

## Two new species of *Beris*, with a key to the Palaearctic species of the genus (Diptera, Stratiomyidae)

RUDOLF ROZKOŠNÝ<sup>1</sup> and EMILIA P. NARTSHUK<sup>2</sup>

Department of Biology of Animals and Man, Natural Science Faculty,  
Purkyně University, Brno<sup>1</sup> and Zoological Institute, Academy of Sciences  
of the USSR, Leningrad<sup>2</sup>

### Taxonomy, *Beris kovalevi* sp. n., *B. ziminae* sp. n., illustrated key, 18 species, distribution

**Abstract.** *Beris kovalevi* sp. n. from the Caucasus and *B. ziminae* sp. n. from Soviet Middle Asia are described from both sexes and the diagnostic characters figured. *B. schaposchnikowi* Pleske is redescribed to eliminate confusion with sympatric *B. kovalevi* sp. n. An illustrated key to the identification of the 18 known Palaearctic species of *Beris* is given.

Recently we had the opportunity of examining interesting material of the genus *Beris* LATREILLE originating from the territory of the USSR (V. G. Kovalev Coll., now in the Faculty of Sciences, Purkyně University — FSPU and Zoological Museum, Moscow State University — MGU) and comparing it with a famous collection of this group deposited in the Zoological Institute, Academy of Sciences, Leningrad (ZIN).

It was found that *Beris kovalevi* sp. n. had been partly confused with *B. schaposchnikowi* PLESKE in our earlier paper (NARTSHUK & ROZKOŠNÝ, 1975). Both species have now been carefully compared and significant diagnostic characters were discovered. Our studies resulted in the conclusion that only three species of *Beris* are reliably known to occur in the Caucasian area: *B. clavipes* (LINNAEUS) — a species widely distributed in Europe and two endemic species, viz., *B. schaposchnikowi* PLESKE and *B. kovalevi* sp. n. Some earlier records of *B. fuscipes* MEIGEN (cf. PLESKE, 1926; NARTSHUK, 1969), *B. chalybata* (FORSTER) and *B. morrisii* DALE (cf. ZIMINA, 1976) from the Caucasus are apparently based only on misinterpretation of *B. kovalevi* sp. n. and *B. schaposchnikowi* PLESKE respectively.

*Beris ziminae* sp. n. is obviously related to the Asian *C. heptapotamica* PLESKE (see NARTSHUK & ROZKOŠNÝ, 1975) but differs distinctly by the shape of male terminalia as well as by other characters. The present account of the 18 known Palaearctic species embraces 1 Holarctic, 1 Euroasian, 5 European, 2 Caucasian, 1 Cyprian, 3 Central-Asian and 5 East-Palaearctic species. These may be distinguished according to the key appended here.

### *Beris kovalevi* sp. n.

(Figs. 1—7)

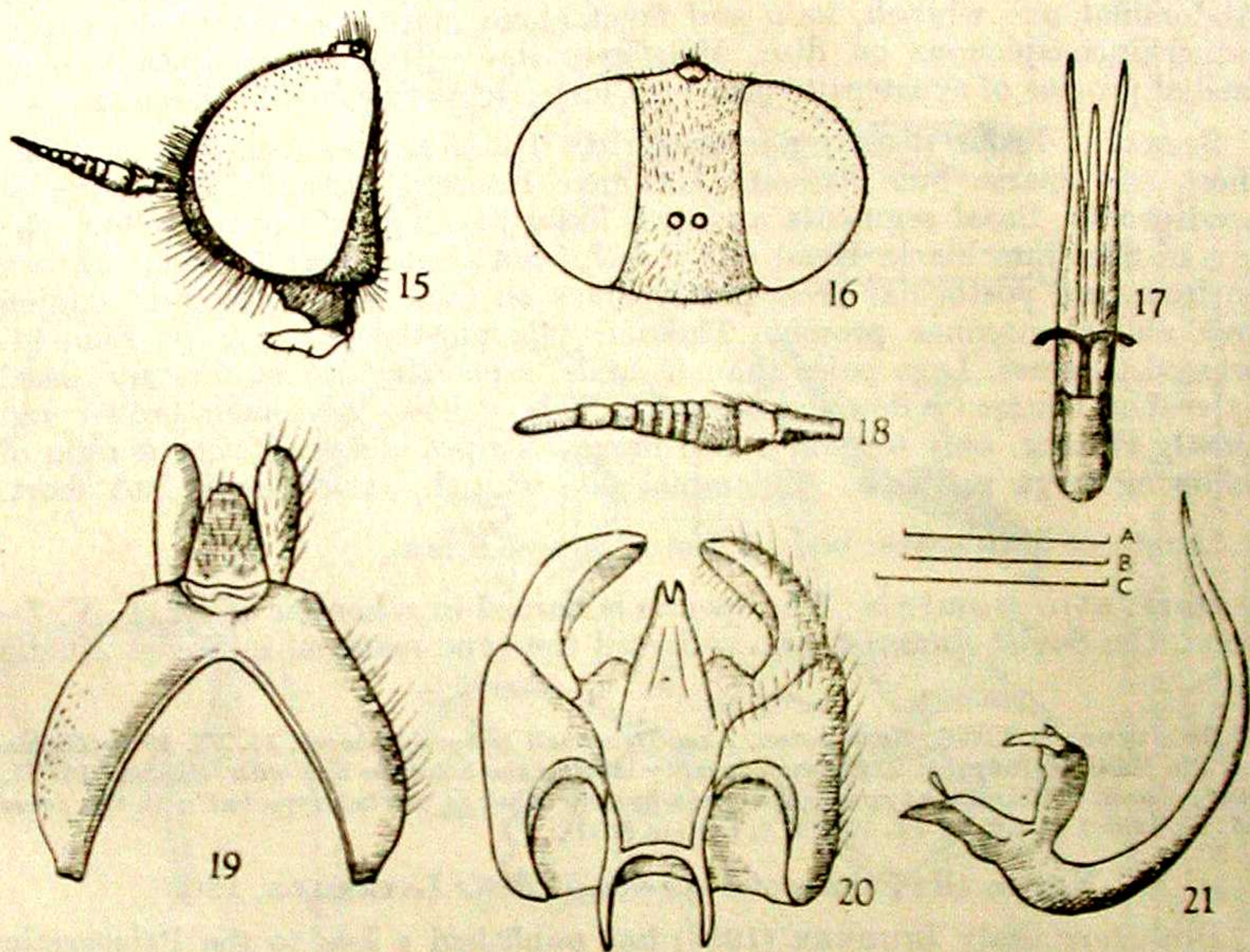
**Diagnosis:** Male dark and densely haired, head and thoracic pile long and black, also legs predominantly dark brown. Epandrium with prominent posterior corners; aedeagal complex short, parameres divergent. Female



*Beris ziminae* sp. n.

(Figs. 15—21)

Diagnosis: Belonging to the species-group with relatively long antennal flagellum and especially elongated last flagellomere. It differs from related and apparently sympatric *B. heptapotamica* PLESKE by the shape of male genitalia and by the extent of haired areas on the female sternopleura.



Figs. 15—21. *Beris ziminae* sp. n.: 15 — male head in lateral view, 16 — female head in frontal view, 17 — aedeagal complex in dorsal view, 18 — female antenna, 19 — male epandrium, 20 — ventral part of hypopygium, 21 — aedeagal complex in lateral view. Scale as in Figs. 1—7.

Male: Head semiglobular, eyes touching on frons, frons and face black, subshining and densely punctate. Eyes with blackish short hairs being hardly as long as pedicel. Face only narrowly producing in lateral view, postocular area well developed in lower part, maximally as wide as both basal antennal segments long. Antennae long and almost entirely dark, inserted just below middle of head-profile. Flagellum at least twice as long as both basal segments, last flagellomere cylindrical, over twice as long as wide. Head pile mostly black and erect, only on posteroventral area partly whitish. Frontal hairs barely longer than scape. Proboscis yellow.

Thorax dark and shining, metallic green on mesonotum and scutellum, humeral calli yellowish brown on lateral tips. Scutellum with 3 pairs of spine-like and haired processes. Thoracic pile whitish to pale yellow, mostly



upright. Mesopleura largely bare in middle, sternopleura bare in anterior and posterior parts. Legs mainly dark brown, only apices of coxae and knees yellowish. Inner side of hind femora and hind tibia with long and erect whitish hairs. Hind metatarsi only slightly swollen, hardly wider than apex of tibia, about 4.5 times as long as wide. Wings brownish infumated, veins and stigma dark brown. Squamae brownish with pale marginal fringe, halteres yellow.

Abdomen dark brown, mostly dull dorsally and subshining ventrally. Abdominal pile whitish, long and erect along margin and only short and rather inconspicuous on disc. Male genitalia with narrow, apically bifid medial process of synsternite and very long, slender aedeagal complex.

Female: Frons slightly narrower than  $1/3$  of head-width. Eye-pile very short and sparse but distinct. Antennae inserted virtually in middle of head-profile. Basal segments and two basal flagellomeres ochre-yellow, the rest of flagellum black. Head pile mostly short but upright, chiefly whitish on frons and postocular area, partly black on face. Large bare and shining area above antennae present. Thoracic pile mostly pale yellow, semi-adpressed to erect. Legs paler than in male, especially trochanters and basal halves of femora yellowish. Squamae pale yellow. Abdomen brown and mostly shining, only tergum 1 and narrow stripes along anterior margin of following terga pollinose. Abdominal pile whitish, rather dense but short.

Length of both sexes: body 5.8 mm, wing 5.0 mm.

Derivatio nominis: The species is named in a honour of Dr. L. V. Zimina, the Soviet dipterist who collected the type material in Soviet Middle Asia.

Holotype: ♂, USSR, Kazakhstan, Aksu-Dzhabagli Natural Reserve, 11. VI. 1965 (Zimina leg.), in MGU. Allotype: ♀, the same locality label as the holotype but with the date 16. VI. 1965, also in MGU. Paratypes: The same locality label as the holotype but with the dates 16. VI. 1965 1 ♂ and 29. VI. 1965 1 ♂; both in MGU.

#### Key to the Palaearctic species of *Beris* LATREILLE, 1802

Until now, only LINDNER (1936) has published a key to the Palaearctic species of *Beris*, including 11 species of which 3 are synonyms. The present key covers the 18 Palaearctic species which have been described up to the present. The diagnostic characters were mostly confirmed by our studies of extensive material, some East-Palaearctic species were included according to the revision by NAGATOMI & TANAKA (1972).

- |  |                                  |
|--|----------------------------------|
| 1. Eyes touching on frons, males .....   | 2                                |
| — Eyes separated by a wider or narrower frons, females .....   | 19                               |
| 2. Ground-colour of abdomen orange to yellowish brown .....  | 3                                |
| — Ground colour of abdomen brown or black .....  | 5                                |
| 3. Basitarsi bright yellow, remaining tarsal segments of all legs brown and contrasting with basitarsi (Cyprus) .....  | <i>cypria</i> JAMES, 1970        |
| — Basitarsi of all legs black similarly as other tarsal segments .....   | 4                                |
| 4. Abdomen with a dark brown preapical transverse stripe on each tergum (cf. Fig. 22), abdominal pile mainly yellow, hind tibia yellow, hardly darkened on extreme apex (Europe) ..... | <i>clavipes</i> (LINNAEUS, 1767) |
| — Abdomen without transverse stripes on terga, abdominal pile in males black, distal half on all tibiae black (Europe) .....   | <i>vallata</i> (FORSTER, 1771)   |
| 5. Flagellum of antenna mostly short and thickened basally (Fig. 23), epandrium with surstyles (Fig. 35) (Holarctic) .....   | <i>fuscipes</i> MEIGEN, 1820     |