New species of the genus *Tachydromia* Mg. (Diptera: Hybotidae) from Palaearctic Region: 1. *terricola* and *interrupta*-groups

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Four new species of the genus Tachydromia of terricola-group (T. georgiana (Georgia), T. kovalevi (Magadan Terr.), T. magadanica Magadan Terr.) and T. sibirica (Tchita Terr.)), and two new species of interrupta-group (T. collini (Russian Far East) and T. gorodkovi (Caucasus)) are described.

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Key words: Diptera, Hybotidae, Tachydromia.

Introduction

This paper is a part of my work on species of the genus *Tachydromia* from the Palaearctic Region. The type specimens of new species are deposited in the Zoological Institute, St. Petersburg (ZIN), and in the Zoological Museum of the Moscow State University (ZMMU).

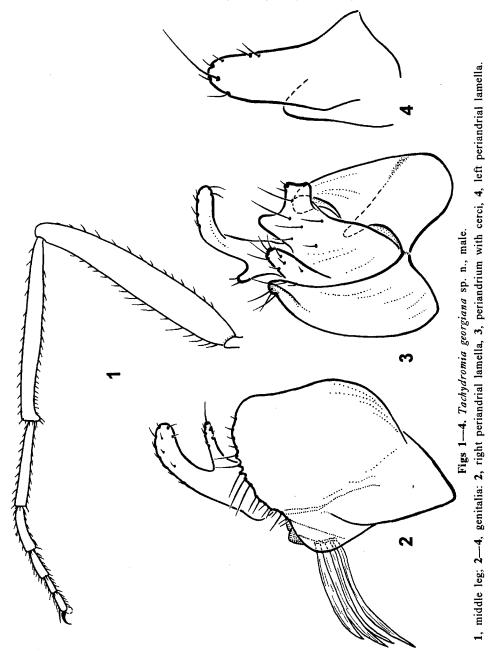
terricola-group

I have studied the type material some species from this group deposited in the Zoological Institute, St.Petersburg — T. fuscinervis (Frey), T. mucronata (Collin), T. preapicalis (Collin) and T. occipitalis

(Collin) (Shamshev, in press). Also I have described a new species (*T. shatalkini* Shamshev) from this group with unusual for *Tachydromia* the wings coloration from the Russian Far East (Shamshev, in press). A key to of all known up to the present time from the Palaearctic Region *terricola* group species for the first time are given after description of the new species.

Tachydromia georgiana sp. n. (Figs 1—4)

Holotype. &, Georgia, Borzhomi Nature Reserve, 20.VII.1969 (V. Kovalev) (deposited in ZMMU).



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Description. Male. Frons black dull. Vertex and occiput, except small shining spot just above neck, light-grey dusted. Ocellar and postvertical bristles black, nearly equal in length. Occiput at sides near neck with some whitish bristles and with some long whitish bristle-like hairs above the mouth-opening. Basal antennal segments yellow, 3rd segment brownish, globular, with brown supraapical arista. Ratio of length and width of 3rd antennal segment and length of arista -0.4:0.4:3.7. Palpi vellow, slightly shorter than proboscis, covered with sparse vellow hairs and with black terminal bristle which is shorter than palpi. Proboscis dark brown.

Thorax shining black, prosternum, prothoracic episternum and metathorax just above hind coxae greyish silvery dusted; scutellum and metanotum dulled. 3-4 (?) very minute whitish humeral bristles and 4 the same bristles behind humeral hills, 1 notopleural and 1 postalar bristles. Dorsocentrals and acrostichals uniserial and very minute. Scutellum with 2 pairs of scutellar bristles, the inner pair longer. Legs, including coxae, predominantly yellow; middle and hind coxae brownish just near base; fore and middle femora brownish yellow, more dark above and near tip, hind femora brown at apical three-fourth; tibiae brownish, hind tibiae darker at apical half; 1st and 2nd segments of tarsi yellow, other segments brownish. Coxae whitish haired. Fore femora with two rows short whitish bristles, anteroventral bristles at apical third only. Fore femora and tibiae distinctly stout. Middle femora without excision near base beneath, with two rows of black spinlike bristles becoming longer towards base (anteroventral bristles, except of two at base are very short). Middle tibiae with

very small sharp projection at tip beneath. Hind legs short haired. Wings with round tip; predominantly brown, hyaline at apex and near base, and less intensively coloured about M_{3+4} . R_{2+3} straight. R_{4+5} and M parallel near apex. Veins brownish. Halteres whitish yellow, stem more dark.

Abdomen shining brown, with numerous black hairs below.

Genitalia, see Figs. 2-4.

Length: body 1.9 mm; wing 1.8 mm. Female unknown.

Distribution. Western Georgia.

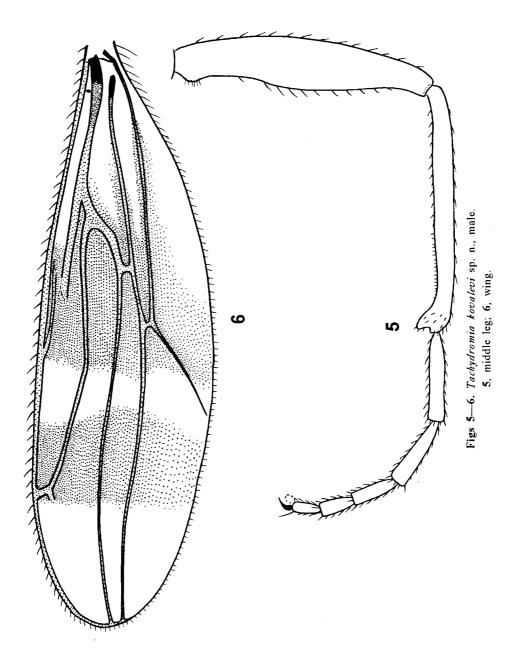
Diagnosis. Most closely related to T. aliterpicta (Beck.) (according to Chvála, 1970), but differs from it in vertex and occiput grey dusted and in long black bristles on middle femora.

Tachydromia kovalevi sp. n. (Figs 5—9)

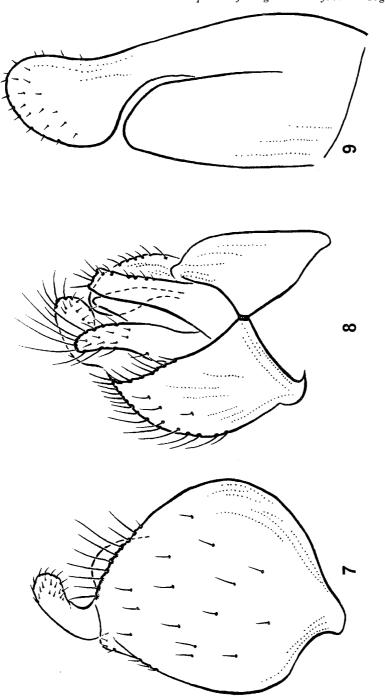
Holotype: &, Russia, Indigirka River, mouth of Inyali river, stepped slope of north exposition (to plato E'be), on large stones, 20.VI.1976 (V. Kovalev), in the ZMMU.

Paratype: Q, the same date.

Description. Male. Frons and vertex entirely shining black. Occiput in the most part light grey dusted, shining black at sides right to eye-margin and above the mouth-opening. Frons slightly widened above. Ocellar and postvertical bristles black, latter only a little longer. Occiput above the mouth-opening with two black bristles as long as postvertical bristles, at sides of the mouth-opening with three the same bristles, behind the eyes with short whitish and black bristles. Basal antennal segments yellow, 3rd segment brownish, globular, with brown supraapical arista. Ratio of length and width of 3rd antennal segment and length of arista -0.5:0.4:3.5. Palpi yellow, more dark at



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Figs 7-9. Tachydromia kovalevi sp. n., male, genitalia.
7, right periandrial lamella, 8, periandrium with cerci, 9, left periandrial lamella.

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the apex, as long as proboscis, long white haired, with black terminal bristles as long as half palpi. Proboscis dark brown.

Thorax shining black, prothoracic episternum between humeri and fore coxae and metathorax just above hind coxae greyish silvery dusted; metanotum and scutellum largely faintly grey pollinose. Fourfive very minute whitish humeral bristles and some very short hairs behind humeral hills, 1 notopleural and 1 postalar bristles. Mesonotum in front half with very short biserial acrostichals and with uniserial dorsocentrals. Scutellum with three pairs of bristles, the inner pair strong and long. Fore coxae vellow and silvery pollinose, middle and hind coxae brownish yellow. Legs predominantly brownish; fore and middle femora yellow at base, former silvery pollinose beneath; fore tibiae yellow at base, 1st segments of tarsi in the most part yellow. Coxae whitish yellow haired and bristled. Fore femora stout, fine whitish pubescent beneath, with short yellow posteroventral and anteroventral bristles, near tip with some short black ventral bristles. Middle femora with short dense whitish yellow hairs and with a row short black bristles beneath, with a shallow excision. Middle tibiae covered with short black bristles beneath, with a small projection at tip beneath.

Wings with round tip, with two dark bands separated along the whole length from costa to hind margin. R_{2+3} straight. R_{4+5} and M converging near apex. Veins brownish yellow. Halteres whitish yellow.

Abdomen shining black, short brownish haired below.

Genitalia, see Figs 7-9

Length: body 2.3 mm; wing 2.2 mm.

Female. Middle femora without excision, with two rows of short black bristles along the whole length beneath. Middle tibiae

without projection at tip beneath. The other characters as in male.

Length: body 2.4 mm; wing 1.9 mm. Distribution. Russia: Magadan Prov.

Diagnosis. Closely related to T. aliterpicta Beck.). It can be differentiated by a shallow excision on middle femora beneath, uniserial dorsocentrals, two dark bands separated along the whole length of wing and some other characters.

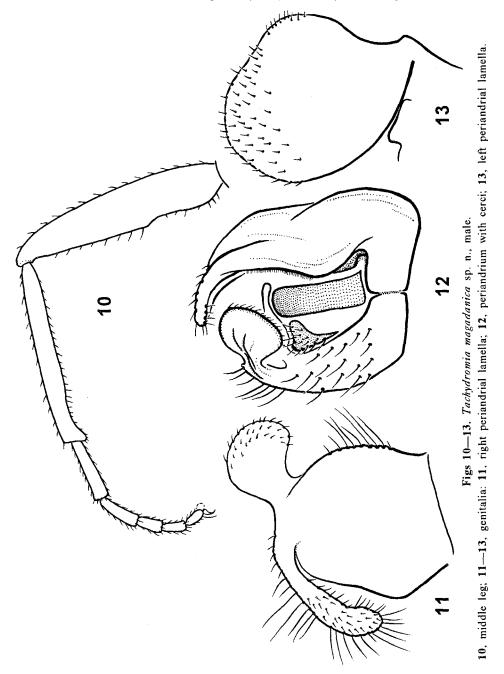
Tachydromia magadanica sp. n. (Figs 10—13)

Holotype: &, Russia, Magadan Prov., Palatka, Chasym, 27.VIII. 1978 (V. Kovalev), deposited in ZMMU.

Paratypes: 3 Q, Magadan Prov., Arkagala, on the lone dense bushes of Chosenia and Salix, 23.VIII.1978 (V. Kovalev), deposited in ZMMU.

Description. Male. Frons, vertex and occiput shining black; occiput above the mouth-opening faintly grey pollinose. Frons widened above. Ocellar and postvertical bristles black, former longer, postvertical bristles widely separated. Occiput behind postvertical bristles and near the mouth-opening with some long light hairs. Antennae brownish yellow, 3rd segment brownish, globular, with brown supraapical arista. Ratio of length and width of 3rd antennal segment and length of arista -0.5:0.4:1.6. Palpi brownish yellow, shorter than proboscis, covered with short yellow hairs, with some brownish bristlelike hairs and with black terminal bristle as long as palpi. Proboscis dark brown.

Thorax shining black, prosternum, prothoracic episternum between humeri and fore coxae, and metathorax just above hind coxae greyish silvery dusted; notopleura, scutellum on the back edge and metanotum dulled. Three hair-like very minute humeral bristles, some short hairs



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behind humeral hills, 1 strong and 1 fine notopleural bristles, 1 postalar bristle. Acrostichals absent, dorsocentrals uniserial, short. Scutellum with two pairs black bristles, the inner pair longer. Fore coxae vellow, middle coxae brown with vellow apex, hind coxae brown. Trochanters of fore legs yellow, trochanters of middle legs brownish yellow, trochanters of hind legs brown. Fore and middle femora yellow at base fourth. Fore tibiae yellowish at base. Legs are brown at the other parts. Fore femora and tibiae stout. Coxae covered with vellow hairs and bristles. Fore femora with a row short black ventral bristles and with some light hairs near base. Middle femora with a shallow excision at half base beneath and with a row of short black bristles. Middle tibiae with a row of short black ventral bristles and with small projection at tip beneath, which is covered with very short bristles. Trochanters of hind legs no longer trochanters of fore and middle legs, and short black bristled.

Wings with round tip, light brown along costal margin. R_{2+3} straight. R_{4+5} and M parallel near apex. Veins brown. Halteres whitish yellow.

Abdomen shining black, covered with short black bristles, last two segments with long black hairs at hind margin above. Genitalia, see Figs 11—13.

Length: body 1.4 mm; wing 1.5 mm. Female. Middle femora without excision and black bristles beneath. Middle tibiae without projection at tip beneath. The other characters as in male.

Length: body 1.6—1.8 mm; wing 2.1—2.2 mm.

Distribution. Russia: Magadan Prov. Diagnosis. T. magadanica sp. n. seems to be an intermediate species between the terricola and onnexa-groups. Most closely

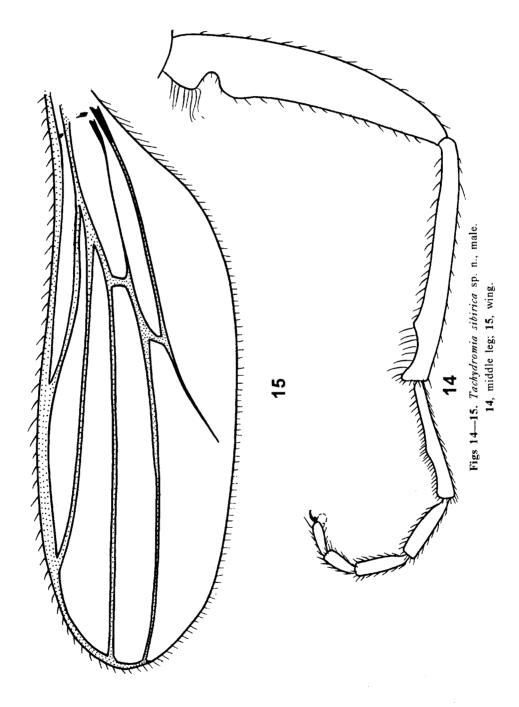
related to *T. preapicalis* Collin, and differs from it by fore and middle femora in 1/4 basal part yellow, and by short black bristles on middle femora.

Tachydromia sibirica sp. n. (Figs 14—18)

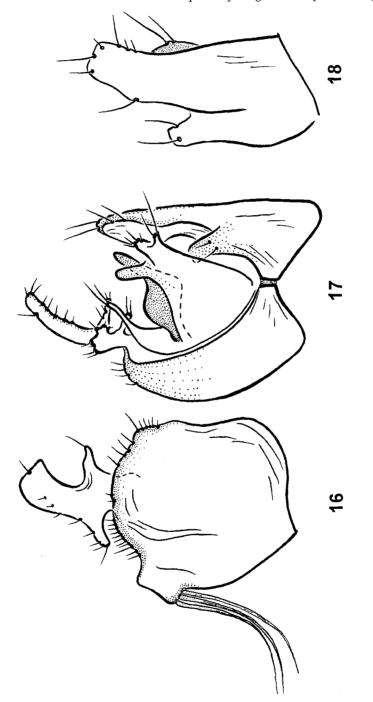
Holotype: of, Russia, Tchita Prov., Kuenga River above Tchernishevsk, entrance in damp concrete tunnel, on wall, 28.VII.1977 (V. Kovalev), deposited in ZMMU.

Paratypes: 13, 19, the same data, 9.VIII.1977; 13, the same data, 13.VIII.1977; 73, 89, the same data, 27.VII.1977. One male with a small Cecidomyiidae as prey, deposited in ZMMU and ZIN.

Description. Male. Frons dull, widened above. Vertex shining black-brown. Occiput at the upper part above neck densely covered with silvery-white dust, the lower part and at sides right to eye-margin shining black-brown. Ocellar and postvertical bristles black, about the same length. Occiput above neck with some short whitish hairs, below and at sides with longer and denser whitish bristles and with some long white hairs above the mouthopening. Basal antennal segments yellow, 3rd segment brown, globular, covered with long white hairs and with dark supraapical arista. Ratio of length and width of 3rd antennal segment, and length of arista -0.5:0.4:2.6. Palpi yellow, shorter than proboscis, covered with dense long yellow hairs and with black terminal bristle, about as long as palpus. Thorax shining blackish brown, prosternum, prothoracic episternum between humerus and fore coxae and metathorax above hind coxae densely greyish silvery dusted; scutellum and metanotum dulled. Three very minute whitish humeral bristles and some fine short hairs behind humeral hills, 1



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Figs 16-18. Tachydromia sibirica sp. n., male genitalia. 16. right periandrial lamella; 17, periandrium with cerci; 18, left periandrial lamella.

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notopleural and 1 postalar bristles. Dorsocentrals and acrostichals uniserial, and very minute (in front of scutellum a pair of dorsocentrals as long as external pair of scutellar bristles). Scutellum with 2 pairs of scutellar bristles, the inner pair longer, Legs, including coxae, mostly vellow; fore and middle coxae brownish yellow; middle femora above near base with indistinct brownish strip, hind femora brownish, more dark at apical third; fore tibiae brownish yellow, hind tibiae brown, more dark towards tip; last segments of fore and middle tarsi, and hind tarsi entirely brown. Fore coxae silvery dusted; all coxae with long whitish hairs. Hind trochanters with some brown spine-like bristles. Fore femora and tibiae distinctly stout. Fore femora with rows whitish ventral bristles becoming shorter towards tip. Middle femora slender, with a shallow excision near base beneath, before excision with numerous whitish long hairs, after excision with double row short brownish yellow bristles (anteroventral bristles longer), and with two dorsal black bristles at tip. Middle tibiae with a shallow excision near tip, with strong posteroventral bristle at base, and with rows posteroventral and anteroventral black bristles, latter becoming longer towards tip. First segment of middle tarsi at middle beneath with dense brush of short bristles. Hind femora slender, short haired, near base with some brownish spine-like bristles. Trochanters of hind legs with some spinelike black bristles beneath.

Wings with round tip, entirely hyaline, without any design. R_{2+3} straight. R_{4+5} and M parallel near apex. Veins brownish yellow. Halteres whitish yellow.

Abdomen shining brownish, only short haired.

Genitalia, see Figs. 16—18.

Length: body 1.8—1.6 mm; wing 2.0—1.8 mm.

Female. Middle femora and tibiae simple, former with two rows brownish yellow short bristles only, latter short haired without strong bristles. First segment of middle tarsi at middle beneath without brush. Hind trochanters with whitish hairlike bristles only. Hind femora short haired.

The other characters as in male.

Length: body 1.5—1.4 mm; wing 1.9—1.7 mm.

Distribution. Russia: Tchita Prov.

Diagnosis. The new species most closely related o T. denticulata (Oldenb.) which is known up to the present time from Alps only. The both species have entirely hyaline wings, in difference from the other known Palaearctic species of the genus Tachydromia. T. sibirica sp. n. is well distinguished by yellow fore tibiae, and brownish hind femora and tibiae, by unusual for Tachydromia excision near tip of middle tibiae and by many other characters.

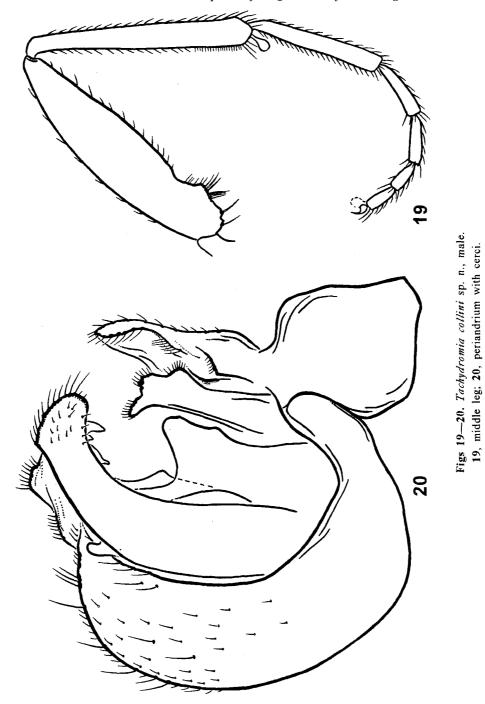
A key to for identification of Palaearctic species *Tachydromia* of *terricola*-group is given below.

A key to Palaearctic species of terricola group

1.	V.	Shamshev:	New	species	of the	genus	Tachy	dromia	Mo.

with brownish, leaving only base, apex and very small patch at the end of postical vein, hyaline. Middle femora simple, only short pointed projection on middle tibiae at tip	10 (9) Wings slightly tinged with brownish at apex of wing, especially in submarginal cell. Hind femora brownish at tip
8 (7) Vertex and occiput shining black. Fore femora yellow aliterpicta (Beck.)	Tachydromia collini sp. n.
Vertex and occiput grey dusted. Fore femora brownish yellow, more dark	(Figs 19—22)
above and near tip	Holotype. &, Russia, Primorsk Terr., Kedrovaya Pad' Nature Reserve, 22.VII.1963
9 (6) Wings faintly clouded along longitudinal veins, leaving costal and all the	(Kerzhner), deposited in ZIN. Paratypes. Q. Russia, Primorsk Terr., Su-
hind margin, hyaline 10 — Wings faintly clouded along costal margin	tchan (now Partizansk) Distr., 14.VI.1927 (Stackelberg) (Tachysta styriaca Strobl.?); σ , Primorsk Terr., GTStation, Suputinka, 24.VII.1948

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(Gussakovskiy); &, Kedrovaya Pad' Nature Reserve, 29.VI.1982 (Kerzhner), deposited in ZIN

Description. Male. Frons shining black, widened towards vertex. Vertex shining black. Occiput covered with greyish dust, only lower part above mouth-opening shining. Ocellar and postvertical bristles black, the latter slightly longer. Occiput with two long white bristles above neck and with some short whitish sparse hairs at lower part. Antennae blackish brown, 3rd segment globular, with brown supraapical arista. Ratio of length and width of 3rd antennal segment and length of arista — 0.5:0.4:4.1. Palpi darkish brown, slender, as long as proboscis, covered with long adpressed silvery hairs, and with black terminal bristle, which is shorter than palpi. Proboscis dark brown. Thorax shining black, prosternum, prothoracic episternum and metathorax just above hind coxae greyish silvery dusted; scutellum and metanotum dulled. One black notopleural and 1 black short postalar bristles. No acrostichals, dorsocentrals uniserial, whitish and very minute. Scutellum with 2 pairs of scutellar bristles. Legs, including coxae, predominantly brown; knees and first segments of all tarsi somewhat yellow. Fore and hind coxae at sides greyish silvery dusted. All coxae short whitish sparse haired. Fore femora and tibiae distinctly stout. All legs whitish pubescent. Fore femora with anteroventral row of short white hairs. Anterior four tibiae with row of short black bristles beneath. Middle femora with deep excision beneath near base, with two tufts of long flat brownish yellow bristles on its posterior margin and (after excision) with two rows of short black bristles. Middle tibiae with some long bristle-like hairs near tip and with flat projection at tip. Hind femora at half base with long whitish hairs. Wings with round tip. The wing pattern consists of two broad brownish bands connected along costal margin and in first posterior cell. R_{2+3} slightly arched at middle. R_{4+5} and M parallel near apex. Veins brownish. Halteres whitish yellow, stem more dark.

Abdomen shining blackish brown.

Genitalia (Figs 21—22) large.

Length: body 2.1—2.2 mm; wing 2.3—2.5 mm.

Female. Closely resembling male but fore femora without anteroventral row of white hairs, middle legs simple and hind femora without long whitish hairs.

Length: body 2.5 mm; wing 2.5 mm. Distribution. Russian Far East.

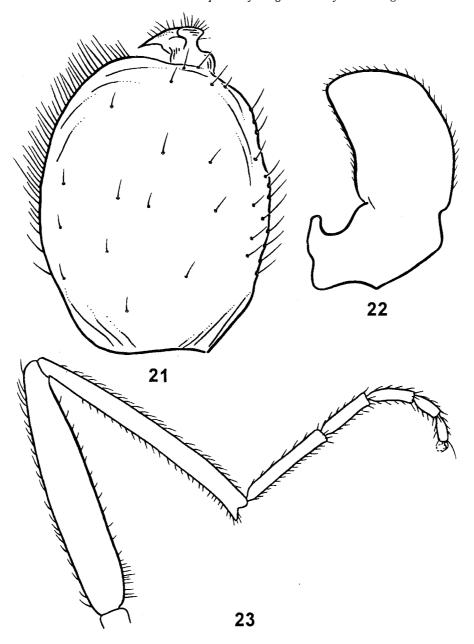
Diagnosis. Readily distinguished from other species of the interrupta-group by the structure of middle legs and genitalia in the male. Female of the new species closely resembling T. styriaca (Str.) and T. interrupta (Lw.) and its can be separated with difficulty.

According to Chvála (1970), females of *T. interrupta* have somewhat upturned postvertical bristles and long conspicuously narrow, distinctly pointed at apex wings. *T. styriaca* is larger species, wings with broad marginal cell. Collin (1941) marked (on the base of Strobl's description) one specimen from Primorsk Territory as "*Tachysta styriaca* Strobl?". I have seen this female deposited in the Zoological Institute, St. Petersburg. In fact this specimen is new species described above.

Tachydromia gorodkovi sp. n. (Figs 23—26)

Holotype. &, Caucasus, Teberda Nature Reserve, Mt. Malaya Hatypara, 2700 m, on stone, 9.VII.1968 (Gorodkov), deposited in ZIN.

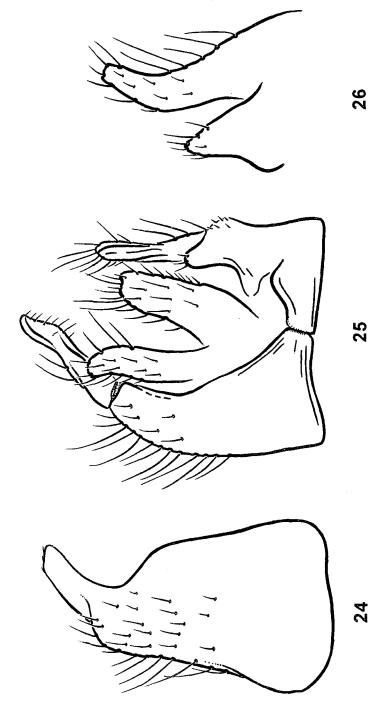
Paratypes. 13, 5 Q, the same data, 2500 m;



Figs 21-23. Tachydromia, male.

21—22. T. collini sp. n., genitalia: 21, right periandrial lamella; 22, left periandrial lamella; 23, T. gorodkovi sp. n., middle leg.

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Figs 24-26. Tachydromia gorodkovi sp. n., male genitalia. 24. right periandrial lamella; 25, periandrium with cerci; 26, left periandrial lamella.

2°, 2°, the same data, 2900 m; 2°, 1°, Georgia, Abchasia, Pass Kluhor, 0.5 km SO, 2700 m, on stone, 2.VII.1968 (Gorodkov); 1°, Abchasia, Pass Kluhor, 5 km SO, river valley, subalpine meadow, on stone, 2.VII.1968 (Gorodkov), deposited in ZIN.

Description. Male. From shining black, slightly widened towards vertex. Vertex (behind ocellar triangle) and occiput densely silvery gray dusted. Ocellar and postvertical bristles long black, equal in length. Occiput with 4 pairs black short bristles behind postvertical bristles, with numerous whitish short hairs about neck and with some long whitish hairs at lower part. Antennae blackish brown, 3rd segment globular, with brown supraapical arista. Ratio of length and width of 3rd antennal segment and length of arista — 0.6:0.5:4.6. Palpi brownish, slender, slightly shorter than proboscis, covered with short adpressed silvery hairs and with black terminal bristle which is shorter than palpi. Proboscis dark brown.

Thorax shining black, prosternum, prothoracic episternum and metathorax just above hind coxae greyish silvery dusted; scutellum dulled. Two very minute humeral bristles and 5-6 the same behind humeri hills, 1 notopleural, 2 short hairlike postalar bristles. Dorsocentrals and acrostichals uniserial, well visible. Scutellum with 2 pairs of scutellar bristles, the inner pair longer. Legs, including coxae, dark brown. All coxae at sides greyish silvery dusted and short whitish haired. Fore femora distinctly stout, fore tibiae slightly stout. Fore femora microscopically whitish pubescent beneath only. Fore tibiae with a row of short black bristles beneath. Middle femora microscopically whitish pubescent from beneath and with a row (10-11) of equal in length black short spine-like bristles near base. Middle tibiae with a row of short black bristles from beneath and with flat projection at tip. Hind legs slender and short haired only. Wings with round tip. The wing pattern consists of two broad dark brown bands connected in first posterior cell. R_{2+3} slightly arched at middle. R_{4+5} and M convergent near apex. Veins brownish. Halteres whitish yellow, stem more dark

Abdomen shining brown but on sides silvery greyish dusted.

Genitalia (Figs 23—26) rather small. Length: body 2.2—2.5 mm; wing 2.6—2.8 mm.

Female. Closely resembling male but middle femora ventrally with a row of short bristles along the whole length, middle tibiae without projection at the tip. Abdomen shining dark brown only. Length: body 2.3—3.0 mm; wing 2.6—2.8 mm.

Distribution. Caucasus

Diagnosis. Clearly belongs to the interrupta-group. Closely related to T. styriaca (Str.) and T. interrupta Lw) but can be distinguished from its by densely silvery grey dusted occiput, by structure of middle legs and by silvery greyish dusted sides of abdomen in the male.

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