Russian Entomol. J. 34(4): 563–566

A new species of the genus *Xiriella* Frey, 1964 (Diptera: Platystomatidae)

Новый вид рода *Xiriella* Frey, 1964 (Diptera: Platystomatidae)

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KEY WORDS: Diptera, Tephritoidea, Platystomatidae, *Xiriella*, signal flies, Nepal, Vietnam, Oriental region, taxonomy, description, new species.
КЛЮЧЕВЫЕ СЛОВА: Diptera, Tephritoidea, Platystomatidae, *Xiriella*, мухи-сигнальщицы, Непал, Вьетнам, Ориентальная область, таксономия, описание, новый вид.

ABSTRACT. A new species of *Xiriella* Frey, 1964 (Diptera: Platystomatidae) is described from Nepal and Vietnam. Illustrations of head, wing, and terminalia of both sexes are provided; characters to distinguish the new species from its congeners are supplied.

РЕЗЮМЕ. Новый вид рода *Xiriella* Frey, 1964 (Diptera: Platystomatidae) описан из Непала и Вьетнама. Приведены иллюстрации головы, крыла и терминалий обоих полов; указаны признаки, позволяющие отличить новый вид от других представителей рода.

Introduction

The genus *Xiriella* Frey, 1964 was first erected as a subgenus of *Xiria* Loew, 1873 (subfamily Trapherinae), and included a single species, *X. clarissa* (Frey, 1930), described from the Philippines (Palawan) [Frey, 1930, 1964]. Later, McAlpine [2001], proposing a number of nomenclatural changes within the family of Platystomatidae, and based upon his examination of Frey's type specimens in Helsinki, has elevated *Xiriella* to generic rank and added the second species, *X. lunaris* (de Meijere, 1916), described from Sumatra, as a result of a transfer from the genus *Lule* Speiser, 1910.

While examining rather extensive recent material of Platystomatidae from South Asia in ZMMU, we have discovered a distinct species of *Xiriella* unknown to science which description is given below.

Material and methods

The terminology used here mainly follows Cumming & Wood [2017] and Whittington & Kirk-Spriggs [2021]. Male genitalia were boiled in 10% solution of potassium hydroxide (KOH) for 60 to 90s, neutralised by a 10% solution of acetic acid (CH_3COOH), rinsed in water and then stored in glycerol. When preparing wings for photography, generally the same procedure was followed except for much shorter time allowed for maceration. Dissected terminalia were examined with a Nikon SMZ645 binocular microscope and then photographed using an eTREK DCM900 camera on MBI-1 microscope; stacked images were obtained with CombineZP (Alan Hadley, http://www.hadleyweb.pwp.blueyonder.co.uk) software.

All examined material consists of dry-mounted specimens which are either direct-pinned or glued to insect pins. The material is deposited in the Zoological Museum, Lomonosov Moscow State University (ZMMU).

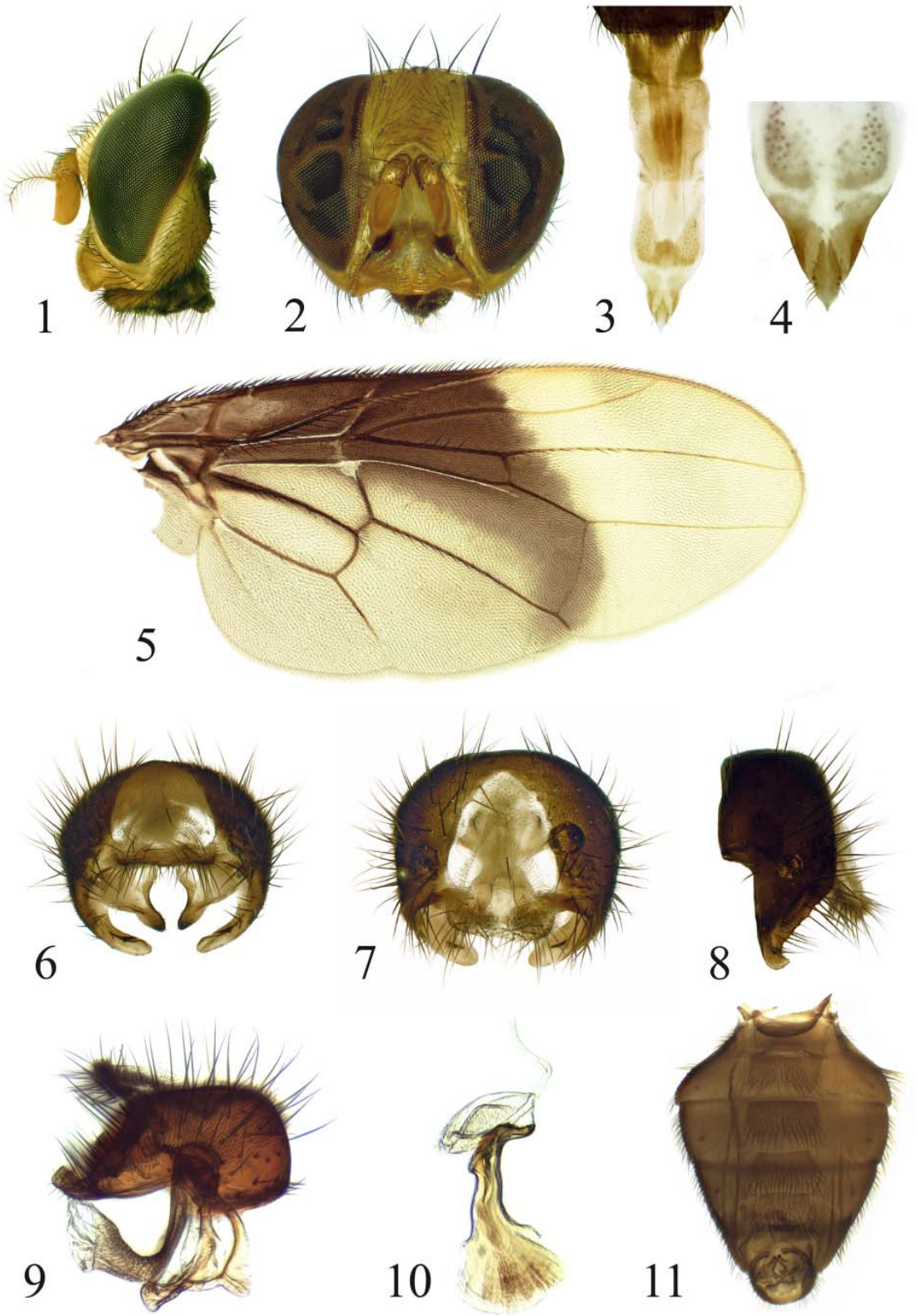
Description of new species

Xiriella cuneata Gavryushin et Ozerov **sp.n.**
Figs 1–11.

MATERIAL. Holotype ♂, NEPAL: Rasuwa Distr., Dhunche env. (ca. 28.0982ºN, 85.3183ºE), 1980–2050 m, 17.VI.2017, coll. A. Ozerov. Paratypes: NEPAL: 3 ♂♂, 2 ♀♀ with labels as holotype; 3 ♀♀, same place, 7–9.VI.2017, coll. A. Ozerov; 1 ♀, Rasuwa distr., Dhunche env. (28.0966ºN, 85.3250ºE), 2115 m, 27.V.2016, coll. D. Gavryushin; VIETNAM: 1 ♂, Lào Cai Province, Sin Chai (22.3384ºN, 103.8083ºE), 1400 m, 27.IV.2013, coll. T.V. Galinskaya; 1 ♂, 1 ♀, same place, 29.IV.2013, coll. T.V. Galinskaya; 1 ♂, same place, 2.V.2013, coll. T.V. Galinskaya.

DESCRIPTION. MALE. *Head* (Figs 1, 2) mostly reddish yellow. Frons subrectangular, twice longer than wide, subequal to eye width anteriorly, with suberect black hairs. Ocellar triangle black. Parafacialia narrow, about one-fifth the width of postpedicel. Genae about one-eighth height of eye. Face almost vertical, lower facial margin (epistoma auct.) strongly prominent, weakly rugose, with polished black areas below antennal

How to cite this article: Gavryushin D.I., Ozerov A.L. 2025. A new species of the genus *Xiriella* Frey, 1964 (Diptera: Platystomatidae) // Russian Entomol. J. Vol.34. No.4. P.563–566. doi: 10.15298/rusentj.34.4.14



Figs 1–11. *Xiriella cuneata* **sp.n.**: 1 — head, lateral view; 2 — head, anterior view; 3 — ovipositor, dorsal view; 4 — aculeus, ventral view; 5 — wing; 6 — epandrium, cerci and surstyli, dorsal view; 7 — same, dorsocaudal view; 8 — same, lateral view; 9 — epandrium and associated structures, lateral view; 10 — ejaculatory apodeme, lateral view; 11 — male abdomen, ventral view.
Рис. 1–11. *Xiriella cuneata* **sp.n.**: 1 — голова, сбоку; 2 — голова, спереди; 3 — яйцеклад, сверху; 4 — акулеус, снизу; 5 — крыло; 6 — эпандрий, церки и сурстили, сверху; 7 — то же, дорсокаудально; 8 — то же, сбоку; 9 — эпандрий и связанные с ним структуры, сбоку; 10 — эякуляторная аподема, сбоку; 11 — брюшко самца, снизу.

grooves which appear as oblique stripes nearly reaching mouth margin. Prelabrum (sensu McAlpine [2007], clypeus auct.) transverse, wider than long, anterior margin weakly emarginate. Palpi reddish, moderately long, proboscis brownish. Two orbital setae of subequal length, the anterior pair slightly divergent, the posterior pair more strongly so; inner vertical setae crossed, slightly longer than orbital setae, outer vertical setae divergent, one-third longer than orbital setae. Ocellar setae short, one-third to one-fourth the length of orbital setae, strongly divergent; postocellar setae reduced, divergent. Genal setae present; postocular setae moderately developed, black. Antennal grooves with silvery pruinescence. Antennae reddish yellow with pale yellow pubescence, postpedicel approximately twice the length of pedicel, arista longer than face, yellow basally, remainder black, bipectinate, with dorsal hairs at base of arista from two-thirds to equal in length to the width of postpedicel.

Thorax slightly wider than head, shiny metallic greenish or bluish black, katatergites, anatergites, and mediotergite subshining. Scutum covered with irregular rows of subappressed black setae; anepisterna bare in anterior half and moderately setose posteriorly; anepimera covered with setae in anterior part and bare posteriorly; katatergites, anatergites and mediotergite bare; ventral surface of scutellum and mediotergite laterally with fine reddish pubescence. One postpronotal seta, two notopleural setae, the posterior one on a raised callus, one postsutural supra-alar seta, one inter-alar seta, one postalar seta, one prescutellar dorsocentral seta; one or occasionally two anepisternal setae on upper posterior margin of the sclerite. Scutellum triangular, flat dorsally, wider than long, moderately setose dorsally; three pairs of scutellar marginal setae, the apical pair usually the longest, either an additional pair of unequal scutellar setae or unpaired setae which are sometimes present is apparently an abnormal condition.

Legs. Coxae, trochanters, and femora brownish black, femora narrowly yellow apically, with irregular suberect black setae which are longer ventrally; tibiae from yellow to brownish, mid tibiae with one apical spur; all tarsi whitish yellow, basitarsi slightly (fore and mid legs) to one-third (hind legs) longer than the remaining tarsomeres, mid tarsomeres one to four each with several short black setae on apical margin ventrally, tarsal claws black.

Wing (Fig. 5) hyaline, weakly iridescent, ca. 2.7 times longer than wide, the widest near middle of cell m_4, extensively patterned with brown; wing length 5.0–5.6 mm. Veins brown, only vein *C* beyond the tip of vein R_1 and longitudinal veins beyond the transverse brown crossband (except for the tip of vein R_{2+3}) as well as veins *CuP* and *CuA+CuP* yellow; wing membrane in all cells with dense regularly arranged microtrichia. The entire length of vein R_1 setulose, the number of strong black setae 30 to 40; vein R_{4+5} with 20–35 setae from its base to beyond the level of tip of vein R_{2+3}, the setae becoming more sparse and widely separated in the distal portion; the basal portion of vein M_4 with 12–20 strong setae; vein *CuA* with 12–15 strong setae before crossvein *m-cu*. Costal fringe well developed before the tip of vein R_1. The anterior part of wing widely brown before the very tip of vein R_1, including cells *bc*, *c*, *sc* (except for its very apex), basal two-thirds of cell r_1, basal portion of cell r_{2+3}, the whole of cell *br*, and narrow basal portion of cell r_{4+5}, the infuscated area reduced to a slightly paler, angulate transverse crossband which covers the upper half and distal portion of cell *dm*, crossvein *dm-m*, distal portion of vein M_4, and reaches the posterior wing margin in cell m_4. The apex of wing sometimes widely pale brownish, including the outermost portion of cell r_1 and the distal portions of cells r_{2+3}, r_{4+5}, and m_1, yet usually the apical infuscation is very indistinct and clearly visible only in cell r_1, with the tip of vein R_{2+3} always more or less infuscated. The upper margin of cell *cua* narrowly brownish, crossvein *m-cu* also margined with brownish. Vein *Sc* runs very close to vein R_1 and ends above the point of furcation of radial sector, its oblique apical portion weakly pigmented. Cell *c* very wide, cell *sc* very narrow basally. Tip of vein R_1 near level of crossvein *r-m*; a weakly pigmented oblique fold in cell r_1 before the point of furcation of radial sector in alignment with the tip of vein *Sc*; a similar, shorter vertical fold near midlength of cell *br* before crossvein *bm-m*. Radial sector subequal to the basal section of vein R_{4+5}. Vein R_{2+3} sinuous, cell r_{2+3} from two and a half to three times wider than cell r_{4+5} at wing margin. The tips of veins R_{4+5} and M_1 weakly divergent. Cell *br* very long and narrow, subequal to cell r_{4+5}. Crossvein *r-m* subvertical, near two-thirds of cell *dm*; crossvein *bm-m* oblique, starts before the point of furcation of radial sector; crossvein *dm-m* slightly oblique, approximately equidistant from tips of veins r_1 and r_{2+3}, one-half to two-thirds longer than crossvein *bm-m,* three to four times longer than crossvein *r-m*; crossvein *m-cu* strongly oblique, shorter than crossvein *r-m*. Cell *dm* slightly widened distally, of variable length, subequal to one-half longer than vein M_1; cells *bm* and *cua* of subequal length. Vein M_4 ends about one-third its length, vein *CuA+CuP* one-third to two-fifths its length before the posterior wing margin. Halteres reddish yellow, knobs brownish.

Abdomen (Fig. 11) ovate, longer than wide, subequal in length to thorax, the widest near its base at posterior edge of syntergite 1+2, shiny metallic bluish black, sparsely covered with black setae, especially syntergite 1+2 posterolaterally; tergites 3 and 4 transverse, about three times wider than long; tergite 5 widely subtriangular with rounded apex; sternites rather uniformly shaped, sternite 5 being the narrowest. Male terminalia as in Figs 6–10; aedeagus short and wide, strongly bent at midlength, with fine transverse striations, expanded apically into a semicircular flap which is microspinulose laterobasally.

FEMALE. Similar to male yet usually larger; wing length 5.5 to 6.5 mm; abdomen more elongate. Female ovipositor as in Figs 3, 4.

DISTRIBUTION. Nepal, Vietnam.

ETYMOLOGY. The species name is a Latin adjective (sg. fem. nom.) meaning ‘wedge-shaped’, with reference to shape of the transverse brown crossband of wing.

COMPARATIVE NOTES. *Xiriella cuneata* **sp.n.** differs from both known representatives of the genus, *X. clarissa* and *X. lunaris*, in larger size (wing length more than 5 mm), details of colouration (head shiny metallic bluish black in *X. clarissa*; legs with tarsomeres 3–5 black in *X. lunaris*), and wing pattern. *X. clarissa* has a rather pale Y-shaped brownish area, its inner branch apparently starting near tip of vein *Sc*, outer branch originating near midlength of cell r_1, the branches connected over crossvein *r-m*, the infuscation continues as a narrow margin of vein M_1 and widely extends over crossvein *dm-m*, confluent with more distinct apical darkening of wing in cell m_1 [Frey, 1930: Taf. 1, Fig. 7]. *X. lunaris*, according to the original description [de Meijere, 1916], has a wing pattern similar to that of the Afrotropical species, *Lule corioptera* Speiser, 1910, with wing mostly dark brown basally, this area separated from paler apical infuscation by a narrow semilunar transparent crossband [Whittington, Kirk-Spriggs, 2021: Figs 31, 109].

Competing interests. The authors declare no competing interests.

Acknowledgements. Our most sincere thanks are due to Dr. Nikita E. Vikhrev (Moscow, Russia) for his continued support and encouragement.

The study was conducted under the state assignment of project of Lomonosov Moscow State University.

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