

Three new Palaearctic species of the genus *Ptinomorphus* Mulsant & Rey, 1868 (Coleoptera: Anobiidae)

Три новых палеарктических вида рода *Ptinomorphus* Mulsant & Rey, 1868 (Coleoptera: Anobiidae)

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КЛЮЧЕВЫЕ СЛОВА: Coleoptera, Anobiidae, Hedobiinae, *Ptinomorphus*, новые виды, Палеарктика, определительная таблица.

ABSTRACT. 3 new species of wood-borers (*Ptinomorphus aquilus*, *P. fursovi*, *P. sericeus* spp.n.) are described from Palaearctic region. The revised key is proposed for 9 palaearctic species and 1 subspecies of the genus *Ptinomorphus* (Hedobiinae).

РЕЗЮМЕ: Описаны 3 новых палеарктических вида жуков-точильщиков (*Ptinomorphus aquilus*, *P. fursovi*, *P. sericeus* spp.n.); предложена переработанная определительная таблица 9 палеарктических видов и 1 подвида рода *Ptinomorphus* (Hedobiinae).

While studying rather small collection of *Ptinomorphus* species in the Zoological Museum of the University of Moscow (ZMUM) I found three new species of this genus. My starting point was formed on the basis of type materials from Hungarian Museum of National History (HMNH) and works of Reitter [1901], Español [1964, 1970], Arnoldi [1965] and others. I used some new characters in addition to well-known ones, particularly length and shape of hairs-squamelles on elytra, shape and length of segments of hind legs, puncturation on abdominal sternites. Also I tried to use structures of pseudopositor. Unfortunately I often could not compare structures of genital apparatus of new species with those of known ones due to inavailability of type materials to me. For simplifying comparison, some figures of known species and E. Reitter's types from collection of HMNH are included in this paper as well. A new key to *Ptinomorphus* species from Palaearctic region is composed on the basis of our work, not including only species from Japan.

Ptinomorphus aquilus sp.n.

Figs 1–11.

DESCRIPTION. General view. Beetle dark-brown; head, pronotum and lower side blacky-brown. Elytra parallel-sided. Clear, light X-shaped pattern on elytra formed with dirty-white and pale-brown squamelles (flattened hairs). Elytra

with few dark inclined setae. Body 2.3 times as long as wide. General view of beetle as shown in Fig. 1.

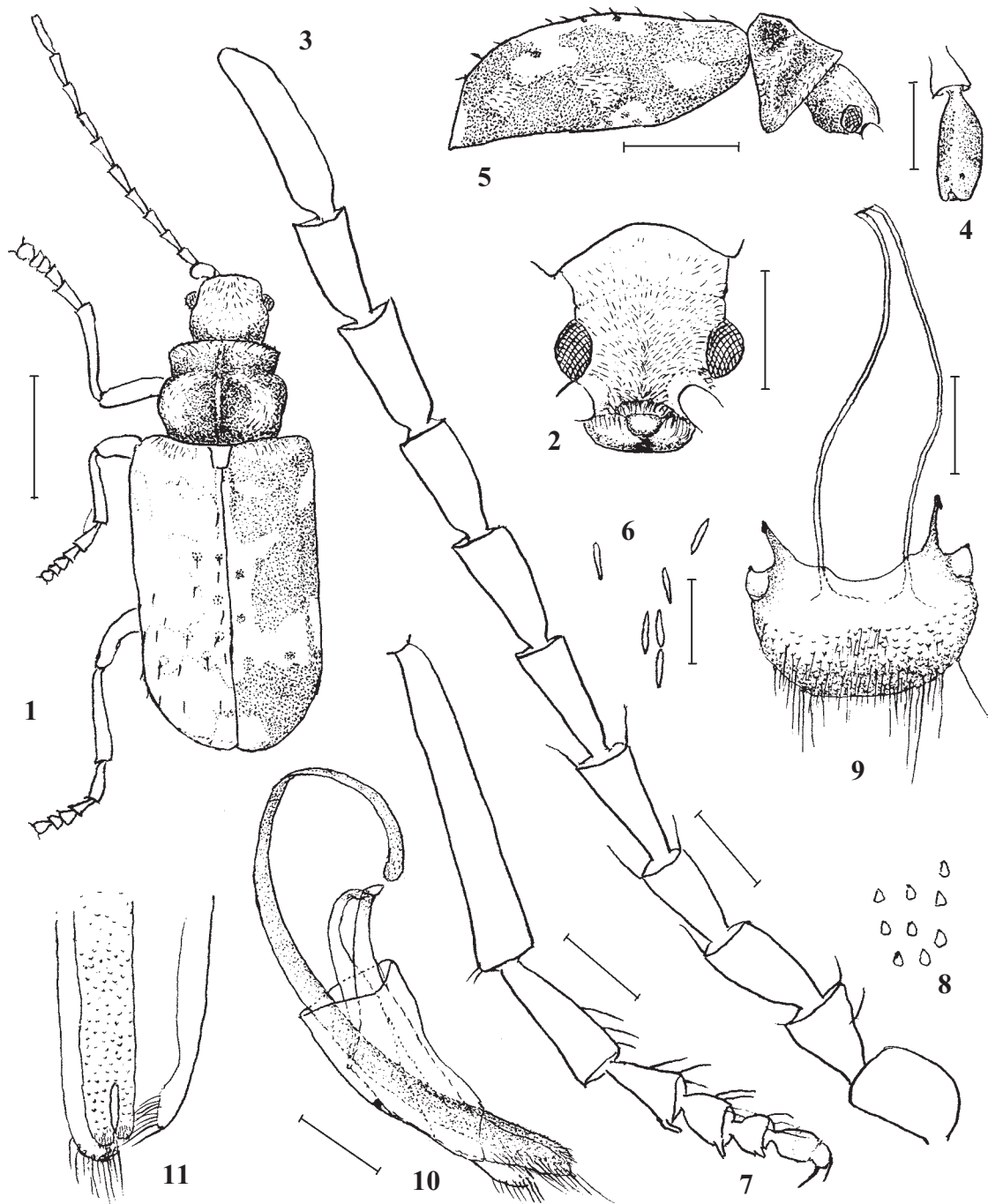
Head. Frons slightly convex between eyes, covered with white rather dense squamelles. Eyes considerably convex, oval, upper eye margin slightly flattened; eyes separated by 1.9 vertical eye diameters (Fig. 2). Antennae: all segments longitudinal; 2nd segment 1.2 times as long as wide, 3rd and 4th segment 2 times, 5th–8th 2.5 times, 9th–10th 2 times, 11th segment 5 times as long as wide (Fig. 3). Last segment of maxillary palpi 2.8 times as long as wide, looking like small stretched lamina with blunt end, longitudinal carina, turned up tip, and two tiny pits near apex (Fig. 4).

Pronotum nearly as long as wide, with bulging sides, with low but rather sharp gibbosity reaching in a form of carina slightly raised apical edge. Pronotum slightly widened to apical edge. Dirty-white squamelles gathered in "plaits" on sides and reaching carina (Fig. 5).

Scutellum rectangular, covered with white hairs.

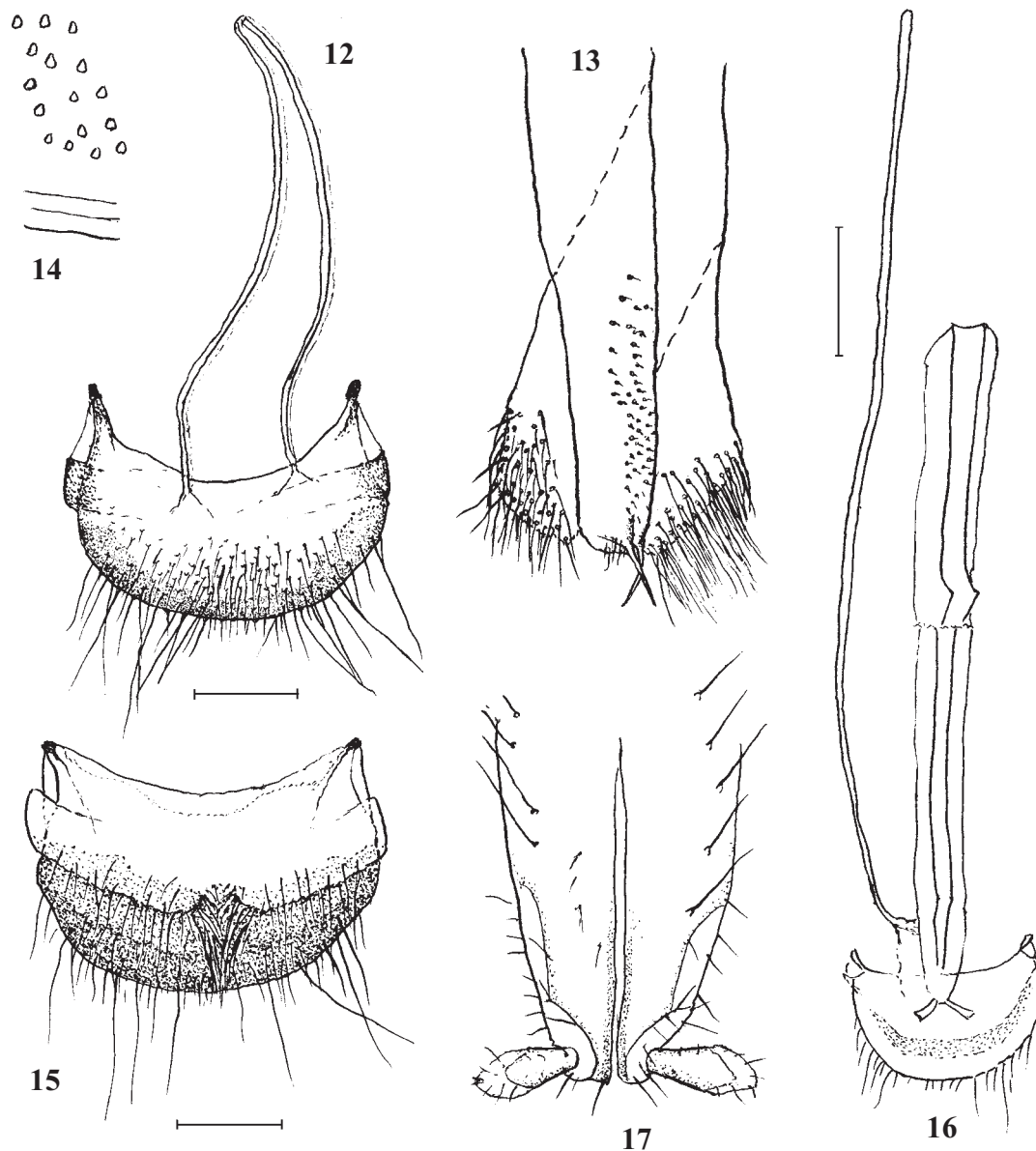
Elytra strictly parallel-sided, 1.75 times as long as wide and 3 times as long as pronotum. Pubescence rather dense. Light pattern is formed with dirty-white squamelles and consists of some separate parts. Firstly, of weakly developed transverse band situated much below scutellum and finely connected along suture with the rest of X-shaped figure, secondly, of lateral white spot below humerus, and thirdly, of broad transverse band above declivity being broadly connected along suture with short, broad bifurcation in front, forming thus reduced X-shaped figure. Also one spot is placed on lateral part before middle and another spot is on the apex. Spots of pale-brown hairs are situated on basal margin before humeri at middle of lateral part, and on lateral part of declivity. Inclined sparse dark setae arranged in 4–5 rows generally on apical half of elytron (Figs 1, 5). Squamelles comparatively short: 7–8 times as long as wide, with rounded basal end and narrowing to apical end (Fig. 6).

Legs. Hind tarsi as long as tibiae; 1st segment 2 times as long as the 2nd, 2nd segment twice as long as the 3rd, 4th segment slightly shorter and narrower than the 3rd, 5th segment considerably shorter than the 2nd and slightly longer than 3rd one. Apical half of 2nd segment, 3rd, 4th, and 5th segment convex like a bubble; 2nd–4th segment with short, finger-shaped outgrowth on inner side near apex (Fig. 7).



Figs 1–11. *Ptinomorphus aquilus* sp.n.: general view (1); head, frontal view (2); antenna (3); last segment of maxillary palpi (4); body, lateral view (5); elytral squamelles (6); hind tibia and tarsus (7); puncturation on 2nd abdominal sternite (8); 8th tergite, view of upper side (9); aedeagus, view of abdominal side (10); end of aedeagus, lateral view (11). Scale: 0.1 mm (4, 6); 0.2 mm (3, 7, 9, 10); 0.5 mm (2); 1 mm (1, 5); x 120 (8, 11).

Рис. 1–11. *Ptinomorphus aquilus* sp.n.: Вид жука сверху (1); голова, вид спереди (2); усик (3); последний членик максиллярных щупиков (4); вид тела сбоку (5); чешуйки с надкрыльев (6); голень и лапка задней ноги (7); пунктировка на 2-м брюшном стерните (8); 8-й тергит, вид с наружной стороны (9); эдеагус, вид с брюшной стороны (10); конец эдеагуса, вид сбоку (11). Масштаб: 0,1 мм (4, 6); 0,2 мм (3, 7, 9, 10); 0,5 мм (2); 1 мм (1, 5); ув. x 120 (8, 11).



Figs 12–17. *Ptinomorphus imperialis* (L.): 8th tergite, ♂, view of inner side (12); end of aedeagus (13); puncturation on 2nd abdominal sternite (14); 8th tergite, ♀, view of inner side (15); apodeme and pseudopositor tube (16); the end of pseudopositor tube (17). Scale: 0.2 mm (12, 15); 0.5 mm (16); x 120 (13, 14, 17).

Рис. 12–17. *Ptinomorphus imperialis* (L.): 8-й тергит, самец, вид с внутренней стороны (12); конец эдеагуса (13); пунктировка на 2-м брюшном стерните (14); 8-й тергит, самка, вид с внутренней стороны (15); аподема и трубка ложного яйцевода (16); конец трубки ложного яйцевода (17). Масштаб: 0,2 мм (12, 15); 0,5 мм (16); ув. x 120 (13, 14, 17).

Abdomen. Puncturation drop-shaped, punctures separated by 1–2 diameters on 2nd sternite (Fig. 8). Connective ends of 8th tergite of male (“anal sclerite” by Logvinovskiy [1985]) are rather long; “arcuate sclerites” curved rather high (in comparison with those in *Ptinomorphus imperialis* (Linné, 1767)); tergite itself without transverse sclerotised band (Fig. 9). Aedeagus: the end of penis deeply forked, with small tubercles and brushes of short chaetae. Ends of parameres with rather short bundles of hairs (Figs 10, 11).

Length 3.5 mm,* width 1.5 mm.

* General length is given without length of head being abnormally stretched in type specimen.

Material. Holotype: ♂. Sdm. Härad, Lindön, k/! 72 (Ehnström). *Hedobia imperialis*. ZMUM.

DIAGNOSIS. The new species is the most close to *P. imperialis*, and it differs by the following main characters: more convex eyes separated by 1.9 vertical eye diameters (2.3♂ — 2.6♀ of *P. imperialis*); last segment of maxillary palpi of different shape; 4th segment of hind tarsi narrower than the 3rd (4th segment a little wider than the 3rd in *P. imperialis*); form of 8th tergite slightly different (8th tergite of *P. imperialis* — Fig. 12); penis bifurcated deeply at the end and without long outgrowths (the end of aedeagus of *P. imperialis* — Fig. 13).

Ptinomorphus fursovi sp.n.
Figs 18–32.

DESCRIPTION. General view. Upper side reddish-brown, metasternum light red, abdomen gingerish-red. Body covered abundantly with fine white squamelles without admixture of yellow ones. Elytra slightly widened to declivity, and with the few inclined setae arranged in some rows and visible in profile only. Body 2.2 times (holotype) — 2 times (paratype) as long as wide (Fig. 18).

Head. Frons convex. Dirty-white squamelles form a pattern shown in Fig. 19. Eyes not strongly convex, oval, with reduced lowered segment at lower margin (Fig. 20), separated by 2.2 (holotype, ♂) or 2.5 (paratype, ♀) vertical eye diameters. Antennae (holotype): all segments longitudinal; 2nd segment 2 times, 3rd segment 2.5 times, the 4th — 3 times, 5th–7th — 3 times, 8th–11th segment 3 times as long as wide. Middle segments with numerous rough setae (Figs 21, 21a). Last segment of maxillary palpi 3 times as long as wide, looking like long, a bit curved lamina with blunt end and obliquely cut sides (Fig. 22).

Pronotum a bit wider than longer, with low, sharp gibbosity and bulging sides. White hairs-squamelles diverging as fan from two centres near base on either side of gibbosity (Fig. 18). Curved lateral spots of squamelles reaching gibbosity carina (Fig. 23).

Scutellum nearly square, covered with white squamelles.

Elytra very slightly widening to declivity; 1.9–1.8 (♀) times as long as wide at humeri level or 1.8–1.6 (♀) times as long as wide near declivity and 3.1 times longer than pronotum. White squamelles covering surface abundantly but not hiding its roughness. Squamelles 12–13 times as long as wide, with cut basal end and narrowing to thin apical end (Fig. 24). Elytra with traces of longitudinal costae, and each elytron with 5 rows of inclined, rather long setae well visible in profile only (Figs 18, 24). Puncturation rather dense, punctures separated by 1–1.5 puncture diameters (Fig. 25). Lateral margin at beginning of declivity with 5–6 tiny denticles visible with magnification 50 times only.

Metasternum (♀) moderately convex in middle of distal half without visible longitudinal central groove. Curved forward fold is situated above distal margin at every side (Fig. 26). Puncturation: punctures large, separated by 0.5–1.5 puncture diameters (Fig. 27).

Legs. Length of hind tarsus equals to length of tibia; 1st segment twice longer than the 2nd, 2nd segment 1.3 times as long as the 3rd, 4th segment narrower than 3rd one and 1.3 times as short as the latter; 5th segment rather narrow and of the same length as 3rd one (Fig. 28).

Abdomen. Puncturation uneven: punctures separated by 0.5–4 puncture diameters, short drop-shaped (Fig. 29). 8th tergite (♀) bifurcate in the centre of apical margin (Fig. 30). Ratio of length of apodeme and pseudopositor's tube is 3:2 (Fig. 31). The end of pseudopositor as shown in Fig. 32).

Length 4.15–5.2 mm, width 1.9–2.6 mm.

Material. Holotype: Arkut [Mountain Altai], 10.V.19[57]. In branch of *Schrenk* spruce. *Hedobia machnovskiyi* (Furs.). Paratype, ♀: same label. ZMUM.

DIAGNOSIS. The new species is the most close to *P. imperialis* and differs from it by the following main characters: last segment of maxillary palpi of different shape: looking like lamina with blunt end (this segment narrowing to apex in *P. imperialis*); body covered abundantly with white squamelles without admixture of yellow ones (yellow hairs or squamelles are present in *P. imperialis*); squamelles with cut basal end (with round basal end in *P. imperialis*); 4th segment of hind tarsi narrower than the 3rd (wider than the 3rd segment in *P. imperialis*); puncturation on abdominal sternites larger and denser (in *P. imperialis* as shown in Fig. 14); 8th tergite (♀) strongly differs by general shape and bifurcated in the centre (8th tergite of female of *P. imperialis* as shown in Fig 15); ratio of lengths of apodeme and ovipositor tube is 3:2 (4:3 in *P. imperialis* — Fig. 16), and at last by different ends of pseudopositors (compare Figs 17 and 32).

ETYMOLOGY. This species is named in honour of known collector of Coleoptera N. Fursov. He picked out the specimen as belonging to a new species but had no time to describe it.

Ptinomorphus sericeus sp.n.
Figs 33–42.

DESCRIPTION. General view. Pronotum and lower side black, head blacky-brown, elytra blackish-brown, antennae and tarsi dark-brown, mouth palpi yellow. Upper side silky shining. Elytra with costa, without inclined setae. Light pattern formed with very thin light-grey and dark-golden hairs. Body 2.5 times as long as wide (Fig.33).

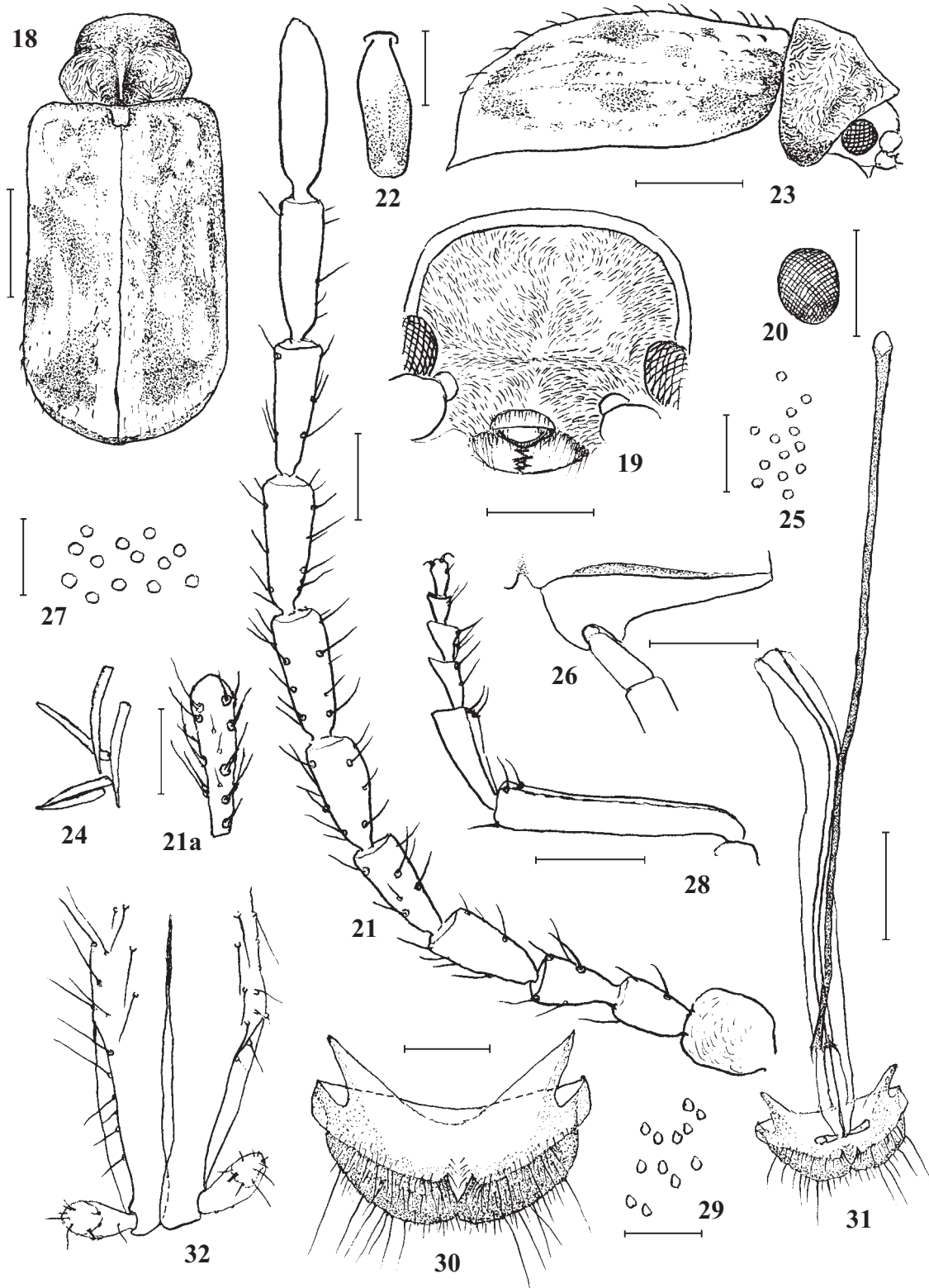
Head. Frons convex between eyes, with small carina on upper half. Dark-gold hairs present only on lower part of frons and directed to the centre and apical margin (Fig. 34). Eyes oval, convex, separated by 1.7 vertical eye diameters. Antennae: all segments longitudinal; 2nd segment 1.6 times, the 3rd–4th 1.4 times, the 5th 1.6 times, the 6th–8th 1.8 times, the 9th–10th 2.3 times, 11th segment 3.7 times as long as wide (Fig. 35). Last segment of maxillary palpi 3.5 times as long as wide with longitudinal carina and more convex inner margin, narrowing to apex, turned up tip and two tiny pits near apex (Fig. 36).

Pronotum as wide as long, its anterior margin slightly raised and a bit thickened, sides bulging; front lines of bulges with dark-golden hairs arranged in small "plaits". Gibbosity low, rather blunt, its carina reaching anterior margin (Fig. 37).

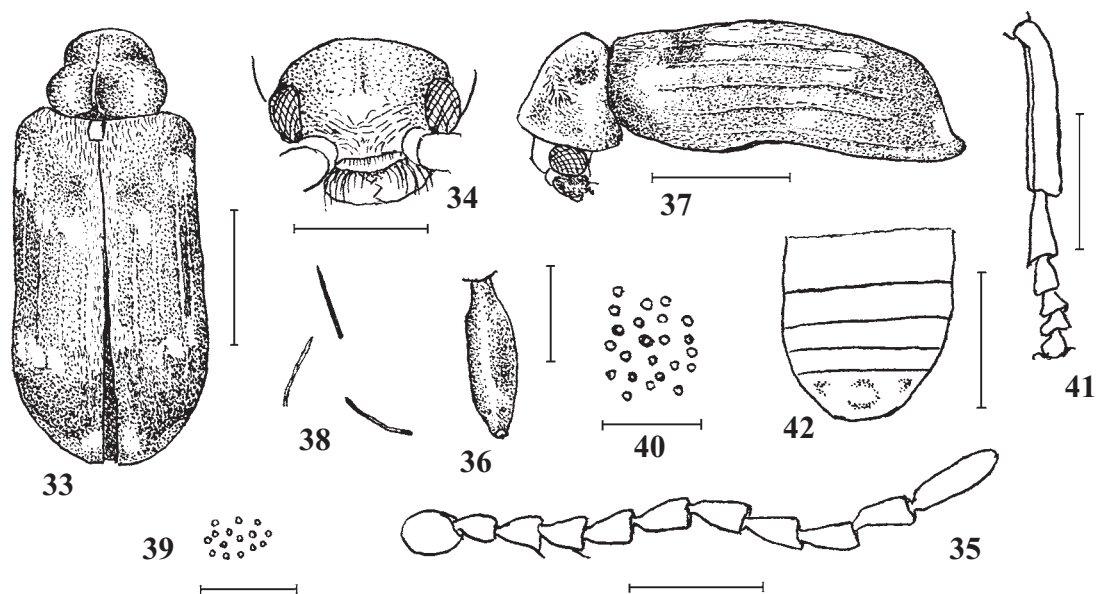
Scutellum rectangular, covered with light hairs.

Elytra parallel-sided, 2 times as long as wide and 3 times longer than pronotum. Each elytron with 5 visible costae. Anterior quarter of elytron disk with weak transverse depression. Elytral pubescence not dense, surface structure is visible. Surface without inclined setae, but with laid or a bit raised light-golden setae placed along costae on lateral parts and on declivity. All surface covered with very thin, silk hairs, of which light-grey hairs arranged in two transverse bands consisting of separated spots. Upper arcuate band situated below humeri, lower band is above declivity; apex of each elytron with light spot. Light-grey hairs not forming X-shape pattern in the centre. Golden hairs covering humeri, broad space around scutellum and ribbons, going down to lower band

Рис. 18–32. *Ptinomorphus fursovi* sp.n.: вид жука сверху (18); голова, вид спереди (паратип) (19); глаз (20); усик (голотип) (21); 7-й членик усика (21a); последний членик максиллярных щупиков (голотип) (22); вид тела сбоку (23); чешуйки с надкрыльев (24); пунктировка на диске надкрыльев (25); участок заднегруди с бедренной покрывкой (26); пунктировка на середине заднегруди (27); голень и лапка задней ноги (28); пунктировка на 2-м брюшном стерните (29); 8-й брюшной тергит, самка, вид с внутренней стороны (30); аподема и трубка ложного яйцекалада (31); конец трубки ложного яйцекалада (32). Масштаб: 0,1 мм (22, 25, 27, 29); 0,2 мм (21, 21a, 30); 0,5 мм (19, 20, 26, 28, 31); 1 мм (18, 23); ув. x 120 (24, 32).



Figs 18–32. *Ptinomorphus fursovi* sp.n.: general view (18); head, frontal view (paratype) (19); eye (20); antenna (holotype) (21); 7th antennal segment (21a); last segment of maxillary palpi (holotype) (22); body, lateral view (23); elytral squamelles (24); puncturation on elytral disk (25); part of metasternum with metafemoral plaque (26); puncturation on metasternum in the centre (27); hind tibia and tarsus (28); puncturation on 2nd abdominal sternite (29); 8th abdominal tergite, ♀, view of inner side (30); apodema and pseudopositor tube (31); the end of pseudopositor tube (32). Scale: 0.1 mm (22, 25, 27, 29); 0.2 mm (21, 21a, 30); 0.5 mm (19, 20, 26, 28, 31); 1 mm (18, 23); x 120 (24, 32).



Figs 33–42. *Ptinomorpha sericeus* sp.n.: general view (33); head, frontal view (34); antenna (35); last segment of maxillary palpi (36); body, lateral view (37); elytral light-grey hairs-squamelles (38); punctation on elytral disk (39); punctation on metasternum in the centre (40); hind tibia and tarsus (41); abdomen (42). Scale: 0.1 mm (36, 39, 40); 0.5 mm (34, 35, 41); 1 mm (33, 37, 42); x 120 (38).

Рис. 33–42. *Ptinomorpha sericeus* sp.n.: вид жука сверху (33); голова, вид спереди (34); усик (35); последний членик максиллярных щупиков (36); вид тела сбоку (37); светло-серые волоски-чешуйки с надкрыльев (38); пунктировка на диске надкрыльев (39); пунктировка на середине заднегруди (40); голень и лапка задней ноги (41); брюшко (42). Масштаб: 0,1 мм (36, 39, 40); 0,5 мм (34, 35, 41); 1 мм (33, 37, 42); ув. x 120 (38).

along suture (Figs 33, 37). Light-grey hairs very thin, not very long: about 10–12 times as long as wide, narrowing from base to apex (Fig. 38). Lateral margin without denticles visible with magnification 50 times. Puncturation small and rather dense, punctures separated by 1–1.5 puncture diameters (Fig. 39).

Metasternum. Puncturation fine and rather dense, punctures separated by 1–1.5 puncture diameters (Fig. 40).

Legs. Metafemoral plaque with small denticle in centre of margin. Hind tarsus as long as tibia; 1st segment 2 times as long as the 2nd, 2nd segment 1.5 times as long as the 3rd, 4th segment a little shorter and wider than the 3rd, 5th segment broad, a bit longer than the 3rd and considerably shorter than 2nd segment (Fig. 41)

Abdomen as shown in Fig. 42.

Length 3.2 mm, width 1.3 mm.

Material. Holotype: Krasnodar, 12.3.1982. (M. Danilevskiy). ZMUM.

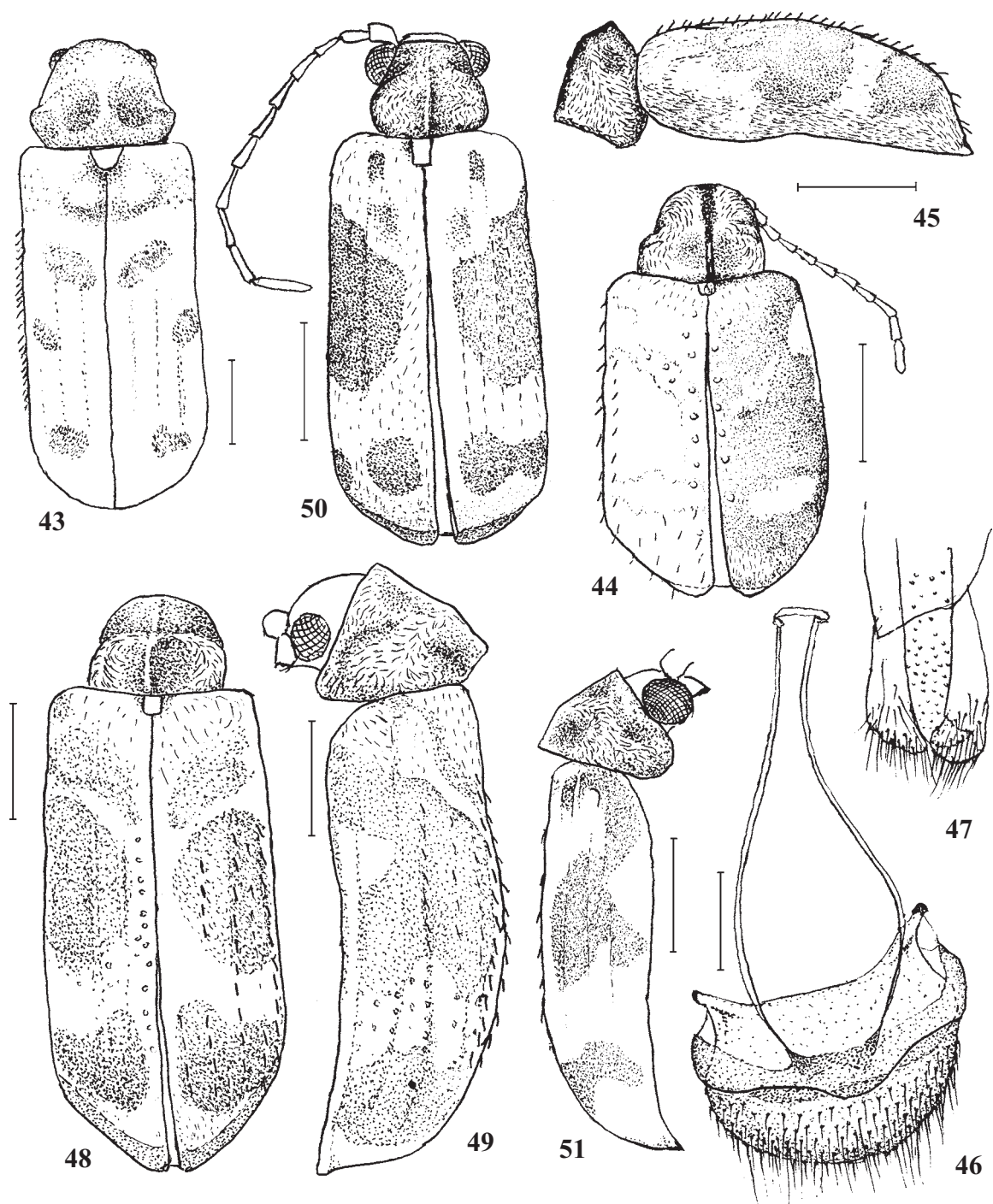
DIAGNOSIS. This new species mostly close to *P. regalis* (Duftschmid, 1825) and differs by the following external morphological peculiarities: beetle mainly black (*P. regalis* brown); body 2.5 times as long as wide (2.1–2.2 times in *P. regalis*); eyes separated by 1.7 vertical eye diameters (2–2.5 diameters in *P. regalis*); all antennal segments longitudinal, 11th segment 3.7 times as long as wide (in *P. regalis* the 2nd segment not longer than wide, 11th segment 2.5 times as long as wide); elytral lateral margin without small denticles (*P. regalis* with small denticles on apical quarter of lateral margin visible with magnification 50 times).

The key to *Ptinomorpha* species is prepared using the following keys: Reitter [1901], Arnoldi [1965], Lohse [1969], Logvinovskiy [1985]. Extra details are added

from the works of Español [1964, 1970], Pic [1896], Reitter [1879], and also from the original data.

KEY TO PALAEARCTIC SPECIES OF THE GENUS *PTINOMORPHUS*

- 1(16). Elytra with raised or inclined setae usually arranged in rows and mainly well visible in profile. The rest of surface covered with appressed hairs. Elytral costae usually weakly expressed.
- 2(13). Setae on elytra erected or inclined, more often dark, well visible in profile.
- 3 (4). White squamelles broad and short: 2 times as long as wide, form light pattern on elytra. Inclined setae rather short, arranged in 10 longitudinal rows on each elytron, the latter with traces of 4 longitudinal costae. Eyes separated by 2 vertical eye diameters. 2nd antennal segment round, short, not longer than wide. Pronotal gibbosity with round, obtuse top. Body 2.5 times as long as wide; elytra 2 times as long as wide and 3.2 times longer than pronotum. Dark-brown, with 3 pairs of spots of white squamelles (Fig. 43). Aedeagus: penis longer than parameres [Español, 1970]. Length 2.5–3.5 mm. East Pyrenees, Corsica, Italy, Morocco, Algeria *P. angustatus* (Brisout de Barneville, 1861)
- 4 (3). Light hair squamelles forming pattern considerably longer and thinner. Inclined setae on elytra arranged not more than in 6 rows. Body 1.7–2.2 times as long as wide.
- 5 (8). Body surface covered with light hairs or squamelles almost completely.
- 6 (7). Each elytron with 1 well pronounced costa. Erected setae long and recurved, rather numerous. Grey appressed hairs hide basic dark-brown colour of surface. Length 5.9–6.1 mm. Kirgizia *P. tatjanae* Logvinovskiy, 1978



Figs 43–51: 43 — *Ptinomorphus angustatus* (Brisout); 44–47 — *Ptinomorphus rosti* (Pic); 48–49 — *Ptinomorphus magnificus* (Reitter); 50–51 — *Ptinomorphus magnificus angustior* (Pic): general view (43, 44, 48, 50); body, lateral view (45, 49, 51); 8th abdominal tergite, ♂, view of inner side (46); end of aedeagus (47). Scale: 0.2 mm (46); 0.5 mm (43); 1 mm (44, 45, 48–51)); x 120 (47).

Рис. 43–51: 43 — *Ptinomorphus angustatus* (Brisout); 44–47 — *Ptinomorphus rosti* (Pic); 48–49 — *Ptinomorphus magnificus* (Reitter); 50–51 — *Ptinomorphus magnificus angustior* (Pic): вид жука сверху (43, 44, 48, 50); вид тела сбоку (45, 49, 51); 8-й брюшной тергит, самец, вид с внутренней стороны (46); конец эдеагуса (47). Масштаб: 0,1 мм (36, 39, 40); 0,5 мм (34, 35, 41); 1 мм (33, 37, 42); ув. x 120 (47).

- 7 (6). Elytra with indistinct costae. Small quantity of rather long inclined setae arranged in 5 rows on each elytron. Body covered with abundant white squamelles which nearly hide basic reddish-brown colour of surface. Squamelles 12–13 times as long as wide, with cut basal end, strongly narrowing to apical end. Eyes separated by 2.2–2.5 vertical eye diameters. All antennal segments longitudinal; 2nd segment 2 times, 5th–7th 3.8 times, 11th 3 times as long as wide (♂). Gibbosity with low and acute top. 4th segment of metatarsi narrower than the 3rd. Body 2–2.2 times as long as wide, elytra 1.8 (♂)–1.6 (♀) times as long as wide and 3.1 times longer than pronotum. The ratio of the lengths of apodeme and pseudopositor tube is 3:2. Length 4.15–5.2 mm, width 1.9–2.6 mm. Mountainous Altai *P. fursovi* sp.n.
- 8 (5). Light hair squamelles not covering the whole surface of beetle.
- 9(10). Inclined setae more or less long, numerous, yellowish-brown, arranged in 6 longitudinal rows on each elytron. Elytra 1.6–1.7 times as long as wide and 3–3.1 times longer than pronotum. Elytra with pattern, often unclear, formed with yellowish hairs around scutellum and sometimes along suture, also with two white transverse bands and spot between them at lateral margin. Apical spot weakly expressed. Laid hairs not dense, and that is why surface slightly shines (Figs 44, 45). White squamelles trichoid, on elytra 25–26 times as long as wide. Eyes separated by 2.1 vertical eye diameters. All antennal segments longitudinal; middle segments nearly 2 times, 11th segment 3 times as long as wide. 4th segment of metatarsi wider than 3rd one. 8th tergite (♂) with lyrate-shape arcuate sclerites (Fig. 46). Aedeagus: penis curved on the end (Fig. 47). Dark castaneous, reddish-castaneous. Length 2.1–3.3 mm, width 1–1.6 mm. Crimea, Caucasus, Turkey *P. rosti* (Pic, 1896)
- 10(9). Inclined setae in small quantity, comparatively short, dark, arranged in 4–5 rows on each elytron. Spot of light squamelles well pronounced on elytral apex; white squamelles considerably broader and shorter: 8–11 times as long as wide, their basal ends rounded. Pubescence dense enough on beetle's surface. Antennal middle segments 2.5 times as long as wide, 11th segment 5 times as long as wide (♂).
- 11(12). Eyes separated by 1.9 vertical eye diameters. 4th segment of metatarsi narrower than 3rd one, 2nd–4th segment with short finger-shaped outgrowth on inner side close to apex. Elytra parallel-sided, 1.75 times as long as wide and 3 times longer than pronotum. Dirty-white squamelles forming weakly developed transverse band below scutellum, lateral spot lower humeri, short and broad bifurcation at middle of disk, broadly connected along suture with broad transverse band above declivity, spot in front of middle at lateral margin, and spot on apex. Punctures separated by 1–2 puncture diameters on 2nd abdominal sternite. Aedeagus: penis without 2 long outgrowths on the end, and forked deeply on the end. Dark-brown. Length 3.5 mm, width 1.5 mm. South Sweden .
..... *P. aquilus* sp.n.
- 12(11). Eyes separated by 2.3–2.6 vertical eye diameters. 4th segment of metatarsi wider than 3rd one. Elytra slightly widening to declivity, 1.7 (♀)–1.9 (♂) times as long as wide and 3.1 (♀)–3.3 (♂) times longer than pronotum. White squamelles forming X-looking pattern in the middle of elytra, also spots: humeral, near the middle of lateral margin, and on apex. Pattern variable. Punctures separated for the greater part by 2–3 puncture diameters on 2nd abdominal sternite. Aedeagus: penis with two long, thin outgrowths on the end. Pseudopositor: the ratio of lengths of apodeme and ovipositor tube is 4:3. Dark grey-brown to reddish-grey-brown. Length 3.9–5.5 mm, width 1.8–2.6 mm. South Europa, Crimea, Caucasus
..... *P. imperialis* (Linné, 1767)
- 13(2). Elytral setae slightly raised, light (yellowish), situated along weak costae and visible best of all when seen from above. Body 2.4–2.5 times as long as wide; elytra 2.2 times as long as wide. Squamelles thin and rather short, 12–13 times as long as wide. Pronotum with acute gibbosity and with 2 curved spots of white squamelles on bulging sides.
- 14(15). Eyes separated by 2 vertical eye diameters. 11th antennal segment 1.5 times as long as the 10th [Reitter, 1879]. Scutellum nearly square. Rows of light setae on elytra well pronounced when seen from above. White squamelles forming following pattern on elytra: spot with sparse hairs around scutellum, below it wide X-shaped figure connected along suture with large spot on apex, and spot at lateral margin before middle. Elytral apical ends a little stretched (Figs 48, 49). Brown, lower side blackish-brown. 4.6–6.5 mm. Crimea, Caucasus, Krasnodar Province, Turkey, Greece *P. magnificus* (Reitter, 1879)
- 15(14). Eyes very large, strongly convex, separated by 1.2 vertical eye diameters. 11th antennal segment 1.2 times as long as the 10th. Scutellum distinctly rectangular. Light setae on elytra short and badly visible. White squamelles on elytra covering broadly and densely shoulders and wide space around scutellum, and connected with broad lower transverse band above declivity and further with apical band. Lateral margin with spot before its middle. Elytral ends nearly rounded (Figs 50, 51). Elytra, antennae, legs brown; pronotum, head, lower side blackish-brown. Length 4–5 mm. Abkhazia, Krasnodar Province *P. magnificus angustior* (Pic, 1896)*
- 16(1). Elytra without raised or inclined setae, with 3–5 rather marked costae. Pronotum with low obtuse gibbosity and with slightly raised and thickened anterior margin. Elytra without white spot at lateral margin.
- 17(18). Body 2.1–2.2 times as long as wide. Elytra 1.7 times as long as wide. Thin white hairs-squamelles forming the following pattern: two curved “plaits” on lateral bulges of pronotum, scutellum, waved transverse band below scutellum (sometimes it looks as separated spots), and X-shaped figure below that. Elytra with spots of black hairs near scutellum, above obscure light-brown hair spot on apex, and sometimes on lateral parts. Lateral margin in its lower quarter with denticles visible with magnification 50 times. Eyes separated by 2–2.5 vertical eye diameters. Last segment of maxillary palpi 3 times as long as wide. 2nd antennal segment shortly rounded, middle segments 2 times, 11th segment 2.5 times as long as wide. 3rd and 4th segment of metatarsus short, nearly of equal length, 4th segment a bit wider than 3rd one. Brown; pronotum, head, metasternum dark brown. Length 3–4.5 mm. Caucasus, Iran, Jugoslavia, Austria, Middle Italy, Corsica, South France *P. regalis* (Duftschmid, 1825)
- 18(17). Body 2.5 times as long as wide, elytra 2 times as long as wide. Light-grey hairs-squamelles forming the following pattern: all scutellum, upper arcuate band on elytra

* Remark. It is possible, that the comparison of genital apparatus of *P. magnificus* and *P. angustior* will prove the truth of opinion of Español [1970] about validity of *P. angustior* (Pic). In any case *P. angustior* is not the synonym of *P. imperialis* (Linné) as it was stated by Logvinovskiy [1985].

going as separated spots from humeri obliquely to suture, lower arcuate transverse band going as separated spots above declivity, and spot on apex of elytron. Dark-golden hairs forming 2 transverse arcuate "plaits" on pronotum, covering shoulders and broad space around scutellum, and going down to lower band as ribbons along suture. Eyes separated by 1.7 vertical eye diameters. Last segment of maxillary palpi 3.5 times as long as wide. 2nd antennal segment 1.6 times, middle segments (6th–8th) 1.8 times, 11th segment 3.7 times as long as wide. 4th segment of metatarsi a little shorter and wider than 3rd one. Pronotum and lower side black, head, antennae, elytra, and legs blackish-brown; surface with silky glitter. Length 3.2 mm, width 1.3 mm. Krasnodar Province *P. sericeus* **sp.n.**

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