# New or poorly known Platynini from SW China (Coleoptera: Carabidae)

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Three supraspecific taxa of the tribe Platynini from SW China and adjacent areas are considered. The validity of the genus Andrewesius Jedlička, 1932, is confirmed, its specific composition determined and two new species described: A. fedorovi sp. n. from Yunnan and A. omeishanicus sp. n. from Sichuan. Polychaetagonum gen. n., type species P. plurisetosum sp. n., and two other new species belonging to this genus, P. chensicieni sp. n. and P. inexspectatus sp. n., all the three from the upper belt of Omeishan Mt. (Sichuan) are described; a key to the three species of the genus is provided. The genus Klapperichella Jedlička, 1955 is examined and K. melanoxantha sp. n. is described from Yunnan; it has a striking dimorphism in coloration. Platynus setiporus Reitter, 1893, from "Buchara" is redescribed; the author believes it to belong to the E Asiatic genus Colpoides Jedlička, 1931, and its actual provenance to be from China.

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The large and heterogenous tribe Platynini is taxonomically one of the most difficult groups of Carabidae. No generally accepted classification of the tribe exists. Platynini have been investigated satisfactorily only in five regions of the world: three in the northern temperate zone (W Europe, Japan, N America) and two in largest tropical islands: New Guinea (Darlington, 1952) and Madagascar (Basilewsky, 1985). The classifications of the tribe proposed for each of these regions are severely contradictory to each other.

The establishment of a classification of this tribe is therefore very problematic not only for the world fauna in the whole but in respect of the fauna of Eurasian continent as well.

Data on two poorly known groups of Platynini from SW China are considered below and six new species are described.

Holotypes of the new species are deposited in the collection of the Institute of Zoology, Academia Sinica, Beijing, China, some of the paratypes in the Zoological Institute, Russian Academy of Sciences, St. Petersburg (ZIN).

Genus Andrewesius Jedlička, 1932

This genus was established by Jedlička

(1932) for two species from SW China (Sichuan Province) on the basis of their similarity in the general aspect, ovate elytra with rounded shoulders, absence of hind marginal seta of pronotum and bifid tooth of mentum. Some authors (Louwerens, 1953; Landin, 1955) regarded Andrewesius (incorrectly spelt "Androwesius" by Landin) as a synonym or subgenus of Colpodes. But Colpodes is an extremely heterogenous group, a typical "genus of convenience", subdivided by recent authors into many more natural genera.

The complex of structural characters and the distribution of *Andrewesius* testify its generic status. It can be determined by the following characters.

Eyes rather large, convex; head moderately narrow, with 2 pairs of supraorbital pores, antennae slender, pubescent from the 4th segment; tooth of mentum bifid, shorter than lateral lobes, with a pair of setae; submentum with 2 pairs of setiferous pores. Pronotum narrowed to base, not sinuate before hind angles, with only a medial pair of marginal setae; sides explanate-reflexed; basal foveae deep, hind angles widely rounded. Wings reduced. Elytra oval with rounded shoulders, striae impunctate or slightly punctate, shallow, intervals flat; 3rd

interval with 1-3 dorsal pores, their number and position very variable, the middle pore more constant. Legs long and slender, fore tibiae with shallow external groove in basal 1/3-1/2; tarsi without longitudinal sulci or only meso- and metatarsi with external sulcus. 4th segment of all tarsi slightly bilobed, the lobes are equal; 5th segment setose beneath (Fig. 2); mesocoxae with 1 inner and 1 outer seta, metacoxae bisetose (inner pore absent), hind femora with 2-3 setae. Left paramere of aedeagus rhomboid (Fig. 4), penis with short apical lobe (Figs 5, 7). Apical segment of gonapophysis in female (Fig. 6) without spines on lateral edge (Fig. 6; this character is not known in other Eurasian Platynini). Body middle-sized, black or brown, upper side often metallic or with metallic lustre.

5 described species are known: A. wimmeri Jedlička, 1932 (type species of the genus; W Sichuan); A. pratti (Bates, 1891) (=A. szetschuanus Jedlička, 1932; W Sichuan); A. stricticollis (Fairmaire, 1886) (Yunnan); A. kambaiticolus (Landin, 1955) and A. renati (Landin, 1955), both from NE Myanma (Kambaiti). Most of them were described in Colpodes; some other species placed currently in Colpodes belong possibly to Andrewesius.

All known Andrewesius were found in the mountains, usually at an elevation more than 2000 m.

The material of the Soviet-Chinese expeditions to SW China 1955-1957 contains two species of *Andrewesius*: one from Yunnan, the other from Sichuan. Both of them were apparently not known previously. Their descriptions are given below.

## Andrewesius fedorovi sp. n. (Figs 1-6)

Holotype. &, China, Yunnan prov., mountains NW Tsuyung (130 km W of Kunming), 2500 m, 19.V.1955 (O.L. Kryzhanovskij).

Paratypes. 4d' (one of them damaged), 6Q, same data as holotype.

Description. Head and prothorax black above and beneath, shining; mandibles, elytra (except suture and epipleura) and femora dark brown to pitchy black; elytra with purplish lustre; buccal pieces, antennae, meso- and metasternum, abdomen, epipleura of pronotum and elytra, suture and legs brown.

Head smooth with rather long frontal furrows,

its microsculpture very faint with irregular transverse meshes. Antennae long, extending beyond base of elytra by 8-11th segments. Pronotum (Fig. 1) on average 1.10 times as wide as long with maximum width in anterior third, narrowed almost rectilinearly to the hind angles, anterior margin nearly straight, fore angles slightly protruded, rounded, hind angles widely rounded, basal margin entirely bordered, sides rather widely explanate, medial stria fine, disc finely transversely striate with oblique transverse micromeshes near sides and with shallow irregular transverse wrinkles deeper and denser near sides, basal foveae deep with 1-2 longitudinal grooves at bottom, base with irregular shallow longitudinal wrinkles. Elytra broadly ovate, in average 1.34 times longer than wide; shoulders rounded: scutellar pore present; striae fine, without punctures or with vestigial punctures; intervals flat: 3rd interval with 1 minute dorsal pore near middle, rarely absent or with 1-2 supplementary pores; umbilicate series of 16-18 pores; microsculpture consisting of transverse meshes. Scutellum with isodiametric meshes. Last ventral sternite with one pair of pores in male and two pairs in female. Hind femora with 2 setae in hind margin. Aedeagus as in Figs 4-6. Gonapophyse of female as in Fig. 9. Length of holotype 11.2 mm, of paratypes 10.8-12.6 mm.

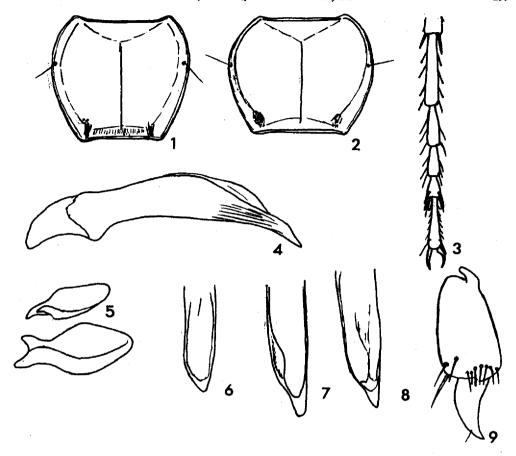
Comparison. The new species fits fairly well the description of A. stricticollis (Fairmaire), but the comparison with three specimens identified as the latter species (2 in the collection of the Zoological Institute, St. Petersburg, 1 in the British Museum, London) revealed some differences. In A. stricticollis the pronotum (Fig. 2) is wider, 1.20-1.25 times as wide as long, its sides more rounded basally, the elytra without a scutellar pore, and the apical lobe of penis is considerably longer.

Etymology. Named in the memory of distinguished Russian botanist Prof. Andrej A. Fedorov, an enthusiastic participant of expeditions to SW China.

Andrewesius omeishanicus sp. n. (Fig. 8)

Holotype. o', China, Sichuan prov., Omeishan Mt., 2100-3100 m, 25.VI.1955 (Zse Yunjen).

Description. Black, shining, elytra with feeble bronze lustre, underside piceous; antennae, palpi, tibiae and tarsi dark reddish brown. In



Figs 1-9. Andrewesius. 1, 3, 4, 5, 6, 9, A. fedorovi sp. n.; 2, 7, A. stricticollis Fairmaire; 8, A. omeishanicus sp. n. 1, 2, pronotum; 3, hind left tarsus; 4, penis, lateral view; 5, parameres; 6-8, apex of penis, dorsal view; 9, left gonapophyse of female, lateral view.

most characters similar to the preceding species but larger (length 13.5 mm) and darker. 3rd elytral interval with 1 pore at left side and 2 pores at right one. Microsculpture faint, consisting of obsolete isodiametric meshes on head, of clearly transverse meshes on disc of promotum, of very dense transverse lines on elytra, isodiametric on scutellum. Umbilicate series consisting of 20-21 pores. Apical lobe of penis longer and more acute than in A. fedorovi (Fig. 8).

Comparison. Similar to A. wimmeri Jedlička from W Sichuan (Kangding = "Tatsienlu") but differs in the number of dorsal pores (A. wimmeri has 3 pores in 3rd interval) and darker appendages.

### Polychaetagonum gen. n.

Type species P. plurisetosum sp. n.

Description. Middle-sized (7.8-12.1 mm), black or piceous, elytra often with metallic lustre. Head smooth, neck constriction rather sharp, eyes large and convex, posterior supraorbital setae moderately distant from eye, tempora rather long, antennae slender, pubescent from 4th segment, 2nd segment with one verticillate seta at apex; mandibles rather long; mentum with small but distinct pits and pair of setae; its tooth short, slightly bifid; submentum with two pairs of setae. Pronotum transverse; apical margin narrowly but completely bordered; basal margin bordered except lateral areas, hind angles more or less defined, apically pointed

or rounded, lateral margins explanate-reflexed, narrowly bordered, with 1 basal and 2-5 medial and antemedial setae. Wings reduced. Elytra wide, separately rounded at apex, slightly emarginated before apex; shoulders distinct, without denticle; microsculpture more or less defined, forming transverse meshes; scutellar stria short, basal pore present; 3rd interval with 3-7 pores (in one species pores present also in 5th and 7th intervals); striae shallow, minutely punctured. Legs moderately long; mesocoxae with one inner and one outer seta, metacoxae trisetose, hind femora with 4-5 setae; 1st segment of mesoand metatarsi sulcate on outer side; 5th segment of all tarsi with 2-3 pairs of short hairs on ventrolateral margin: 4th segment of all tarsi slightly bilobed, in metatarsi inner lobe almost as long as the outer one (Fig. 19). Mesepisterna punctured, metepisterna short. Sternites non pubescent, each with one pair of setae; anal sternite on each side in two species with 2 setae in male and 4-7 setae in female; in one species with 1 seta in male and 2 setae in female. Penis with narrow and acute apical lobe (Figs 15-17). Apical lobe of gonapophysis with 3-4 spines on outer-ventral side (Fig. 18).

Comparison. Similar to Agonum in appearance, differing in the bifid tooth of mentum and the increased number of marginal setae on pronotum and usually on 6th abdominal sternite.

Three species are known, all described below. It is interesting that all the three species were found living sympatrically in the upper zone of Omeishan Mt. (Sichuan).

The following key can be used:

1(4). 5th and 7th elytral intervals without setiferous pores (rarely 5th interval with 1-2 pores in basal quarter on one side only).

Polychaetagonum plurisetosum Kryzhanovskij et Jedlička, sp. n. (Figs 10, 15)

Holotype, &, China, Sichuan prov., Omeishan Mt.,

2100-3100 m. 25.VI.1955 (Yang Sinchi).

Paratypes. 118 specimens of both sexes, collected at the same place as holotype by several collectors. Rather uniform in size and appearance.

Description. Body black or piceous, elytra greenish blue or black with bluish or greenish lustre; buccal pieces, sides of pronotum, suture and margins and epipleura of elytra, tibiae and tarsi brown. Head smooth with rounded frontal depressions isolated from clypeal furrows, eyes feebly convex, shorter than tempora. Neck constriction rather sharp. Pronotum 1.28-1.31 times wider than long, similar in form to that in Platynus assimilis; its anterior and basal margins of equal width, narrowly bordered; basal margin slightly sloping to sharp hind angles; lateral margins widely explanate, with 2-3, rarely 4 medial and antemedial setae; basal foveae deep with scattered punctures extending along lateral margins. Elytra broadly oval, 1.32-1.40 times longer than wide and 1.60 -1.75 times wider than pronotum, their apices jointly rounded, striae rather deep, distinctly punctured; intervals slightly convex; 3rd interval with 3 pores (in few specimens 5th interval with 1-2 pores in basal quarter). Umbilicate series with 19-23 pores. Microsculpture on frons and vertex consisting of short transverse meshes, very feeble on the disc of pronotum with wider transverse meshes, and transversely lined in the inner elytral intervals. Last ventral sternite with 1 pair of setae in male, with 2 pairs in female. Apical lobe of penis long, narrow, slightly sloped and acutely pointed (Fig. 15). Length 7.8-9 mm, maximal width 3.3-3.9 mm.

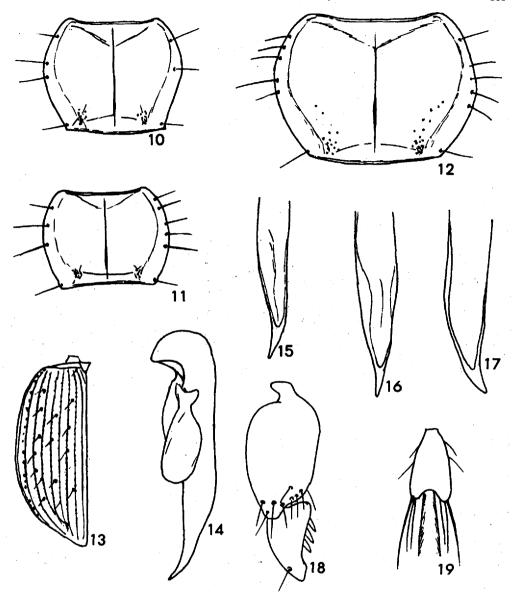
Note. Two specimens from the type series were sent in 1960 to the late Mr. A. Jedlička (Prague). He identified them as "Agonum plurisetosum sp. n." and returned the specimen labelled as "Holotypus" to me. But probably he never published the description of this species. In any case I could not find this description either in his papers or in the "Zoological Record". Therefore I am publishing the description under the names of both authors.

## Polychaetagonum chensicieni sp. n. (Figs 12, 17)

Holotype. &, China, Sichuan prov., Omeishan Mt., 2100-3100 m, 25.VI.1955 (Ke Tsunglin).

 $\it Paratypes.$  4 Q from the same locality and date (Ou Penyung and Yang Sinchi).

Description. Upper side black, shining, without metallic lustre; buccal pieces, apical half of



Figs 10-19. Polychaetagonum gen. n. 10, 15, P. plurisetosum sp. n.; 11, 13, 14, 16, 18, 19, A. inexspectatum sp. n.; 12, 17, P. chensicieni sp. n. 10-12, pronotum; 13, elytra; 14, aedeagus, lateral view; 15-17, apex of penis, dorsal view; 18, left gonapophyse of female, ventral view; 19, segment 4 of hind tarsus.

antennae, tibiae, tarsi and underside dark brown, lateral margins of pronotum reddish brown. Head rather narrow, frontal furrows moderately deep, widened basally into rounded foveae. Eyes moderately convex, slightly longer than tempora, neck constriction sharp. Pronotum (Fig. 12) 1.4 times wider than long,

with maximal width almost at middle; apical margin entirely bordered, fore angles broadly rounded, lateral margins rounded almost equally to apical and basal margins, broadly explanate, with 1 basal and 2-3 medial and antemedial setae; basal margin entirely bordered; basal foveae deep, with few punctures. Elytra oval,

1.44 times as long as wide and 1.41-1.48 times wider than pronotum; apices rounded separately; shoulders without humeral denticle; scutellar pore small; striae deep, without punctures; inner intervals feebly convex, outer ones flattened, 3rd interval with 3-4 pores (anterior pore near 3rd stria, the middle and hind ones near the 2nd stria or in the middle of interval), umbilicate series consisting of 18-20 pores. Microsculpture isodiametric on frons, transversely striate on disc of pronotum and elytra. 6th sternite of abdomen with 2-3 setae in male, with 4-7 setae in female on each side. Apical lobe of penis as in Fig. 17. Length of holotype 11.3 mm, of paratypes 11.6-12.1 mm.

Etymology. Named in the memory of notable Chinese entomologist Prof. Chen Sicien.

# Polychaetagonum inexspectatum sp. n. (Figs 11, 13, 14, 16, 18, 19)

Holotype. 6, China, Sichuan prov., Omeishan Mt., 2100-3100 m, 25.VI.1955 (Tse Yunzheng).

Paratypes. 9 of, 13 Q, the same locality and date (Tse Yunzheng and Yang Sinchi).

Description. Black, shining, elytra bluish green or black with greenish lustre; under surface piceous; buccal appendages, 1st segment of antennae, epipleurae and suture of elvtra, tibiae and tarsi brown. Head with long frontal furrows widened basally; neck constriction rather sharp; eyes feebly convex, shorter than tempora. Pronotum 1.30-1.35 times wider than long, wider at base than at apex, with maximal width almost in the middle (Fig. 11), rectilinearly narrowed to obtuse hind angles; lateral margins widely explanate, with 1 basal and 3-5 medial and antemedial setae on each side; basal foveae deep, rounded, with few large punctures, joined by deep depression; basal margin entirely bordered. Elytra (Fig. 13) broadly oval, 1.42-1.46 times longer than wide and about 1.5 times wider than pronotum; their apices jointly rounded; scutellar stria short, with distinct scutellar pore; striae minutely punctate; intervals slightly convex, 3rd interval with 5-7 pores, 5th interval with 2-6, 7th one with 3-7 pores, rather large and usually asymmetrical in both elytra; umbilicate series consisting of 20-22 pores. Microsculpture of frons very inconspicuous, very fine, transverse; on neck constriction consisting of almost isodiametric meshes; finely transverse on disc of pronotum and inner intervals of elytra. 6th

sternite of abdomen in male with 2, in female with 4-5 setae on either side. Apical lobe of penis as in Fig. 16. Female gonapophysis as in Fig. 18. Length 9.8-10.5 mm, width 4.0-4.4 mm.

### Genus Klapperichella Jedlička

Jedlička (1955) described the genus Klapperichella from one species, K. afghanistanica Jedlička, collected in E Afghanistan (Asmar in lower Kunar valley). The Russian geologist O. Kabakov found a small series of this species in the same region — on the river bank north of Jalalabad. Two males of this series are the first known specimens of this sex.

The genus was distinguished by the following characters. Eyes large, convex, longer than tempora. Mandibles relatively long, curved. Antennae long, surpassing the base of elytra by 5 segments, pubescent from the 4th segment. Mentum with acute tooth. Pronotum cordate with 1 basal and 3-6 antemedial setae, its base and lateral margins at basal 2/3 densely punctate. Elytra rather wide, with deep, distinctly punctured striae and convex intervals; 3rd and often 5th intervals with 3-4 dorsal pores each. 5th tarsal segment without setae beneath.

A large series of another, previously undescribed species of *Klapperichella* was collected in Yunnan in the spring of 1957. Its description follows.

#### Klapperichella melanoxantha sp. n.

Holotype. 3, China, Yunnan prov., Kintung (approximately 24°20′ N and 100°50′ E), 1200 m, bank of a river, 11.III.1957 (D. Panfiloy).

Paratypes. 74 &, Q, collected at the same place 10-15.III. and 21.IV.1957 (A. Montshadsky, D. Panfilov, Pu Fuji).

Description. Dorsal surface either unicolorous rufous yellow (except black eyes) or with shining black elytra, appendages pale yellow, antennae infuscated from the 5th segment; ventral surface bicolorous: head, prosternum and legs rufous yellow, hind coxae black with rufous apex; mesosternum and abdomen black. Head with eyes slightly narrower than pronotum; eyes large, convex; frons smooth with short but deep frontal furrows and often with feeble medial impression, neck constriction slight, tempora much shorter than eyes. Pronotum (Fig. 20) cordate, 1.45-1.54 times as wide as long and 1.7-1.8 times narrower than

elytra; anterior margin sinuated arch-shaped, its border narrow, often indistinct, lateral margins narrowly bordered, distinctly sinuate before hind angles, with 1 basal and 3-6 antemedial setae; basal margin with narrow entire border, laterally sloping to slightly obtuse hind angles; medial line deep, shortened behind; basal foveae moderately deep, base throughout and sides in basal 2/3 densely and deeply punctured.

Elytra with distinct shoulders, 1.50-1.58 times longer than wide, scutellar stria long, scutellar pore small and indistinct, dorsal striae rather deep, densely punctured; intervals convex; 3rd interval with 3-6 pores, the anterior one near the 3rd stria, the others - near the 2nd stria; one pore rarely present in apical part of 5th stria, umbilicate series consisting of 22-25 pores. Wings completely developed. Microsculpture on frons obsolescent, on neck and disc of pronotum consisting of irregular transverse meshes, on dorsal intervals of elytra fine, transversely striate. Episterna of pro-, meso-, and metathorax, lateral portion of metasternum and sides of 1st abdominal sternite with large punctures. Middle and hind tarsi with shallow external sulcus (Fig. 25). Fore tarsi in males feebly dilated, with small adhesive soles on 1st-3rd segments. 6th abdominal sternite on each side in males with 2-3 setae, in females with 3-5 setae. Aedeagus slightly curved, apically rounded (Fig. 22). Gonapophyse of female as in Fig. 24. Length 6.2-8.7 mm.

47 specimens studied have rufous yellow elytra and 28 specimens have black ones; no intermediate specimens were found. All specimens are quite uniform in other external characters and genital structures. Such proportion suggests simple Mendelian splitting in the character of coloration.

Comparison. The new species differs from K. afghanistanica in smaller size (length of body in K. afghanistanica is 9.2-9.4 mm), wider pronotum (in K. afghanistanica 1.25-1.33 times wider than long and 1.95-2.05 times narrower than elytra; Fig. 21). Elytra of A. afghanistanica always bearing series of pores on 5th interval; fore tarsi of males very slightly dilated with rudimentary adhesive soles on 1st and 2nd segments; penis is more sharply pointed at apex (Fig. 23).

The original description of the genus Klapperichella should be supplemented by some characters. Mentum with one pair of setae and with a pair of small pits. Episterna of all thoracic segments, lateral portions of metasternum and 1st abdominal sternite rather roughly punctured. 3rd-5th abdominal sternites each with 2-3 setiferous pores on either side; 6th sternite in males with 2-3 pores, in females with 3-5 pores on either side. Fore tarsi of males slightly dilated and with more or less reduced adhesive soles; 5th segments of tarsi without setae beneath or with 1-2 small setae. Penis almost straight.

It is interesting that two known species of Klapperichella occur at both ends of Himalayan system.

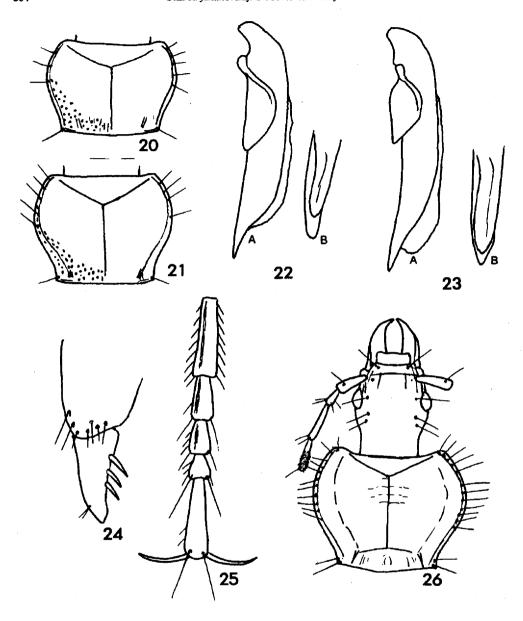
### On Platynus setiporus Reitter

Under the name *Platynus setiporus* from "Kulab" Reitter (1893) described a peculiar species of Platynini with extremely abundant chaetotaxy of dorsal surface. The collection of Zoological Institute in St.Petersburg contains a female specimen of the named species with labels: "*Platynus setiporus* m. n. sp." (handwriting by E. Reitter on grey paper), "616" (printed on small square of paper), and the later label "Typus (?) setiporus Rtt." (on red paper). The geographical label is unfortunately absent, but the specimen undoubtedly belongs to the type series.

The provenance of this species from "Kulab" is rather dubious. No other specimens were collected in Central Asia during the past century in spite of rather intensive faunistic study of South-East Tajikistan especially during the 1930's-1960's.

Reitter's description was rather complete for his time but it is necessary to supplement it with some details.

Length 12.0 mm. Body piceous black, appendages brown. Head (Fig. 26) narrow with 3 supraorbital pores, two basal ones far from the posterior edge of eye. Mentum with one pair of setae and truncated tooth, longitudinally sulcate. Pronotum cordate, with rectangular hind angles and numerous marginal setae: 2 in each hind angle, 11 medial and antemedial on left side and 12 on right side. Elytra broadly oval, with rounded shoulders, all uneven intervals (including the first one) with numerous (7-15) setiferous pores on each. The setae of 6th abdominal sternite mostly lost, but 5 pores on left and 6 pores on right side present. Middle coxa with 1 inner and 1 outer seta. Hind coxa trisetose. Hind femur with 5 setae. Both hind



Figs 20-25. Klapperichella. 20, 22, 24, 25, K. melanoxantha sp. n.; 21, 23, K. afghanistanica Jedlička. 20, 21, pronotum; 22, 23, penis (a – lateral view, b – apex in dorsal view); 24, left gonapophyse, ventral view; 25, left hind tarsus.

Fig. 26. "Platynus" setiporus Reitter, head and pronotum.

tarsi missing, 4th segment of middle tarsi slightly bilobed, 5th segment of tarsi with 2-3 pairs of setae beneath.

I suppose that this species belongs to the poorly known E Asiatic genus Colpoides Jed-

lička, 1931, characterized by a superfluity of chaetotaxy on the dorsal surface, especially on the head and elytral intervals. It originates probably from China, but differs from all described species of *Colpoides*.

### References

- Basilewsky, P. 1985. Insectes Coléoptères, Carabidae. Platyninae. Faune de Madagascar, 64. 543 p. Paris.
- Darlington, P.J., jr. 1952. The Carabid beetles of New Guinea, pt. II. The Agonini. Bull. Mus. compar. Zool. Harvard Coll., 107(3): 89-252.
- Jedlička, A. 1932. Carabiden aus Ost-Asien. *Entomol. Nachrichtenbl.*, 6(3): 69-76.
- Jedlička, A. 1955. Carabidae (Coleoptera) der Afghanistan-Expedition (1952 u. 1953) J. Klapperichs. Acta Entomol. Mus. Nation. Pragae, XXX, 452: 189-206.
- Landin, B.-O. 1955. Entomological results from the Swedish expedition 1934 to Burma and British India. Coleoptera: Carabidae. Arkiv for Zool., ser. 2, 8(3): 399-472.
- Louwerens, B.J. 1953. The oriental species of Colpodes MacL. *Treubia*, 22(1): 75-171.
- Reitter, E. 1893. Beitrage zur Coleopteren Fauna des Russischen Reiches. Wien. Entomol. Ztg., XII: 219-224.

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