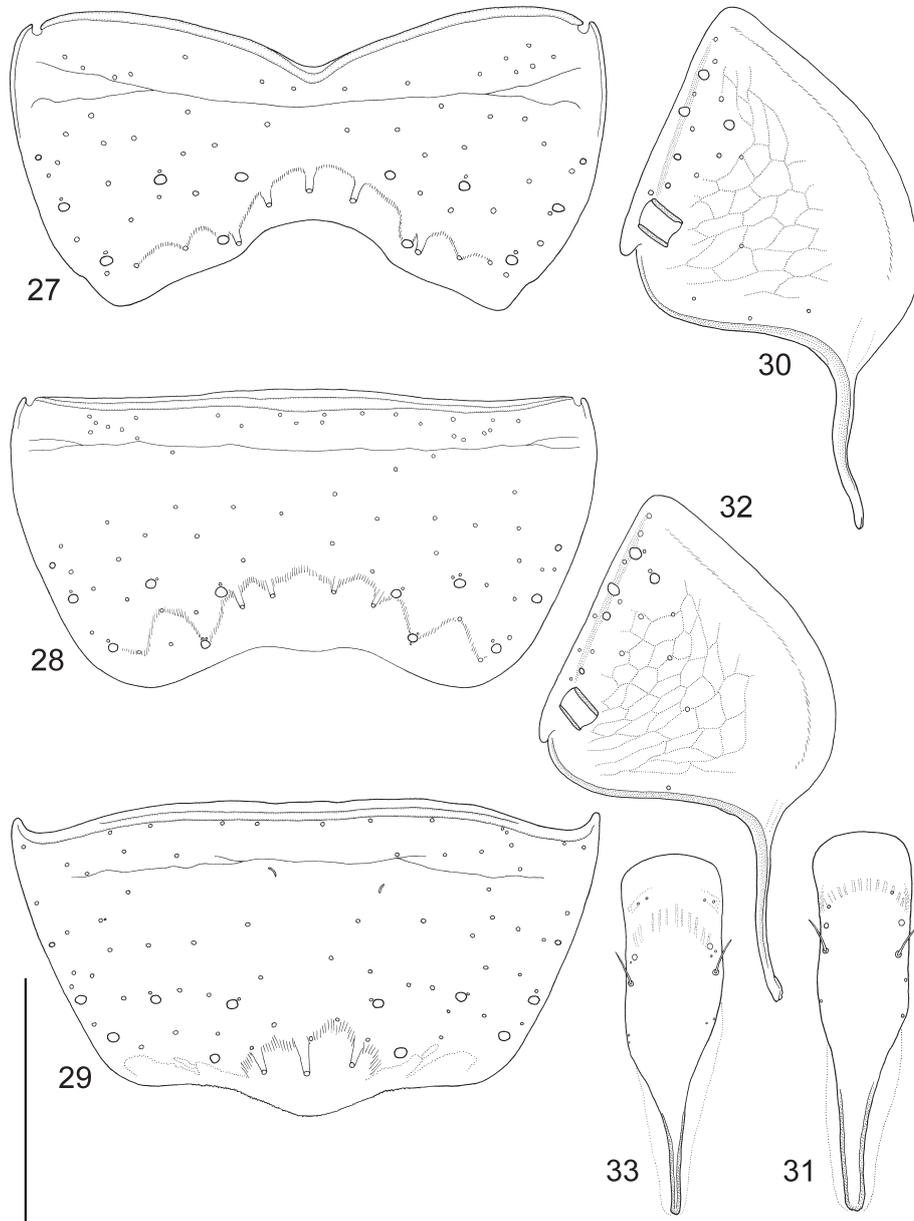
Thinobius (Thinophilus) procerus EPPELSHEIM, 1893: 63.
Trogophloeus teres FALL, 1926: 146., **syn. n.**

Examined type material – *Thinobius (Thinophilus) procerus* Eppelsheim – Holotype (♂): "♂ \ Ost-Sibirien.; Quellgebiet; des Irkut.; Leder 1891. \ procerus; Epp. \ procerus; Epp. Deutsch. ent.; Zeit. 1893. p. 63. \ c. Epp. lsh.; Steind. d. \ Typus \ Holotypus; Thinobius; procerus Eppelsheim; ver. Makranczy, 2013 \ Thinobius; procerus Eppelsheim; det. Makranczy, 2013" (NHMW); *Trogophloeus teres* FALL – Holotype (♀): "McKin.[ley] P[ar]k [Station]; Alaska; 7[=VII.]-9-[19]24. \ Type; teres \ M.C.Z.; Type; 24055 \ H.C. Fall; Collection \ Holotypus; Trogophloeus; teres Fall; ver. Makranczy, 2000 \ Thinobius; procerus Eppelsheim; det. Makranczy, 2013" (MCZN).

Other material – RUSSIA: “♂ \ Baikal; Bang-Haas \ procerus Epp., vgl. m. Type; determ. Bernh \ Gezeichnet!; 7.IV.1942; O. Scheerpeltz \ procerus Eppelsh.; det. O. Scheerpeltz, 1942 \ Dr. M. Bernhauer; 10.XI. donavit 1942 \ ex coll.; Scheerpeltz” (2 ♂, NHMW); N-Cisbaikalia, Buryatia, Baikal Mts, Kurkula riv., [Peshekhodnyi stream,] 55°05'52.0[46.1]’N, 108°55'33.9’’E, 725 m, 1–2.VII.2013, leg. I. V. Enushchenko (1 ♂, coll. Shavrin, 1 ♀, MHNG); N-Cisbaikalia, Buryatia, Baikal Mts., left side of Kurkula riv., [Vodopadnyi stream,] 55°05'52.0’’N, 108°47'06.5’’E, 981 m, 7–8.VII.2013, leg. I. V. Enushchenko (3 ♂, 1 ♀, HNHM, 1 ♀, NHMW); E-Siberia, Khamar-Daban Mts, Komarinskiy Mts., middle flow of Slyudyanka Riv., 51.587736°N, 103.630056°E, 14–15.VII.2013, leg. A. V. Shavrin & I. V. Enushchenko (5 ♂, 2 ♀, coll. Shavrin, 1 ♂, MHNG, 4 ♀ HNHM); Transbaikalia, Chita Area, Kyrinskiy District, Bal’dzha Riv., 49°17'54.4’’N, 110°09'20.8’’E, 1432 m, 5.VIII.2013, leg. I. V. Enushchenko (2 ♀, coll. Shavrin, 1 ♂, HNHM); Siberia or., Chabarowskij kr., Badshalskij Geb., Mündg. des Omot-Makit [approx. 50°34'23’’N, 134°19'42’’E], 850 m, 12.VII.1997, leg. J. Sundukow (S31) (1 ♂ 3 ♀, coll. Schülke); Primorie, Schutzgebiet Lazowskij Kl. S-j. Log [approx. 43°12’N, 133°47’E], 5.VI.1997, leg. J. Sundukow (S32) (1 ♀, coll. Schülke); USA/ALASKA: Kenai Mts., Tern Lake Campground, 700', 12.VI.1978, leg. A. Smetana & E. C. Becker (1 ♂, CNCI, 1 ♂, HNHM); 12mi N mi78 Denali Hwy, Windy Creek, 13.VII.1978, leg. A. Smetana (1 ♂, CNCI); mi220 George Parks Hwy, 14.VII.1978, leg. A. Smetana (2 ♂, CNCI); Prudhoe Bay Rd., 9mi N Atigun Pass, 68°14’N, 149°25’W, 3100', 6.VII.1978, leg. J. M. Campbell & A. Smetana (1 ♂, 1 ♀, CNCI).

Redescription – Measurements (in mm, n = 10): HW = 0.35 (0.33–0.37); TW = 0.35 (0.32–0.37); PW = 0.40 (0.38–0.42); SW = 0.47 (0.43–0.50); AW = 0.51 (0.48–0.55); HL = 0.31 (0.29–0.33); EL = 0.10 (0.10–0.105); TL = 0.10 (0.095–0.105); PL = 0.31 (0.30–0.33); SL = 0.61 (0.57–0.65); SC = 0.54 (0.51–0.57); FB = 1.26 (1.21–1.30); BL = 2.43 (2.12–2.77). Body (Fig. 3) slightly to barely bicoloured. Head, pronotum and abdomen dark brown, occasionally with slight reddish tint, elytra reddish medium brown with a darker, blackish area behind scutellum extending to shoulders. Legs, mouthparts and antennae slightly reddish medium to dark brown, only tibiae and tarsi somewhat lighter. All main body parts with very fine coriaceous microsculpture intermixed with very fine and rather dense punctation, making body moderately lustrous. Punctation on head (especially middle of vertex) stronger, moderately deep, pronotum slightly less strong and more dense, elytra even finer and denser, on abdomen more indistinct; on tergite VII both coriaceous microsculpture and punctation fading posteriorly (as also on mostly unexposed tergite VIII), making tip of abdomen much shinier than rest. Pubescence on forebody rather depressed, short, fine and dense (on elytra the most dense), on abdomen somewhat less dense but not longer hairs, apices of tergites with a row of conspicuously long hairs, abdominal sides and apex with a few darker and stronger bristles. Strong dark bristle on outer side of supraantennal tubercle at anterior border of eye and on posterior edge of vertex adjacent to temples, similar ones right behind anterior pronotal corner and on side at 3/5 length. Direction of setation on edges of head (especially at supraantennal tubercles) postero-lateral, on most of vertex medial except anterior neck groove where rather mixed. Pronotal setation mostly medially directed, but on middle of disc turning slightly antero-medial, posterior half of middle of disc distinctly antero-medial, posterior pronotal edge mostly anterior. Elytra and abdomen with posteriorly directed hairs. Antennae, legs and mouthparts with very short, not conspicuous setation, except for the stiff, darker hair slightly distal from middle of each tibia and ones near apices of femora. Elytra with the regular stiffer lateral setae inconspicuous, practically mixed in with other setae on side.

Head slightly wider than long, temples usually straight, with a gentle curve on the side, rounded on posterior part. Middle of vertex very gently impressed. Anterior border



Figs 27–33. 27 = *T. angusticeps* Fauvel, 1889, male sternite VIII. 28 = *T. procerus* Eppelsheim, 1893, male sternite VIII. 29–31 = *T. bicolor* Joy, 1911, male, 29 = sternite VIII, 30 = tergite IX, 31 = sternite IX. 32–33 = *T. petzi* Bernhauer, 1908, male, 32 = tergite IX, 33 = sternite IX. Scales: 0.10 mm for Fig. 33, 0.11 mm for Fig. 32, 0.12 mm for Figs 30–31, 0.135 mm for Fig. 27, 0.15 mm for Fig. 29, 0.20 mm for Fig. 28.

of neck not marked with groove, only by change of microsculpture. Frontoclypeal suture appearing as fine, often shinier groove and dark line (visible only if head lighter) connecting supraantennal tubercles, similarly darker spots situated at both sides on middle of vertex. Supraantennal tubercles moderately developed, weakly separated from vertex. Antennae somewhat elongate (Fig. 15), 6th antennomere appearing smaller than adjacent ones.

Pronotum weakly transverse, 1.30× wider than long, just a little wider than head, pronotum with only traces of impressions at sides of unmarked midline and posterior margin. Anterior corners rather weakly rounded, posterior corners very broadly, sides gently arched. Pronotal marginal bead visible on posterior margin, anterior margin only gently arched (almost straight) with traces of a marginal bead in middle. Scutellum large, setose and dull. Elytra quite long, one elytron a little bit more than twice as long as broad, quite flat and parallel-sided (very gently dilating posteriorly). Shoulders moderately developed. Along suture with fully developed but thin marginal bead, mostly at broadly rounded sutural corners. Legs of medium length, tarsal lobes broader at base but thin at apex, tibiae moderately fusiform, appear much wider in middle than at ends.

Abdomen (Fig. 8) very weakly fusiform, sides more or less straight and parallel; widest in the middle, just very slightly less wide than elytra at broadest point. Posterior margin of tergite VII with light coloured and distinct palisade fringe.

Primary and secondary sexual features – Males immediately recognizable by a variously developed but always conspicuous, posteriorly directed tooth on hind femur (Fig. 10). Sexes not appearing different in regular dorsal view. Posterior corners of tergite VIII (similar in both sexes) gently pulled out, posterior edge otherwise straight. Male sternite VIII as in Fig. 28, tergite IX as in Fig. 25, sternite IX as in Fig. 26. Aedeagus as in Fig. 43.

Distribution – The species is known from the northern areas of both the Eastern Palearctic and the Western Nearctic regions.

Remarks – The spermathecae in all the preceding taxa are extremely weakly sclerotized, to such an extent that they are often difficult to observe. They are of a simple boomerang shape, roughly equal breadth on the whole length; this offers very little in terms of diagnosis, therefore only one specimen is illustrated here, the neotype of *Thinobius angusticeps* Fauvel.

Thinobius bicolor Joy, 1911
(Figs 4, 16, 29–31)

Thinobius bicolor Joy, 1911: 10.

Thinobius linderianus SCHEERPELTZ, 1966: 257. (new synonym in SCHÜLKE & MAKRANCZY 2011)

Examined type material – *Thinobius bicolor* Joy – Lectotype (♀), by present designation: "Type [red framed disc] \ Dalwhinnie; N.H.J. 1.5.[=V.][19]10 \ Brit. Mus.; 1924-468. \ *Thinobius*; *bicolor* Joy; ♂ Type \ EMM 1911 \ *bicolor* Joy \ Lectotypus; *Thinobius*; *bicolor* Joy; des. Makranczy, 2003 / *Thinobius*; *bicolor* Joy; det. Makranczy, 2013" (BMNH); [For types of *Thinobius linderianus*, see Makranczy & Schülke, 2001: 189.].

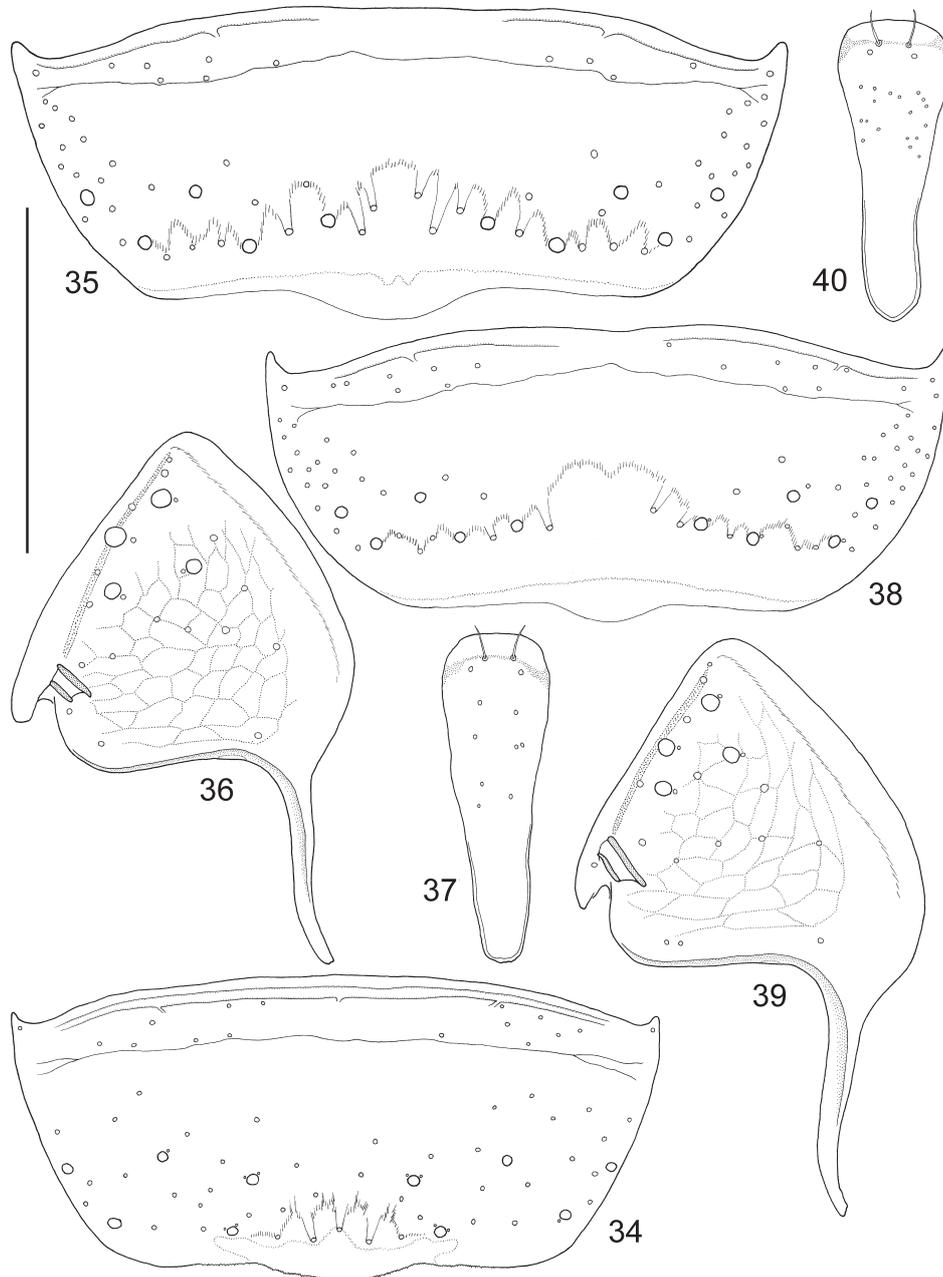
Other material – GREAT BRITAIN: Scotland, Dumfries, River Nith, April 1870?, leg. D. Sharp (1255A) (1, coll. Champion, BMNH, 1, coll. Tottenham, BMNH); Harburn, near Carsfairs, April 23, 1866, leg. D. Sharp (1025) (10, BMNH); Ranvoch, May 2-9, 1866, leg. D.

Sharp (1030) (1, BMNH, 1, coll. Sharp, BMNH); [Ranvoch?], May 1866, leg. D. Sharp (2, coll. Power, BMNH); Palmont [Polmont, Stirling], April 19–20, 1866 leg. D. Sharp (1023) (2, coll. Champion, BMNH, 3, coll. Sharp, BMNH), Gribton Bridge, April 30, 1868, leg. D. Sharp (1128) (1, coll. Sharp, BMNH), Seat at Druidhill near Eccles, May 11, 1869, leg. D. Sharp (1184) (1, coll. Sharp, BMNH); Dumfries, April 1867, leg. D. Sharp (1056) (1, coll. Sharp, BMNH); Cavin Water, May 1, 1867 leg. D. Sharp (1057) (1, coll. Sharp, BMNH); Morton Mains April 12, 1868 leg. D. Sharp (1123) (1, coll. Sharp, BMNH); Cumberland, Great Salkeld, 10.IV.1909, [leg.] H. Britten (1, coll. Champion, BMNH); Perthshire, Kinbuck [56.2213° N, 3.9481° W], 18.IV.1982, leg. R.M. Lyszkowski (2, HNHM); GERMANY: Rheinland, Nahe, Heinzenberg, Kellerbachtal, 19.IV.1988, leg. P. Wunderle (1 ♂, 1 ♀, HNHM).

Redescription – Measurements (in mm, n = 4): HW = 0.30 (0.295–0.315); TW = 0.31 (0.305–0.33); PW = 0.32 (0.31–0.34); SW = 0.34 (0.32–0.35); AW = 0.40 (0.38–0.45); HL = 0.24 (0.24–0.25); EL = 0.08 (0.08–0.09); TL = 0.11 (0.10–0.12); PL = 0.26 (0.25–0.27); SL = 0.40 (0.38–0.44); SC = 0.37 (0.34–0.41); FB = 0.92 (0.88–1.00); BL = 1.94 (1.72–2.15). Body (Fig. 4) in fully coloured specimens slightly bicoloured (see also remarks). Head, pronotum and abdomen dark brown. Elytra light to medium brown, scutellar area sometimes broadly darker. Legs, mouthparts and antennae light to medium brown, first two antennomeres somewhat lighter, terminal three segments often darker. All main body parts with very fine coriaceous microsculpture intermixed with punctation, making body moderately lustrous. Punctation very fine and rather dense, less distinct than in previous 3 species; head strongest, pronotum finer and more dense, abdomen similar but even less distinct, elytra hardly discernible, surface dominated by microsculpture. Pubescence on forebody rather depressed, short, fine and dense (on elytra the most dense), on abdomen somewhat less dense and longer hairs, apices of tergites with a row of long hairs, abdominal sides and apex with a few darker and stronger bristles. Strong dark bristle on outer side of supraantennal tubercle at anterior border of eye and on posterior edge of vertex adjacent to temples, similar ones right behind anterior pronotal corner and on side at 3/5 length. Setation on head mostly medially directed, as also on pronotum but anterior on posterior pronotal edge and antero-medial on a smaller spot in middle hind part of disc. Elytra and abdomen with posteriorly directed hairs. Antennae, legs and mouthparts with very short, not conspicuous setation, except for the stiff, darker mid-tibial hairs and ones near apices of femora. Sides of elytra with three such stiff setae about equally distributed on length of side.

Head slightly wider than long, temples usually somewhat widening then narrowing in a gentle curve, weakly rounded on posterior part. Middle of vertex with a slight transversal impression. Anterior border of neck is strongly marked with a shiny, arched, deep groove. Frontoclypeal suture appearing as fine, often shinier groove and dark line connecting supraantennal tubercles, similarly darker spots situated at both sides on middle of vertex. Supraantennal tubercles moderately developed, separated from vertex by longitudinal impression. Antennae medium long (Fig. 16), 6th antennomere appearing as wide as adjacent ones.

Pronotum weakly transverse, 1.30× wider than long, just a tiny bit wider than head, some very gentle impressions at side of unmarked pronotal midline especially in the middle of disc. Anterior corners rather weakly rounded, posterior corners very broadly, sides gently arched. Pronotal marginal bead visible on posterior and lateral margins, anterior margin slightly pulled ahead in middle with visible marginal bead. Scutellum small, if exposed, shinier than adjoining areas. Elytra rather long, one elytron about twice as long as broad, flat and parallel-sided (very gently dilating posteriorly). Shoulders moderately developed. Along suture without even traces of marginal bead; sutural corners moderately



Figs 34–40. 34 = *T. petzi* Bernhauer, 1908, male sternite VIII. 35–37 = *T. micros* Fauvel, 1871, male, 35 = sternite VIII, 36 = tergite IX, 37 = sternite IX. 38–40 = *T. paramicros* sp. n., male, 38 = sternite VIII, 39 = tergite IX, 40 = sternite IX. Scales: 0.08 mm for Fig. 36, 0.09 mm for Fig. 35, 0.10 mm for Figs 37, 39, 0.12 mm for Fig. 38, 0.14 mm for Fig. 40, 0.18 mm for Fig. 34.

broadly rounded. *Legs* of medium length, tarsal lobes small and thin, inconspicuous, tibiae rather fusiform, appear much wider in middle than at ends.

Abdomen very weakly fusiform, sides more or less straight and parallel; widest in the middle, just very slightly less wide than elytra at broadest point. Posterior margin of tergite VII with palisade fringe and posterior corners broadly rounded. Primary and secondary sexual features: Sexes not appearing different in regular dorsal view. Posterior corners of tergite VIII (similar in both sexes) slightly pulled out, posterior edge gently concave, arched in between. Male sternite VIII as in Fig. 29, tergite IX as in Fig. 30, sternite IX as in Fig. 31.

Distribution – A very incompletely known species, mainly due to its difficult separation from *Thinobius brunneipennis* Kraatz, 1857, but seems to be present in the British Isles and Western Europe.

Remarks – The type of *T. bicolor* is a female and it belongs to a pair of sibling species (*T. bicolor* and *T. brunneipennis*) where females cannot be distinguished at the present state of our knowledge. To assure the correctness of the identification of this species, the whole historical British unidentified material in BMNH was checked. The males in this material, without exception, proved to belong to the taxon previously treated as *T. linderianus* (see MAKRANCZY & SCHÜLKE 2001: 189). Therefore, it seems that the sibling taxon, *T. brunneipennis* (in the identity fixed by the neotype designation in the previously cited article) does not occur in Britain. As the valid name of the species is *T. bicolor*, a special note about the reliability of colour characters is felt in place here. It is very usual to have certain body parts lighter, brighter in fully coloured specimens, while teneral or not fully coloured specimens remain more or less unicolorous. A good example of this is a recently described species, *T. gurzoeszterae* Makranczy, 2009, where the female holotype (Fig. 55) is fully coloured with rather contrasting body parts, whereas the male paratype appears unicolorous. A similar situation exists with *T. bicolor* and *T. brunneipennis*, where specimens with bright elytra occasionally occur, but it is not true for all specimens and not linked to geographical distribution.

Thinobius petzi Bernhauer, 1908
(Figs 5, 17, 32–34)

Thinobius petzi BERNHAUER, 1908: 321.

Thinobius (Thinophilus) tingitanus PEYERIMHOFF, 1925: 1., **syn. n.**

Thinobius (Thiphonilus) anatolicus Smetana, 1967: 308., **syn. n.**

Examined type material – [For types of *Thinobius petzi*, see Makranczy & Schülke 2001: 190.]; *Thinobius tingitanus* Peyerimhoff – Holotype (♂): “[Morocco:] Oued Djadj; pr[ès] Tanger; 24. IV. 1920 [on the back:] Tessereft; Guirit, X.04; Djardjara [the data were written on the back of a re-used label!] \ *Thinobius; tingitanus; Peyerimhoff; Type unique* \ Holotypus; *Thinobius; tingitanus Peyerimh.; ver. Makranczy, 2010* \ *Thinobius; petzi Bernhauer; det. Makranczy, 2010*” (MNHP); *Thinobius anatolicus* Smetana – Holotype (♀):

“Hasanoğlan; Anat. 13. VII. [19]47; Exp. N. Mus. ČSR \ [white round label with orange squared pattern] \ Holotypus; *Thinobius*; anatolicus m. \ 1965; Smetana det. \ *Thinobius*; anatolicus m.; Smetana det. 1965 \ Mus. Nat. Pragae; Inv. 19639 \ *Thinobius*; petzi Bernhauer; det. Makranczy, 2013” (NMPC).

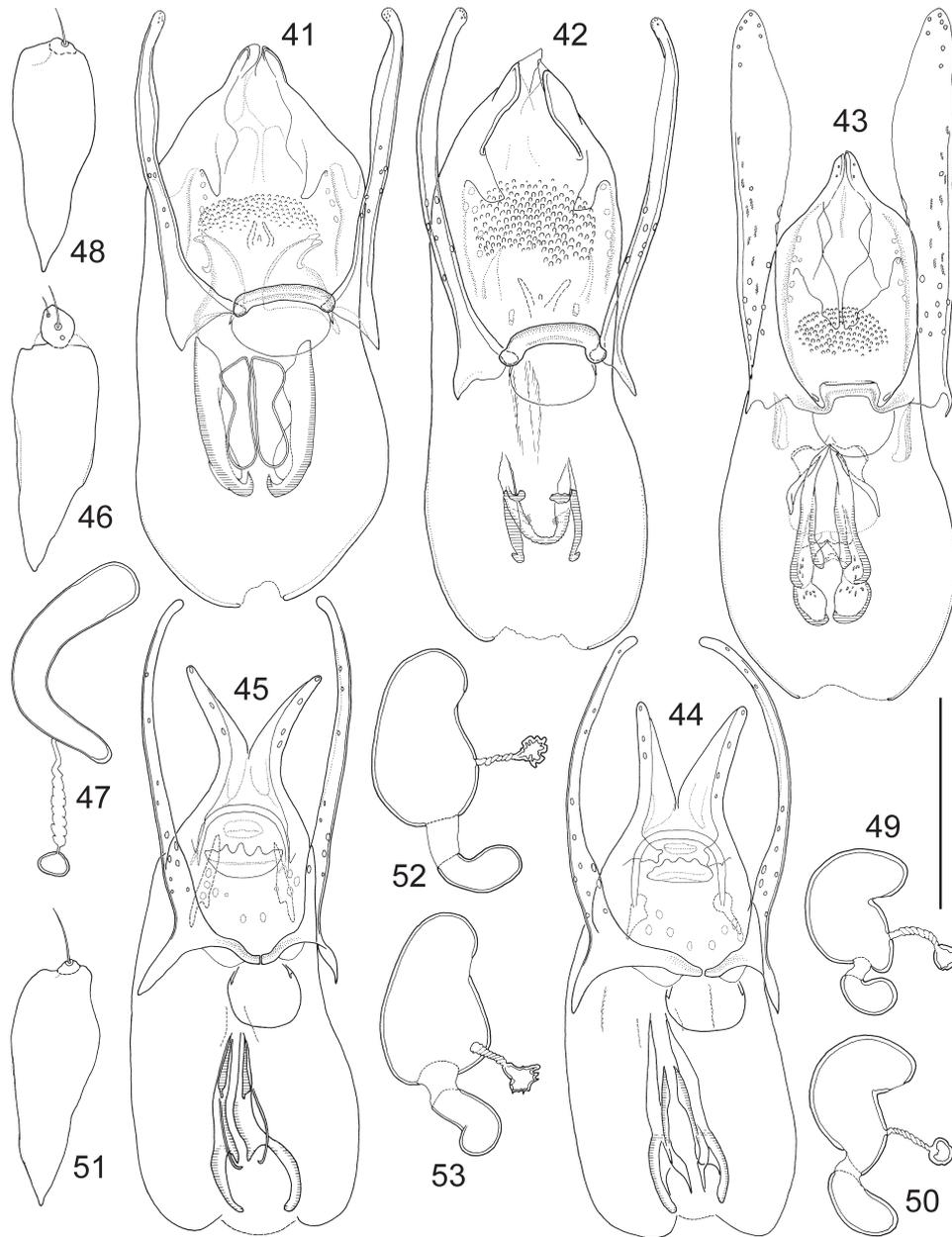
Other material – BOSNIA-HERZEGOVINA: Sarajevo, hochwasser (1 ♂, NMPC); Iliđža, 1902, leg. Apfelbeck, hochwasser (2 ♂, 1 ♀, NMPC); ROMANIA: Schuler[-Gebirge = Munții Postăvarul], leg. M. Weissk. (1, NHMW); jud. Argeș, P.N. Piatra Craiului (Gr. Dâmbovița Gorges), 0.3 km ESE Rucăr, end of Cheile Dâmboviței, 45°23′08″N, 25°10′56″E, 740 m, 17.VII.2011, Gy. Makranczy (465), tip of gravel island in stream, sandy gravel, flotation (1 ♀, HNHM); TURKEY: Giresun prov., 10 km N Şebinkarahisar [40°22′40″N, 38°26′26″E], 1450 m ‘steep gully, banks stony mountain stream’, 25.V.1998, leg. M. Sörenson (MZLU).

Redescription – Measurements (in mm, n = 7): HW = 0.29 (0.28–0.30); TW = 0.29 (0.28–0.31); PW = 0.31 (0.30–0.32); SW = 0.34 (0.33–0.34); AW = 0.38 (0.37–0.40); HL = 0.25 (0.23–0.27); EL = 0.09 (0.09–0.095); TL = 0.10 (0.08–0.12); PL = 0.25 (0.24–0.26); SL = 0.43 (0.42–0.45); SC = 0.39 (0.39–0.40); FB = 0.95 (0.93–0.98); BL = 1.85 (1.59–2.09). Body (Fig. 5) in fully coloured specimens slightly bicoloured (see also remarks). Head and abdomen dark brown with occasional reddish tone, pronotum reddish medium to dark brown. Elytra slightly yellowish medium brown, scutellar area to shoulders often darker. Legs, mouthparts and antennae medium brown, basal part of antennae often lighter. All main body parts with very fine coriaceous microsculpture intermixed with punctation, making body moderately lustrous. Punctation very fine and rather dense; head strongest, pronotum finer and more dense, abdomen similar but even less distinct, elytra hardly discernible, surface dominated by microsculpture. Pubescence on forebody rather depressed, short, fine and dense (on elytra the most dense), on abdomen somewhat less dense and longer hairs, apices of tergites with a row of long hairs, abdominal sides and apex with a few darker and stronger bristles. Strong dark bristle on outer side of supraantennal tubercle at anterior border of eye and on posterior edge of vertex adjacent to temples, similar ones right behind anterior pronotal corner and on side at 3/5 length. Setation on edges of head medially directed, on most of vertex antero-medial except anterior neck groove where anterior. Pronotal setation mostly medially directed, but on middle of disc turning slightly antero-medial, posterior half of middle of disc distinctly antero-medial, posterior pronotal edge mostly anterior. Elytra and abdomen with posteriorly directed hairs. Antennae, legs and mouthparts with very short, not conspicuous setation, except for the stiff, darker mid-tibial hairs and ones near apices of femora. Sides of elytra with three such stiff setae about equally distributed on length of side.

Head slightly wider than long, temples usually somewhat narrowing, with a gentle curve on the side but weakly rounded on posterior part. Middle of vertex with a very slight transversal impression. Anterior border of neck is strongly marked with a shiny, arched, deep groove. Frontoclypeal suture appearing as fine, often shinier groove and dark

Figs 41–53. Aedeagi of *Thinobius* species: 41 = *T. major* Kraatz, 1857, 42 = *T. angusticeps* Fauvel, 1889, 43 = *T. procerus* Eppelsheim, 1893, 44 = *T. micros* Fauvel, 1871, 45 = *T. paramicros* sp. n. Female genital traits: 46–47 = *T. angusticeps* Fauvel, 1889, neotype, 46 = genital appendage, 47 = spermatheca. 48–50 = *T. micros* Fauvel, 1871, 48 = genital appendage, 49–50 = spermathecae. 51–53 = *T. paramicros* sp. n., 51 = genital appendage, 52–53 = spermathecae. Scales: 0.05 mm for Figs 44, 48–50, 52–53, 0.065 mm for Figs 45, 51, 0.08 mm for Fig. 42, 0.10 mm for Fig. 47, 0.13 mm for Figs 41, 43, 46.

line connecting supraantennal tubercles, similarly darker spots situated at both sides on middle of vertex. Supraantennal tubercles moderately developed, separated from vertex by longitudinal impression. Antennae somewhat elongate (Fig. 17), 6th antennomere appearing as wide as adjacent ones.



Pronotum weakly transverse, 1.25× wider than long, just a tiny bit wider than head, midline slightly elevated and shinier, at its sides slight longitudinal impressions as well as sometimes before posterior margin very gentle and small impressions. Anterior corners rather weakly rounded, posterior corners very broadly, sides gently arched. Pronotal marginal bead visible on posterior and lateral margins, anterior margin slightly pulled ahead in middle with visible marginal bead. Scutellum small, if exposed, shinier than adjoining areas. Elytra rather long, one elytron about twice as long as broad, quite flat and parallel-sided (very gently dilating posteriorly). Shoulders moderately developed. Along suture without even traces of marginal bead; sutural corners moderately broadly rounded. Legs



Figs 54–55. 54 = *T. paramicros* sp. n., habitus, 55 = *T. gurzoeszterae* Makranczy, 2009, habitus.

of medium length, tarsal lobes small and thin, inconspicuous, tibiae rather fusiform, appear much wider in middle than at ends.

Abdomen very weakly fusiform, sides more or less straight and parallel; widest in the middle, with just about the same width as elytra at broadest point. Posterior margin of tergite VII with palisade fringe and posterior corners broadly rounded.

Primary and secondary sexual features: Sexes not appearing different in regular dorsal view. Posterior corners of tergite VIII (similar in both sexes) slightly pulled out, posterior edge gently concave, arched in between. Male sternite VIII as in Fig. 34, tergite IX as in Fig. 32, sternite IX as in Fig. 33.

Distribution – The species seems to have a circum-mediterranean distribution that also includes the southern half of Europe.

Remarks – This species is particularly poorly understood because it seems to lack unique and conspicuous traits in the genitalia and this may make it somewhat difficult to separate from possibly yet undescribed, closely related congeners.

Thinobius micros Fauvel, 1871
(Figs 6, 18, 35–37, 44, 48–50)

Thinobius micros FAUVEL, 1871: 163 [= 1872: 137].

Thinobius algiricus FAUVEL, 1898: 94., **syn. n.**

Thinobius ernesti BERNHAUER, 1908: 332. (new synonym in SCHÜLKE & MAKRANCZY 2011)

Examined type material – *Thinobius micros* Fauvel – Lectotype (♂), by present designation: “Fréjus \ *micros*; Fauv. \ R.I.Sc.N.B. 17.479; Coll. et det. A. Fauvel \ Syntype \ ♂ \ Lectotypus; *Thinobius*; *micros* Fauvel; des. Makranczy, 2001 \ *Thinobius*; *micros* Fauvel; det. Makranczy, 2010” (ISNB); Paralectotypes (4): same data as lectotype (1♂, 3♀, ISNB); *Thinobius algiricus* FAUVEL – Lectotype (♀), by present designation: “[Algeria: Djebel] Ouarsenis \ confondu avec; *longipennis* \ *algiricus*; Fvl. n. sp.; Désiré [underlined] \ Typus \ Collection; Vauloger \ Lectotypus; *Thinobius*; *algiricus* Fauvel; des. Makranczy, 2010 \ *Thinobius*; *micros* Fauvel; det. Makranczy, 2010” (coll. Peyerimhoff, MNHP); [For the type of *Thinobius ernesti*, see Makranczy & Schülke, 2001: 191.].

Redescription – Measurements (in mm, n=6): HW = 0.20 (0.19–0.20); TW = 0.19 (0.185–0.20); PW = 0.21 (0.205–0.22); SW = 0.22 (0.21–0.22); AW = 0.24 (0.23–0.24); HL = 0.18 (0.17–0.19); EL = 0.07 (0.06–0.07); TL = 0.05 (0.05–0.06); PL = 0.17 (0.16–0.175); SL = 0.28 (0.26–0.29); SC = 0.24 (0.23–0.25); FB = 0.61 (0.59–0.64); BL = 1.10 (1.03–1.19). Body (Fig. 6) very slightly bicoloured. Head, pronotum and abdomen slightly reddish dark brown, elytra reddish medium brown with a darker area behind scutellum extending to shoulders. Legs and mouthparts medium brown, apices of femora and both ends of tibiae often lighter, together with tarsi; basal part of antenna much lighter (yellowish) than apical articles, latter often significantly blackish. Forebody with very fine coriaceous microreticulation, rather dull. Punctuation on forebody rather dense and so fine that hardly discernible. Discs of abdominal tergites with a particular type of transversal microsculpture and longitudinal microsetation arranged in the minute transversal ridges that causes a slight iridescent effect. Pu-

bescence on forebody depressed and very short, fine and dense (on elytra the most dense), on abdomen apices of tergites with a row of long hairs, and a sparse setation composed of similar but shorter hairs; abdominal sides and apex with a few darker and stronger bristles. Strong dark bristle on outer side of supraantennal tubercle at anterior border of eye (those near outer posterior edge of vertex weakly developed), similar ones right behind anterior pronotal corner and on side at 3/5 length. Setation anteriorly directed on head and pronotum, direction posterior on elytra and abdomen. Antennae with longer, darker hairs on basal articles, legs and mouthparts with very short, not conspicuous setation, except for the stiff, darker mid-tibial hairs and ones near apices of femora. Sides of elytra with three such stiff setae about equally distributed on length of side.

Head slightly wider than long, temples usually straight, with a gentle curve on the side, rounded on posterior part. Middle of vertex very gently impressed. Anterior border of neck is strongly marked with a shiny, arched, deep groove. Frontoclypeal suture appearing as weak groove and a dark line (visible only if head lighter) connecting supraantennal tubercles, similarly darker spots situated at both sides on middle of vertex. Supraantennal tubercles moderately developed, separated from vertex by longitudinal impression. Antennae moderately short (Fig. 18), 6th antennomere appearing as wide as adjacent ones.

Pronotum weakly transverse, 1.25× wider than long, just a tiny bit wider than head, with only traces of impressions in anterior half of middle of disc and near anterior corners. Anterior corners moderately weakly rounded, posterior corners very broadly, sides almost in arch with posterior margin. Pronotal marginal bead visible on posterior margin, anterior margin slightly pulled ahead in middle but without visible marginal bead. Scutellum small, if exposed, shinier than adjoining areas. Elytra long, one elytron about twice as long as broad, quite flat and parallel-sided (very gently dilating posteriorly). Shoulders moderately developed. Along suture without even traces of marginal bead; sutural corners broadly rounded. Legs of medium length, tarsal lobes small and thin, inconspicuous, tibiae fusiform, appear much wider in middle than at ends.

Abdomen very weakly fusiform, sides more or less straight and parallel; widest at 1/3 length, just very slightly less wide than elytra at broadest point. Posterior margin of tergite VII with palisade fringe and posterior corners broadly rounded.

Primary and secondary sexual features: Sexes not appearing different in regular dorsal view. Posterior edge of tergite VIII (similar in both sexes) gently concave, arched. Male sternite VIII as in Fig. 35, tergite IX as in Fig. 36, sternite IX as in Fig. 37. Aedeagus as in Fig. 44. Female genital appendage as in Fig. 48, spermatheca as in Figs 49–50.

Distribution – Obviously a very rare and local species, possibly extinct from most of its former range. This is indicated by its old record from Austria, while not collected in Central Europe in the past century. The Northern African occurrence suggests that it originally had circum-mediterranean distribution.

Remarks – The aedeagus drawing of “*T. ernesti*” in MAKRANCZY and SCHÜLKE (2001) was made based on its poorly preserved holotype with the aedeagus rather distorted. The here presented new illustration is based on more specimens, improved, so should substitute for the earlier figure. There are still only the respective type materials (more than a hundred years old) available for this species. Since PEYERIMHOFF’S (1931) identification (based on a type study) of “*T. algiricus*” is incorrect and in fact refers to a very similar but significantly larger, clearly distinct species, the latter has to be described as new below.

***Thinobius paramicros* sp. n.**
(Figs 11–12, 19, 38–40, 45, 51–54)

Type material – Holotype (♂): [ALGERIA: Tamanrasset,] Hoggar, Aguelmane Imerrha [Imeghra, 23°26'57"N, 5°47'06"E, u. 2000 m [1850m], 23-25.III.1928, [leg. Peyerimhoff, dans le sable humide au bord de la poche d'eau] Mission du Hoggar Février-Mai 1928 (MNHP)]; Paratypes (5): same data as holotype (2 MNHP, 1 ♂, HNHM, 1 ♀, coll Bernhauer, FMNH, 1 ♀, coll Bernhauer via Scheerpeltz, FMNH).

Description – Measurements (in mm, n = 6): HW = 0.24 (0.23–0.24); TW = 0.23 (0.225–0.235); PW = 0.27 (0.255–0.275); SW = 0.28 (0.26–0.29); AW = 0.31 (0.29–0.32); HL = 0.20 (0.19–0.21); EL = 0.07 (0.07–0.08); TL = 0.06 (0.06–0.07); PL = 0.20 (0.19–0.21); SL = 0.35 (0.33–0.36); SC = 0.31 (0.29–0.33); FB = 0.73 (0.61–0.89); BL = 1.31 (1.25–1.37). Body (Fig. 54) very slightly bicoloured. Head, pronotum and abdomen slightly reddish dark brown, elytra reddish medium brown with a darker area behind scutellum extending to shoulders. Legs and mouthparts medium brown, apices of femora and both ends of tibiae often lighter, together with tarsi; basal part of antenna much lighter (yellowish) than apical articles, latter often significantly blackish. Forebody with very fine coriaceous microreticulation, rather dull. Punctuation on forebody rather dense and so fine that hardly discernible. Discs of abdominal tergites with a particular type of transversal microsculpture and longitudinal microsetation arranged in the minute transversal ridges that causes a slight iridescent effect. Pubescence on forebody depressed and very short, fine and dense (on elytra the most dense), on abdomen apices of tergites with a row of long hairs, and a sparse setation composed of similar but shorter hairs; abdominal sides and apex with a few darker and stronger bristles. Strong dark bristle on outer side of supraantennal tubercle at anterior border of eye (those near outer posterior edge of vertex weakly developed), similar ones right behind anterior pronotal corner and on side at 3/5 length. Setation anteriorly directed on head and pronotum, direction posterior on elytra and abdomen. Antennae with longer, darker hairs on basal articles, legs and mouthparts with very short, not conspicuous setation, except for the stiff, darker mid-tibial hairs and ones near apices of femora. Sides of elytra with three such stiff setae about equally distributed on length of side.

Head (Fig. 11) slightly wider than long, temples usually straight, with a gentle curve on the side, rounded on posterior part. Middle of vertex with a slight transversal impression. Anterior border of neck is strongly marked with a shiny, arched, deep groove. Frontoclypeal suture appearing as indistinct groove and a dark line (visible only if head lighter) connecting supraantennal tubercles, similarly darker spots situated at both sides on middle of vertex. Supraantennal tubercles moderately developed, separated from vertex by longitudinal impression. Antennae medium long (Fig. 19), 6th antennomere appearing as wide as adjacent ones.

Pronotum (Fig. 12) weakly transverse, 1.35× wider than long, just a little wider than head, anterior middle part of disc transversally a little impressed, a very slight longitudinal impressed line near anterior corners. Anterior corners moderately weakly rounded, posterior corners very broadly, sides almost in arch with posterior margin. Pronotal marginal bead visible on posterior margin, anterior margin slightly pulled ahead in middle but without visible marginal bead. Scutellum small, if exposed, shinier than adjoining areas. Elytra rather long, one elytron about twice as long as broad, quite flat and parallel-sided (very gently dilating posteriorly). Shoulders moderately developed. Along suture without even traces of marginal bead; sutural corners broadly rounded. *Legs* of medium length,

tarsal lobes small and thin, inconspicuous, tibiae fusiform, appear much wider in middle than at ends.

Abdomen very weakly fusiform, sides more or less straight and parallel; widest at 1/3 length, just very slightly less wide than elytra at broadest point. Posterior margin of tergite VII with palisade fringe and posterior corners broadly rounded.

Primary and secondary sexual features: Sexes not appearing different in regular dorsal view. Posterior edge of tergite VIII (similar in both sexes) gently concave, arched. Male sternite VIII as in Fig. 38, tergite IX as in Fig. 39, sternite IX as in Fig. 40. Aedeagus as in Fig. 45. Female genital appendage as in Fig. 51, spermatheca as in Figs 52–53.

Etymology – The specific epithet refers to the close relationship to the sister species, *Thinobius micros*.

Distribution – As opposed to *T. micros* that reaches as far south as the Northern Atlas Mountains in Algeria, this species occurs in the Southern Algerian Hoggar Massiv, and is probably endemic to it.

Remarks – The members of the *T. linearis* group can now be divided into three different species complexes. One contains *T. heterogaster* alone, the other is constituted by the *T. micros* – *T. paramicros* pair, while the *T. linearis* complex contains all the remaining species: *T. linearis*, *T. petzi*, *T. bicolor*, *T. brunneipennis*, *T. holdhausi*. Of course, this is subject to change as more species become known worldwide.

*

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