

Six new species of the genus *Empis* (Diptera: Empididae) from the Altai Mountains of Russia

Шесть новых видов рода *Empis* (Diptera: Empididae) из горных районов Российского Алтая

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Abstract. Six new species of dance flies of the genus *Empis* (Diptera, Empididae) are described from the Altai Mountains of Russia: *Empis (Polyblepharis) altaica* sp. nov. (Republic of Altai, Altai Territory), *E. (P.) seminskiensis* sp. nov. (Republic of Altai), *E. (P.) turalae* sp. nov. (Republic of Altai), *E. (P.) yakovlevi* sp. nov. (Republic of Altai), *E. barkalovi* sp. nov. (Republic of Altai), and *E. shebalinensis* sp. nov. (Republic of Altai, Altai Territory). A key to species of *Empis (Polyblepharis)* of the Altai region of Russia is provided.

Резюме. Шесть новых видов мух-толкунчиков рода *Empis* (Diptera, Empididae) описаны из горных районов Российского Алтая: *Empis (Polyblepharis) altaica* sp. nov. (Республика Алтай, Алтайский край), *E. (P.) seminskiensis* sp. nov. (Республика Алтай), *E. (P.) turalae* sp. nov. (Республика Алтай), *E. (P.) yakovlevi* sp. nov. (Республика Алтай), *E. barkalovi* sp. nov. (Республика Алтай) и *E. shebalinensis* sp. nov. (Республика Алтай, Алтайский край). Составлен ключ для определения видов *Empis (Polyblepharis)* Российского Алтая.

Key words: dance flies, Russia, Altai, Diptera, Empididae, *Empis*, new species

Ключевые слова: мухи-толкунчики, Россия, Алтай, Diptera, Empididae, *Empis*, новые виды

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Introduction

Empis Linnaeus, 1758 is one of the largest genera in the family Empididae (or dance flies) comprising about 400 described species in the Palaearctic (Shamshev, 2016). However, many species are still undescribed, especially in southern and eastern parts of this region. The Altai Mountains is a large area (altitudes up to 4500 m) situated in southern Siberia and in the Central Asia (partly in China, Kazakhstan, Mongolia and Russia). Prior to this paper, 40 species of Empididae were known from the Russian Altai (21 from Republic of Altai and 19 from Altai Territory), including 14 species of

Empis (6 from Republic of Altai, 8 from Altai Territory) (Shamshev & Barkalov, 2009; Shamshev, 2016). The present paper includes the descriptions of six new species of *Empis*, of which four species were collected only from the Republic of Altai and two species, from the Republic of Altai and Altai Territory. Four new species are members of the subgenus *Polyblepharis* Bezzi, 1909; totally, nine species of this group are currently known from Altai and a key to them is provided. Two new species are not placed provisionally in any subgenus; one of them belongs to the species group of *Empis* distinguished by Shamshev (2001) and another is similar to the subgenus *Rhadinempis* Collin, 1926.

Material and methods

This study is based on Empididae housed in the Zoological Museum of Moscow University, Moscow (ZMUM), the Zoological Institute of Russian Academy of Sciences, St Petersburg (ZIN) and the Siberian Zoological Museum, Institute of Systematics and Ecology of Animals, Russian Academy of Sciences, Novosibirsk (SZMN). Pinned dried specimens were examined. To facilitate observations, the terminalia were macerated in cold 10% KOH, then put for a short period in 85% lactic acid or in 8% acetic acid and immersed in glycerine. Terms used for adult structures primarily follow those summarised by Cumming & Wood (2009). The photos were produced using a Nikon SMZ 1500 stereomicroscope equipped with a Nikon D700 digital SLR camera and were aligned and stacked using the Helicon Focus 5.3.14 software. The label data for the holotypes are cited from the top downward, with the data from each label in quotation marks; labels are cited in full, with original spelling, punctuation and date, and label lines are delimited by a slash (/). The label data for the other types are given in shortened form. Additional information is given in brackets [].

Taxonomy

Order **Diptera** Linnaeus, 1758

Family **Empididae** Latreille, 1804

Subfamily **Empidinae** Latreille, 1804

Tribe **Empidini** Latreille, 1804

Genus ***Empis*** Linnaeus, 1758

***Empis (Polyblepharis) altaica* sp. nov.**
(Figs 1–3)

Holotype. Male, "RUSSIA, Altai Rep. [= Republic of Altai], / Shebalino distr., 5 km SE [of] vill. / Topuchaya, 1325 m, / 51°06'N 85°37'E, 3–4.07.2014, leg. I. Shamshev", "*Empis (Polyblepharis) altaica* Shamshev, sp. n. [red label]" (ZIN, INS_DIP_0000604).

Paratypes. **Russia**: 1 female, same data as for holotype; 1 male, *Altai Terr.*, Krasnoshchekovskiy Distr., environs of Tigirek Vill., 25.VI.2005, D. Kostrov leg. (both in ZIN, male dissected).

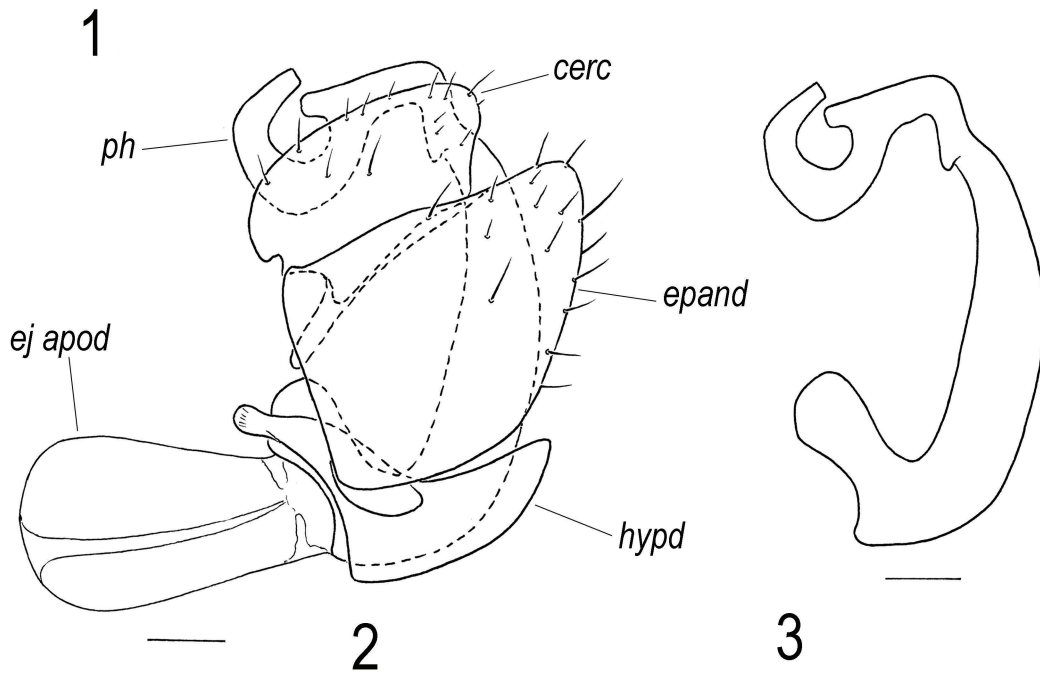
Diagnosis. Small black species with dichoptic eyes in both sexes, black palpus, scutum with four shiny vittae, entirely black legs, minute acrosti-

chals and dorsocentrals, laterotergite with pale setae, abdomen with tergites extensively shiny, covered only with pale hair-like setae; male hind femur incrassate.

Description. *Male* (Fig. 1). Body length 4.1 mm (holotype and paratype); wing length 4.5 mm (holotype and paratype).

Head black. Eyes dichoptic, ommatidia of equal size. Frons broad, nearly as wide as distance between inner margins of posterior ocelli, mostly parallel-sided, somewhat widened just above antennae, densely dark brown pruinose, with marginal setulae. Face wide, parallel-sided, largely greyish brown pruinose, narrowly shiny along lower margin, bare; clypeus shiny. Occiput faintly greyish pruinose, with numerous moderately long black setae irregularly spread over upper part and some hair-like yellowish setae on lower part behind mouth-opening and closer to neck. Ocellar tubercle concolourous with occiput, with several setulae. Antenna black; scape rather short, about 1.5 times as long as pedicel, both with short setulae; postpedicel moderately long, nearly 2.5 times as long as wide, with ventral margin slightly concave on subapical part; stylus about half as long as postpedicel. Proboscis moderately long; labrum brownish to brownish yellow, nearly 1.5 times as long as head height; palpus short, black, with very sparse minute dark and yellowish setulae.

Thorax black, densely brownish grey pruinose (except as noted); scutum with four distinct shiny vittae (in dorsal view); setation mostly black. Prosternum bare. Proepisternum with numerous long hair-like pale setae on lower part, bare on upper part. Antepronotum with numerous setae of different length and robustness dorsally and 2–3 pale hair-like setae laterally. Postpronotal lobe with one long and several short setae, also with some pale setulae anteriorly. Mesonotal setation well-differentiated: one moderately long presutural intra-alar, one long presutural supra-alar, three notopleurals (with some black and pale setulae anteriorly), one postsutural supra-alar (with additional setula anteriorly), one long and one minute postalar, two long and two very short scutellars; acrostichals arranged in two close irregular rows, very short, thin, numerous, lacking on prescutellar depression; dorsocentrals uniserial, nearly as long as acrostichals, except two pairs of long prescutellars.



Figs 1–3. *Empis* (*Polyblepharis*) *altaica* sp. nov., male. 1, habitus, lateral view (holotype); 2, terminalia, lateral view; 3, phallus, lateral view. Abbreviations: *cerc*, cercus; *ej apod*, ejaculatory apodeme; *epand*, epandrium; *hypd*, hypandrium; *ph*, phallus. Scale bar: 0.1 mm.

Laterotergite with numerous pale hair-like setae. Anterior and posterior spiracles black.

Legs rather robust, entirely black, with black setation (except as noted); coxae faintly greyish pruinose, other parts of legs subshiny. Coxae and trochanters with simple pale and black setae; fore coxa covered with pale hair-like setae anteriorly. Fore femur bare ventrally, covered with short setulae somewhat longer on subapical part anteriorly and posteriorly. Fore tibia with three short thin dorsal setae (besides circlet of very short subapicals). Mid femur with whitish pubescence ventrally, bearing short strong anteroventral and short strong posteroventral setae in about apical two-thirds. Mid tibia with a short anterodorsal seta near middle. Hind femur thickened, about 1.5 times as broad as mid femur, with whitish pubescence ventrally, covered with dense spinules ventrally, bearing complete rows of long strong anteroventral and long strong posteroventral setae. Hind tibia slender, without strong setae, with erect setulae ventrally and with one short seta in posteroapical comb. Tarsi of all legs similar in structure and vestiture; tarsomeres covered with short setulae (except circlet of very short subapical setae on tarsomeres 1–4); basitarsus slender, with very short anteroventral and posteroventral spinule-like setae; claws long.

Wing membrane very faintly brownish infuscate. Pterostigma brownish yellow, narrow. Basal costal seta absent. Veins R_5 and M_1 somewhat divergent in subapical parts; radial fork acute. Cell dm short. Anal angle acute, subsequently anal lobe well developed. Calypter yellowish, pale fringed. Halter yellow.

Abdomen entirely black. Tergite 1 entirely and tergite 2 anteriorly faintly greyish pruinose, both subshiny, tergites 6 and 7 with large brownish iridescent spots dorsally, otherwise tergites shiny; tergites covered with pale hair-like setae being shorter dorsally and longer laterally, posteromarginal setae lacking. Sternites subshiny, faintly greyish pruinose, mostly with short hair-like pale to brownish yellow setae, sternites 6 and 7 with longer black posteromarginal setae. Tergite 6 unmodified; tergite 7 mostly hidden, with broadly concave posterior margin; sternite 7 with slightly produced posterior angles. Sclerites of segment 8 separated; tergite 8 represented by two broadly separated subtriangular sclerites; sternite 8 part-

ly hidden by sternite 7, scoop-shaped, constricted near base, anteriorly with two small lateral tubercles on lower part and one tubercle on upper part. Terminalia (Fig. 2) moderately large, almost entirely black, only phallus yellowish. Cercus elongate oval (in lateral view), with smoothed inner margin and lateral lobe (in dorsal view), covered with minute yellowish and dark setulae. Epandrial lamella rather rhomb-like (in lateral view), covered with scattered pale and dark setulae being somewhat longer along the lower margin. Hypandrium rather truncate apically (in ventral view), bare. Phallus (Fig. 3) divided; distiphallus with apical portion slender, evenly curved backwards.

Female. Body length 4.6 mm; wing length 4.5 mm. Similar to male except sexually dimorphic and the following characters. Mid femur bare ventrally, with minute anteroventral and posteroventral spinule-like setulae. Mid tibia with two anterodorsal setae. Hind femur slenderer, bare ventrally, with five short strong anteroventral setae in about apical half. Hind tibia thicker, with simple setulae ventrally. Abdominal tergites subshiny, faintly greyish pruinose; setation shorter. Cercus long, slender, covered with dark setulae.

Comparison. The new species is similar to *E. evermanni* Loew, 1873 distributed in steppe regions of eastern and, locally, Central Europe. The typical form of *E. evermanni* differs from *E. altaica* sp. nov. in the mesonotum partly reddish yellow. The specimens with entirely black mesonotum can be readily distinguished from the new species primarily by blackish halteres.

Etymology. The epithet refers to the region where the new species was collected.

Distribution. Palaearctic: Russia (Republic of Altai, Altai Terr.).

Habitat and seasonal occurrence. The holotype male and a female were collected on a montane meadow in June–July.

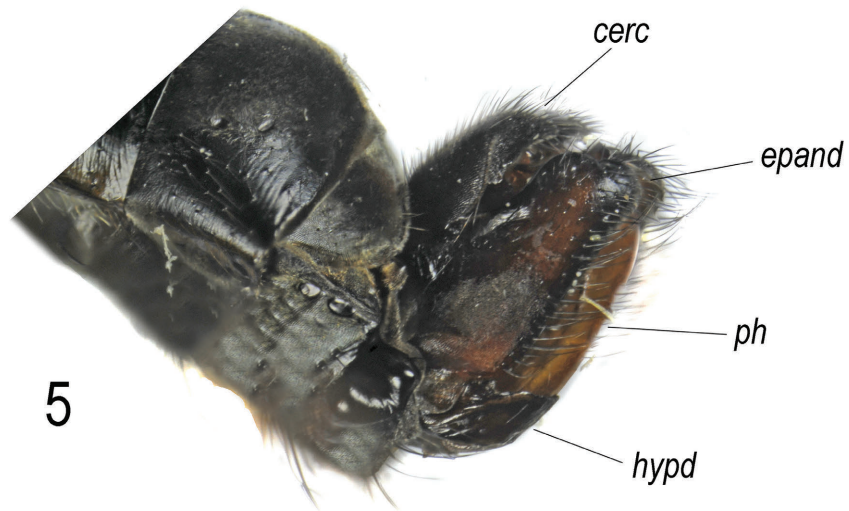
***Empis (Polyblepharis) seminskiensis* sp. nov.**
(Figs 4, 5)

Holotype. Male, “RUS [Russia], Altai Rep [= Republic of Altai], Seminsky / Pass, 51.05N 85.59E, 1650 m, / 27–30.06.2016, N. Vikhrev”, “*Empis (Polyblepharis) seminskiensis* Shamshev, sp. n. [red label]” (ZMUM).

Diagnosis. Large species with body length about 9 mm, dichoptic eyes and black palpus;



4



5

Figs 4, 5. *Empis (Polyblepharis) seminskiensis* sp. nov., male (holotype). 4, habitus, lateral view; 5, postabdomen, lateral view. Abbreviations: *cerc*, cercus; *epand*, epandrium; *hypd*, hypandrium; *ph*, phallus.

postpronotal lobe shiny, scutum with four vittae, acrostichals biserial, dorsocentrals uniserial, laterotergite with black setae; legs with yellow femora, black tibiae and tarsi, slender hind femur; abdominal tergites almost entirely shiny.

Description. Male (Fig. 4). Body length 8.9 mm; wing length 9.0 mm.

Head black. Eyes dichoptic, ommatidia of equal size. Frons broad, only slightly narrower than distance between outer margins of posterior ocel-

li, somewhat widened above antennae, densely brownish pruinose, with marginal setulae. Face wide, almost parallel-sided, largely brownish grey pruinose, narrowly shiny along lower margin, bare; clypeus shiny. Occiput densely brownish grey pruinose, with two transverse rows of numerous long strong black setae on upper part and some hair-like yellowish setae on lower part behind mouth-opening and closer to neck. Ocellar tubercle concolourous with occiput, with two long and several shorter setae. Antenna black; scape rather elongate, about twice as long as pedicel, both with short setulae; postpedicel moderately long, about twice as long as wide, with straight margins; stylus long, only slightly shorter than postpedicel. Proboscis moderately long; labrum brownish, 1.5 times as long as head height; palpus long, black, with rather numerous long thin black setae ventrally.

Thorax black, densely brownish grey pruinose (except as noted); antepronotum subshiny, postpronotal lobe broadly shiny on outer side; scutum with four distinct, broad, brownish vittae (in dorsal view); setation black. Prosternum bare. Proepisternum with 5–6 thin setae on lower part, bare on upper part. Antepronotum dorsally with 8–9 strong setae of different length on either side. Postpronotal seta present but short, of subequal length to setae situated anteriorly. Mesonotal setation well-differentiated: one moderately long presutural supra-alar, five notopleurals (three posterior setae somewhat longer), one postsutural supra-alar, two postalars (one of them much shorter), four scutellars (apical pair slightly longer); acrostichals short, thin, arranged in two close irregular rows, lacking on prescutellar depression; dorsocentrals uniserial, nearly as long as acrostichals (except two pairs of long prescutellars). Laterotergite with several stronger black setae of different length and 2–3 short hair-like yellowish setae. Anterior and posterior spiracles brownish yellow.

Legs long, slender, only with black setation; coxae and trochanters black, former densely greyish pruinose, latter subshiny; femora almost entirely yellow, only extreme apex brown; tibiae brownish yellow near bases, otherwise brown; tarsi entirely brown. Coxae and trochanters with simple setae. Fore femur with four moderately long strong an-

teroventral setae in apical half, otherwise covered with minute setulae. Fore tibia with five short anterodorsal, four similar posterodorsal and three posteroventral setae (besides circlet of short subapicals). Fore basitarsus slender, with several short spine-like anteroventral and posteroventral setae; other tarsomeres clothed in short setulae (except circlet of short subapicals). Mid femur not pubescent ventrally but covered with minute spinule-like setulae, otherwise clothed in simple setulae. Mid tibia with three short anterodorsal and four similar posterodorsal setae (besides circlet of similar subapicals). Hind femur slender, only slightly broader than mid femur, not pubescent ventrally but covered with spinules, with complete rows of subequal short spine-like anteroventral and posteroventral setae. Mid tibia slender, with four short anterodorsal, four similar posterodorsal setae, and one short seta in posteroapical comb. Mid and hind tarsi similar to fore tarsus.

Wing membrane faintly brownish infuscate. Pterostigma brownish yellow, very narrow. Basal costal seta absent. Veins R_5 and M_1 slightly divergent in subapical parts; radial fork acute. Cell dm elongate. Anal angle acute, subsequently anal lobe well-developed. Calypter yellowish, pale fringed. Halter yellow.

Abdomen entirely black, with tergites (except hidden tergite 8) almost entirely shiny, tergites 1 and 2 narrowly brownish grey pruinose anteriorly, tergites 6 and 7 with large brownish grey iridescent spots; sternites rather subshiny, faintly greyish pruinose, with pruinosity denser on sternites 1 and 2; tergite 1 with short black setae, tergites 2–5 covered with uniform setulae black dorsally and pale laterally, tergites 6 and 7 with only pale setulae laterally, tergites 1–5 with strong short black posteromarginal setae laterally; sternites with scattered, mostly pale setulae, also sternites 5–8 with several long black posteromarginal setae. Postabdomen (Fig. 5) not dissected and not macerated in the single holotype specimen; in situ tergite 6 somewhat broader than tergite 5 and slightly convex dorsally; tergite 7 somewhat concave posteriorly; sternite 7 unmodified; sternite 8 partly hidden by sternite 7, scoop-shaped, with lateral projections. Terminalia moderately large. Cercus brown, covered with black setulae, elongate oval (in lateral view), with smoothed inner

margin and lateral lobe (in dorsal view). Epan-drial lamella reddish brown to brown, rather sub-rectangular (in lateral view), covered with black setulae somewhat longer along the lower margin. Hypandrium brown, broadly rounded apically, bare. Phallus largely brownish yellow, brownish apically, of typical structure for *Polyblepharis*, di-vided, apical part of distiphallus long.

Female. Unknown.

Comparison. The new species is similar to *E. uzbekistanica* Chvála, 1999 known from the mountains of Uzbekistan (Chvála, 1999). Howev-er, *E. uzbekistanica* has almost uniformly yellow legs (only tarsi darkened), pruinose postpronotal lobe, the notopleuron with pale setulae anteriorly and largely yellow abdomen.

Etymology. The epithet refers to the type local-ity of the new species.

Distribution. Palaearctic: Russia (Republic of Altai).

Habitat and seasonal occurrence. The species probably inhabits open mountain biotopes, like many other species of *Polyblepharis*; it was col-lected in late June.

***Empis (Polyblepharis) turalae* sp. nov.**

(Figs 6–9)

Holotype. Male, “RUS [Russia], Altai Rep [= Re-public of Altai], Seminsky pass, / Turala R [= river], 50.99N 85.68E, 1350 m, 8–12.07.2016, N. Vikhrev”, “*Empis (Polyblepharis) turalae* Shamshev, sp. n. [red label]” (ZMUM).

Diagnosis. Mid-sized species with body length about 5.5 mm, dichoptic eyes and yellow palpus; scutum with four vittae, acrostichals biserial, presutural dorsocentrals biserial, laterotergite mostly with black setae; legs robust, almost entire-ly yellow; abdominal tergites 2–6 narrowly shiny posteriorly, tergites 6–7 without iridescent spots.

Description. Male (Fig. 6). Body length 5.5 mm; wing length 5.7 mm.

Head black. Eyes dichoptic, ommatidia of equal size. Frons broad, only slightly narrower than distance between outer margins of posterior ocelli, somewhat widened above antennae, dense-ly greyish pruinose, with marginal setulae. Face wide, almost parallel-sided, largely greyish pru-inose, narrowly shiny along lower margin, bare; clypeus shiny. Occiput densely grey pruinose,

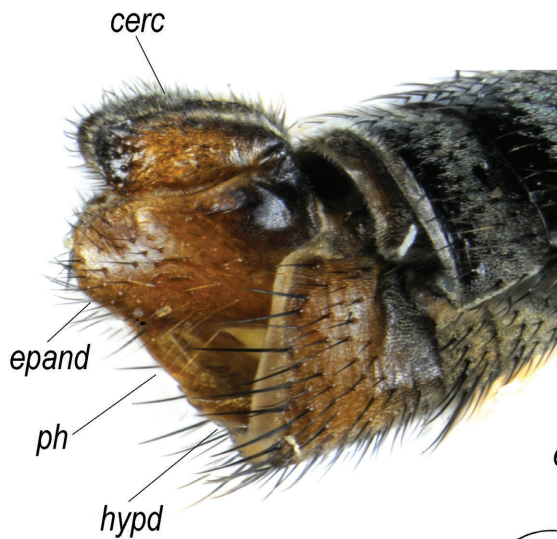
with numerous long strong black setae irregularly spread over upper part and some hair-like yellow-ish setae on lower part behind mouth-opening and closer to neck. Ocellar tubercle concolorous with occiput, with several moderately long to short se-tae. Antenna black; scape rather elongate, about twice as long as pedicel, both with short setulae; postpedicel moderately long, 1.9 times as long as wide, with straight margins; stylus half as long as postpedicel. Proboscis moderately long; labrum brownish yellow, 1.5 times as long as head height; palpus long, yellow, with scattered minute dark and yellowish setulae ventrally.

Thorax black, densely brownish grey pru-inose (except as noted); scutum with four distinct brownish vittae (in dorsal view); setation mostly black. Prosternum bare. Proepisternum with nu-merous long hair-like pale setae on lower part, bare on upper part. Antepronotum with numer-ous setae of different length and robustness dor-sally and 2–3 hair-like yellowish setae laterally. Postpronotal lobe with two long closely set setae and numerous shorter setae anteriorly. Mesonotal setation well-differentiated: one long presutural supra-alar, three notopleurals, one postsutural su-pra-alar, one long and one very short postalars, six scutellars (apical pair and one of lateral pairs sub-equally long); acrostichals arranged in two close irregular rows, short, rather strong, numerous, lacking on prescutellar depression; dorsocentrals arranged in two irregular rows before suture, be-coming uniserial toward scutellum, mostly as long as acrostichals, prescutellars longer. Laterotergite with numerous mostly black setae and with sever-al yellowish setae posteriorly. Anterior and poste-rior spiracles brownish yellow.

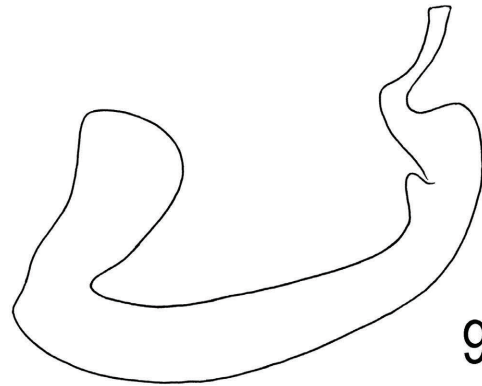
Legs robust, almost entirely yellow, with black setation (except as noted); coxae black, densely greyish pruinose, tarsomeres 1–4 brownish api-cally, tarsomere 5 almost entirely brownish (ex-cept extreme base). Coxae and trochanters with simple mostly black setae, fore coxa covered with hair-like pale setae anteriorly. Fore femur bare ventrally, covered with short setulae being some-what longer on subapical part anteriorly and pos-teriorly. Fore tibia with 5–6 short anterodorsal setae (besides cirlet of short subapicals). Mid femur whitish pubescent ventrally, covered with dense spinules anteroventrally and ventrally,



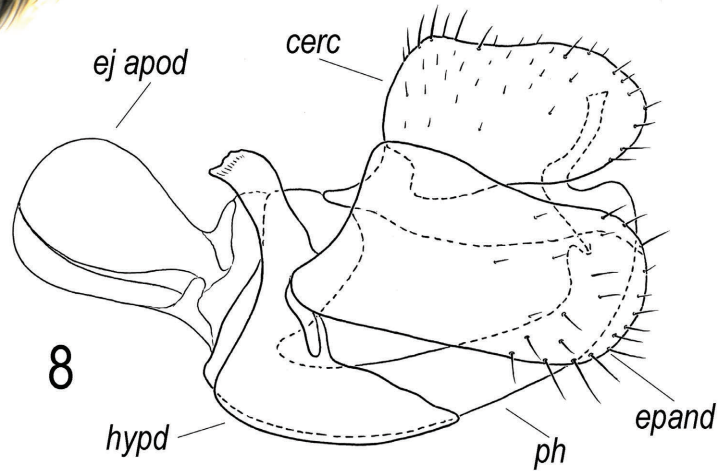
6



7



9



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Figs 6–9. *Empis (Polyblepharis) turalae* sp. nov., male (holotype). 6, habitus, lateral view; 7, postabdomen, lateral view; 8, terminalia, lateral view; 9, phallus, lateral view. Abbreviations: *cerc*, cercus; *ej apod*, ejaculatory apodeme; *epand*, epandrium; *hypd*, hypandrium; *ph*, phallus. Scale bar: 0.1 mm.

with several short anterodorsal setae in subapical part. Mid tibia with 5–6 short anterodorsals, five similar posterodorsals and circlet of similar subapical setae. Hind femur somewhat broader than mid femur, whitish pubescent ventrally, with 5–6 short strong anterodorsal setae in subapical part, entire ventral surface covered with dense spinules and spine-like setae being longer posteroventrally. Hind tibia slender, covered with dense erect setulae ventrally, with several moderately long anterodorsal and posterodorsal setae, without a seta in posteroapical comb. Tarsi of all legs similar in structure and vestiture; tarsomeres covered with short setulae (except circlet of strong subapical setae on tarsomeres 1–4); basitarsus slender, with anteroventral and posteroventral spine-like setae; claws long.

Wing membrane almost hyaline, very faintly brownish infuscate. Pterostigma brownish yellow, narrow. Basal costal bristle absent. Veins R_5 and M , slightly divergent in subapical parts; radial fork acute. Cell dm short. Anal angle acute, subsequently anal lobe well-developed. Calypter yellowish, pale fringed. Halter yellow.

Abdomen almost entirely black, only sternite 8 broadly brownish yellow posteriorly. Tergite 1 entirely densely grey pruinose; tergites 2–7 narrowly shiny posteriorly, otherwise densely grey pruinose; tergites 6 and 7 without spots of iridescent pruinosity. All tergites covered with mostly black short setae being longer laterally and also with scattered yellowish setae laterally; postermarginal setae present, short, thin. Sternites almost entirely densely greyish pruinose, only sternite 8 faintly pruinose; sternites 1–6 with scattered intermixed dark and pale setae, sternites 7 and 8 with denser black setae being longer posteriorly. Tergite 6 unmodified (Fig. 7), normally setose; tergite 7 mostly hidden, with straight posterior margin; sternite 7 unmodified. Sclerites of segment 8 medially divided; tergite 8 represented by two lateral strongly sclerotised subtriangular areas, broadly almost membranous medially, with minute to short setae dorsally; sternite 8 partly hidden by sternite 7, scoop-shaped, with three small lateral tubercles anteriorly (two closely set tubercles on lower part and one tubercle on upper part), with numerous moderately long postermarginal setae. Terminalia (Fig. 8) moderately

large. Cercus mostly brownish yellow, narrowly brownish along margin, covered with black setulae; cercus elongate oval with slightly concave dorsal margin (in lateral view), with smoothed inner margin and without lateral lobe (in dorsal view). Epandrial lamella brownish yellow, rather subrectangular (in lateral view), rounded apically, covered with black setulae being somewhat longer along lower margin. Hypandrium yellowish, subtriangular in ventral view, bare. Phallus (Fig. 9) yellowish, divided, with apical part of distiphallus very slender, somewhat curved forward.

Female. Unknown.

Comparison. In the key to the Palaearctic species of *Polyblepharis*, the new species runs to the *E. albicans* group (Chvála, 1999). However, the males of all species in this group have holoptic eyes and abdominal tergites 6–7 with spots of iridescent pruinosity. The new species is close to *E. kvakensis* Shamshev, 2003 known from Tajikistan (Shamshev, 2003). Males of both species have dichoptic eyes and uniformly greyish abdominal tergites 6–7. However, *E. kvakensis* differs from the new species primarily in the largely dark brown legs and black thoracic spiracles.

Etymology. The epithet refers to the type locality of the new species.

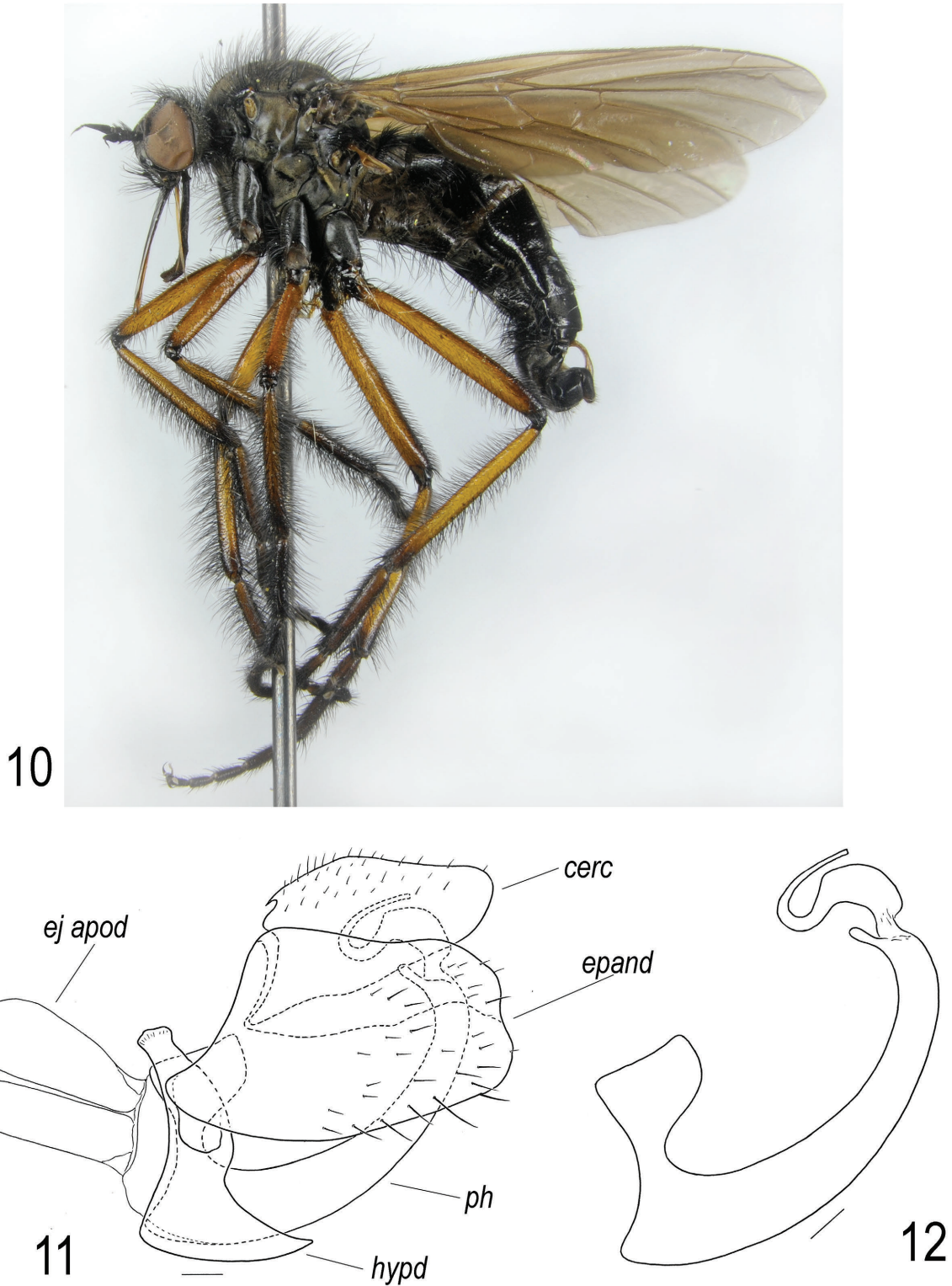
Distribution. Palaearctic: Russia (Republic of Altai).

Habitat and seasonal occurrence. According to the label data, the new species occurs at middle altitudes of mountains (1350 m); it was collected in the first half of June.

***Empis (Polyblepharis) yakovlevi* sp. nov.**
(Figs 10–12)

Holotype. Male, **Russia, Republic of Altai**, “[in Cyrillic, Russian] Tashanta 4 km E [–49°43′N 89°11′E] / south-eastern Altai / V. Richter 6 vii [1]977”, “*Empis (Polyblepharis) yakovlevi* Shamshev, sp. n. [red label]” (ZIN, INS_DIP_0000725).

Paratypes. Same data as for holotype: 15 males, 2 females, 6.VII.1977; 1 male, 1 female, 7.VII.1977; 1 female, 15.VII.1977. **Russia, Republic of Altai:** 2 males, 4 females, Chikhachev ridge, pass, 24.VII.1964, E. Nartshuk leg. (all ZIN); 13 males, 8 females, Kosh-Agach distr., plateau Ukok, 2450 m, Muzdy-Bulak Lake, 49.3°N 87.65°E, 8–12.VII.2008, A. Barkalov & V. Sorokina leg. (SZMN); 12 males, 5 females, plateau Ukok, Kaljin-Kul-Bas and Kaljin-Kul lakes, 49°19′N



Figs 10–12. *Empis (Polyblepharis) yakovlevi* sp. nov., male. **10**, habitus, lateral view (holotype); **11**, terminalia, lateral view; **12**, phallus, lateral view. Abbreviations: *cerc*, cercus; *ej apod*, ejaculatory apodeme; *epand*, epandrium; *hypd*, hypandrium; *ph*, phallus. Scale bar: 0.1 mm.

87°26'E, 2400–2450 m, 17–20.VII.2006, V. Sorokina & T. Novgorodova leg. (SZMN); 2 males, plateau Ukok, 8 km NE of Maytobe, 49°34'N 87°43'E, 2400–2500 m, 8.VII.2006, V. Sorokina leg. (SZMN); 1 male, 2 females, 8 km NE of Maytobe, tributary of Ildegem River, 49°34'N 87°43'E, 2500 m, 10.VII.2006, T. Novgorodova leg. (SZMN); 1 male, Ust'-Koksa distr., Katunskiy ridge, Kamdyt, 49°58.7–49.14'N 86°33–34.9'E, 2150–2514 m, subalpine-alpine [zone], 28.VI–4.VII.2007, O. Kosterin leg. (ZMUM).

Diagnosis. Large species (body length about 8 mm) with extensively yellow legs almost entirely covered with long dense hair-like setae, face bearing marginal setae, palpus black, scutum with four vittae, laterotergite with black setae, abdominal tergites extensively shiny. Male: eyes almost touching on frons, tarsomeres of fore and mid tarsi somewhat thickened. Female: legs not pinnate.

Description. Male (Fig. 10). Body length 7.6–8.1 mm (holotype, 7.9 mm); wing length 7.1–7.4 mm (holotype, 7.3 mm).

Head black, with black setation. Eyes dichoptic, ommatidia of equal size. Frons very narrow in upper part, at most as broad as anterior ocellus, widened above antennae, densely brownish pruinose, bare. Face wide, almost parallel-sided, largely brownish grey pruinose, narrowly shiny along lower margin, with 3–4 black marginal setae in upper part; clypeus shiny. Occiput densely greyish pruinose, covered with dense, long, thin setae. Ocellar tubercle concolorous with occiput, with numerous similar setae. Antenna black; scape about 1.5 times as long as pedicel, with black setulae longer than in pedicel; postpedicel moderately long, nearly 3 times as long as wide, with straight margins; stylus about half the postpedicel length. Proboscis moderately long; labrum brownish, 1.3–1.5 times as long as head height; palpus long, black, with numerous very long black setae.

Thorax black, densely brownish grey pruinose (except as noted); scutum with four indistinct, broad, brownish vittae (in dorsal view); setation black. Prosternum bare. Proepisternum and antepnotum with numerous uniform long hair-like setae. Postpronotal lobe shiny on outer side, with numerous moderately long to long subequally thin setae. Mesonotal setation: presutural and postsutural surfaces with numerous long setae of different robustness (2–3 setae usually stronger but highly variable), 4–6 long notopleurals (number and position highly variable, often even on right

and left sides; additional long thin setae present on anterior part of notopleuron), 1–2 very long and 1–2 short postalars, numerous scutellars of different robustness (number and position highly variable; at least 7 setae present on each side); acrostichals long, thin, numerous, arranged in 2–3 irregular rows, lacking on prescutellar depression; dorsocentrals arranged in 3–5 irregular dense rows before suture and in 2–3 serial sparser rows toward scutellum, somewhat longer than acrostichals, of subequal length and robustness throughout (some prescutellars somewhat longer and stronger). Laterotergite with numerous setae. Anterior and posterior spiracles yellow.

Legs with coxae and trochanters black, faintly greyish pruinose; femora and tibiae extensively yellowish, very narrowly brownish at apices (in paler specimens, femora entirely yellowish); tarsi almost uniformly brownish, basitarsi somewhat paler near base. All parts of legs with black setation; coxae and trochanters with numerous long setae. Fore and mid tibiae and tarsi somewhat thickened; hind femur slender, only slightly broader than fore and mid femora. All femora entirely covered with long thin setae; also, hind femur with some stronger anteroventral setae in subapical part. Fore and mid tibiae with similar but denser and longer setae (especially dorsally) spreading on to corresponding tarsomeres 1–4; both without strong setae (except circlets of subapicals). Hind tibia with shorter thin setae than on preceding tibiae, also bearing 5–6 anterodorsal and 5–6 posterodorsal short stronger setae (besides circlet of subapicals); posteroapical comb with one moderately long, strong seta. Hind basitarsus with sparser and somewhat shorter setation dorsally; tarsomeres 2–5 with simple setulae.

Wing membrane brownish infusate. Pterostigma brownish yellow, narrow. Basal costal seta moderately long. Veins R_5 and M_1 divergent in subapical parts; radial fork acute. Anal angle acute, subsequently anal lobe well-developed. Calypter brownish, dark fringed. Halter yellow.

Abdomen entirely black, with tergites (except hidden tergite 8) almost entirely shiny; tergites 1 and 2 narrowly brownish grey pruinose anteriorly, tergites 6 and 7 with brownish iridescent spots; sternites 1–2 entirely brownish grey pruinose, remaining sternites narrowly pruinose anterior-

ly. Abdomen covered with uniform, long, dense, black setae, without stronger posteromarginal setae. Sclerites of segment 7 unmodified; tergite 8 separated from sternite 8, divided medially, represented by two subtriangular sclerites bearing scattered setulae; sternite 8 large, scoop-shaped, with three tubercles near base laterally on either side. Terminalia (Fig. 11) moderately large, dark brown, only phallus brownish yellow. Cercus elongate oval (in lateral view), with smoothed inner margins (in dorsal view), covered with black setulae. Epandrial lamella rather subrectangular (in lateral view), covered with black setulae being somewhat longer along lower margin. Hypandrium subtriangular in ventral view, bare. Phallus (Fig. 12) divided; apical part of distiphallus hook-like, very slender, moderately long.

Female. Body length 6.4–6.8 mm; wing length 6.9–7.4 mm. Similar to male, except the following characters. Frons broad, parallel-sided, with marginal setulae; occiput with sparse setae; thorax and legs with similar but shorter setation; fore and mid tarsomeres slender; abdomen with scattered short setae, posterior part of tergite 2 and entire tergites 3–8 shiny, sternites 6–8 subshiny. Cercus slender, moderately long, covered with dark setulae.

Comparison. The new species is most similar to *E. hirsuta* Becker, 1915 known only from the North Urals (Shamshev, 2016). *Empis yakovlevi* sp. nov. differs from *E. hirsuta* primarily in the black palpus (versus yellow) and the longer setae on the femora; also, the male has evenly thickened fore tibia (vs. clavate).

Etymology. The new species is named in honour of Russian entomologist Roman V. Yakovlev (Barnaul) in recognition of his contribution to the knowledge of insects of Altai.

Distribution. Palaearctic: Russia (Republic of Altai).

Habitat and seasonal occurrence. According to the label data, the species occurs in subalpine and alpine zones (2100–2500 m). It was collected from late June until late July.

A key to species of *Polyblepharis* of the Altai region of Russia

1. Scutum (in dorsal view) with three indistinct vittae running beneath the rows of acrostichal and dorsocentral setae or without vittae 2

- Scutum (in dorsal view) with four distinct brownish, dark or shiny vittae (one between the rows of acrostichals and dorsocentrals and one between the dorsocentrals and supra-alars on either side) 3
- 2. Acrostichal and dorsocentral setae multiserial, long. Male: fore basitarsus about half the fore tibia length. Female: palpus largely yellow, darkened at apex ***E. (P.) sedelnikovi***
- Acrostichal setae biserial, dorsocentrals arranged in one to two irregular rows, very short. Male: fore basitarsus at least two-thirds the fore tibia length. Female: palpus black ***E. (P.) longimana***
- 3. Palpus black 4
 - Palpus yellowish 6
- 4. Smaller, body length about 4 mm; scutum with shiny blackish vittae; legs entirely black ***E. (P.) altaica* sp. nov.**
- Larger, body length 8–9 mm; scutum with dull brownish vittae; legs extensively yellow 5
- 5. Face bare; frons broad, only slightly narrower than the distance between outer margins of posterior ocelli; fore and mid tarsomeres slender; legs covered with short setae; tibiae black. Female unknown ***E. (P.) seminskiensis* sp. nov.**
- Face with marginal setae; frons narrow, eyes almost touching; fore and mid tarsomeres somewhat thickened; legs almost entirely covered with long dense hair-like setae; tibiae extensively yellowish ***E. (P.) yakovlevi* sp. nov.**
- 6. Acrostichal setae biserial, dorsocentrals usually biserial anteriorly and uniserial toward scutellum; scutellum with 4–6 setae; laterotergite mostly with black setae 7
 - Acrostichal setae arranged at least in three to four irregular rows, dorsocentrals multiserial anteriorly; scutellum at least with 10 setae; laterotergite with pale to yellowish setae 8
- 7. Postpronotal lobe shiny on outer side. Male: eyes holoptic. Female: mid and hind femora with short posteroventral pennate setae ***E. (P.) subciliata***
- Postpronotal lobe entirely pruinose. Male: eyes dichoptic, separated by broad frons. Female unknown ***E. (P.) turalae* sp. nov.**
- 8. Hind femur thickened, with numerous spine-like setae throughout ventrally; hind tibia slightly thickened toward apex; hind femur about 1.5 times as wide as hind tibia in middle part; legs usually uniformly brownish ***E. (P.) crassa***
- Hind femur slender, covered only with simple setulae ventrally, at most with 3–4 short anteroventral setae in subapical part; hind tibia almost evenly thickened, in middle part nearly as wide as hind femur; mid and hind femora usually yellowish (except extreme apex) ***E. (P.) gravipes***

***Empis barkalovi* sp. nov.**

(Figs 13–15)

Holotype. Male, **Russia, Republic of Altai:** “[in Cyrillic, Russian] khr. [= khrebet, ridge] Chikhacheva [49°49'N 89°46'E] / pass / yugo-vost. [= yugo-vostochnyy, south-eastern] Altai / Nartshuk 24.VII.1964”, “*Empis barkalovi* Shamshev, sp. n. [red label]” (ZIN, INS_DIP_0000787).

Paratypes. **Russia, Republic of Altai:** 2 males, Kosh-Agach Distr., plateau Ukok, environs of Muzdy-Bulak Lake, S slope of Cholok-Chad Mountain, 2900–3100 m, 1 & 9.VII.2008, V. Zinchenko leg. (SZMN); 1 male, plateau Ukok, 8 km NE of Maytobe Mountain, 49°34'N 87°43'E, 2400–2800 m, 6–10.VII.2006, T. Novgorodova leg. (dissected; ZIN); 2 males, Ulagan Distr., Kuray Ridge, 2450 m, 50°33'N 87°75'E, meadow, 2.VII.2008, A. Barkalov leg. (SZMN); 2 males, same locality, tundra, 3.VII.2008, A. Barkalov leg. (SZMN); 1 male, same locality, 2500–2800 m, 29–30.VI.2008, A. Barkalov leg. (ZIN).

Diagnosis. Large species, with body length about 7 mm; eyes separated by broad frons; occiput laterally with numerous long somewhat flattened setae; palpus black, clothed in numerous long hair-like setae; mesonotum and legs covered with long hair-like setae; scutum with four vittae.

Description. **Male** (Fig. 13). Body length 7.0–7.3 mm (holotype, 7.1 mm); wing length 6.5–6.7 mm (holotype, 6.6 mm).

Head black. Eyes dichoptic, ommatidia of equal size. Frons broad, in upper part broader than distance between outer margins of posterior ocelli, densely dark brown pruinose, with numerous long marginal setae. Face broad, parallel-sided, largely greyish brown pruinose, narrowly shiny along lower margin, bare; clypeus shiny. Occiput somewhat convex laterally, densely brownish grey pruinose, clothed in dense, long, hair-like, black setae, usually with numerous flattened setae laterally (sometimes less distinct). Ocellar tubercle concolorous with occiput, with several subequally long hair-like setae. Antenna black; scape rather short, about 1.5 times as long as pedicel, with long setulae; postpedicel moderately long, 2.0–2.3 times as long as wide, with ventral margin slightly concave in subapical part; stylus about two-thirds as long as postpedicel. Proboscis moderately long; labrum brownish, nearly 1.5 times as long as head height; palpus long, black, with numerous long, hair-like, black setae.

Thorax black, densely brownish grey pruinose (except as noted), with black setation; scutum with four distinct brown vittae (in dorsal view). Prosternum bare. Proepisternum with numerous long hair-like setae on lower part, bare on upper part. Antepronotum with numerous hair-like setae dorsally. Postpronotal lobe with numerous hair-like setae of different lengths. Mesonotal setation represented only by numerous long thin setae of subequal robustness; rows of acrostichal and dorsocentral setae separated by broad bare space; acrostichals arranged in 2–3 irregular rows, lacking on prescutellar depression; dorsocentrals multiserial, more numerous before suture. Laterotergite with numerous hair-like setae. Anterior and posterior spiracles black.

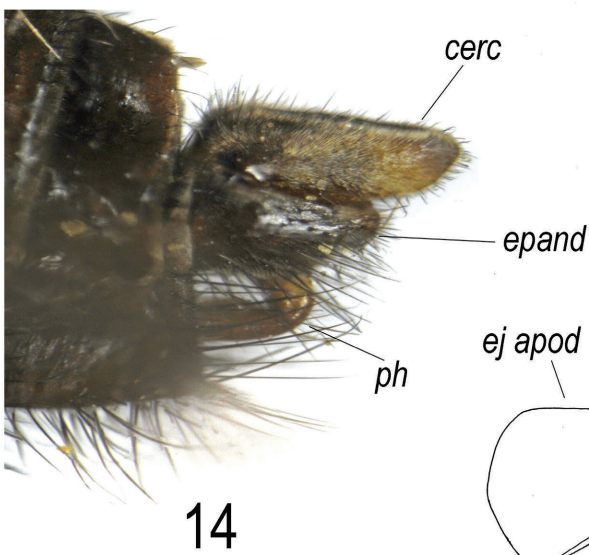
Legs rather robust, entirely black to dark brown, with black hair-like setation; coxae faintly greyish pruinose, other parts of legs subshiny. Fore and mid femora of subequal thickness, hind femur somewhat broader; all femora whitish pubescent ventrally and clothed in long hair-like setae being denser and somewhat stronger on mid and hind femora ventrally. All tibiae with long hair-like setae dorsally and posteriorly (shorter on hind tibia); posteroapical comb with one short seta; all tarsomeres slender; fore tarsomeres 1–3 with longer setae dorsally and posteriorly.

Wing membrane hyaline (in some specimens slightly whitish in some view). Pterostigma pale yellow, narrow. Basal costal seta absent. Veins R_5 and M_1 somewhat divergent just before wing margin; anal vein usually mostly weakened and normally sclerotised only just before wing margin (sometimes normally sclerotised along entire length); radial fork acute. Cell *dm* short. Anal angle acute, subsequently anal lobe well-developed. Calypter yellowish, brownish fringed. Halter yellow.

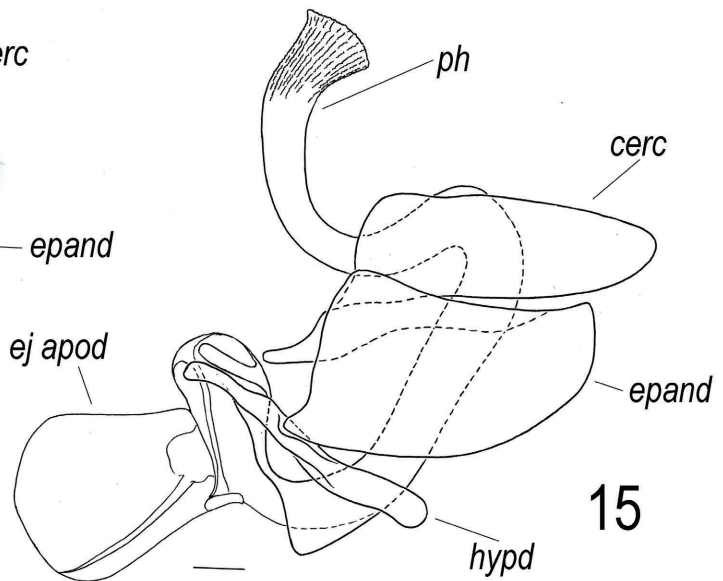
Abdomen entirely black, covered only with dense hair-like setae being longer on tergites laterally and on sternites; tergites subshiny, faintly greyish pruinose; sternites slightly denser pruinose. Segments 6 and 7 unmodified; sclerites of segment 8 separated; tergite 8 entire, narrow (in dorsal view), with several long setae; sternite 8 subrectangular (in lateral view), narrow, simple, with numerous long setae. Terminalia (Figs 14, 15) small; cercus broadly brownish yellow, brownish near base; epandrial lamella and hypandrium



13



14



15

Figs 13–15. *Empis barkalovi* sp. nov., male. **13**, habitus, lateral view (holotype); **14**, postabdomen, lateral view; **15**, terminalia, lateral view. Abbreviations: *cerc*, cercus; *ej apod*, ejaculatory apodeme; *epand*, epandrium; *hypd*, hypandrium; *ph*, phallus. Scale bar: 0.1 mm.

brown. Cerci separated, appressed to epandrium; cercus unilobate, elongate oval (in lateral view) with pointed apex extending beyond apex of epandrial lamella, near base only slightly narrower than epandrial lamella; cercus with scattered dark setulae. Epandrial lamella rather subrectangular, with lower margin broadly ovate posteriorly, covered with thin black setae being denser and longer closer to lower margin. Hypandrium entire, narrow, rim-like, bare. Phallus mostly hidden, zigzag bent, rather thick, with beaker-shaped apex, sulcate in subapical part.

Female. Unknown.

Comparison. The new species belongs to the species group known only from the eastern Palaearctic that has not been assigned yet to any subgenus of *Empis* (Shamshev, 2001).

One species of this group (*E. otchontengriensis* Shamshev, 2001) has been known from Altai (including the Mongolian part). Both species inhabit similar biotopes occurring in the higher mountainous tundra and tundra-steppe (Shamshev & Barkalov, 2009). The new species can be readily distinguished from *E. otchontengriensis* by the larger size (body 7–7.3 mm versus about 5 mm), black palpus (vs. yellow), entirely black to dark brown legs (vs. legs with yellowish hind basitarsus) and some other characters. Actually, the new species is most similar to *Empis keberlei* Shamshev, 2001 described from Uzbekistan (Shamshev, 2001). However, *E. barkalovi* sp. nov. differs from *E. keberlei* primarily in the presence of flattened setae on the occiput, black laterotergal setae (vs. pale in *E. keberlei*), black thoracic spiracles (vs. pale) and subshiny abdominal tergites (vs. densely whitish grey pruinose).

Etymology. The new species is named in honour of Russian entomologist Anatoly V. Barkalov (Novosibirsk) in recognition of his contribution to the knowledge of insects of Altai.

Distribution. Palaearctic: Russia (Republic of Altai).

Habitat and seasonal occurrence. According to the label data, the species occurs on meadows and in tundra of higher mountain areas (2400–3100 m). It was collected from late June until late July. One male is pinned together with a subequal in length specimen of Therevidae (*Symphoromyia* sp.) as a prey.

Empis shebalinensis sp. nov.

(Figs 16–18)

Holotype. Male, “RUSSIA, Altai Rep. [= Republic of Altai], / Shebalino distr., 5 km SE vill. / Topuchaya, 1325 m, / 51°06'N 85°37'E, 3–4.07.2014, leg. I. Shamshev”, “*Empis shebalinensis* Shamshev, sp. n. [red label]” (ZIN, INS_DIP_0000756).

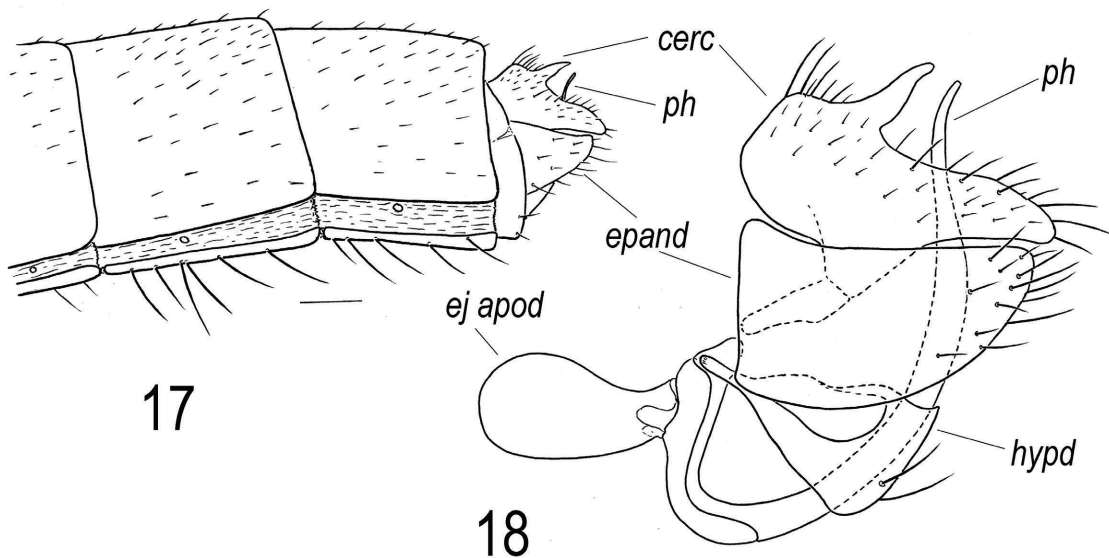
Paratypes. **Russia:** 1 male, 8 females, same data as for holotype; 2 males (1 male dissected), 5 females, *Altai Terr.*, Krasnoshchekovskiy Distr., environs of Tigirek Vill., 28–29.VI.2005, D. Kostrov leg. (ZIN).

Diagnosis. Mid-sized (body length about 4.5 mm) blackish brown species with fairly slender legs lacking strong setae, and with black halters. Male: scutum and abdomen velvet-brown, wings brownish. Female: scutum with four brownish vittae, abdomen greyish pruinose, wings faintly infuscate.

Description. Male (Fig. 16). Body length 4.5–4.6 mm (holotype, 4.6 mm), wing length 3.9–4.0 mm (holotype, 4.0 mm).

Head black. Eyes holoptic, upper ommatidia considerably enlarged. Frons reduced to small subtriangular space above antennae, blackish brown, bare. Face broad, short, much shorter than virtual frons, greyish pruinose, bare. Occiput velvet blackish brown, covered with numerous long thin black setae. Ocellar tubercle concolorous with occiput, with two long thin setae and several hair-like setulae. Antenna black; scape and pedicel subequally short, both with scattered minute setulae; postpedicel moderately long, 2.5–3 times as long as wide, with straight margins; stylus short, postpedicel nearly 2.5 times as long as stylus. Proboscis rather short; labrum brown, thin, only slightly longer than head height; palpus long, black, slender, with scattered black setulae.

Thorax black, dull, brown pruinose, with black setation; scutum (in dorsal view) dark brown, without vittae. Prosternum bare. Proepisternum and antepnotum with subequally long thin setae. Postpronotal lobe with one long thin seta and several similar shorter setae. Mesonotal setation: one hardly differentiated presutural supra-alar (sometimes indistinguishable from numerous surrounding shorter setae), 3–4 notopleurals, one postsutural supra-alar (with several setulae anteriorly), one postalar and four scutellars (apical pair long, cruciate; lateral pair only slightly shorter); in



Figs 16–18. *Empis shebalinensis* sp. nov., male. **16**, habitus, lateral view (holotype); **17**, postabdomen, lateral view; **18**, terminalia, lateral view. Abbreviations: *cerc*, cercus; *ej apod*, ejaculatory apodeme; *epand*, epandrium; *hypd*, hypandrium; *ph*, phallus. Scale bar: 0.1 mm.

addition, notopleuron with numerous setulae anteriorly; acrostichals 1–2–serial, scattered, short, thin, lacking on prescutellar depression; dorso-centrals multiserial and similar to acrostichals on presutural part, becoming less numerous and longer behind suture. Laterotergite with numerous setae. Anterior and posterior spiracles black.

Legs fairly slender, entirely black, with black setation. Coxae and trochanters with simple setae. Fore femur with anteroventral and posteroventral setae mostly minute, somewhat longer toward base of femur; fore femur clothed in moderately long setae posteriorly, without spinules anteriorly. Fore tibia without strong setae (besides circler of short subapicals), pubescent ventrally. Fore basitarsus slender, with a short anterior seta closer to base; tarsomeres 1–4 pubescent ventrally, with circler of short subapicals. Mid femur covered only with short setulae. Mid tibia with a short anteroventral seta near middle. Hind femur fairly slender in basal half, somewhat broader in apical half, with some short thin anterodorsal and dorsal setae toward base and minute anteroventral setae (except several somewhat longer subapicals). Hind tibia slightly evenly thickened toward apex, with some short to moderately long (closer to apex) thin anterodorsal and posterodorsal setae; posteroapical comb with one very short seta. Hind basitarsus somewhat thickened but slightly narrower than hind tibia at apex, covered with short setulae (except as noted); tarsomeres 1–4 with anteroventral and posteroventral spinule-like setae. Claws long.

Wing membrane almost uniformly brownish, somewhat paler near base; veins brownish. Pterostigma brownish, broad. Basal costal seta short, black. Veins R_5 and M_1 parallel near wing margin; radial fork acute; anal vein complete, well-sclerotised throughout. Cell dm short, with elongate apex. Anal angle almost right, subsequently anal lobe well-developed. Calypter brown, brownish fringed. Halter brown.

Abdomen with tergites blackish brown, sternites somewhat greyer, with black hair-like setation. Tergites covered with very short setae dorsally and longer setae laterally (setae on tergites 1–3 the longest); sternites with numerous long setae. Sclerites of segment 8 separated; tergite 8 narrow, entire, with scattered setulae; sternite 8 narrow

(Fig. 17). Terminalia (Fig. 18) small, black. Cerci separated from each other and from epandrium; cercus rather large, at base nearly as broad as epandrial lamella, with deep excision posteriorly, covered with scattered moderately long brownish setae along upper margin; upper lobe digitiform, pointed, spine-like at tip; lower lobe subtriangular, narrow, slightly extending beyond apex of epandrial lamella. Epandrial lamella subrectangular (in lateral view), with moderately long setae scattered over subapical part. Hypandrium entirely sclerotised, rather subtriangular (in ventral view), with two short setae. Phallus almost entirely hidden, thin, evenly arcuate.

Female. Body length 4.8–5.2 mm; wing length 4.1–4.3 mm. Similar to male but thorax and abdomen more greyish. Frons moderately broad, in upper part nearly as broad as distance between inner margins of posterior ocelli, almost parallel-sided, slightly widened just above antennae, densely brownish grey pruinose, with marginal setulae. Thorax with somewhat stronger setae; scutum (in dorsal view) with four indistinct brownish vittae. Fore femur with shorter setae posteriorly; fore tibia and fore tarsomeres 1–4 covered with simple setulae ventrally. Mid tibia with two anterodorsal, two posterodorsal, 1–2 anteroventral, and 1–2 posteroventral setae (besides circler of subapicals). Hind femur usually with a moderately long strong anteroventral seta in about apical fourth; hind tibia with stronger setae; hind basitarsus slender. Wing membrane only faintly infuscate. Abdomen with shorter setation; cercus long, slender, with scattered minute setulae.

Comparison. The new species resembles *Empis bazini* Collin, 1926 (known from Czech Republic, the French Alps and southern Germany), which is a single species of the subgenus *Rhadinempis* Collin, 1926. However, *E. bazini* differs from the new species primarily in the absence of acrostichal setae, very short postpedicel (scarcely twice as long as broad) and very long stylus (three times as long as postpedicel). At the same time, these characters are used currently to distinguish *Rhadinempis* from other subgenera of *Empis*. Thus, the new species cannot be included in *Rhadinempis* or the current concept of this group requires a revision. Additionally, *E. bazini* and *E. shebalinensis* **sp. nov.** are very similar to species of the subgenus

Holoclera Schiner, 1860 of the genus *Rhamphomyia* Meigen, 1822 (Barták & Kubík, 2012).

Etymology. The epithet refers to the type locality of the new species.

Distribution. Palaearctic: Russia (Republic of Altai and Altai Territory).

Habitat and seasonal occurrence. The species was collected by sweeping on a montane meadow (1325 m); collecting dates refer to June.

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