

On some species of the genus *Paranysius* Horváth (Heteroptera, Lygaeidae)

LUDVÍK HOBERLANDT

(Department of Entomology, National Museum [Nat. Hist.], Praha)

The genus *Paranysius* was described by Horváth in 1895 for a single species, *Paranysius fraterculus* Horváth from arid mountains of S. W. Asia. In the course of work on Heteroptera from Central and S. W. Asia I have had occasion to review the status of this genus and some species described in another genus.

The genus *Paranysius* Horváth shows considerable relationship to *Arocatus* Spinola in Lygaeinae.

Genus *Paranysius* Horváth, 1895

Paranysius Horváth 1895, Rev. d'Ent. 14 : 156—157.

Paranysius; Oshanin, 1906, Verz. pal. Hem., 1, p. 159.

Paranysius; Oshanin, 1912, Kat. pal. Hem., p. 28.

Paranysius; China, 1935, Ann. Mag. Nat. Hist., 10, XVI : 467.

Paranysius; Stichel, 1959, Ill. Bestbl. d. Wanzen II, 4 : 315.

Paranysius; Slater, 1964, Cat. Lygaeidae of the world, 1 : 187.

*Xerophagi*us Kiritschenko, 1964, Poluzhestkokrylye (Hem.—Het.) Tadzhikistana, p. 143.
(N. syn.)

Type-species: *Paranysius fraterculus* Horváth, 1895, monobasic.

This small genus is recognizable by shortly substalked eyes which touch or nearly touch the anterior margin of pronotum. Head distinctly broader than long. Antennae 1.4 — 2.2 times as long as width of head across eyes, with fourth or second segment longest. Pronotum only slightly elevated, distinctly broader than long, lateral margins anteriorly slightly sinuate, pronotal disc anteriorly not elevated and with distinct oblique calosities on either side. Disc of pronotum without any longitudinal trough or carine. Scutellum triangular with more or less blunt apex and basally and medially elevated. Surface of pronotum and scutellum and sometimes of head with more or less deep punctures. Sternum punctured, posterior margin of metapleuron slightly rounded and sinuate. Hemelytra complete, reaching to the apex of abdomen, claval commissure about half as long as the length of scutellum, membranal commissure straight.

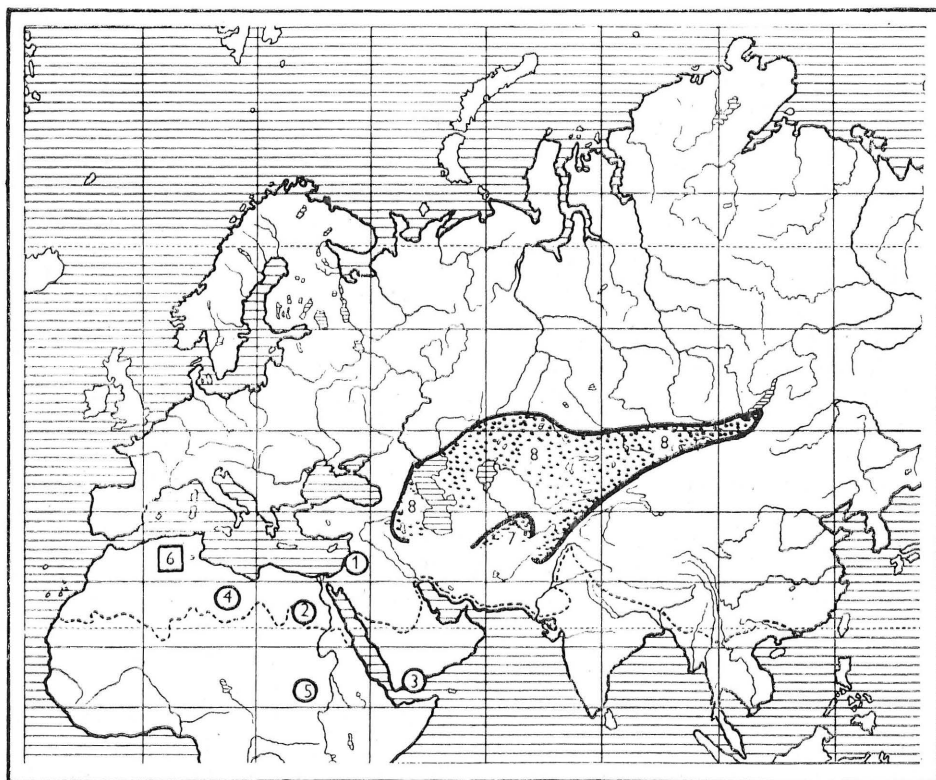
Species of the genus are stramineous or ochreous with darker or blackish markings. Membrane whitish or brownish with colourless or brownish veins.

Genus *Paranysius* at present contains four species, which may be separated into two groups. The species of the first group [containing only a single species, *P. fallaciosus* (Put.)] is characterized by slender long antennae, being 2.2 times longer than width of head across eyes and by its fourth antennal segment being only slightly thicker than the other segments. Eyes are distinctly elongate and distance between ocellus and anterior margin of pronotum twice as long as the diameter of one ocellus; disc of head with more or less deep punctures. First tarsal segment of posterior legs slender and 1.4 times as long as second and third segments together. Parameres of this species are in general outline rather slender and not rectangularly broken, the distal part being longer or as long as the proximal part. The general character of this species is rather small and flattened. The second group of the species of *Paranysius* has the antennae rather thick and shorter, being only 1.4—1.6 times as long as the width of head across eyes and with fourth segment of antennae being distinctly thicker than the other segments. Eyes rather projecting and roundish; distance between ocellus and anterior margin of pronotum as long or shorter than the diameter of one ocellus. Disc of head without distinct punctures, rugose. First tarsal segment of posterior legs thick and as long as second and third segment together. Parameres in general outline rather stout, rectangularly broken and the basal part distinctly longer than the distal part. The general character of the species belonging to this group is rather robust and upper surface rather convex. This group is composed of three species, *Paranysius perplexus* (Puton), *P. oshanini* (Kiritshenko) and *P. fraterculus* Horváth.

Paranysius fallaciosus (Puton) is composed of five subspecies all confined in distribution to the Eremian subregion of Africa and Asia. The characters separating all these subspecies, however, are not convincing and the validity of these subspecies is not wellfounded. However for the solution of this question it will be necessary to study abundant material from the whole area of distribution of this species.

Horváth in 1895 erected genus *Paranysius* for *Paranysius fraterculus* Horváth from Armenia, by monotypy. At the same time Puton described *Arocatus fallaciosus* from Aden. Only in 1935 C. Mancini and W. E. China nearly simultaneously transferred *fallaciosus* from *Arocatus* to *Paranysius* and described new subspecies (*Paranysius fallaciosus libycus* Mancini from Libya, *P. fallaciosus priesneri* China from Egypt and *P. fallaciosus sudanensis* China from Sudan). Further subspecies of *P. fallaciosus* has been described from Israel (*P. fallaciosus israelensis*) by L. Hoberlandt (1951). In 1913 A. N. Kiritshenko described in the genus *Arocatus* a further two species *A. aurora* and *A. oshanini*, both from Middle Asia. Both these species also belong to *Paranysius*. However, A. N. Kiritshenko in 1964 erected another genus *Xerophagiis* (1948 and 1954 n. nud.) for these two species, which became a synonym (n. syn.) of *Paranysius* Horváth and *Arocatus aurora* Kiritshenko is conspecific with *Paranysius fraterculus* Horváth.

All species of *Paranysius* are confined in distribution (map) to the Eremian areas of Africa and Asia. All subspecies of *Paranysius fallaciosus* (Puton) are concentrated to the southern areas of Eremian, when recorded from Libya: Fezzan (*P. fallaciosus libycus* Mancini), Egypt: Libyan Desert, Dakhla Oasis



1: Map of the distribution of *Paranysius*: *Paranysius fallaciosus israelensis* Hoberlandt (1), *Paranysius fallaciosus priesneri* China (2), *Paranysius fallaciosus fallaciosus* (Puton) (3), *Paranysius fallaciosus libycus* Mancini (4), *Paranysius fallaciosus sudanensis* China (5), *Paranysius perplexus* (Puton) (6), *Paranysius oshanini* (Kiritshenko) (7), *Paranysius fraterculus* Horváth (8).

(*P. fallaciosus priesneri* China), Sudan: Talodi (*P. fallaciosus sudanensis* China), Israel: Wadi el Kelt (*P. fallaciosus israelensis* Hoberlandt) and from Aden [*P. fallaciosus fallaciosus* (Puton)]. The other species of the genus range nearly from the extreme west part of Eremian to the eastmost part of the area. *Paranysius perplexus* (Puton) occurs in Biskra (Algeria) and is westmost species of the genus. Only from few places of Middle Asia (Uzbekistan and Tadzhikistan) and from S. W. Asia (Iran) is recorded *Paranysius oshanini* (Kiritshenko). *Paranysius fraterculus* Horváth is most distributed species of the genus, ranging from steppe region of south Anatolia (Diyarbakir) through the arid mountains of Armenia to Middle Asia (Turkmenia, Kazakhstan, Tadzhikistan and Afghanistan) northwards as far as to steppe region south of Ural and eastwards to Changai of Mongolia and the region of Lake Bajkal.

Key to the species of *Paranysius* Horváth

1. Eyes inserted in the margin of head, elongate, 2.5 times as long as broad, less prominent. Ocelli very small, distance between ocelli and margin of eyes twice as long as the diameter of one ocellus. Disc of head with more or less disperse deep pits. Antennae 2.2 times as long as the width of head across eyes, slender, fourth segment only slightly wider than other segments, second antennal segment more than twice as long as the first segment and 1.4 times as long as the third segment. Pits on pronotum rather sparse, irregular and the interspaces between the pits rather plain. Parameres in general outline rather slender and not rectangularly broken, the distal part longer or as long as the basal part *P. fallaciosus* (Puton) 2.
- Eyes prominent, substylate, roundish, 1.7 times as long as broad. Distance between ocelli and anterior margin of pronotum as long or shorter than diameter of one ocellus. Disc of head without or only with obsolete pits, rugous. Antennae 1.4—1.6 times as long as the width of head across eyes, rather stout, fourth segment distinctly wider than other antennal segments, second antennal segment less than twice as long as first segment and as long as or 1.3 times longer than third segment. Pits on pronotum fairly dense, the interspaces between pits rather elevated. Parameres in general outline rather stout, rectangularly broken and the basal part distinctly longer than the distal part 6.
2. Veins of membrane infuscated 3.
- Veins of membrane whitish hyaline, like membrane *P. fallaciosus israelensis* Hoberlandt
3. Pink markings on pronotum absent or scarcely visible 4.
- Pink markings on pronotum quite distinct, especially the median percurrent line 5.
4. Pale whitish-yellow subspecies with feeble infuscation of hemelytra except costal margin *P. fallaciosus priessneri* China
- Rich fulvous subspecies with heavy infuscation of hemelytra except costal margin *P. fallaciosus fallaciosus* (Puton)
5. Fourth antennal segment infuscate, pronotum with 3 longitudinal pink lines, one median and one down each side, also 4 pink spots placed two on each side of middle pink line, one in front of callus and one behind the callus *P. fallaciosus libycus* Mancini
- Fourth antennal segment pallid as other segments, pronotum with one percurrent median pink line and usually with one short one down anterior part of each side *P. fallaciosus sudanensis* China
6. Second to fourth antennal segment of nearly equal length. Head seen from side as long as high *P. perplexus* (Puton)
- Second and third antennal segments distinctly shorter than fourth segment. Head seen from side distinctly higher than long 7.
7. Antennae and legs pale yellowish brown, femora brownish spotted; head, pronotum, scutellum and hemelytra unicolourous stramineous, without blackish markings. Calli brownish. Membrane whitish, hyaline. Parameres

- only in apical part narrowed and slightly turning upwards
 *P. oshanini* (Kiritshenko)
- Antennae and legs blackish or blackish brown; head, pronotum scutellum and corium bright ochreous or reddish with black or blackish markings. Calli and adjacent parts of pronotum black or blackish. Membrane partly or entirely brownish with veins whitish. Parameres just after angle distinctly narrowed and sinuate *P. fraterculus* Horváth

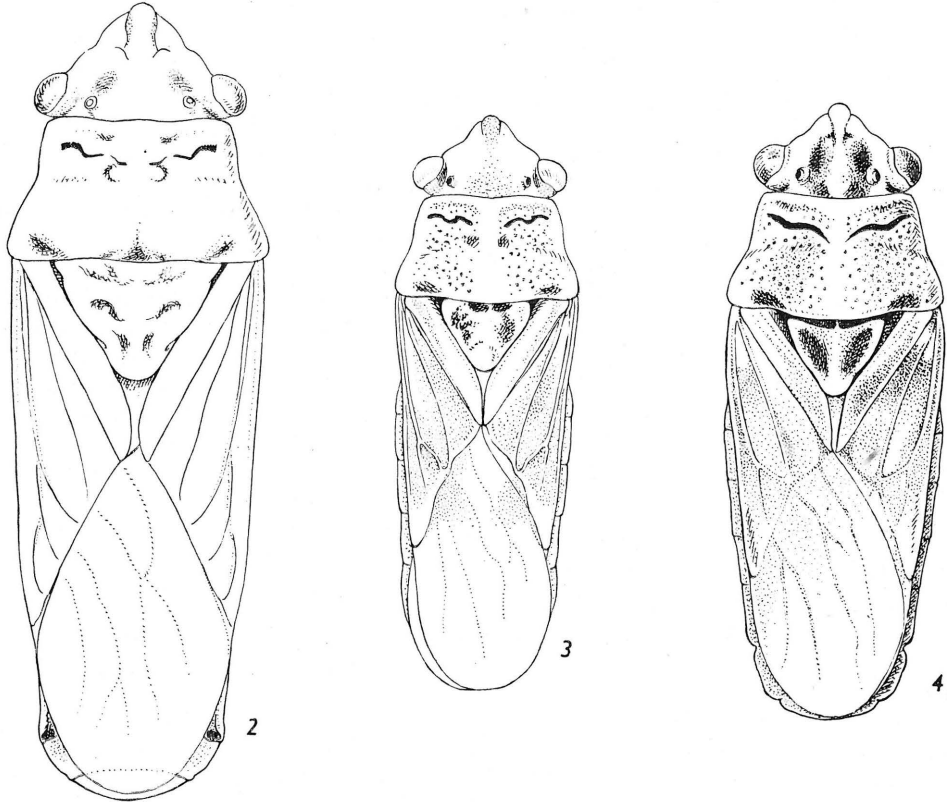


Fig. 2: *Paranysius perplexus* (Puton), female (holotype) from Biskra, 3: *Paranysius oshanini* (Kiritshenko), male from Kumak, 4: *Paranysius oshanini* (Kiritshenko), male from Shachrud.

***Paranysius perplexus* (Puton, 1898)**

(Fig. 2, 8)

Nysius perplexus Puton, 1898, *Rev. d'Ent.*, 17 : 166—167. (Holotype in Mus. Nat. Hist. Nat. Paris).

Nysius perplexus; Oshanin, 1906, *Verz. pal. Hem.*, I, p. 265.

Nysius perplexus; Oshanin, 1912, *Kat. pal. Hem.*, p. 29.

Paranysius perplexus; Wagner, 1958, *Comm. biol.* 19 (2) : 38—39, figs 16a—f. (N. comb. by Wagner).

Paranysius perplexus; Stichel, 1959, Ill. Bestbl. d. Wanzen, II, 4 : 315.

Paranysius perplexus; Slater, 1964, Cat. Lygaeidae of the world, 1, p. 187.

Female. Length 4.32 mm, width 1.5 mm. Head: length 0.69 mm, width 1.23 mm, synthlipsis 0.81 mm. Antennae: length of segment I, 0.27 mm, II, 0.57 mm; III, 0.51 mm; IV, 0.51 mm. Pronotum: length 0.9 mm, width 1.53 mm. Scutellum: length 0.57 mm, width 0.84 mm.

Body 2.9 times as long as broad, broadest across posterior angles of pronotum and then distinctly narrowed.

Head 1.85 times as broad as long, ocular index 3.2, disc of head arched, frons declivous, clypeus slightly projecting, obtuse. Eyes slightly protruding. Head seen from side nearly as long as height. Ocelli small, distance between eyes and ocelli as long as the diameter of one ocellus. Head rugose and with disperse smaller callosities. Bucculae shallow, equally broad, anteriorly with small angular processus. Rostrum reaches nearly to the middle coxae. Antennae 1.5 times as long as the width of head across eyes, stout, fourth segment widest, third segment slenderest; antennae with suberect hairs shorter than the width of segments. Relative lengths of antennal segments 9 : 19 : 17 : 17.

Pronotum posteriorly 1.7 times as broad as long, lateral margins in anterior direction sinuately narrowed, anterior margin concave, posterior margin straight, 1.4 times as broad as anterior margin. Disc of pronotum arched anteriorly, transversally impressed; surface with large rather regular pits, anteriorly with sinuate narrow calli. Thorax with smaller disperse pits. Posterior margin of metapleuron oblique, sinuate, upper angle broadly rounded, lower angle narrow and slightly projecting. Scutellum 1.5 times as broad as long, triangular, with slightly roundish margins and broad apex. Disc of scutellum basally elevated and longitudinally so in posterior half. Surface of scutellum in lowest part with very sparse pits.

Hemelytra converging in apical direction, with lateral margins of corium straight. Interior part of corium subhyaline, posterior corial margin straight. Membrane broadly rounded. Surface of the body, antennae and legs with short partly twisted hairs, which are rather longer on lateral sides of corium and on tibiae.

Colour of the body in general stramineous, antennae and apices of tibiae slightly infusate, eyes, calli on pronotum and two stripes on head near the ocelli and clypeal sutures and rostrum brownish. Membrane infusate with whitish veins. Femora with numerous irregular brownish spots. Ventriles on sides irregularly spotted. Hairs silvery white.

Material examined:

Female — holotype: Algeria, Biskra, May 1894, Dr. A. Chobaut coll. (Museum National d'Hist. Nat., Paris).

Distribution: Algeria.

***Paranysius oshanini* (Kiritshenko, 1913), n. comb.**

(Figs 3, 4, 9, 10, 14, 16—19)

Arocatus oshanini Kiritshenko, 1913, Rev. Russe d'Ent., 13 : 407—408. (Holotype in Zool. inst. Ac. Sci., Leningrad).

Xerophagijs oshanini; Kiritshenko, 1952, Trudy zool. inst. A N SSSR, 11 : 129.

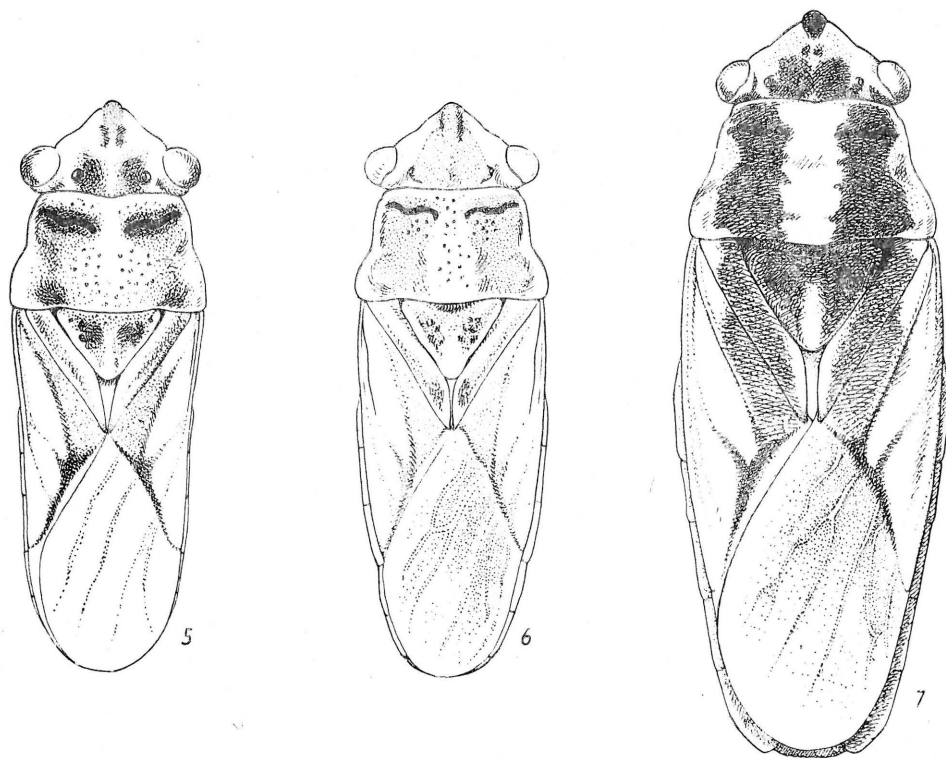


Fig. 5: *Paranysius fraterculus* Horváth, male (holotype) from Ararat, 6: *Paranysius fraterculus* Horváth, male from Baty (Irtysh), 7: *Paranysius fraterculus* Horváth, female from Diyarbakir.

Arocatus oshanini; Stichel, 1959, Ill. Bestbl. d. Wanzen, II, 4 : 314.

Arocatus oshanini; Slater, 1964, Cat. Lygaeidae of the world, 1 : 25.

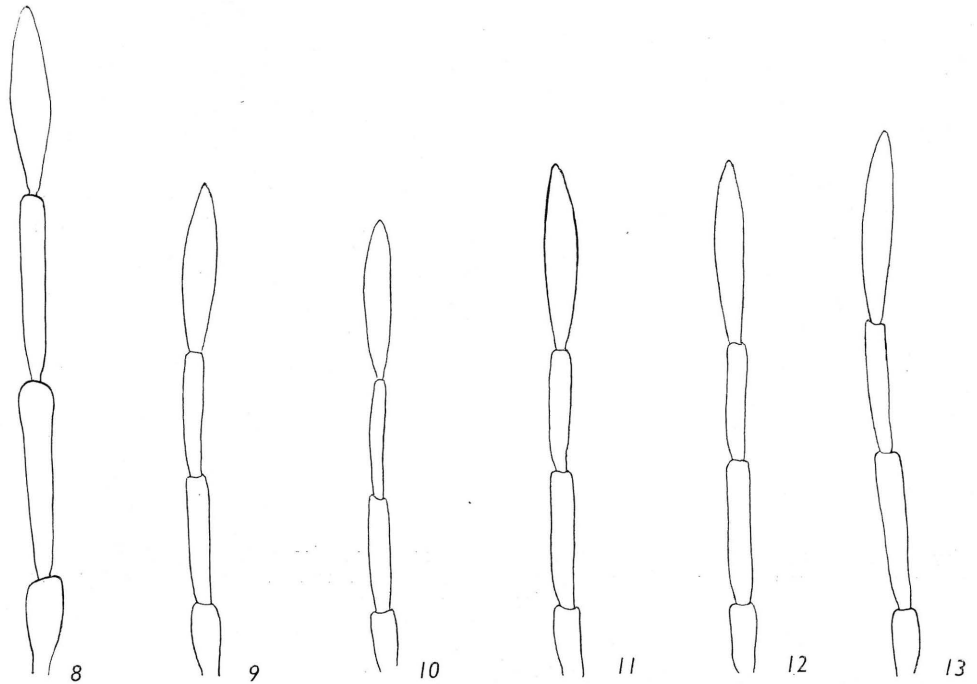
Xerophagijs oshanini; Kiritshenko, 1964, Poluzhestkokrylye (Hem.-Het.) Tadzhikistana, p. 144.

Male. Length 3.48—3.81 mm, width 1.14—1.29 mm. Head: length 0.45—0.63 mm, width 0.93—1 mm, synthlipsis 0.54—0.6 mm. Antennae: length of segment I, 0.21—0.24 mm; II, 0.39—0.42 mm; III, 0.36—0.39 mm; IV, 0.51—0.54 mm. Pronotum: length 0.69—0.75 mm, width 1.17—1.26 mm. Scutellum: length 0.42—0.48 mm, width 0.57—0.66 mm.

Shape of the body elongate, 3 times as long as broad, posteriorly convergent. Head twice as broad as long, head seen from side 1.4 times higher than long. Ocular index 2.8. Head anteriorly strongly declivous with projecting clypeus. Eyes protruding, 1.3 times as long as broad. Distance between ocellus and eye as long as the diameter of one ocellus. Bucculae narrow not reaching to the base of head, anteriorly and posteriorly sinuately slightly widened. Rostrum reaches to the posterior margin of mesonotum. Disc of head rugose

without distinct pits. Antennae stout, 1.6 times as long as the width of head, fourth segment longest and stoutest, spindleform, second and third segment nearly of equal length, linear, third segment slightly thinner than second. Antennae with fine semierect long bristles. Relative lengths of antennal segments 7 : 13 : 12 : 17.

Pronotum 1.7 times as broad as long, lateral margins in the anterior direction sinuately narrowed, anterior margin moderately concave, posterior pronotal margin straight, 1.4 times as broad as anterior one. Disc of pronotum



Antennae of *Paranysius* — fig. 8: *Paranysius perplexus* (Puton), female, 9: *Paranysius oshanini* (Kiritshenko), male, 10: *Paranysius oshanini* (Kiritshenko), male, 11: *Paranysius fraterculus* Horváth, male, 12: *Paranysius fraterculus* Horváth, male, 13: *Paranysius fraterculus* Horváth, female.

posteriorly strongly arched and anteriorly declivous and depressed across calli. Anterior pronotal margin and a fine longitudinal middle line calous. Surface of pronotum with irregularly dispersed large deep punctures. Scutellum triangular, 1.3 times as broad as long with margins nearly straight and narrow obtuse apex. Margins of the scutellum, anterior angles and disc in the middle longitudinally elevated, depressed part with irregular punctures. Sternum with punctures, posterior margin of metapleuron slightly sinuate in lower part lobately projecting. Hemelytra reaching slightly beyond the apex of abdomen, clavus coriaceous, corium semitransparent, veins and membranal commissure elevated, membrane hyaline.

Legs stout, tibiae straight, legs with subadpressed hairs and with a few rather longer and suberect. Surface of whole body with short fine adpressed twisted hairs.

9th male abdominal segment globular, posteriorly below depressed, seen from above slightly wider than long, roundish, margins of upper opening bisinuate, the anterior sinuation being more than twice as long as the apical, the angle on the margin between the sinuations small, triangular, subacute. The width of anterior part of upper opening only slightly narrower than in posterior part. Posterior margin of the segment with a small cleft in the middle. Parameres rectangularly broken, only at apical part narrowed and slightly turning upwards. There are several bristles on the parameres.

Colour of the body stramineous with brownish punctures on pronotum, scutellum and sternum. Eyes brown, head unicolorous stramineous, base of clypeus and vertex near ocelli more or less brownish. Last rostral segment brown. Calli of pronotum pale brownish. Antennae unicolorous pale, or base and apices of some segments only slightly darkened. Semitransparent part of corium between veins pale brownish. Membrane together with veins silvery, on base with one roundish brownish spot. Tergum of abdomen darkened, respective ventrites laterally spotted. Femora with the exception of apical darkened parts with brownish irregular spots. Whole pubescence pale shining.

Female. Length 3.96—4.44 mm, width 1.5—1.71 mm. Head: length 0.63—0.69 mm, width 1.—1.17 mm, synthlipsis 0.63—0.72 mm. Antennae: length of segment I, 0.21—0.24 mm; II, 0.39—0.42 mm; III, 0.36—0.39 mm; IV, 0.45—0.57 mm. Pronotum: length 0.75—0.84 mm, width 1.41—1.59 mm. Scutellum: length 0.57 mm, width 0.69—0.85 mm.

Material examined:

1 ♀ — USSR: Uzbek SSR, Jargan near Hatyrchsh, N. W. Buchara, 16. VII. 1928 collected by Zimin.

1 ♀ — USSR: Uzbek SSR, Ajak-agytma, territory of Buchara, 18. V. 1948 collected by Kiritshenko.

1 ♂ — USSR: Uzbek SSR, Kumak, Katta Kurgan near Samarkand, 7. VII. 1929 collected by Zimin.

1 ♂ — USSR: Novosibirsk region, valley of river Vaksh, 6 km W of Kuibyshevsk, 12. VII. 1943 collected by Kiritshenko.

1 ♂ and 1 ♀ — Iran, Shachrud, 21.—26. V. 1914 collected by Kiritshenko.

Distribution: USSR, Uzbek SSR, Buchara, Shirabad (Kiritshenko 1913); Termez (Kiritshenko 1913); Jargak; Ajak-agytma; Kumak, Katta-Kurgan (Kiritshenko 1964). Tadzhik SSR, Staraja Pristan on the river Vaksh, valley of the river Vaksh near Kuibyshevsk (Kiritshenko 1964). Iran, Shachrud (new record).

Host plant: according to Kiritshenko (1952, 1964) very commonly on *Statice leptostachys*.

Paranysius fraterculus Horváth, 1895

(Figs. 5—8, 11—13, 15, 20—23)

Paranysius fraterculus Horváth, 1895, Rev. d'Ent., 14 : 157 (Holotype in Hungarian Nat. Museum Zool., Budapest).

- Arocatus oxianus* Oshanin, 1891, Zap. russk. geogr. obsch., 23 : 34. (N. nud.)
Paranysius fraterculus; Oshanin, 1906, Verz. pal. Hem., 1, p. 259.
Paranysius fraterculus; Oshanin, 1912, Kat. pal. Hem., p. 28.
Arocatus aurora Kiritshenko, 1913, Rev. Russ. d'Ent. 13 : 406—407. (Holotype in Zool. Inst. Ac. Sc., Leningrad). (N. syn.).
Paranysius fraterculus; Kiritshenko, 1918, Mém. Mus. Caucase, ser. A, 6 : 81.
Paranysius fraterculus; China, 1935, Ann. Mag. Nat. Hist., 10, XVI : 467—468.
Xerophagijs aurora; Kiritshenko, 1948, Zhivotnij mir SSSR, 2 : 257.
Xerophagijs aurora; Kiritshenko, 1952, Trudy zool. inst. A N SSSR, 11 : 129.
Xerophagijs aurora; Kiritshenko, 1954, Trudy zool. inst. A N SSSR, 16 : 296.
Arocatus aurora; Stichel, 1959, Ill. Bestbl. d. Wanzen II, 4 : 314.
Paranysius fraterculus; Stichel, 1959, Ill. Bestbl. d. Wanzen II, 4 : 315.
Xerophagijs aurora; Tsherepanov & Kiritshenko, 1962, Trudy biol. inst. A N SSSR, (sib. otd.), 8 : 8, 21.
Xerophagijs aurora; Asanova, 1962, Tr. Inst. Zool. A N Kaz. SSSR, 18 : 122.
Arocatus aurorus; Slater, 1964, Cat. Lygaeidae of the world, 1 : 20.
Paranysius fraterculus; Slater, 1964, Cat. Lygaeidae of the world, 1 : 187.
Xerophagijs aurora; Kiritshenko, 1964, Poluzhestkokrylye (Hem.—Het.) Tadzhikistana, p. 143.
Xerophagijs aurora; Popov, 1965, Acta ens. Mus. Nat. Pragae, 36 : 208.

Male. Length 3.45—3.66 mm, width 1.2—1.26 mm. Head: length 0.57—0.6 mm, width 1.08—1.11 mm, synthlipsis 0.66—0.69 mm. Antennae: length of segment I, 0.21—0.25 mm; II, 0.39—0.47 mm; III, 0.33—0.4 mm; IV, 0.54—0.6 mm. Pronotum: length 0.69—0.75 mm, width 1.2—1.26 mm. Scutellum: length 0.42—0.51 mm, width 0.6—0.63 mm.

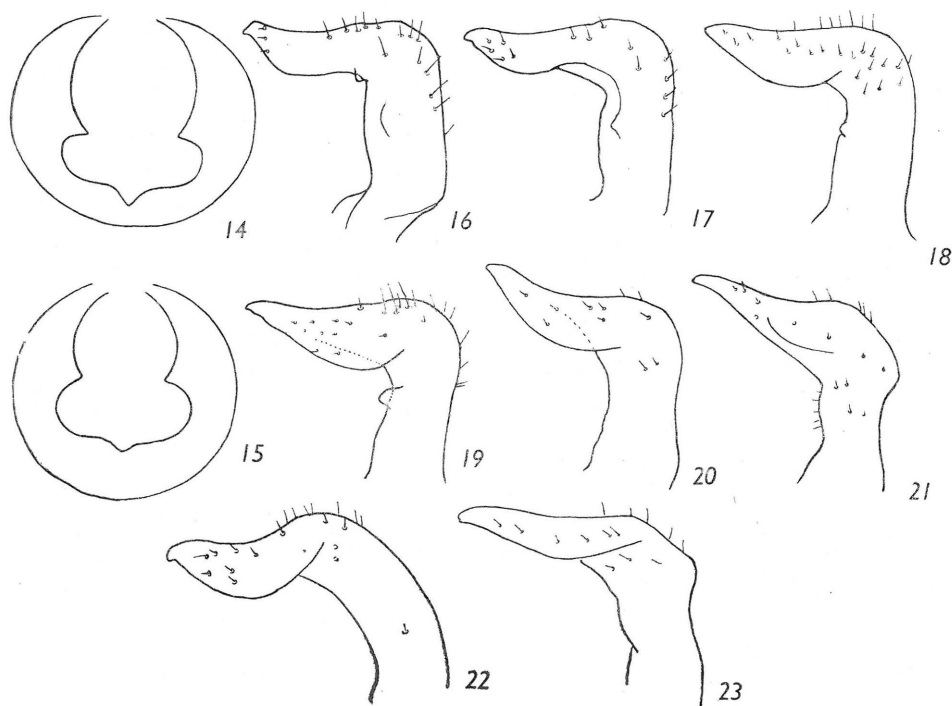
Body 2.8—2.9 times as long as broad, broadest across posterior angles of pronotum and from base of hemelytra towards the apex distinctly narrowed with nearly straight margins of corium and abdomen.

Head 1.8—1.9 times as broad as long, head seen from side 1.2—1.5 times as high as long; ocular index 3.1—3.3. Head arched, clypeus projecting, broad, apically obtuse. Eyes protruding, subpendunculate, oblique, 1.4 times as long as broad. Disc of head rugous, with rather dense short adpressed and some longer suberect twisted hairs. Bucculae narrow, anteriorly straight, posteriorly arcuate. Antennae 1.4—1.6 times as long as the width of head across eyes, stout, first antennal segment stoutest, first three segments apically rather widened, fourth segment spindle-like, not conspicuously wider than the third segment. Antennae with short dense pubescence and suberect hairs, as long as or longer than the width of respective segment. Relative lengths of antennal segments 8 : 15 : 12 : 19.

Pronotum posteriorly 1.7—1.8 times as broad as long, lateral margins in anterior direction sinuately narrowed. Anterior margin concave, posterior margin bisinuate. Disc of pronotum slightly arched, anteriorly less distinctly, in the middle transversely moderately depressed. Surface of pronotum with regularly dispersed fairly dense deep pits, interspaces between pits fairly elevated, anteriorly near to anterior margin on each side with oblique long callus. Disc of pronotum medially longitudinally slightly tumid. Surface of pronotum with pubescence similar to that on head, pleural region with pits similar to these on pronotum. Scutellum 1.2—1.4 times as broad as long with roundish sides and blunt apex. Scutellum anteriorly slightly elevated, posteriorly in the middle longitudinally slightly raised, surface of scutellum lateral to the longitu-

dinal ridge with pits and hairs similar to that of pronotum. Venter with dense scale-like adpressed whitish pubescence. Legs with short pubescence and on tibiae with very long suberect hairs. Hemelytra shortly overreaching the apex of abdomen; membranal commissure straight, corial veins distinct, corium with hairs.

9th male abdominal segment globular, below posteriorly truncate, seen from above roundish, 1.1 times as broad as long, inner margins of upper opening



9th male abdominal segment — fig. 14: *Paranysius oshanini* (Kiritshenko), from Kuybishevsk, 15: *Paranysius fraterculus* Horváth from Transbaicalia. Parameres — fig. 16 and 17: *Paranysius oshanini* (Kiritshenko) from Kuybishevsk, 18 and 19 *Paranysius oshanini* (Kiritshenko) from Shachrud, 20 and 21: *Paranysius fraterculus* Horváth from Transbaicalia, 22 and 23: *Paranysius fraterculus* Horváth from Diyarbakir.

bisinate, the anterior being less than twice as long as the apical sinuation, the margin between both sinuation with a small roundish lobe. Anterior part of the opening distinctly narrower than the posterior one. Posterior margin of the opening with a small cleft.

Parameres including obtuse angle and the apical part just after angle distinctly narrowed and sinuate. There are several bristles on the parameres.

Body brightly ochraceous or reddish, with blackish or blackish brown markings. Head pale ochreous or reddish, clypeus dark reddish brown to

blackish, disc of head between ocelli and anterior margin of pronotum blackish, often medially confluent with markings on clypeus. Eyes and ocelli reddish brown. Antennae blackish brown or blackish, fourth segment rather brownish. Rostrum black. Pronotum pale ochreous or reddish, oblique glabrous calli in anterior part of pronotum shining black and parts of pronotum close to calli black or blackish, pronotum posteriorly on each side with one irregular blackish spot reaching posteriorly to the pronotal margin and partially or completely confluent with blackish markings in anterior part of pronotum. Scutellum in anterior part blackish leaving medial and apical part or only apical part ochreous or reddish. Sternum ochreous or reddish with pleural areas blackish. Coxae, trochanters and femora blackish brown or blackish, femora apically distinctly paler, tibiae and tarsi dark brown or blackish. Clavus dark brown or blackish brown, basal exterior angle and apical part in different extension ochreous or reddish, corium in interior angle and posterior margin dark brown, exterior part of corium ochreous or reddish with concolorous veins. Membrane semitransparent, dark brownish or at least brownish, on base with whitish veins. Tergum ochreous or reddish on sides with blackish percurrent spots. Male genital segment dark. All kinds of pubescence and hairs whitish.

Female. Length 4.35—4.59 mm, width 1.53—1.65 mm. Head: length 0.6—0.69 mm, width 1.17—1.23 mm, synthlipsis 0.75—0.78 mm. Antennae: length of segment I, 0.24—0.25 mm; II, 0.45—0.51 mm; III, 0.36—0.45 mm; IV, 0.57—0.63 mm. Pronotum: length 0.78—0.84 mm, width 1.44—1.5 mm. Scutellum: length 0.57—0.63 mm, width 0.75 mm.

Female proportionally stouter than male, otherwise similar in shape and colour.

Material examined:

Male - holotype: "Caucasus, Armen. Geb. Leder—Reitter". According to Horváth 1895: Agri dag (Ararat, Mons Alagoes). (Hungarian Nat. Mus. Zool., Budapest).

1 ♂ — USSR: Kazakh SSR, Baty on the river Irtysh, 19. VI. 1930 collected by Luknovitsh.

1 ♀ — USSR: Tuva, Kyzyl steppe, 4. VII. 1948 collected by Tsherepapov.

1 ♂ — USSR: Transbaikalia SE (Buryat-Mongol ASSR), Tesqua Borgoi, shore of Lake Sal, 19. VII. 1928 collected by Luknovitsh.

1 ♀ — Afghanistan: Durufulun near Kabul, 1,800 m, 9. VI. 1953 collected by Klapperich.

2 ♂♂ and 4 ♀♀ — Turkey: Diyarbakir, Karacadag, 24. VI. 1958 collected by Brown.

Distribution: USSR, (Armenian SSR: Ararat (type-locality) (Horváth 1895, Kiritshenko 1918), Kazakh SSR: Syr-Darya, Susamyr (Kiritshenko 1913), Koksengir Mountains, Bet-Pak-Dala desert (Asanova 1962) Lake Aksuat Naurzun (Kiritshenko 1964), Atbasar (Kiritshenko 1964), Tshelkar (Kiritshenko 1964), Kzyl-Orda territory, Muruntski in Sands of Priaralskie Karakumy (Kiritshenko 1964), Karasaj Dzhagan-ata, Karatau Mountains (Kiritshenko 1964), Ilijskij (Kiritshenko 1964), Daraut-Kurgan, Alajskaja Valley (Kiritshenko 1964). Tadjik SSR: river Iskender, Darja in Gissar Mountains, south of river Vaksh (Kiritshenko 1964), Staraja Pristan on River Vaksh (Kiritshen-

ko 1964). Turkmen SSR: Termez, vicinity of Kushka, Tashkepri on the river Murgab (new record). West Kazakhstan territory: vicinity of Shipovo (new record), Aktjubinsk territory: Uil, Tshelkar (new record), East Kazakhstan territory: vicinity of Ust Kamenogorsk, Lake Zajsan (new record). Kirgiz SSR: W. Tien-Shan, Djalal-Abad (Popov 1965); Daraut-Kurgan (new record). Territory of Orenburg: Orsk on the river Ural (Kiritshenko 1954). Region Tselinnyi: territory Kustanaj, (new record). Territory Tselinograd (former Aknolinsk): Atbasar, vicinity of Derzhavinskij on the river Ishin, Lake Koskul, 250 km S of Atbasar (new record). Territory of Alma-Ata: Ili (former Ilijsk), 30 km W of Lepsy on Lake Balkhash, Lake Alakul (new record). Tuva ASSR: Kyzy (Tsherepanov & Kiritshenko 1962) Tannu-ola Mountains record). Buryat ASSR: Tesqua Borgoi in Transbaicalia (new record). Mongolia: Changai Mountains (Kiritshenko 1913). Afghanistan: Durufulan, Kabul (new record). Turkey: Diyarbakir, Karacadag (new record).

Host plants: *Helichrysum* sp. (Kiritshenko 1954) and *Astragalus* sp. (Kiritshenko 1957).

According to Kiritshenko (1948, 1952, 1962) *Paranysius fraterculus* Horváth is a steppe and desert or semidesert species. Dr. I. M. Kerzhner states (in letter) that it occurs in sandy regions (Lake Balkhash) and ranges in deserts and semideserts as well as in arid mountains.

Conclusion

Xerophagius Kiritshenko 1964 is synonym (**n. syn.**) of *Paranysius* Horváth 1895. *Arocatus aurora* Kiritshenko 1913 is considered as conspecific (**n. syn.**) with *Paranysius fraterculus* Horváth 1895 and *Arocatus oshanini* Kiritshenko 1913 belongs to the genus *Paranysius* (**n. comb.**)

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