

Fig. 23. *Parasheimia truncata* sp. nov.: (a) holotype PIN, no. 4987/27, male, general appearance; (b) paratype PIN, no. 4987/28, female, general appearance. Scale bar 2 mm in Fig. 22a and 1 mm in Fig. 22b.

have sharp teeth, the antennae are long and thin. The pronotum is somewhat longer as it is wide, its lateral edges are slightly convex. The anterior coxae are small, the tibiae are longer and slenderer than the femora, the tarsi are short. The mesonotum is quadrangular, the scutum is trapezoid and having a small prescutum and round medium-sized lobes. The middle legs are as long as the fore ones. The metanotum is similar to the mesonotum. The hind legs appear to be longer than the others. The forewings are elongated and widened in the distal half. The anterior margin is weakly convex, the apex is rounded, the posterior margin is almost straight. The costal field is crossed with simple and straight anterior branches of SC and is wider than the subcostal one. SC reaches the distal third of the wing, R is running almost parallel to the wing margin before its tip. RS starts near the wing midlength and has two to four branches. The base of the media forms a desclerotized anastomosis with CuA, which separates into branches at the point of the anastomosis. MA is simple, MP branches early and having two outruns. The CuA branches are almost straight and parallel, CuA₁ is simple, CuP is not bent. Crossveins are simple and straight and forming double rows of cells between the RS branches only. The anterior margin of the hindwing is straight, the apex is rounded. The costal field is as wide as the subcostal one, SC reaches the distal third of the wing, RS is two-branched, crossveins are the same as in

the forewing. The abdomen is slender and relatively short, narrowing apically in females and not in males. The ovipositor is short and weak, eggs are large and elliptical. The color pattern is developed as small symmetrical spots over the notum and femur apices.

Measurements, mm: Body length, 16–18; forewing length, 16–18.5; hindwing length, 17–14.

Comparison. It differs from the type species *Tsh. maculosa* Novokshonov et Aristov, 2002 in the short pronotum and mesonotum, simple CuA₁, and short ovipositor.

Remarks. In the original description of *Tsh. maculosa*, the paratype PIN, no. 1700/3460 was erroneously referred to this species.

Material. In addition to the holotype, paratypes PIN, nos. 1700/1146, 3460, 3908 and 4987/23 from the same locality.

Tshekardomina imbecillissima Aristov, sp. nov.

Plate 4, figs. 2 and 3

Etymology. From Latin *imbecillissima* (weakest).

Holotype. PIN, no. 1700/608, part and counterpart of moderately preserved complete insect; Tshekarda locality; Kungurian, Koshelevka Formation.

Description (Figs. 21a, 21b). Small insects. The head is prognathous, large and elongated (almost

twice as long as it is wide), the antennae are thin. The pronotum is oval-shaped and having large prescutum and lobes, the metanotum is transverse. The tibiae are as wide as the femora. The forewing widens apically, the anterior margin is straight, the apex is rounded, the posterior margin is convex. The costal field is as wide as the subcostal one, SC extends to the distal half of the wing, CuA₁ is simple and slightly curved toward the wing apex, CuP is sinuous. The anterior margin of the hindwing is straight, the apex is rounded. The costal field is as wide as the subcostal one, SC reaches the distal third of the wing, CuA is straight. The abdomen is short and narrowing apically, eggs are elongated elliptical.

Measurements, mm: Body length, 6–9; forewing length, 6–8; hindwing length, 5–7.

Comparison. The new species from two others in being smaller, the large and elongated head, and the tibiae being as wide as the femora.

Material. In addition to the holotype, paratypes PIN, nos. 1700/584, 3522 and 4987/24 from the same locality.

Tshekardomina subincurvata Aristov, sp. nov.

Etymology. From Latin *subincurvata* (slightly curved).

Holotype. PIN, no. 1700/3995, part and counterpart of well-preserved forewing; Tshekarda locality; Kungurian, Koshelevka Formation.

Description (Fig. 21c). Medium-sized insects. The anterior margin of the forewing is slightly concave, the apex is rounded, the posterior margin is convex. The costal field in the basal half of the wing is wider than the subcostal one and crossed with simple and straight branches of SC, the latter is traceable to the wing midlength. The terminal portion of R is sinuous. RS starts in the basal third of the wing and has two branches, which are not parallel to the wing apex. The media forms an anastomosis with CuA. MA and MP are simple. CuA ramifies after the anastomosis with the media, CuA₁ is pectinate and having four branches. CuP and two anal veins are simple and straight. Crossveins are simple. RS, MA, and MP stems and the distal branch of CuA₁ are desclerotized around the wing midlength (apparently, along the nodal line).

Measurements, mm: Forewing length, 17.

Comparison. It differs from other representatives of the genus in the concave anterior margin of the wing and from *Tsh. imbecilla* sp. nov. and *Tsh. maculosa* in CuA branches beyond the anastomosis with the media and in the four-branched CuA₁.

Material. Holotype.

Family Sheimiidae O. Martynova, 1958

Genus *Sheimia* O. Martynova, 1958

Sheimia tshekardensis Aristov, sp. nov.

Plate 5, fig. 1

Etymology. From the locality of Tshekarda.

Holotype. PIN, no. 4987/25, positive impression of well-preserved complete insect; Tshekarda locality; Kungurian, Koshelevka Formation.

Description (Figs. 24b, 24c). Small insects. The head is large and having large eyes. The antennae are short, antennomeres are slightly longer than they are wide, the occipital foramen is small and round. The pronotum is comparable in size to the head, transverse, narrowing backward, and lacking paranotalia. The mesonotum is elongated, the prescutum is small, the scutellar lobes are large and not contiguous. The metanotum is small, transverse, the scutum is not large and apparently triangular. The legs are short; the forelegs are somewhat shorter than the middle and hind ones, which are equally long. The anterior margin of the forewing is straight, the apex is rounded, the posterior margin is weakly convex. The costal field is wider than the subcostal one in the basal third of the wing and is as wide as it near the wing midlength. SC extends over the wing midlength, R is curved toward the anterior margin of the wing before the RS base and then is straight, RS starts in the basal third of the wing and is straight and fused with the anterior branch of the media before the wing midlength, the RS+MA anastomosis is straight. The media is fused with CuA along a long section and bifurcates at the RS base level. CuA is simple and curved toward the posterior margin of the wing, CuP is weakly sinuous, A₁ and A₂ are simple. The anterior margin of the hindwing is weakly convex, the apex is rounded. The female abdomen is short and fusiform, the ovipositor is short and not extending over the tip of the abdomen. The male abdomen is more elongated and possessing short and thin cerci.

Measurements, mm: Body length, 2.6–3.1; forewing length, 3; hindwing length, 2.5.

Comparison. It differs from the type species *Sh. sojanensis* O. Martynova, 1958 (Fig. 24a) in having larger eyes and pronotum and in the presence of the RS+MA anastomosis (in *Sh. sojanensis*, anastomosing are RS and M).

Material. Besides the holotype, paratype PIN, no. 4987/26 from the same locality.

Genus *Parasheimia* Aristov, gen. nov.

Etymology. From Latin *para* (equal) and the generic name *Sheimia*.

Type species. *P. truncata* sp. nov.

Diagnosis. Medium-sized insects. Head large, antennae long. Pronotum comparable to head in width, with longitudinal depressions along its margins. Mesonotum large and linear, metanotum small, transverse, with transverse trapezoidal scutum. Forelegs shortest, hind legs longest, femora approximately 2 times as wide as tibiae. Forewings elongated, with straight anterior margin, rounded apex and convex posterior margin. Costal field slightly wider than subcostal,

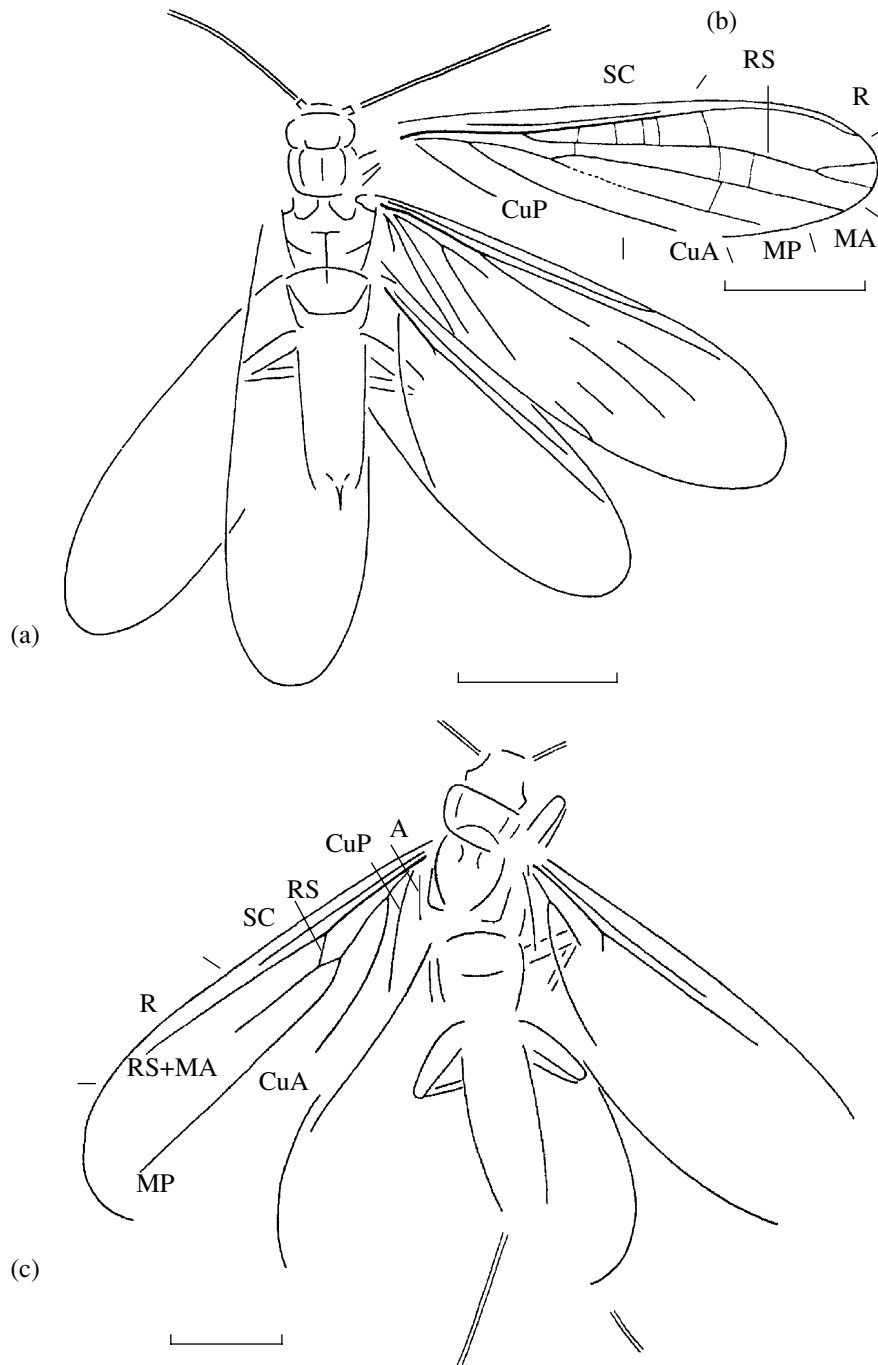


Fig. 24. Representatives of the family Sheimiidae: (a, b) *Parasheimia rotundata* sp. nov.: (a) holotype PIN, no. 4987/30, female, general appearance; (b) paratype PIN, no. 4987/32, forewing; (c) *Pseudosheimia caudata* sp. nov. paratype, PIN, no. 1700/1167, general appearance. Scale bar 2 mm in Fig. 23a and 1 mm in Fig. 23b.

SC parallel to R, RS base situated before wing midlength. MA free and simple. MP terminating closer to posterior margin of wing. CuA fused basally with media, simple, curved toward posterior margin of wing. Crossveins simple. Hindwing similar to forewing, R straight. Ovipositor and cerci short.

Species composition. Type species and *P. rotundata* sp. nov.

Comparison. It differs from the genus *Sheimia* in being larger, a relatively smaller head, wider pronotum, and the absence of RS+MA anastomosis from the forewings.