

Description of four new Palearctic species of the genus *Sibinia* GERMAR (Insecta: Coleoptera: Curculionidae: Curculioninae)

With 15 Figures

ROBERTO CALDARA & VLADIMIR P. KARASYOV
Milan Minsk

Abstract. Four new species of *Sibinia* from the Palearctic region are described as new to science: *S. iranica* (W and N Iran) and *S. subtilirostris* (Armenia, E Turkey) belonging to the *S. viscariae* group, *S. simulans* (SW Ukraine) and *S. minima* (S Uzbekistan) belonging to the *S. sodalis* group. The male genitalia of *S. neglecta* BAJTENOV are illustrated for the first time.

Among numerous specimens of *Sibinia* received by many colleagues for determination we found four species from South Eastern Palearctic which we consider as new to science and describe as follows.

List of abbreviations:

IZM = Institute of Zoology, Minsk, Byelorussia
BC = Borovec collection, Nechanice, Czech Republic
CC = Caldara collection, Milan, Italy
FC = Fremuth collection, Hradec Králové, Czech Republic
KC = Košťál collection, Bratislava, Slovakia
VC = Voříšek collection, Kladno, Czech Republic
E = elytra
P = prothorax
R = rostrum
l = length
w = width

Sibinia iranica nov. spec. (Figs. 1, 5, 6)

Holotype: Male, "W. Iran, Kurdistan, Sonneath, 22. 6. 1977, C. Holzschuh lgt." (FC). Paratype: 1 male "N. Iran, 35 km N. Khazvin / 23. 5. 1974, Porkert lgt." (CC).

Description. Male (holotype). Length 2.3 mm.

Integument: Black except apical portion of tibiae, tarsi and basal half of antennal scape reddish brown and apical half of antennal scape and antennal funicle dark brown. Well visible on dorsum between vestiture formed by nearly recumbent, uniformly greyish, elongate, subrectangular to subelliptical scales (l/w 5–7). Scales arranged in three irregular rows on each elytral interstria and similar in size and length on interstriae and striae.

Head: Eyes large, convex, moderately prominent. Frons slightly narrower than rostrum at base. Rostrum elongate (RI/PI 0.87), in dorsal view subparallel-sided, markedly pointed to apex, in lateral view slightly curved and feebly tapered at apex, enlarged and with ventral margin distinctly sinuous connected with lower margin of scrobe (Fig. 1). Antennal funicle of six segments, segment 1 broader and 1.5 times longer than segment 2.

Prothorax: Moderately transverse (w/l 1.23), convex on dorsum, widest in basal third, with sides curved from base and strongly narrowed at apex.

Elytra: Subovate (l/w 1.18), wider than prothorax (Ew/Pw 1.30), humeri prominent, sides moderately curved from base, widest in basal half, convex.

Legs: Tarsal segment 3 bilobed, distinctly wider than segment 2; claw process elongate, $\frac{2}{3}$ as long as claw.

Median lobe of aedeagus: Figs. 5, 6.

Female unknown.

Variability. The paratype (length 2.5 mm, RI/PI 0.94, Pw/PI 1.18, El/Ew 1.23, Ew/Pw 1.35) differs from the holotype only in the colour of the antennal funicle (blackish brown) and in the dorsal scales, which are more elongate and partly light brown.

Remarks. The similar habitus and pattern and form of the scales of the dorsal vestiture suggest that this species is related to *S. viscariae* (LINNAEUS) from which it differs by the more transverse and not subconical prothorax, by the less curved rostrum especially in the basal $\frac{1}{3}$ and feebly restricted at apex in lateral view, by the form of the apex of the median lobe, which is similar to that of *S. subelliptica* (DESBROCHERS), and by the reddish apex of the tibiae as in *S. auliensis* PIC.

Distribution. Western and northern Iran.

Etymology. The name refers to the country where the species was collected.

Sibinia subtilirostris nov. spec. (Figs. 2, 3)

Holotype: Female, "5. VI. 1986, Armenia, Garni, leg. Romantzov" (IZM). Paratypes: 1 female, same data as holotype (CC); 1 female, "Armenia mer. 1987, Bjurakan, 16–26. 6., Kadlec + Voříšek" (VC); 1 male and 1 female, "Anatolia or., Karakurt env., Arax riv., 9–6–92, S. Kadlec lgt." (BC).

Description. Female (holotype). Length 3.0 mm.

Integument: Black, except rostrum at apex, scape and funicle of antennae, tibiae at apex and tarsi brown. On dorsum scarcely visible between scales that are dense, recumbent, elongate (l/w 7–9), uniformly greyish brown. Scales on elytral interstriae arranged in 4–5 irregular rows and similar in size to those covering striae, which are poorly distinguishable.

Head: Eyes nearly flat. Frons slightly narrower than rostrum at base. Rostrum elongate (RI/PI 1.26), in dorsal view parallel-sided from base to apex, in lateral view distinctly, regularly curved, at base slightly set off from frons by shallow impression, constricted from base to middle, uniformly attenuate to apex (Fig. 3). Antennal funicle of 6 segments, segment 1 broader and about 1.5 times longer than segment 2.

Prothorax: Transverse (w/l 1.22), subconical, with sides distinctly curved from base, widest in basal $\frac{1}{3}$, markedly constricted at apex, convex on dorsum.

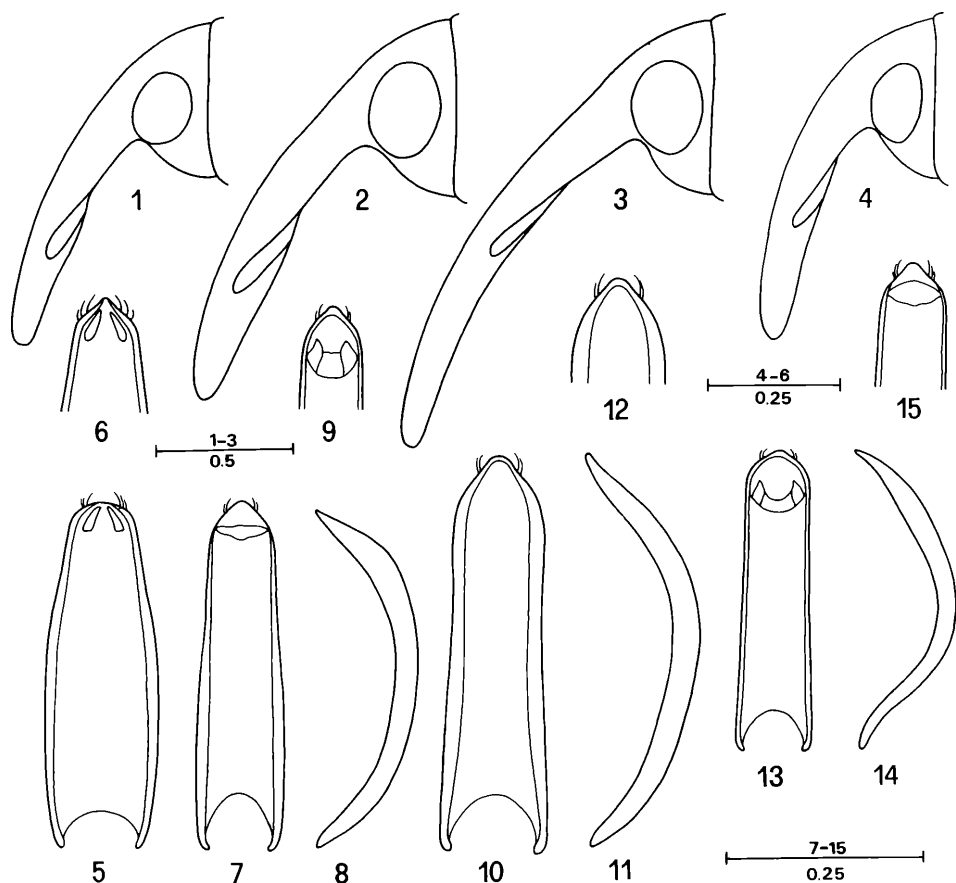
Elytra: Large, subovate (l/w 1.13), moderately wider than prothorax (Ew/Pw 1.35); humeri prominent, sides curved from base, widest in basal half, moderately convex.

Legs: Tarsal segment 3 bilobed and distinctly wider than segment 2; claw process elongate, $\frac{2}{3}$ as long as claw.

Spermatheca: Robust and hook-shaped; spiculum ventrale: with arms narrow, elongate, parallel-sided in basal half and divergent and arcuate in apical half. Both spermatheca and spiculum ventrale not distinguishable from those of *S. pellucens* (SCOPOLI) (CALDARA, 1985).

Male. Length 3.2 mm. Rostrum distinctly less elongate (RI/PI 0.93) and more robust than in female (Fig. 2). Median lobe of aedeagus elongate, nearly parallel-sided, with extreme apex subacute, not distinguishable from that of *S. pellucens* (CALDARA, 1985).

Variability. The other females of the type-series do not show noteworthy differences from the holotype, apart from the size (length 3.3–3.6 mm).



Figs. 1–15: Rostrum (1–4) and median lobe of aedeagus in dorsal (5, 7, 10, 13) and lateral (8, 11, 14) view and apex (6, 9, 15).

1: *Sibinia iranica* nov. spec., male – 2+3: *S. subtilirostris* nov. spec., male and female – 4: *S. minima* nov. spec., male – 5+6: *S. iranica* nov. spec. – 7–9: *S. simulans* nov. spec. – 10–12: *S. neglecta* BAJTENOV – 13–15: *S. minima* nov. spec. (Scales in mm).

Remarks. This species is related to *S. pellucens* in the habitus and pattern of the dorsal vestiture. The clear difference is in the shape of the rostrum of the female, which is distinctly arcuate, more elongate, narrower and slightly set off from the frons by a shallow impression visible in lateral view. This last particular also distinguishes the males of the two species.

Distribution. Armenia, E. Turkey.

Etymology. The name emphasizes the main feature of the species, the shape of the rostrum in the female.

***Sibinia simulans* nov. spec. (Figs. 7–9)**

Holotype: Male, “Budaki, Ukraine, salt ground, 9. VII. 61, 115, leg. Talitzkij” (IZM). **Paratypes:** 1 male and 1 female, same data as holotype (IZM, CC); 1 female ditto except “4. 09. 63” (IZM).

Description. Male (holotype). Length 1.9 mm.

Integument: Reddish, except base of elytra and venter blackish; on dorsum scarcely visible since densely covered with sericeous pale brown and whitish scales, the latter covering base of pronotum and interstria 1 and sides of elytra. Scales flat to slightly concave, broad, subelliptical to rounded (l/w 1–2) on pronotum and subelliptical (l/w 2–2.5) on elytra where irregularly arranged. Venter densely covered with broad, subelliptical to oval, white scales.

Head: Eyes flat. Frons as broad as rostrum at base. Rostrum subcylindrical, as long as prothorax; in dorsal view parallel-sided, in lateral view at base slightly set off from frons by shallow impression; moderately evenly curved, of same thickness from base to apex. Antennal funicle of 6 segments, segment 1 more robust and 2 times longer than segment 2.

Prothorax: Transverse (w/l 1.24), sides moderately curved, widest in basal half, moderately convex on dorsum.

Elytra: Moderately elongate (l/w 1.36), somewhat wider than prothorax (Ew/Pw 1.29), subelliptical; sides moderately curved from base to apex, widest at middle, convex.

Legs: Tarsal segment 3 bilobed, distinctly wider than segment 2; claw without basal process.

Median lobe of aedeagus: Figs. 7–9.

Female. Rostrum slightly longer (Rl/Pl 1.11–1.14) and narrower than in male. Spermatheca robust, with insertion of spermathecal duct distinctly extending past ramus, spiculum ventrale with elongate, narrow, parallel-sided arms; both spermatheca and spiculum ventrale not distinguishable from those of *S. beckeri* (DESBROCHERS) (CALDARA, 1979).

Variability. Apart from the sexual dimorphism, the four specimens of the type-series do not show noteworthy differences.

Remarks. This species is closely related to *S. beckeri*, from which it is distinguished by the shape of the rostrum which is slightly more elongate and slightly but definitely set off at the base from the frons by a shallow impression as in *S. staticis* BECKER [= *S. zuberi* (DESBROCHERS)] (CALDARA, 1979) and by the median lobe of the aedeagus. The scales of the dorsal vestiture are markedly adpressed in both species, but in *S. simulans* they are more imbricated on the elytra. Moreover, their colour is paler, whitish not only on interstria 1 but also on the sides.

Distribution. SW Ukraine, on the NW side of the Black Sea.

Etymology. The epithet is based on the Latin participle *simulans* (= imitating, resembling) and refers to its external resemblance to *S. beckeri*.

Sibinia minima nov. spec. (Figs. 4, 13–15)

Holotype: Male, "Uzbekistan mer., Kyzylkum, M. Koşfal lgt. / Karaulbazar p. Bukhara 5 km NW, 300 m, 30–31. V 1987 / Limonium suffruticosum (L.) Ktze." (KC). **Paratypes:** 4 females, same data as holotype (KC, CC).

Description. Male (holotype). Length 1.3 mm.

Integument: Brown, completely covered on dorsum with dense vestiture of recumbent, greyish, unicolorous, elliptical to sublanceolate scales which are broader and feebly longitudinally impressed on pronotum, femora and ventral part of body (l/w 1.5–2.5), slightly more elongate and also feebly longitudinally impressed on elytral striae (l/w 2.5–3.0), a little more elongate (l/w 3.0–4.0) but not impressed on interstriae where arranged in one or two irregular rows, and on tibiae.

Head: Eyes flat. Frons slightly wider than rostrum at base. Rostrum about as long as prothorax (Rl/Pl 1.02), in dorsal view subparallel-sided from base to apex, glabrous in apical $\frac{2}{3}$, finely punctate, in lateral view distinctly, regularly curved, not narrowed from base to apex (Fig. 4). Antennal funicle of 6 segments, segment 1 broader and 2 times longer than segment 2.

Prothorax: Transverse (w/l 1.22), slightly curved at sides, widest just in front of basal third, gradually narrowed in apical half and sinuate.

Elytra: Suboval (l/w 1.26), distinctly wider than prothorax (Ew/Pw 1.44), widest just behind middle, with sides moderately curved, moderately convex.

Legs: Tarsal segment 3 bilobed, distinctly wider than segment 2; claw without processes.

Median lobe of aedeagus: Figs. 13–15.

Female. Length 1.3–1.5 mm. Rostrum similar in shape and length to that of male (Rl/Pl 1.01–1.04). Spermatheca robust, with insertion of spermathecal duct distinctly extending past ramus, not distinguishable from that of *S. staticis* (BECKER), spiculum ventrale at apex with single narrow median elongate sclerotized arm as in *S. meridionalis* BRISOUT (CALDARA, 1979).

Variability. Apart from the sexual dimorphism, the specimens of the type-series do not show noteworthy differences.

Remarks. This species is closely related to *S. meridionalis* BRISOUT. It differs by the smaller size (1.3–1.5 mm vs. 1.8–2.1 mm), less transverse prothorax which is narrower than the elytra and less curved at the sides, less dense elytral vestiture with the scales on interstriae partly arranged only in single rows, by the median lobe of the aedeagus which is broader and slightly narrowed from base to apex (parallel-sided in *S. meridionalis*) and pointed at the apex, and by the distinctly longer spermathecal nodus. The general habitus of *S. minima* is similar to that of *S. neglecta* BAJTENOV (BAJTENOV, 1974). However, this small species described from Central Kazakhstan of which we have not examined type specimens is characterized by the very dense vestiture composed of yellowish brown, broadly rounded and impressed scales. We refer to this species 1 male and 1 female (IZM) respectively collected at Kulsari, Emba river (W Kazakhstan) and Gazli, Kysylkum desert (Uzbekistan), corresponding well to the original description. Since BAJTENOV did not examine the genitalia of *S. neglecta*, we dissected the two specimens and illustrated the diagnostic median lobe of the aedeagus (Figs. 10 to 12). With regard to the female genitalia, the spermatheca and the spiculum ventrale do not significantly differ from those of *S. minima*.

Distribution. The type locality is a small desert town in southern Uzbekistan at the border of Turkmenistan.

Biological notes. The specimens were collected on *Limonium*, Plumbaginaceae, a family known as host of all the species of the *S. sodalis* group.

Etymology. The name emphasizes the very small size of the species.

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References

- BAJTENOV, M.S. (1974): New species of weevils (Coleoptera, Curculionidae) from Kazakhstan. – *Isv. KasSSR, Ser. biol.* **4**: 30–39.
- CALDARA, R. (1979): Revisione delle specie paleartiche di *Sibinia* vicine a *sodalis* Germar ed *exigua* Faust (Coleoptera Curculionidae). – *Mem. Soc. ent. ital.* **57**: 65–100.
- CALDARA, R. (1985): Revisione delle *Sibinia* paleartiche (Coleoptera Curculionidae). – *Mem. Soc. ent. ital.* **62/63** (1983–84): 24–105.

Addresses of the authors:

Dr. R. Caldara, Piazza Bolivar 7, 20146 Milano (Italy)

Dr. V.P. Karasev, Institute of Zoology, Byelorussian Academy of Sciences, 220072 Minsk (Byelorussia)

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Autor(en)/Author(s): Caldara Roberto, Karasyov Vladimir P.

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