

Genus	Vol. 19(2): 213-283	Wrocław, 31 VII 2008
-------	---------------------	----------------------

A review of the subgenus *Pachybrachis* CHEVROLAT, 1837 s. str. of Palaearctic region (Coleoptera: Chrysomelidae: Cryptocephalinae)

ANDRZEJ WARCHAŁOWSKI

Zoological Institute, University of Wrocław, Sienkiewicza 21, 50-335 Wrocław, Poland,
e-mail: awar@biol.uni.wroc.pl

ABSTRACT. A review of Palaearctic species of the subgenus *Pachybrachis* CHEVROLAT, 1837 s. str., an illustrated key to their determination and complete bibliography concerning discussed nominal taxa are given. A new synonymy is established: *Pachybrachys lepineyi* Pic, 1955 = *Pachybrachis simius* MARSEUL, 1875, a few further taxa are tentatively indicated as suspected synonyms.

Key words: entomology, taxonomy, review, Coleoptera, Chrysomelidae, Cryptocephalinae, *Pachybrachis*, Palaearctic region.

INTRODUCTION

Subgenus *Pachybrachis* CHEVROLAT sensu stricto is a large group comprising over 350 species out of which about 200 inhabit western hemisphere, the remaining species are distributed mainly in Palaearctic area. The second subgenus, *Chloropterus* REY, 1883, small and restricted to W Mediterranean area does not create such problems and it is here not discussed in detail. A large number of species, considerable individual variability, and very scattered bibliography, as well as type and comparative specimens, create great difficulties not only in determination of species but also in preliminary grouping of materials.

This work is devoted to Palaearctic species only, because this area is characterized by a quick growth of number of described species. The continuous creation of new isolated descriptions requires at least preliminary synthetic work. It is worth mentioning that out

of 132 species discussed in this paper, half of them were described after the year 1950, most often based on very short series of specimens or even on one specimen only.

History of research. From times of LINNAEUS to the First World War there about 55 species were described, mainly from Europe and Mediterranean area. Some of the authors created keys for determination, usually for a small number of species and limited areas. Such a key was first used in the work of MARSEUL (1875). Until the middle of the 20th century they still discovered further (about 15) species, but the first and to date an only detailed work devoted to the *Pachybrachis* species was the study of BURLINI (1968). The mentioned author discusses in it over 50 species from the Europe and Mediterranean area and also makes the attempt to group the species, mainly basing on body colouration. In this work, for the first time all redescrptions of species were illustrated with drawings of aedeagi. In the second half of the 20th century numerous new species from Asia were detected; the author of the majority (nearly 40) of descriptions is a famous Russian entomologist, Igor Konstantinovich Lopatin (see references).

The key to determination was made using the method of BURLINI (1968). The author didn't manage to find morphological criteria which would let him define palaearctic species *Pachybrachis* in the explicit way, hence the determining according to the enclosed key requires additional comparison with the sketch of aedeagus. Unfortunately, these sketches, cited mainly after literature, do not always contain essential characters and often insufficiently reflect the individual variability of the organ.

ACKNOWLEDGMENTS

I would like to thank Prof. Igor Konstantinovich LOPATIN (Minsk, Belarus) and Dr. Matthias SCHÖLLER (Berlin, Germany) for their help and constructive advice.

***Gnus Pachybrachis* CHEVROLAT, 1837**

Literature: BURLINI 1968, LOPATIN, 1974a

KEY TO SUBGENERA

1. Upper side almost entirely green or blue with metallic sheen ***Chloropachys*** (p. 214).
- Upper side without metallic sheen, usually with black and yellowish pattern, more rarely entirely black or entirely yellowish (= *Pachybrachys* REDTENBACHER, 1845, *Pachystylus* REY, 1883, *Homoeostigmus* JACOBSON, 1917) ***Pachybrachis*** s. str. (p. 215).

Subgenus *Chloropachys* REY, 1883

The subgenus *Chloropachys*, containing 5 species distributed in W Mediterranean area only, is not discussed here.

Subgenus *Pachybrachis* s. str.

The subgenus *Pachybrachis* s. str. contains remaining 132 palaearctic species; upper side very rarely with trace of metallic reflex, never distinctly metallic blue or green.

Not included in the key are: *P. adaliensis* (WEISE, 1886) near *tessellatus* from Turkey, *P. cedri* (PIC, 1898) near *tessellatus* from Algeria, and *P. sidonius* (PIC, 1914) from Syria.

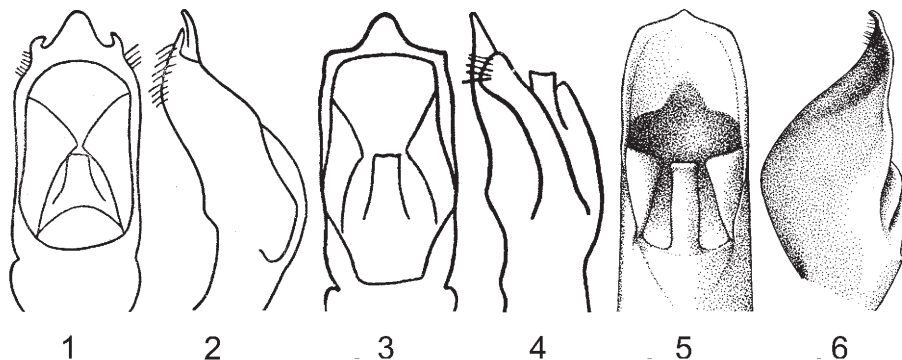
KEY TO AUXILIARY GROUPS

1. Elytra yellowish or testaceous without well-delimited black pattern or with humeral spot only. Punctures often blackish, forming longitudinal, usually partly irregular black lines, in some species confluent, forming blurred blackish spots Group **A**.
- On elytra well-defined black spots on yellow ground or yellow spot or/and stripes on black ground are present, sometimes elytra uniformly black (mainly females and then usually indeterminable) 2.
2. Elytra yellow with black pattern, sometimes yellow ground reduced, but not distinctly elevated over surface Group **B**.
- Elytra black with convex yellow spots or stripes elevated over surface, in melanotic specimens uniformly black Group **C**.

AUXILIARY GROUP A

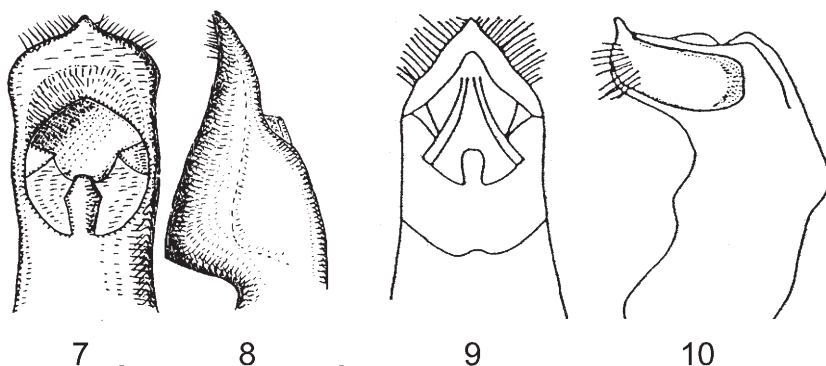
KEY TO SPECIES

1. Upper side covered with short, erect hairs 2.
- Upper side bare 4.



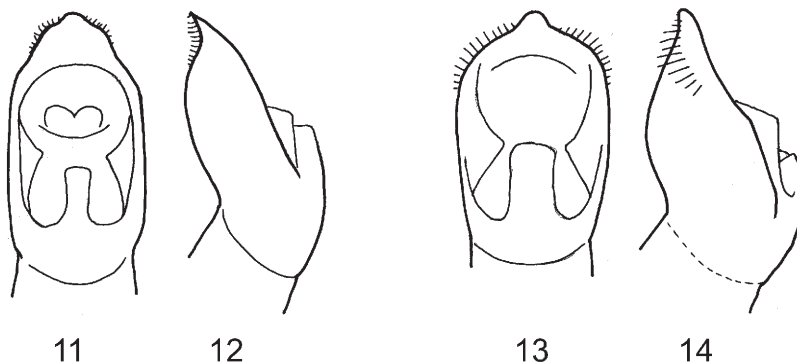
1-6. Aedeagus in dorsal and lateral view: 1, 2 – *Pachybrachis kazakhstanicus* (after LOPATIN 1977a); 3-4 – *P. arnoldii* (after LOPATIN 1967); 5, 6 – *P. anoguttatus* (after PETITPIERRE 2000)

2. Upper side entirely pale, puncturation brownish. Apical part of aedeagus (figs 1, 2) with two small, lateral tooth-like processes. Length 2.8-3.0 mm. Described from NW Kazakhstan *kazakhstanicus* LOPATIN, 1974.
- Upper side with blurred pitchy spots 3.
3. Underside of apical part of aedeagus (figs 3, 4) in lateral view distinctly convex. Length 2.2-2.8 mm. Described from Central Kazakhstan *arnoldii* LOPATIN, 1967.
- Aedeagus in dorsal view shaped similarly as in *altimontanus* (thesis 27), in lateral view feebly convex, almost flat. Length 3.0 mm. Described from Caucasus basing on one male only *pubipennis* LOPATIN, 1977.
4. Pronotum uniformly pale or with undefined, blurred, brownish darkenings. On elytra punctures usually not blackened, sometimes brownish 5.
- Pronotum with 5 black spots, usually confluent in M-shaped pattern. Elytral punctures blackened, at least in hind half forming parallel, longitudinal lines 34.
5. W Mediterranean species 6.
- E Mediterranean and Asiatic species 9.
6. NW African species. Here two insufficiently studied species described by PIC 7.
- Sardo-Corsican species, very similar to each other, distinguishable only by shape of aedeagus 8.
7. Pronotum with a narrow, transverse furrow running parallel to basal margin. Externally similar to *vermicularis* antithesis 16.). Aedeagus not studied. Length 2.5-3.5 mm. Described from N Sahara (Algeria) *sulcithorax* PIC, 1896.
- Pronotum without transverse furrow. Similar to *sulcithorax* (thesis 7) but stronger and more densely punctured. Length 3.5 mm. Insufficiently studied species, described from Morocco *marocanus* PIC, 1945.
8. Ventral convexity of aedeagus (figs 5, 6) in lateral view not angulate. Upper side pale, antennomeres 6-11, tarsi and elytral suture more or less darkened. General view as in plate I, phot. 3. On underside lateral borders of mesosternum and ab-



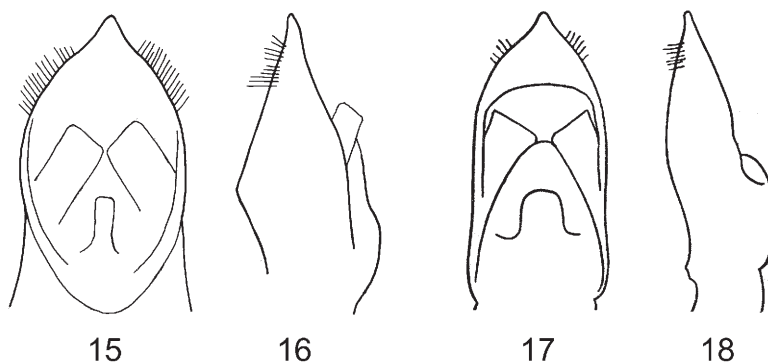
7-10. Aedeagus in dorsal and lateral view: 7, 8 – *Pachybrachis testaceus* (after BURLINI 1968); 9, 10 – *P. freidbergi* (after LOPATIN 1994)

- domen partly black. Length 3.0-3.5 mm. Distributed in the Balearic Islands and in Sardinia *anoguttatus* SUFFRIAN, 1866.
- Ventral convexity of aedeagus (figs 7, 8) in lateral view angulate. Coloured as *anoguttatus* (thesis 8), but on average slightly larger and darker, on pronotum often with indefinite, blurred spots usually fused in M-shaped pattern. Length 2.6-3.8 mm. General view as in plate X, phot. 37. Variations: smaller, upper side partly pale (ab. *riguus* MARSEUL, 1875), larger, underside entirely blackish except for mesoepimeres and apical margin of abdomen (ab. *paganettii* PIC, 1935, perhaps belonging to *anoguttatus*, thesis 8). Distributed in Sardinia and Corsica *testaceus* PERRIS, 1865.
9. Elytral punctures on the whole surface arranged in regular or only very weakly irregular rows 10.
- Elytral punctures at least on anterior half randomly scattered 11.
10. Pronotum strongly and densely punctured. Length 3.2 mm. Aedeagus as in figs 9, 10. Described from Israel, basing on one male only *freidbergi* LOPATIN, 1994.
- Pronotal puncturation moderately strong and dense. General view as in plate IV, phot. 15. Aedeagus as in figs 11, 12. Length 3.5-4.0 mm (= *transcaspicus* BREIT, 1921). Distributed in Central Asia, Iran, Caucasian countries and Near East *glycirrhae* OLIVIER, 1808.
11. Frons broad, distance between upper lobes of eyes not smaller than distance between anterior margin of clypeus and centre of frons 12.
- Frons narrower, distance between upper lobes of eyes smaller than distance between anterior margin of clypeus and centre of frons 17.
12. Pronotum not particularly short and broad, upper side with blurred, indefinite, brownish spots or stripes. Puncturation of elytra almost entirely random, traces of semiregular rows along lateral sides only 13.
- Pronotum short and broad, elytra uniformly pale 16.
13. Smaller species. Colouration of body as in *caprea* (thesis 15). Aedeagus as in figs 13, 14. Length 2.6-3.0 mm. Described from Tibet *hauseri* PIC, 1907.



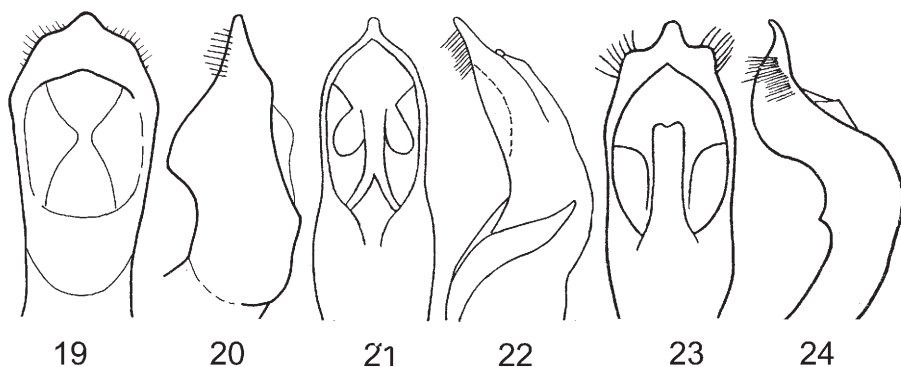
11-14. Aedeagus in dorsal and lateral view: 11, 12 – *Pachybrachis glycirrhae* (after BREIT 1921); 13, 14 – *P. hauseri* (after BREIT 1921)

- On average larger species 14.
- 14. Species described from Tibet basing on one specimen only (sex not determined), coloured as *hauseri* (thesis 13), but brown stripe on elytron shortened. Length 3.2 mm. Perhaps conspecific with *hauseri* ***tibetanus*** GRESSIT et KIMOTO, 1961.
- Species from Transcaspia 15.
- 15. Aedeagus as in figs 15, 16. Length 2.8-4.5 mm. Upper side brownish, pronotum usually darker than elytra, sometimes blackish, its anterior and lateral borders pale, weakly delimited. Elytra dark yellowish with longitudinal brown median stripe, often broadened and covering almost whole surface except for lateral margins. Distributed in Transcaspia, approximately from Karatau Mountains to lake Zaisan ***caprea*** WEISE, 1916.
- Aedeagus as in figs 17, 18. Length 3.7 mm (male) to 4.0 mm (female). Described from Turkmenistan. Perhaps conspecific with *caprea* (thesis 15) ***kaplini*** LOPATIN, 1986.
- 16. Punctuation of pronotum irregular, random, fine and very dense. Shape of aedeagus similar to that of *absinthii* (thesis 33). Length 2.5-3.8 mm. Distributed in E Kazakhstan and NW China ***auliensis*** BREIT, 1921.
- Punctuation of pronotum less dense, uniformly scattered. Aedeagus as in figs 19, 20, narrowed before apical part. Upper side entirely pale, 5 or 6 last antennomeres slightly darkened, rarely brown. Underside blackish, mesoepisterna and hind borders of abdominal sternites dark yellow. Pygidium black, its hind part yellow. General view as in plate X, phot. 40. Length 2.4-3.5 mm (= *astragali* STIERLIN, 1863). Variations: on pronotum blurred, brownish spots, underside black, only mesoepimeres and margin of last abdominal sternite pale (typical form), pronotum and pygidium entirely yellowish, underside pale with darkenings on meso- and metasternum (ab. *pallidiventris* JACOBSON, 1894). Distributed in S Russia, Caucasian countries and Iran ***vermicularis*** SUFFRIAN, 1854.
- 17. On average smaller species (2.5-3.5 mm), punctuation of elytra fine or moderately fine 18.



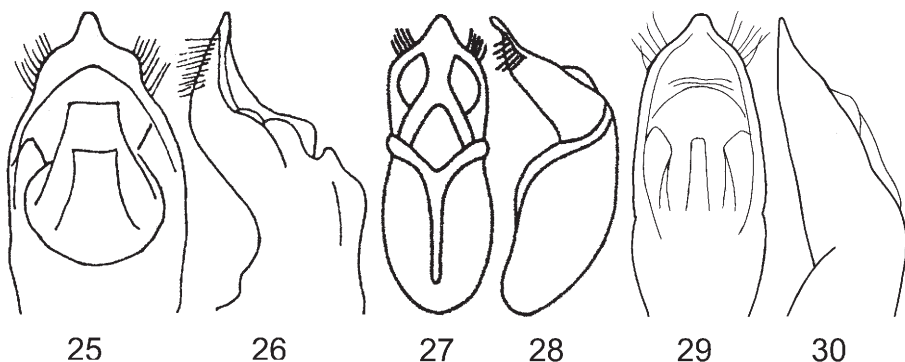
15-18. Aedeagus in dorsal and lateral view: 15, 16 — *Pachybrachis caprea* (after LOPATIN 1977); 17-18 — *P. kaplini* (after LOPATIN 1977)

- On average larger species (3.0-5.0 mm), puncturation of elytra strong 25.
- 18. Pronotum transverse, less convex, about $1.7 \times$ broader than long. Upper side uniformly yellowish, punctures on elytra brownish. Aedeagus similarly shaped as in *kirghizicus* (antithesis 23), its underside in lateral view gently convex. Length 2.5-3.0 mm. Distributed in E Kazakhstan (valley of the river Charin) *skopini* LOPATIN, 1967.
- Pronotum less transverse, about $1.2-1.5 \times$ broader than long. Here five small species, with rather similar shape of aedeagus 19.
- 19. Puncturation of elytra entirely random, upper side uniformly yellowish. Abdomen black, broadly bordered with yellow, pygidium yellow, its base black. Aedeagus as in figs 21, 22. Length 3.0 mm. Described from Kyrgyzstan basing on one male only *additus* LOPATIN, 1991.
- Not as above 20.
- 20. Upper side dark yellowish ochraceous, on head and pronotum undefined, very pale brownish pattern, puncturation on elytra black, here and there confluent and forming short stripes. Puncturation of pronotum deep, in hind part less densely scattered. Lamella on apex of aedeagus (figs 23, 24) bent down. Length about 3.0 mm. Described from Kazakhstan (Tshimkent distr.) *rufescens* LOPATIN, 1974.
- Upper side paler, yellow or greenish-yellow. Vertex and frontal stripe black 21.
- 21. Apex of aedeagus with large lamella 22.
- Apex of aedeagus with small lamella 23.
- 22. Smaller. Similar to *rufescens*, (thesis 20), but upper side paler coloured and with finer punctures. Aedeagus as in figs 25, 26. Length 2.8 mm. In original description a form with small, but distinct blackish spots on elytra is mentioned, as in auxiliary group B. Described from Tadzhikistan, basing on two males only *marki* LOPATIN, 1997.
- Larger. Externally similar to *marki* (Thesis 22). Aedeagus as in figs 27, 28. Length 3.2 mm. Described from W Kazakhstan (near lake Inder, valley of Low Ural) *semidesertus* LOPATIN, 1994.



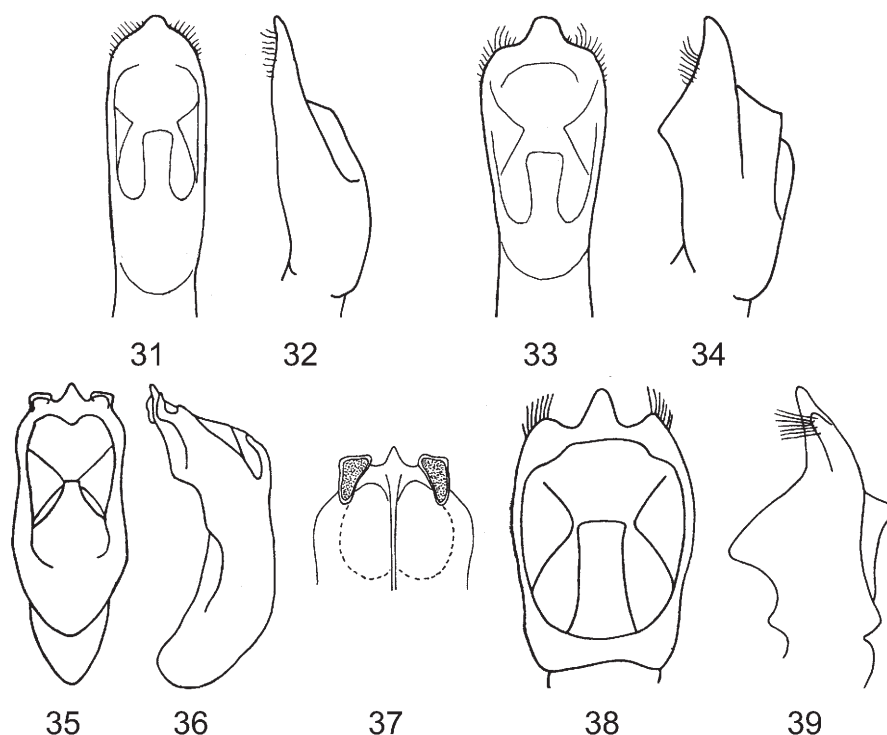
19-24. Aedeagus in dorsal and lateral view: 19, 20 – *Pachybrachis vermicularis* (after BREIT 1921); 21, 22 – *P. additus* (after LOPATIN 1991); 23, 24 – *P. rufescens* (after LOPATIN 1974)

23. Pronotum strongly, deeply and densely punctured, interstices narrower than diameter of punctures 24.
- Pronotum moderately strongly punctured, interstices as broad or broader than diameter of punctures. Aedeagus as in figs 29, 30. Length 3.-3.5 mm. Forms two subspecies: body more slender, elytra moderately strongly punctured, punctures in hind and lateral part arranged in longitudinal, regular or semiregular rows (nominotypical subspecies); body more stout, punctures on elytra more randomly scattered (subsp. *salsolae* LOPATIN, 1974). Distributed in Kyrgyzstan: subspecies *kirghizicus* s. str. in vicinity of the lake Issyk-Kul, subsp. *salsolae* in Tian-Shan *kirghizicus* LOPATIN, 1974.
24. Aedeagus as in figs 31, 32, more slender, underside in lateral view almost flat. Larger, length 2.5-3.6 mm. Distributed in SE Kazakhstan *cribricollis* PIC 1907.
- Aedeagus (figs 13, 14) thick and short, underside in lateral view convex. See *hauseri* (thesis 13).
25. Ventral side of abdomen with broad yellow borders 26.
- Yellow border on anal sternite only 31.
26. Outline of body shorter, ratio length/breadth of elytra under 1.5 General view as in plate III, phot. 9. Aedeagus as in figs 33, 34. Length 3.0-4.0 mm. Described from Uzbekistan *curtipennis* BREIT, 1921.
- Body more elongate, ratio length/breadth of elytra more than 1.6 27.
27. Upper side strongly, not very densely punctured, aedeagus without conspicuous process at apex 28.
- Upper side rather densely and finely punctured. Apex of aedeagus (fig 35-37) with central triangular lamella and two short, broad, conspicuous processes laterally. Length 3.3 mm. Described from Mongolia, basing on one male only *gobicus* LOPATIN, 1977.
28. Aedeagus (figs 38, 39) with a large lamella on apex, in lateral view with strong, almost angulate convexity on ventral side. General view as in plate VII, phot. 26.



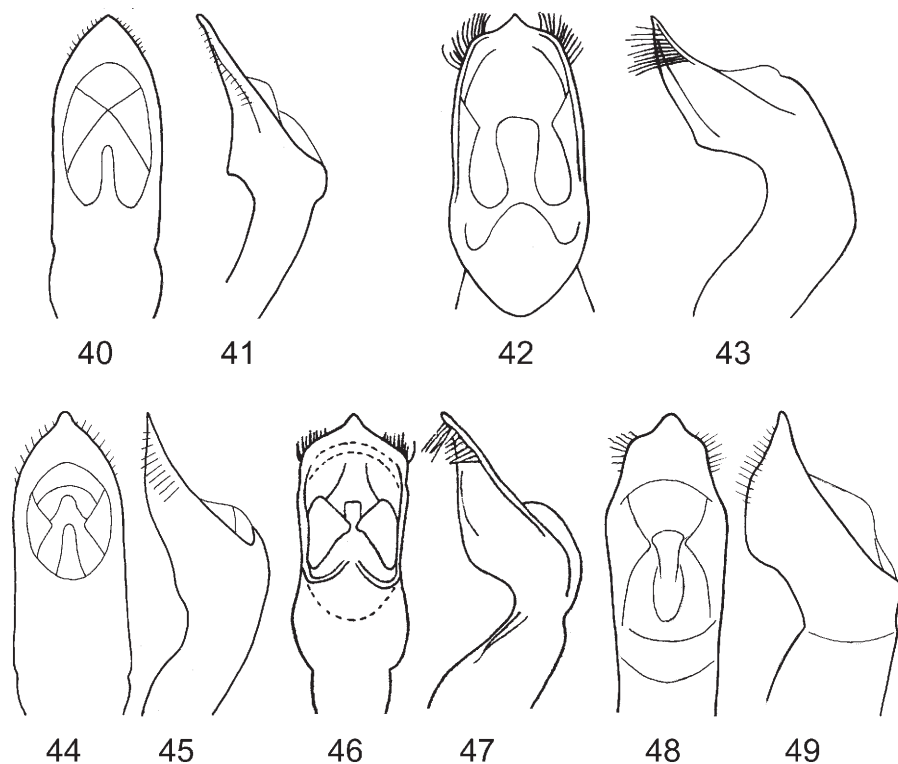
25-30. Aedeagus in dorsal and lateral view: 25, 26 – *Pachybrachis marki* (after LOPATIN 1997); 27, 28 – *P. semidesertus* (after LOPATIN 1994); 29, 30 – *P. kirghizicus* (after LOPATIN 1974a)

- Length 3.0-5.0 mm. Rather broadly distributed from Syria and Caucasian countries to N Iran and Afghanistan *nigropunctatus* SUFFRIAN, 1854.
- Apex of aedeagus without or with a small lamella 29.
29. Apex of aedeagus with a small lamella, apical half in lateral view gently convex, not angulate 30.
- Apex of aedeagus (figs 40, 41) without lamella, gently narrowed and rounded. Upper side and legs pale, last 2-3 antennomeres, vertex and claws darkened or black. Externally similar to *nigropunctatus* (thesis 28), but elytra more finely and more randomly punctured. General view as in plate VII, phot. 28. Distributed in SE Kazakhstan *pistor* BREIT, 1921.
30. Body length 3.8-4.5 mm 31.
- Body length under 3.8 mm 33.
31. Humeral calli long, convex. Upper side covered by deep, rather strong punctures, of similar size on pronotum and elytra. Elytral punctures in scutellar area random and dense, along lateral sides and in apical half more loosely scattered and arranged in subregular rows. Aedeagus as in figs 42, 43. Length of body 3.8-4.0 mm. Described from NW China *jastschenkoi* LOPATIN, 1995.



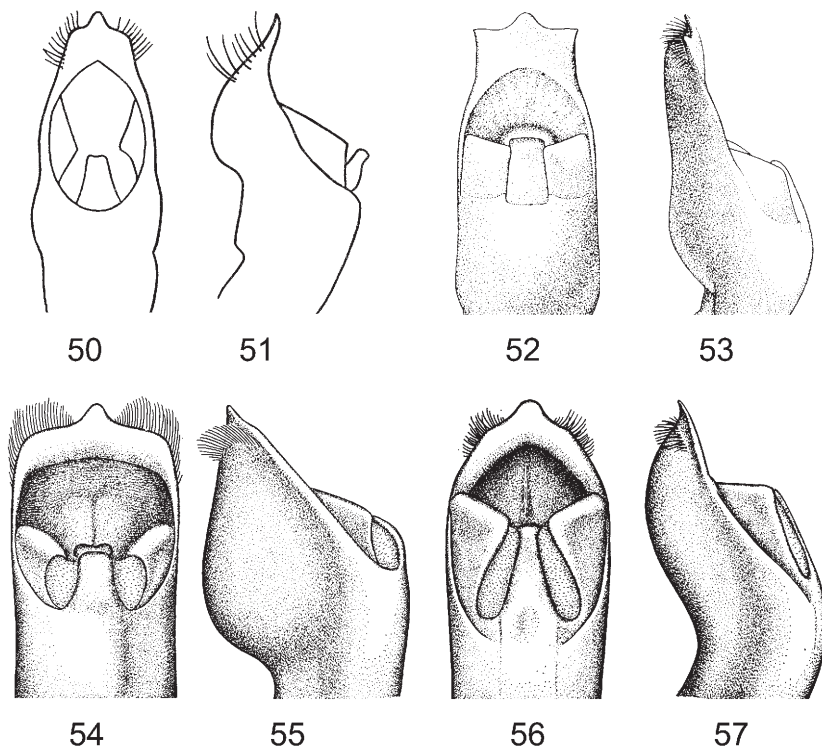
31-34, 35, 36, 38, 39. Aedeagus in dorsal and lateral view, 37 – apex in ventral view: 31, 32 – *Pachybrachis cribricollis* (after BREIT 1921); 33, 34 – *P. curtipennis* (after BREIT 1921); 35-37 – *P. gobicus* (after LOPATIN 1977c); 38, 39 – *P. nigropunctatus* (after LOPATIN 1977)

- . Humeral calli gently convex, not elongate 32.
- 32. Upper side pale greenish-yellow. Elytral puncturation rather fine and dense, punctures barely stronger than on pronotum. Apex of aedeagus (figs 48, 49) narrowed and elongate. Length about 4.0 mm. Described from Kazakhstan (Dzhambul). Considered as subspecies of *issykensis* (antithesis 32), but most probably a distinct species *laevigatus* BREIT, 1921.
- . Elytral puncturation stronger and less dense. Apex of aedeagus (figs 50, 51) shorter. Length 3.8–4.5 mm. Forms two subspecies: on elytra short stripes formed from fused blackish punctures (nominotypical subspecies), upper side without black markings, brightly yellow ochraceous (subsp. *gussakovskii* LOPATIN, 1968). Distributed in Kyrgyzstan (*issykensis* s. str.) and Tadzhikistan (subsp. *gussakovskii*) *issykensis* JACOBSON, 1901.
- 33. Body short and stout, elytra almost square, entirely randomly punctured. Aedeagus as in figs 44, 45. Length about 3.5 mm (male) to about 3.7 mm (female). Described from Dzhungarskiy Alatau mountains, distr. Kizilagash, SE Kazakhstan *absinthii*, LOPATIN, 1990.



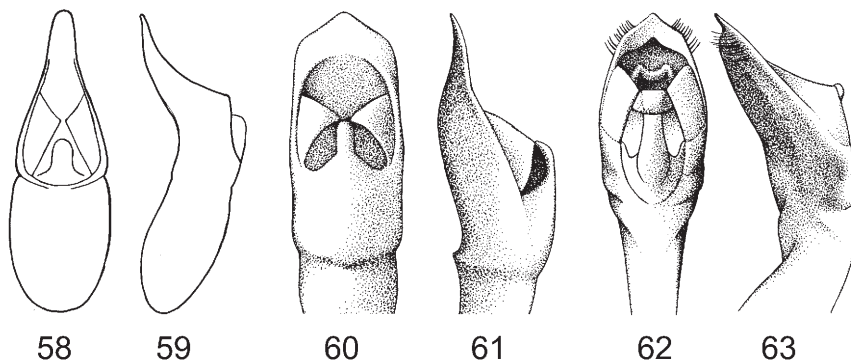
40–49. Aedeagus in dorsal and lateral view: 40, 41 – *Pachybrachis pistar* (after LOPATIN 1991); 42, 43, – *P. jastschenkoi* (after LOPATIN, 1995); 44, 45 – *P. absinthii* (after LOPATIN 1990); 46, 47 – *P. anatolicus* (after LOPATIN 1985); 48, 49 – *P. laevigatus* (after BREIT 1921)

- . Body not very stout, elytra longer than broad. Aedeagus as in figs 46, 47. Length 3.4 mm (male) to 3.8 mm (female). Described from Anatolia (Turkey) *anatolicus* LOPATIN, 1985.
- 34. W Mediterranean species 35.
- . E Mediterranean and Asiatic species 48.
- 35. Lateral side of apical part of aedeagus (figs 52, 53) strongly tooth-like angulate. General view as in plate VI, phot. 22. Colouring of body as in *P. scriptus* (thesis 39). Mesoepimeres yellowish. Pigidium usually black, without pale spots, at least in male. Length 2.5-3.5 mm. Distributed in Iberian Peninsula *lineolatus* SUFFRIAN, 1848.
- . Apex of aedeagus obtuse, rounded or slightly angulate 36.
- 36. Apex of aedeagus (figs 54, 55) obtusely cut with rounded lateral angles and with large median lamella. Head testaceous with black pattern composed of two dots situated near antennal insertions, a longitudinal stripe on frons and a transversal stripe on vertex. Mesoepimeres flavous. Pygidium black with a kidney-shaped flavous spot. Length 2.6-2.9 mm (male) to 3.4-3.6 mm (female). Known only from Isole Pontiane (Italy, near Naples). *burlinii* DACCORDI et RUFFO, 1971.



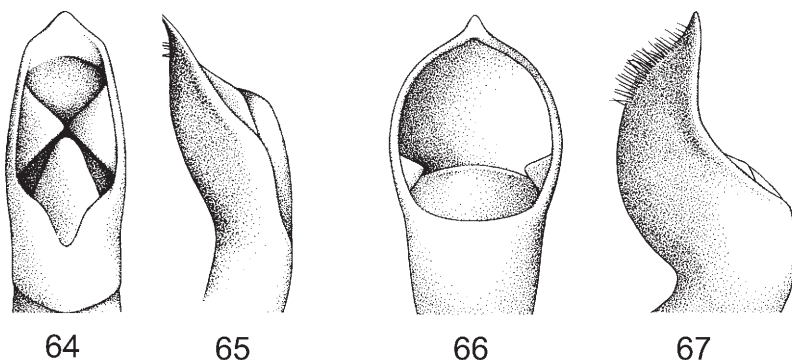
50-57. Aedeagus in dorsal and lateral view: 50, 51 – *Pachybrachis issykensis* (after LOPATIN 1974); 52, 53 – *P. lineolatus* (after PETITPIERRE 2000); 54, 55 – *P. burlinii* (after DACCORDI et RUFFO 1971); 56, 57 – *P. scriptus* (after PETITPIERRE 2000).

- Apex of aedeagus laterally rounded or slightly angulate 37.
- 37. Apex of aedeagus laterally rounded 43.
- Apex of aedeagus obtusely angulate 38.
- 38. Apex of aedeagus with small median lamella 39.
- Apex of aedeagus sharpened, without lamella. On pronotum an usually a very large, M-shaped spot. (See *catalonicus*, auxiliary group B, thesis 12).
- 39. Apical lamella of aedeagus (figs 56, 57) large, bent ventrally. Head black with yellowish pattern, pronotum yellowish with a very large M-shaped spot. Lateral widenings of this spot usually with a little yellowish dot inside. Elytra yellowish, rather strongly punctate; punctures black, confluent, forming longitudinal black stripes and yellowish interstices in relief as in *lineolatus* (thesis 35), but inner stripes in anterior part of elytra more irregular, lateral stripes relatively regular. Underside black, mesoepimeres and lateral margins of urosternite yellowish. Pygidium black with a transversal fulvous stripe along apical margin. Length 2.5-3.5 mm. (= *marchii* PIC, 1923, ?*incallidus* PIC, 1897 from Morocco). Variations: black stripes broadened, yellowish interstices very narrow (ab. *hellwigi* WEISE, 1882), yellowish interstices broader, lateral rows of punctures partly irregular (ab. *diversepunctatus* PIC, 1907), black pattern on pronotum divided into three separate spots (ab. *erycinus* WEISE, 1882). Distributed in Italy, Sicilia, Corsica and Sardinia *scriptus* HERRICH-SCHÄFFER, 1838.
- Apical lamella of aedeagus indistinct 40.
- 40. Aedeagus very characteristic, its apical part elongate, strongly, gradually narrowed toward apex, apex rounded (figs 58, 59) A North-African form. Length 2.6-2.9 mm. (= ? *pradensis* subsp. *incallidus* PIC, 1897). Variation: dark form; yellowish interstices in many places interrupted (ab. *obscurior* PIC, 1898). Distributed in Algeria and in Morocco *lallemani* MARSEUL, 1875.
- Apical part of aedeagus differently shaped 41.
- 41. Apical part of aedeagus (figs 60, 61) in dorsal view with parallel sides. Upper side coloured as in *P. scriptus* (thesis 39), underside black with yellowish mesoepimeres.



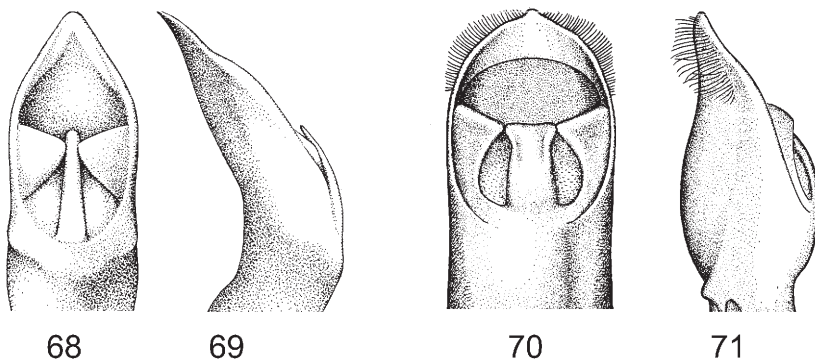
58-63. Aedeagus in dorsal and lateral view: 58, 59 – *Pachybrachis lallemani* (orig.); 60, 61 – *P. petitiplierrei* (after PETITPIERRE 2000); 62, 63 – *P. baeticus* (after PETITPIERRE 2000)

- Last abdominal sternite with a short ochraceous stripe in the middle, pygidium flavous. Length 2.5-3.0 mm. Distributed in N Spain *petitpierrei* DACCORDI, 1976.
- Apical part of aedeagus in dorsal view slightly but distinctly narrowed towards apex 42.
 - 42. Aedeagus as in figs 62, 63. Punctures of pronotum of different size, partly strong. Colouring of body like in *P. scriptus* (thesis 39), black humeral spot usually present. Black rows often here and there confluent, forming undefined black spots and stripes, particularly in apical and in middle part of elytron. Legs normally rather dark: femora brown with usual whitish spots, tibiae partly darkened. Length 2.2-2.8 mm (= *moroderi* PIC, 1913). Variations: legs not darkened, testaceous (ab. *moroderi* PIC, 1913), yellowish ground colour of upper side strongly reduced to a few spots on head, lateral margins of pronotum, subhumeral stripe and apex of elytra (ab. *subinterruptus* PIC, 1914). Distributed in Spain *baeticus* WEISE, 1882.
 - Aedeagus as in figs 64, 65. General view as in plate VIII, phot. 29. Length 2.2-2.8 mm. Variations: light form; black rows nowhere confluent (ab. *teruelensis* PIC, 1913), dark form, yellowish interstices in many places interrupted (ab. *schaeferi* PIC, 1948). Distributed in Spain *pradensis* MARSEUL, 1875. s. str.
 - 43. Mesoepimeres black. Externally similar to *scriptus* (thesis 39) and *lineolatus* (thesis. 35), but underside entirely black. In male, the last abdominal sternite with a large, shining depression and two wisps of white hairs. Aedeagus as in figs 66, 67. Length 2.8-3.5 mm. Distributed in SW Spain and S Portugal *rondanus* BURLINI, 1968.
 - Mesoepimeres yellow 44.
 - 44. W Mediterranean species 45.
 - Species described from ? S Russia. External view approximately as in *simius* (thesis 46), but spots on pronotum less distinct. Insufficiently studied species, sexual characters unknown *laetificus* MARSEUL, 1875.
 - 45. In lateral view aedeagus ventrally gently swollen or almost flat 46.
 - Aedeagus strongly swollen ventrally. Here some forms of *siculus* (auxiliary group B, thesis 16) with indistinct black spots on elytra.



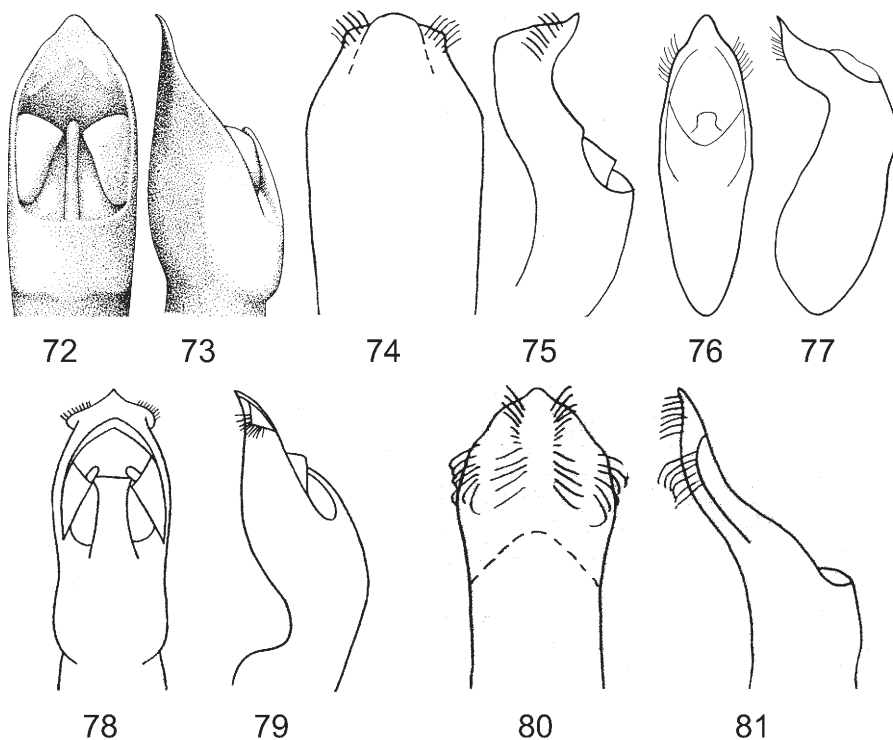
64-67. Aedeagus in dorsal and lateral view: 64, 65 – *P. pradensis* (after (PETITPIERRE 2000); 66, 67 – *P. rondanus* (after PETITPIERRE 2000)

46. Underside of aedeagus (figs 68, 69) in lateral view almost flat. Length 2.5-3.0 mm (male) to 3.5-4.0 mm (female) (= *marocanus* PIC, 1954, nec 1945, *lepineyi* PIC, 1955). General view as in plate IX, phot. 33. Variations: each elytron with 3 blackish spots. On pronotum also 3 dark spots (ab. *externenotatus* PIC, 1910), upper side paler than normally, on pronotum 3 dark spots (ab. *pallidicolor* PIC, 1900), on each elytron 2 blurred spots: humeral and postmedian, punctures rather irregular (ab. *favarcqi* PIC, 1907), elytral punctures more regular alineate, rather shallow (ab. *siculus* PIC, 1913). Distributed in N Africa, ab. *siculus* described from Sicily. Here perhaps also insufficiently described species *normandi* PIC, 1919 from Tunisia *simius* MARSEUL, 1875.
- Underside of aedeagus in lateral view convex 47.
47. Length of body over 3 mm. Aedeagus as in figs 70, 71. Externally similar to *burlinii* (thesis 32). Length 3.4-3.6 mm. Described from Isole Egadi (near Sicily) *osellai* DACCORDI et RUFFO, 1975.
- Length of body under 3 mm. Aedeagus as in figs 72, 73. Length 2.5-2.8 mm. Distributed in Iberian Peninsula and S France. Perhaps here the insufficiently studied species *coquereli* (REY, 1883) from Algeria, generally slightly paler than *rugifer* and with less regular arranged punctures on elytra *rugifer* ABEILLE, 1904.
48. Elytral puncturation entirely random, pronotal puncturation dense. Aedeagus (fig 138, 139) in lateral view without convexity on underside of apical half. Here pale forms of *altimontanus* (auxiliary group B, thesis 27).
- Elytral puncturation at least along sides and/or in hind part arranged in regular or semiregular longitudinal rows 49.
49. Puncturation of upper side strong 50.
- Puncturation of elytra moderately strong, more regularly arranged in longitudinal rows, body length under 3.8 mm. 58.
50. Larger species, body length 3.5-4.5 mm. [Here perhaps also *P. letourneuxi* PIC, 1900, described from Israel as a variety of *scripticollis* (auxiliary group B, thesis 10), but probably a distinct species] 51.



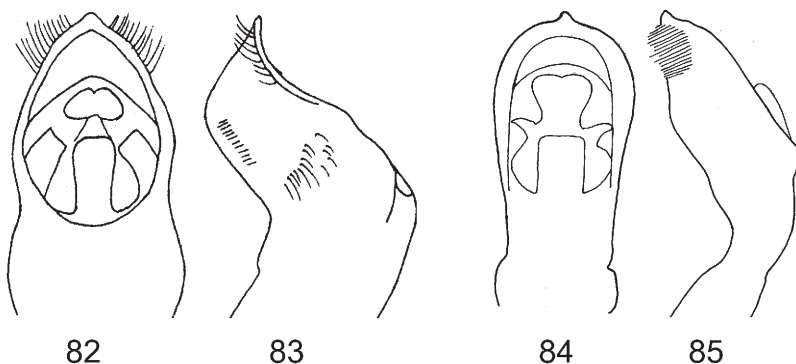
68-71. Aedeagus in dorsal and lateral view: 68, 69 – *Pachybrachis simius* (after PETITPIERRE 2000); 70, 71 – *P. osellai* (after RUFFO 1975).

- Smaller species, body length 2.8-4.1 mm 52.
- 51. Aedeagus as in figs 134, 135. Distributed in Kazakhstan. Here pale forms of *jacobsoni* (auxiliary group B, thesis 24), with reduced black pattern on elytra.
- Aedeagus as in figs 74, 75. Black spots on pronotum large. Described from China (Sichuan) *lineatus* WEISE, 1889.
- 52. Length under 2.9 mm. Upper side relatively very dark, M-shaped pattern on pronotum large, elytra with longitudinal, partly fused stripes compound of black punctures. Apex of aedeagus (figs 76, 77) with large, lobe-like lamella. Length 2.8-2.9 mm. Described from Bogdoshan range, distr. Urumchi, prov. Sinkiang, NW China *sinkianensis* LOPATIN, 1995.
- Length over 3.0 mm. Apex of aedeagus (if known) differently shaped 53.
- 53. E Mediterranean species 54.
- Asiatic species 55.
- 54. Smaller. Externally similar to *scripticollis* (auxiliary group B, thesis 10), but stronger punctured. Length about 3.0 mm. (= ? *akbesianus* PIC, 1907). Aedeagus not studied. Poorly known species, described from Lebanon, perhaps conspecific with *scripticollis* *libanicola* REY, 1883.



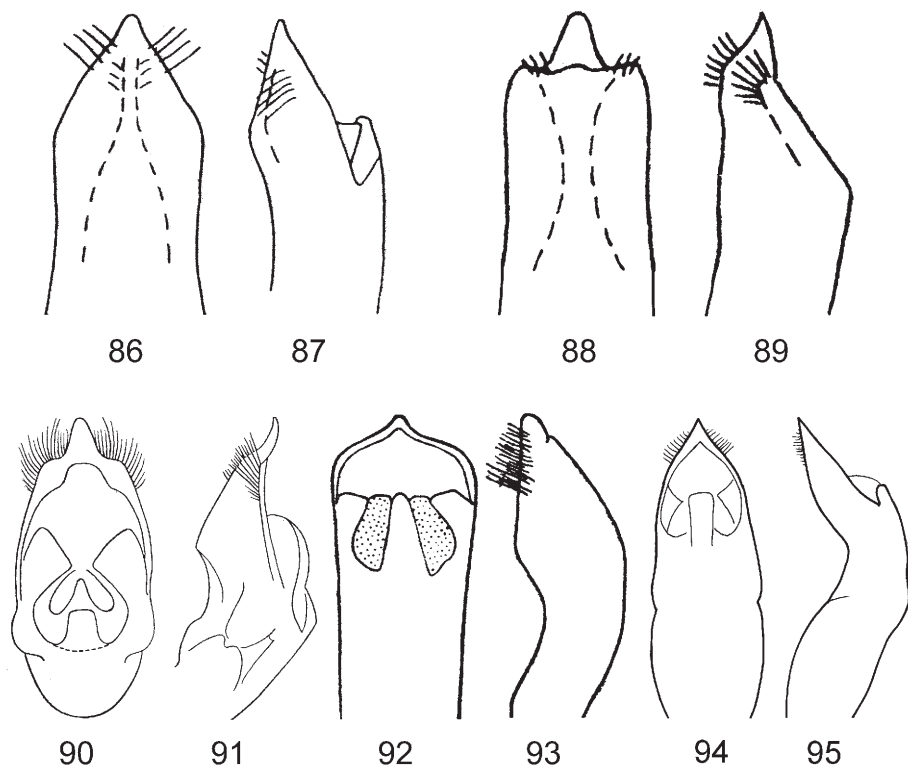
72-81. Aedeagus in dorsal and lateral view: 72, 73 – *Pachybrachis rugifer* (after PETITPIERRE 2000); 74, 75 – *P. lineatus* (after MEDVEDEV et RYBAKOVA 1980); 76, 77 – *P. sinkianensis* (after LOPATIN 1995); 78, 79 – *P. rapillyi* (after LOPATIN 1984b); 80, 81 – *P. potanini* (after MEDVEDEV et RYBAKOVA 1980)

- Larger. Coloured similarly as *libanicola* (thesis 54), but body much larger, head paler, puncturation of elytra more random. Aedeagus not studied. Species insufficiently studied, aedeagus not described. Length 4.5 mm. Distributed in Syria *peyroni* PIC, 1914.
- 55. Apex of aedeagus (figs 78, 79) in dorsal view with short lateral broadenings. Length 3.2-3.4 mm (male to 3.7-4.0 mm (female). Described from Iran (prov. Fars) *rapillyi* LOPATIN, 1984.
- Apex of aedeagus without broadenings 56.
- 56. Apex of aedeagus (figs 80, 81) laterally rounded, slightly broadened, with short and broad lamella, in lateral view without convexity on underside. Length 3.3-3.6 mm (male) to 3.6-4.1 mm (female). Described from N China (E Tsinghai) *potanini* MEDVEDEV et RYBAKOVA, 1980.
- Apex of aedeagus differently shaped 57.
- 57. Outline of aedeagus (figs 82, 83) similar as in *jacobsoni* (auxiliary group B, thesis 24), in lateral view with thickening near apex, perhaps conspecific with mentioned species. Length 3.1-3.7 mm. Described from Kazakhstan *heptapotamicus* LOPATIN, 1997.
- In lateral view thickening of underside of aedeagus (figs 84, 85) distant from apex. Length 3.2 mm. Species described from Afghanistan *afghanensis* LOPATIN, 1966.
- 58. Apex of aedeagus (figs 86, 87) triangular. Colouration of upper side as in *scripticollis* (auxiliary group B, thesis 10). General view as in plate VII, phot. 25. Length 2.5-3.3 mm (male) to 2.8-4.2 mm (female). Described from Mongolia *mongolensis* MEDVEDEV et RYBAKOVA, 1982.
- Apex of aedeagus not triangular 59.
- 59. Apex of aedeagus (figs 108, 109) narrowed, with parallel sides, bent upwards. Pronotum with M-shaped black pattern, on lateral part of this pattern a yellow dot. Elytra entirely pale, yellowish-grey, length 2.6-3.3 mm. Here pale forms of *scripticollis* (see auxiliary group B, thesis 10)
- Apex of aedeagus differently shaped 60.



82-85. Aedeagus in dorsal and lateral view: 82, 83 – *Pachybrachis heptapotamicus* (after LOPATIN 1997);
84, 85 – *P. afghanensis* (after LOPATIN 1966b)

60. Very small, length about 2.2 mm. Pronotum yellow with M-shaped pattern, elytra without black markings, covered by brownish punctures, along lateral sides and in hind part arranged in rather regular longitudinal rows. Apex of aedeagus (figs 88, 89) transversely cut with large, obtuse lamella. Described basing on one male only from vicinity of lake Khara-Nor, distr. Chita, Transbaicalia, Russia *transbaicalicus* MEDVEDEV, 1975.
- Length of body at least 2.5 mm 61.
61. Apex of aedeagus (figs 90, 91) with large, lobe-shaped lamella. Punctuation of elytra random, much stronger than on pronotum, along lateral margins run 2 regular or almost regular rows. Pronotum with 5 black spots, on elytra black punctures connected by numerous, thin black lines, yellowish ground divided into involved small stripes and lines. Length 3.2 mm (male) to 4.0 mm (female). Described from Turkmenistan *tekensis* LOPATIN, 1983.
- Apex of aedeagus differently shaped 62.
62. Externally similar to *nigropunctatus* (thesis 28), but on average smaller and differing by black spots on pronotum. In male abdomen black with yellow lateral



86-95. Aedeagus in dorsal and lateral view: 86, 87 – *Pachybrachis mongolensis* (after MEDVEDEV et RYBAKOVA, 1980); 88, 89 – *P. transbaicalicus* (after MEDVEDEV, 1982); 90, 91 – *P. tekensis* (after LOPATIN, 1983); 92, 93 – *P. dimorphus* (after MEDVEDEV, 1978); 94, 95 – *P. mogol* (after LOPATIN, 1986)

and apical border. In female abdomen yellow, slightly darker at base. Legs reddish brown with pale spot at apex of femora. Aedeagus as in figs 92, 93. Length 2.8-3.1 mm (male) to 3.5-3.6 mm (female). Described from Afghanistan (Kandahar)

..... *dimorphus* MEDVEDEV, 1978.

– Not as above 63.

63. Apex of aedeagus (figs 94, 95) in dorsal view sharpened, sides of apical part roundish narrowed. M-shaped pattern on pronotum well-developed, black, puncturation of elytra black, arranged in longitudinal rows, intervals yellow, convex, impunctate. Pronotum $1.4 \times$ broader than long, densely and uniformly punctured. Length 2.5 mm (male to to 3.2 mm (female). Described from Tadzhikistan

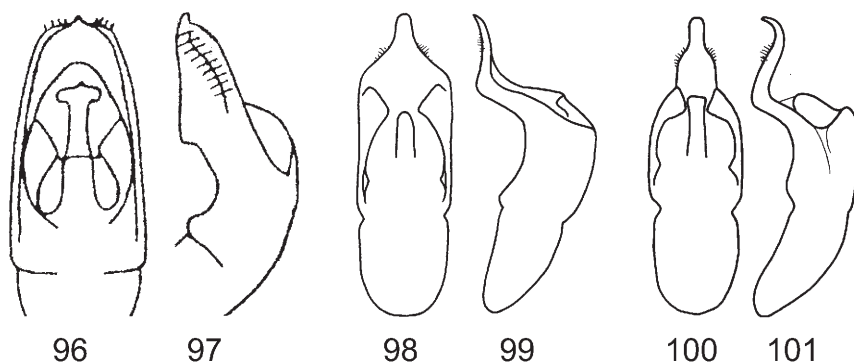
..... *mogol* LOPATIN, 1986.

– Apex of aedeagus (figs 96, 97) in dorsal view not sharpened, but transversely cut, with short and broad lamella. In male the first tarsomere of fore legs fairly broadened, as broad as tarsomere 3. Colouration of body similar as in *scripticollis* (auxiliary group B, thesis 10). Length 2.5-3.7 mm. Described from vicinity of lake Zaisan (E Kazakhstan) *mitjaevi* LOPATIN et KULENOVA, 1982.

AUXILIARY GROUP B

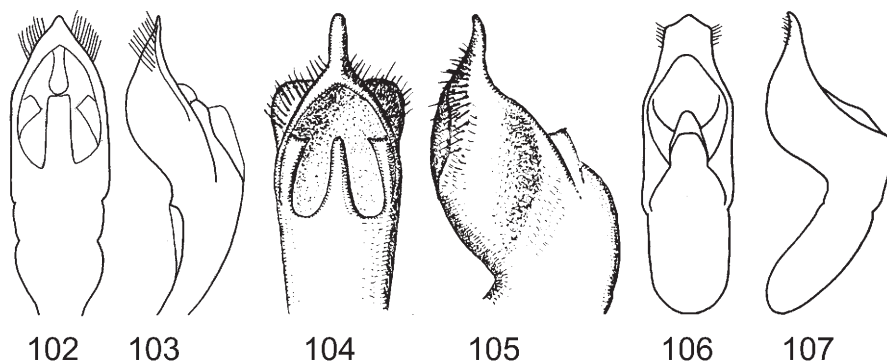
KEY TO SPECIES

1. Mesoepimeres yellow, black with yellowish stripe or black with yellow spot 2.
- Mesoepimeres black, sometimes at most with indistinct, blurred lightening. Here also variations with entirely black mesoepimeres of *planifrons* (thesis 20) and *suffrianii* (antithesis 18) 32.
2. Distance between eyes smaller than distance between antennal insertions 3.
- Distance between eyes not smaller than distance between antennal insertions 4.
3. Apical margin of pygidium deeply incised. Colouration of body as in *flexuosus* (antithesis 3). Aedeagus as in figs 98, 99. Length 3.0-3.5 mm. Distributed in Asia Minor and Bulgaria *excisus* WEISE, 1897.



96-101. Aedeagus in dorsal and lateral view: 96, 97 – *Pachybrachis mitjaevi* (after LOPATIN 1990); 98, 99 – *P. excisus* (after WARCHAŁOWSKI 1991); 100, 101 – *P. flexuosus* (after WARCHAŁOWSKI 1991)

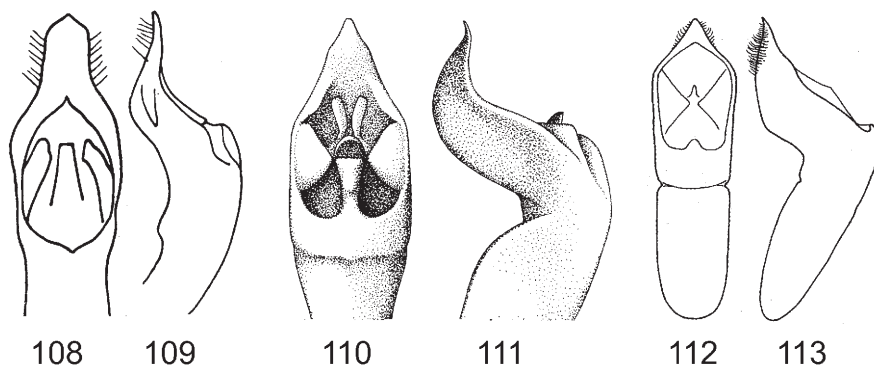
- Apical margin of pygidium not incised. Head yellow with two black spots by [near?] antennal insertions, narrow stripes in the middle of frons, along inner margins of eyes and with a black spot on vertex. Pronotum strongly, deeply punctate, with usual, very large M-shaped spot. Elytra yellow with 5 blurred black spots (3 laterally and 2 on the disc), interstices yellow, convex and shining, in many places interrupted. General view as in plate IV, phot. 13. Aedeagus very characteristic (figs 100, 101). Length 3.2-3.7 mm. In Greece occurs a form with well-defined elytral spots (subsp. *oertzeni* WEISE, 1886 = *dalmatinus* Pic, 1908). Variations: yellow apical margin of elytra with a short branch, eyes a little less close (ab. *viennensis* WEISE, 1882), on upper side black pattern partly reduced, yellow colour predominates (ab. *stramineus* BURLINI, 1968). Distributed in south-eastern part of Europe from northern Italy, Austria and Hungary to Greece *flexuosus* WEISE, 1882.
- 4. European and Mediterranean species (Asia Minor and Caucasian countries included) 5.
- Asiatic species 23.
- 5. Lateral ridge of pronotum entirely yellowish 6.
- Lateral ridge of pronotum more or less blackened 13.
- 6. Pronotum ochraceous with 3 pitchy-brown spots in posterior part. Elytra yellowish with 4 blackish spots (3 laterally and 1 apically). General view as in plate V, phot. 19. Aedeagus as in fig 102, 103. Length 3.2-3.7 mm. Described from Jordan *jordanicus* LOPATIN, 1984.
- Pronotum differently coloured 6.
- 7. Eyes smaller. Distance between eyes not shorter than length of eye. Body stocky, pronotum very short. Black pattern of upper side similar to *suffrianii* (antithesis 18). Elytra fulvous with black rows of punctures, each with 5 black spots. General view as in plate II, phot. 8. Legs entirely pale. Aedeagus characteristic (figs 104, 105). Length of body 3.2-3.5 mm. Variation: black colour of upper side strongly extended; elytra black with a few little fulvous stripes only (ab. *theresae* Pic, 1907). Endemic to Crete *creticus* WEISE, 1886.



102-107. Aedeagus in dorsal and lateral view: 102, 103 – *Pachybrachis jordanicus* (after LOPATIN 1984a); 104, 105 – *P. creticus* (after BURLINI 1968); 106, 107 – *P. pallidulus* (after WARCHALOWSKI 1991)

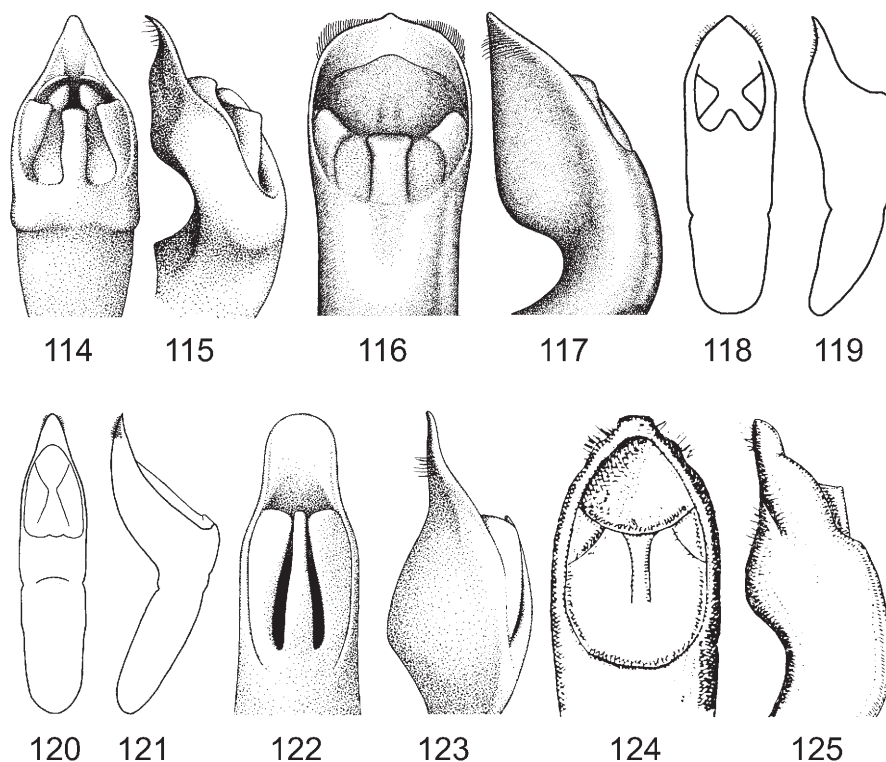
- Eyes larger. Distance between eyes shorter than length of eye 8.
- 8. Elytra for the most part pale, especially behind the middle 9.
- Black pattern present also in posterior part of elytra 10.
- 9. Pygidium usually entirely black, sometimes with two little yellowish dots. Aedeagus as in nominotypical subspecies (thesis 17). Length 3.0-4.1 mm. Variations: length of body 3.0-3.3 mm, lateral ridge of pronotum yellowish (ab. *cuencanus* BURLINI, 1968), length of body 3.4-3.8 mm, upper side almost entirely black (ab. *niger* BURLINI, 1968), length of body 3.0-3.3 mm, lateral ridge of pronotum black, on elytron three lateral spots fused (ab. *imitans* BURLINI, 1968). Distributed in Spain *hieroglyphicus* subsp. *pseudoscriptus* WAGNER, 1927.
- Pygidium black with a large kidney-shaped flavous spot. General view as in plate VII, phot. 27. Scutellum usually pale, lateral spots on pronotum separate. Aedeagus as in figs 106, 107. Length 3.0-3.6 mm. In the most part of distribution area subsp. *suturalis* WEISE, 1882 (= *bimaculatus* REY, 1883 occurs, generally darker coloured; scutellum entirely black or with a yellowish dot in the middle, elytra strongly punctate, with distinct blackish pattern consisting of a long discal stripe and three lateral spots). Variations: all blackish pattern of pronotum joined (ab. *gallicus* WEISE, 1882), last abdominal sternite with 4 yellowish spots (ab. *quadrimaculatus* REY, 1883), last abdominal sternite entirely black (ab. *subtilis* REY, 1883), on elytra 2. and 3. lateral spot absent (ab. *reductus* REY, 1883), all margins of pronotum black, punctural rows of elytra blackish (ab. *leveillei* PIC, 1913), elytra pale with a short sutural stripe and with three lateral spots black (ab. *molloensis* PIC, 1955). Colouring of body lighter, yellowish pattern on the last abdominal sternite extended, encroaching partly on penultimate sternite (ab. *angustifrons* REY, 1883). Colouring of body very dark; elytra entirely black or with little traces of yellowish interstices only (ab. *gavoyi* BURLINI, 1968, nec PIC, 1955). Distributed from northern Spain to southern Ukraine. Typical form and its variations known mainly from France, the rest of the area inhabited by subsp. *suturalis* *pallidulus* SUFFRIAN, 1851.
- 10. Apex of aedeagus (figs 108, 109) narrowed, with parallel sides, bent upwards. Pronotum with M-shaped black pattern, on lateral part of this pattern almost always with a yellow dot. Black colour on elytra forms two longitudinal stripes, sometimes reduced or absent (see also *libanicola*, auxiliary group A, thesis 54). General view as in plate VIII, phot. 31. Length 3.0-3.2 mm (= *israelita* TAPPES, 1871, ?*pentheri* GANGLBAUER, 1905). Rather broadly distributed in Near East, Caucasian countries, N Iran, Turkmenistan and Afghanistan. Varieties: *letourneuxi* (PIC, 1900) from Algeria and *arisi* (PIC, 1908) from NW China certainly do not belong here *scripticollis* FALDERMANN, 1837.
- Aedeagus differently shaped 11.
- 11. Aedeagus as in figs 118, 119. Here some forms of *P. hieroglyphicus* (thesis 17).
- Apex of aedeagus approximately triangular 12.
- 12. Species distributed in northern Spain and in southern France. Black pattern of upper side and the relatively slender body outline as in *suffriani* (antithesis 18). General view as in plate II, phot. 6. Aedeagus as in figs 110, 111. Length 3 mm.

- Variation: mesoepimeres entirely black (subsp. *fallaciosus* BURLINI, 1968, from France) *catalonicus* BURLINI, 1968.
- Species distributed in Asia Minor and in Caucasian countries. General view as in plate I, phot. 1. Aedeagus as in figs 112, 113 Length 3.8-4.2 mm *albicans* WEISE, 1882.
13. Elytra black with relatively sparse yellowish pattern, consisting of little impunctate spots and narrow stripes, distinctly elevated over surface. Length 2.3-2.8 mm. Here *mendax*, ab. *kislovodskensis*, see antithesis 51.
- Yellowish pattern broader, flat, usually sparsely dark punctate 14.
14. Elytra yellowish, black pattern normally consisting of a long discal stripe (sometimes interrupted) and three lateral spots 15.
- Elytra black with small yellowish spots or stripes 19.
15. Yellow discal stripe very broad, not interrupted, black lateral spots on elytra fused into longitudinal, continuous, relatively narrow stripe, running parallel to lateral margin. Aedeagus as in figs 114, 115. Punctuation black. General view as in plate VIII, phot. 30. Length 3.5-4.0 mm Distributed in Spain *pteromelas* GRAËLLS, 1858.
- Yellow discal stripe usually interrupted, black lateral spots large, separate, sometimes partly fused, never forming a continuous stripe 16.
16. Length of body 2.8-3.0 mm. Aedeagus (figs 116, 117) gradually broadened towards apex with a long triangular process. Variations: a dark form; elytra black, anterior and (partly) lateral margins alike a apical spot yellowish, last abdominal segment entirely black, mesoepimeres black with a narrow, reddish stripe (ab. *madoniensis* BURLINI, 1963), a rather lightly coloured form; elytra yellowish with usual black pattern, black longitudinal stripe fused with 3. lateral spot, last abdominal segment ventrally and dorsally with little fulvous dots (ab. *imitator* BURLINI, 1968). Endemic to Sicily *siculus* WEISE, 1891.
- Length of body over 3, 0 mm 17.



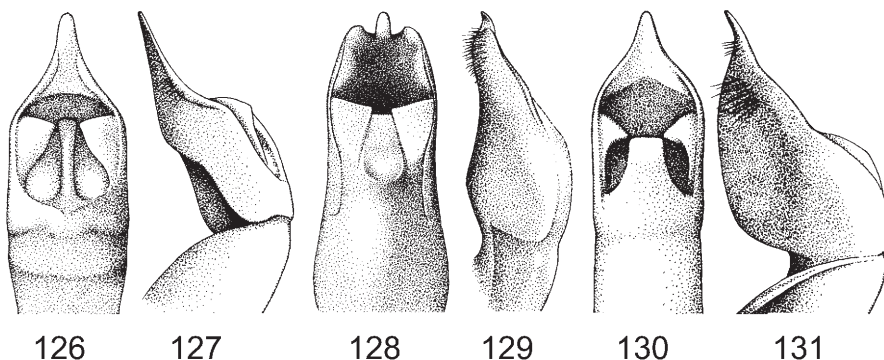
108-113. Aedeagus in dorsal and lateral view: 108, 109 – *Pachybrachis scripticollis* (after LOPATIN 1977); 110, 111 – *P. catalonicus* (after PETITPIERRE 2000); 112, 113 – *P. albicans* (after WARCHALOWSKI 1998)

17. Aedeagus (figs 118, 119) in distal part slightly narrowed, apical margins form an obtuse angle. General view as in plate IV, phot. 16. Pronotum yellowish with M-shaped pattern, elytron with 5 black spots. Length 3.1-4.2 mm (= *histrion* FABRICIUS, 1781, *atomarius* GEBLER, 1830, ? *noticollis* REY, 1883). Numerous variations were described (see the chapter "List of species") The most important variations: pronotal pattern divided into separate spots (ab. *ictericus* WEISE, 1882), pronotum and elytra for the most part black (melanotic aberrations). Very widely distributed from Iberian Peninsula to E Siberia ***hieroglyphicus*** (LAICHARTING, 1781).
- Aedeagus in distal part either rather strongly narrowed or forms a flat, broad process (figs 120, 122) 18.
18. Aedeagus (figs 120, 121) apically narrowed. Length 3.1-3.9 mm. Variations: upper side yellowish, on pronotum a large M-shaped spot, on elytron 5 black spots (typical form), on elytra lateral spots 2 and 3 fused (ab. *beckeri* PIC, 1910), upper side for the most part black, anterior and lateral margins of pronotum narrowly yellow, elytra black with anterior margin and subhumeral area fulvous (ab. *lugubris* WEISE,



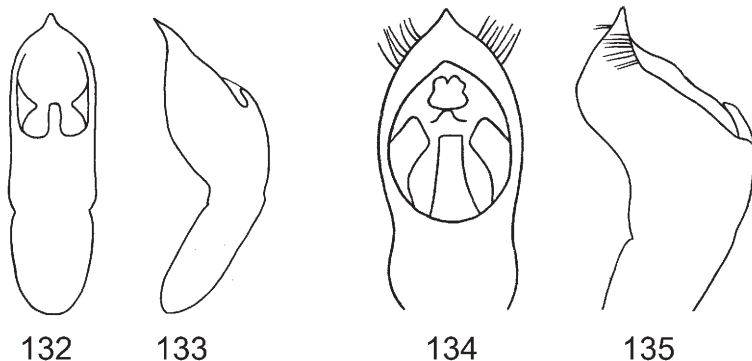
114-125. Aedeagus in dorsal and lateral view: 114, 115 – *Pachybrachis pteromelas* (after PETITPIERRE 2000); 116, 117 – *P. siculus* (after DACCORDI et RUFFO 1975); 118, 119 – *P. hieroglyphicus* (after WARCHAŁOWSKI 1991); 120, 121 – *P. scriptidorsum* (after WARCHAŁOWSKI 1998); 122, 123 – *P. suffrianii* (after PETITPIERRE 2000); 124, 125 – *P. salfii* (after BURLINI 1968)

- 1882), upper side entirely or almost entirely black (ab. *piceus* SUFFRIAN, 1848). Distributed from Bulgaria and Romania to Korea *scriptidorsum* MARSEUL, 1875.
- . Aedeagus apically with a flat, broad process, ventrally with a high swelling (figs 122, 123). Length 3.4–3.9 mm. Distributed in Spain *suffrianii* SCHAUFUSS, 1862.
19. Yellowish apical spot not prolonged (neither along suture, nor along lateral margin). Pronotum black with very narrow fulvous stripe along anterior and lateral margins, marginal ridges remaining black. Elytra black with fulvous anterior marginal ridge, with a few little fulvous dots on interstices 6–8 and with semilunar spot at apex Aedeagus as in figs 124, 125. Length 2.5–3.0 mm. Variation: pronotum entirely black, elytral yellowish pattern largely reduced (ab. *solarii* BURLINI, 1968). Distributed in Italy *salfii* BURLINI, 1956.
- . Yellowish apical spot prolonged along suture, sometimes also along lateral margin 20.
20. On elytron a long, slanting, yellowish stripe branching off from apical spot, reaching almost to humeral area of elytron. Aedeagus as in figs 126, 127. Length 3.0–3.5 mm. Variations: mesoepimeres black (ab. *perplexus* BURLINI, 1968), elytron in anterior part with a few yellowish intersices (ab. *avignonensis* BURLINI, 1968). Distributed in southern France and in Spain *planifrons* WAGNER, 1927.
- . Elytron without such a stripe 21.
21. Body length not exceeding 3.5 mm. General view as in plate V, phot. 20. Apex of aedeagus (figs 128, 129) with two excisions. Head yellowish with black vertex and with two little black spots between eyes. Pronotum black with yellowish pattern consisting of a narrow yellowish stripe along anterior and lateral margins, median line anteriorly and two lines in posterior part. Elytra black with yellowish border anteriorly, laterally and along suture in posterior half. Length 3.0–3.5 mm (= *carpetanus* BURLINI, 1968). Variation: body entirely black, legs and antenna basally reddish (ab. *obscuricolor* BURLINI, 1968). (Here also an insufficiently studied, similarly coloured Spanish species, *obscuricolor* FUENTE, 1909, male unknown). Distributed in Spain *kraatzii* WEISE, 1882.
- . Apex of aedeagus without excisions 22.



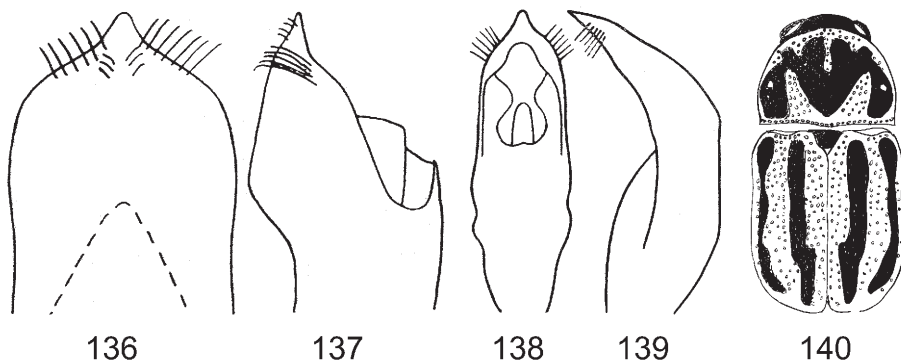
126–131. Aedeagus in dorsal and lateral view: 126, 127 – *Pachybrachis planifrons* (after PETITPIERRE 2000); 128, 129 – *P. kraatzii* (after PETITPIERRE 2000); 130, 131 – *P. lindbergi* (after PETITPIERRE 2000)

22. Species from west-mediterranean area. Head black with labrum and clypeus (in male) or with four little spots (female) yellowish. Pronotum and elytra coloured similarly as in *kraatzi* (thesis 21). Aedeagus as in figs 130, 131. Length 2.8-3.0 mm. Known from Morocco, Spain and Portugal *lindbergi* BURLINI, 1963.
- Species from southern Carpathians. Upper side black with yellowish pattern. Pronotum black with yellowish pattern consisting of a narrow yellowish stripe along anterior and lateral margins, median stripe anteriorly and two stripes in posterior part. Yellow pattern of elytra distinctly convex. Aedeagus as in figs 132, 133. Length 3.0-3.5 mm. Distributed in Romania and Moldova *carpathicus* REY, 1883.
23. Punctuation of upper side strong, punctures on elytra random, here and there (or along lateral margin only) forming indistinct rows 24.
- Punctuation of upper side moderately strong, arranged in regular or almost regular rows 29.
24. Upper side pale yellowish. On pronotum 5 black spots, in darker coloured specimens forming M-shaped pattern. On each elytron 6 black spots: two behind anterior margin, two in apical part, one in the middle at lateral margin and one (short longitudinal stripe) near centre. General view as in plate V, phot. 18. Aedeagus as in figs 134, 135. Length 3.8-4.5 mm. Distributed in Transcaspia, Iran and Afghanistan *jacobsoni* LOPATIN, 1968.
- Upper side differently coloured 25.
25. Legs with black spot or black stripe on dorsal side 26.
- Legs pale 27.
26. Black pattern on elytra distinct, separated from each other. Here some forms of *hieroglyphicus* (thesis 17) and *ochropygus* (antithesis 31).
- Black pattern on elytra partly fused, hind spots before apex form a horsehoe-shaped pattern. Pronotum with M-shaped black pattern, femora with darkened ventral- and dorsal margins, pygidium entirely black. Aedeagus as in figs 136, 137. Length 3.2 mm. In mountain system Gobi Altai appears a form differing from nominotypical subspecies by a presence of transverse, in middle interrupted, row of hairs on



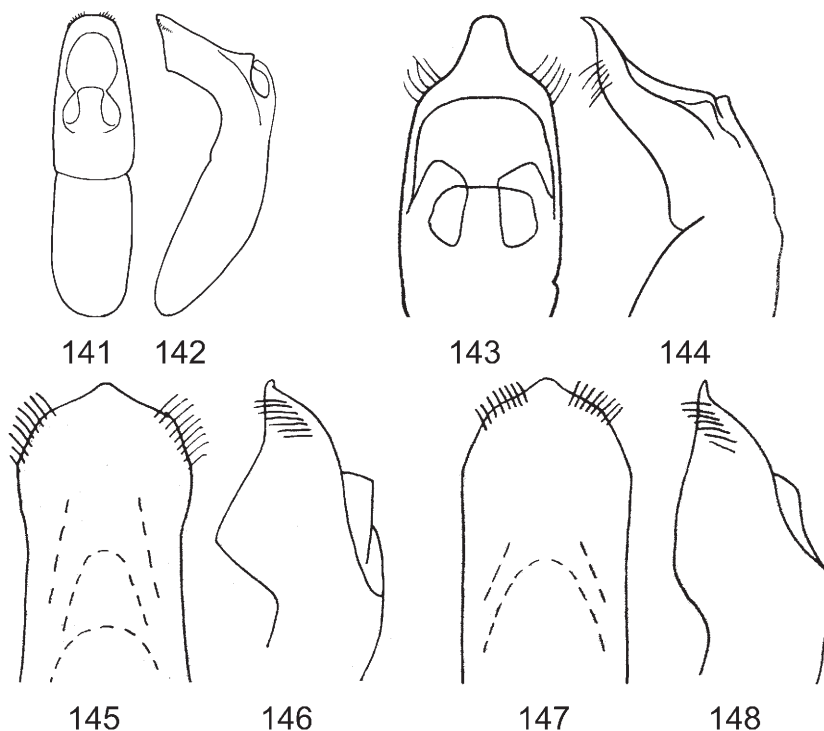
132-135. Aedeagus in dorsal and lateral view: 132, 133 – *Pachybrachis carpathicus* (after WARCHAŁOWSKI 1991); 134, 135 – *P. jacobsoni* (after MEDVEDEV et RYBAKOVA 1980)

- underside of apex of aedeagus (subsp. *changaica* MEDVEDEV et RYBAKOVA, 1980). Distributed in Mongolia *caraganae* LOPATIN, 1977.
27. Punctuation of yellow parts of pronotum very dense, interstices convex. Black spots on elytra small, central inner spot often missing. Aedeagus as in figs 138, 139. Length 3.0-3.5 mm. Described from Kyrgyzstan *altimontanus* LOPATIN, 1968.
- Punctuation of yellow parts of pronotum sparse or moderately dense, in hind and lateral part interstices broader than diameter of punctures. Punctuation of elytra entirely random. Black pattern on upper side as in figs 140. Length 3.5 mm. Described from Saudi Arabia, basing on one female only *saudicus* LOPATIN, 1979.
- Not as above 28.
28. On each elytron broad, blackish or black longitudinal stripe. On pronotum 5 black spots, sometimes fused into M-shaped pattern. Anal sternite with two yellow lateral stripes on apical margin, on pygidium large yellow spot incised anteriorly, in dark coloured specimens horsehoe-shaped, but never divided. Punctuation of elytra in scutellar area strong, black, random, distinctly stronger than punctuation of pronotum. Parallel to lateral margin runs one complete row of punctures. In very pale aberrations black elytral pattern entirely missing; such specimens are easily distinguishable from species of auxiliary group A by following combination of characters: legs entirely dark yellow, black spots on pronotum distinct, always well-developed, length of body over 3.8 mm. General view as in plate III, phot. 11. Aedeagus as in figs 141, 142 Length 3.9-4.7 mm. Distributed in Japan, reported also from China (Sichuan) *eruditus* BALY, 1873.
- On each elytron 3-5 black spots, sometimes partly fused 29.
29. Black spots on elytra small, usually only three outer spots present. Black punctures forming almost regular rows. Aedeagus as in figs 143, 144. Length about 3.0 mm. Described from vicinity of the lake Balkhash (Kazakhstan) *ghilarovi* LOPATIN, 1974.



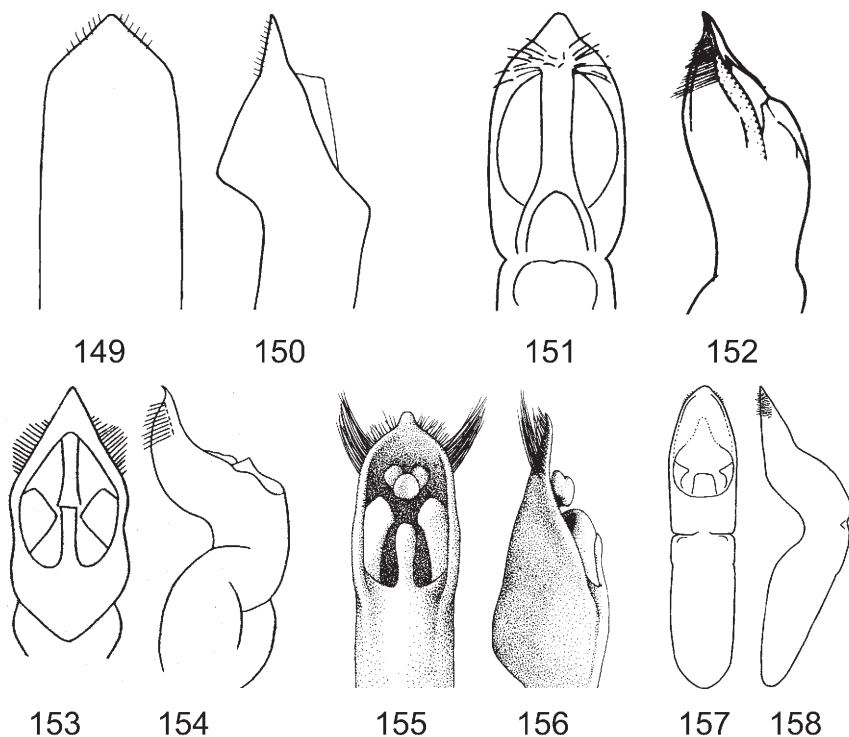
136-140: 136-139 – aedeagus in dorsal and lateral view, 140 – general view: 136, 137 – *Pachybrachis caraganae* (after MEDVEDEV 1982); 138, 139 – *P. altimontanus* (after LOPATIN 1968); 140 – *P. saudicus* (after (LOPATIN 1979))

- Black spots on elytra large (approximately as in *hieroglyphicus*, thesis 17) 30.
- 30. Apical half of aedeagus in lateral view with roundish rather high, but not angulate convexity on underside. Legs dark yellow with whitish spot before apex of meso- and metafemora, anal sternite at hind margin with short lateral stripe, two yellow spots on pygidium always distinct 31.
- Apical half of aedeagus in lateral view with strong, almost angulate convexity on underside (figs 145, 146). Body stout, general view as in plate VI, phot. 23. Length 3.0-3.3 mm. Distributed in Russia (Tschita province), Mongolia, N China and Korea *lopatini* MEDVEDEV et RYBAKOVA, 1980).
- 31. Length 3.0-3.5 mm (= *kaszabi* LOPATIN, 1966). Colouration of body similar as in *lopatini* (antithesis 30), body less stout. Aedeagus as in figs 147, 148. Distributed in Mongolia and NW China. Here also *instabilis* (WEISE, 1887) described from Tian-Shan mountains: male unknown, female undistinguishable from *distictopygus*, perhaps conspecific with him *distictopygus* JACOBSON, 1901.
- Upper side coloured as in *hieroglyphicus*. Aedeagus as in figs 149, 150. Inner spots on elytra not fused into longitudinal, broad stripe. Length 3.0-3.4 mm (male) to 3.6-4.3 mm (female) (= *sexsignatus* WEISE, 1889). Distributed in E Siberia, N China and Korea..... *ochropygus* SOLSKY, 1872.



141-148. Aedeagus in dorsal and lateral view: 141, 142 – *Pachybrachis eruditus* (orig.); 143, 144 – *P. ghilarovi* (after LOPATIN 1977a); 145, 146 – *P. lopatini* (after MEDVEDEV et RYBAKOVA 1980); 147, 148 – *P. distictopygus* (after MEDVEDEV et RYBAKOVA 1980)

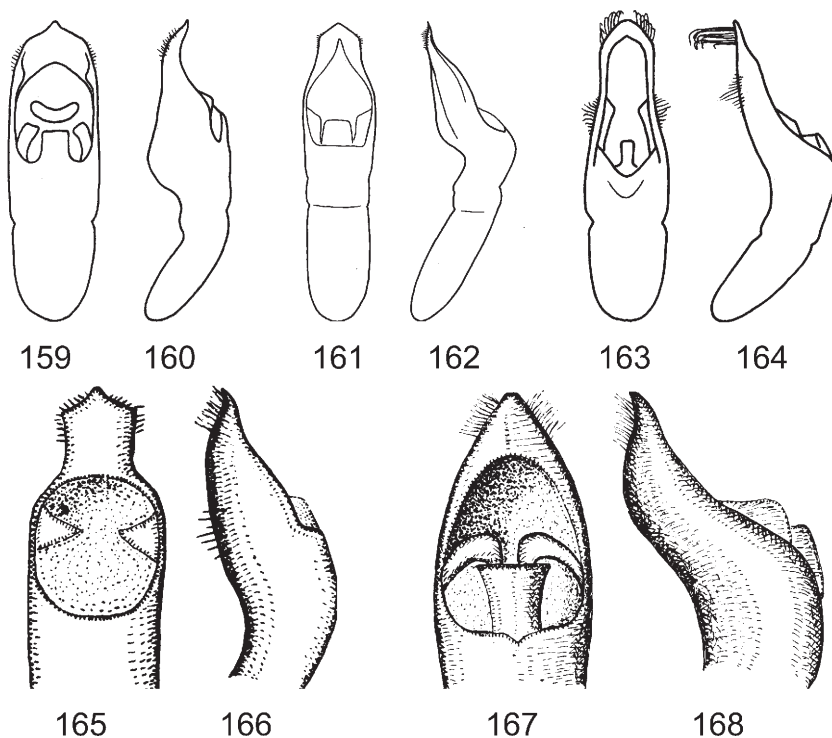
32. Upper side entirely or almost entirely black 33.
 — Body with well-developed pale pattern or markings 34.
 33. Upper side entirely black, sometimes with reduced yellowish pattern on head only. Here melanotic variations of different species, to begin with *hieroglyphicus* (thesis 17), *scriptidorsum* (thesis 18), *albicans* (antithesis 12), *limbatus* (auxiliary group C, thesis 13) and *terminalis* (antithesis 35), distinguishable by form of aedeagus, sometimes also by comparison of longer series of correctly determined specimens.
 — Upper side black with weakly developed yellowish pattern. 34.
 34. Punctuation of pronotum and elytra conspicuously deep, dense and uniformly scattered. Pronotum black, its anterior border and two spots at basal margin yellow. Elytra black with yellow stripes along basal margin, at humeral callus, on disc and at apex. Aedeagus as in figs 153, 154. Length 3.2-3.4 mm. Described from SW Iran *pudicus* LOPATIN, 1984.
 — Punctuation of upper side often strong, but not conspicuously dense and deep ... 35.
 35. Body, except for dark yellow spots on head, black. Pronotum finely, very densely punctured, punctures of elytra strong and deep, somewhat rugose. Aedeagus as



149-158. Aedeagus in dorsal and lateral view: 149, 150 – *Pachybrachis ochropygus* (after MEDVEDEV et RYBAKOVA 1980); 151, 152 – *P. amurensis* (after MEDVEDEV 1973); 153, 154 – *P. pudicus* (after (LOPATIN 1984b); 155, 156 – *P. terminalis* (after PETITPIERRE 2000); 157, 158 – *P. bodemeyeri* (after WARCHALOWSKI 2003)

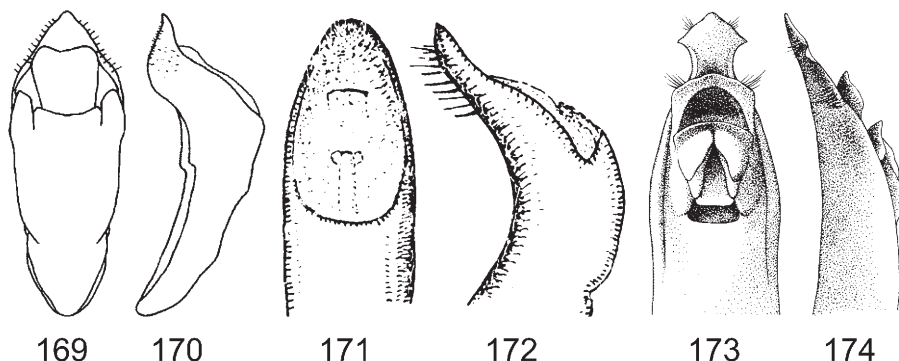
- in figs 151, 152. Length 2.7-3.0 (male) to 3.4-3.5 mm (female) (= *mohri* LOPATIN, 1974). Described from basin of Amur *amurensis* MEDVEDEV, 1973.
- Upper side black with yellow transversal stripe on apex of elytra, sometimes with very narrow yellow lateral margins of pronotum, elytra (anteriorly) and at scutellum. Yellow bordering at scutellum present almost always in male, rarely in female. General view as in plate IX, phot. 35. Aedeagus (figs 155, 156) very characteristic, its apical bristles form bent, horn-like wisps. Length 3.4-4.0 mm. Variation: elytra entirely black, without transversal stripe apically (ab. *martini* PIC, 1909). Distributed in Iberian Peninsula *terminalis* SUFFRIAN, 1849.
 - 36. Elytra black with relatively sparse yellowish pattern, consisting of little spots and narrow stripes, more or less distinctly elevated over surface and without punctures (see auxiliary group C).
 - Yellowish pattern broader, flat, usually sparsely dark punctate 37.
 - 37. Length of body usually greater, 3.4-4.5 mm. Punctures of pronotum rather strong, not very densely and somewhat unevenly scattered 38.
 - Length of body smaller, on average 2.2-3.2 mm. Punctures on pronotum finer, densely and regularly scattered 46.
 - 38. Last quarter of elytra yellow, black spots form a H-like pattern (similar pattern present also in *sinuatus*, thesis 41 and *velarum*, antithesis 41). General view as in plate II, phot. 5. Aedeagus as in figs 157, 158. Length 3.3-3.8 mm. Variations: longitudinal stripes connected behind scutellum (typical form = ab. *anteconnexus* BURLINI, 1968), black pattern reduced, on each elytron humeral spot and traces of remaining spots (ab. *humeralis* BURLINI, 1968) only. Distributed in Asia Minor *bodemeyeri* WEISE, 1906.
 - Yellow area on last quarter of elytra smaller, more limited by black pattern 39.
 - 39. Apex of aedeagus approximately triangular. Here variations of *catalonicus* and *albicans* (thesis and antithesis 12) with entirely black mesoepimeres.
 - Apex of aedeagus formed differently 40.
 - 40. Two last articles of palpi entirely black 41.
 - Two last articles of palpi entirely or partly yellowish 42.
 - 41. Hind tibiae basally pale. General view as in plate IX, phot. 34. On elytra external interval pale. Aedeagus as in figs 159, 160. Length 3.2-3.8 mm. (= *haliciensis* MILLER, 1868). Variation: black spots on elytra separated, anterior femora for the most part reddish (ab. *rufimanus* WEISE, 1882). Distributed in southern France, Middle Europa, Balkan Peninsula and Asia Minor *sinuatus* MULSANT, 1859.
 - Hind tibiae black. General view as in plate X, phot. 39. On elytra external interval at least in the middle black Aedeagus as in figs 161, 162. Length 3.3-4.0 mm. Distributed in Asia Minor *velarum* WARCHAŁOWSKI, 1998.
 - 42. Apical bristles on aedeagus (figs 163, 164) long, rigid, directed down. General view as in plate V, phot. 17. Aedeagus as in. Length 3.2-3.8 mm. Variations: scutellum with pale spot, on elytra lateral spots 2 and 3 absent (ab. *galeazii* PIC, 1910), scutellum black, on elytra lateral spots 2 and 3 reduced (ab. *lignosus* WEISE, 1882), elytra pale with sutural stripe and with three lateral spots black (ab. *pratsensis* PIC,

- 1955). Distributed from northern Spain to Romania, occurring mainly in mountains (Pyrenees, Alps, Carpathians) *hippophaes* SUFFRIAN, 1848.
- . Apical part of aedeagus formed differently 43.
 - 43. European species 44.
 - . Species known from Asia Minor only. Black pattern on upper side as in *scripticollis* (thesis 10) or (when lateral spots on elytra present) as in pale aberrations of *hieroglyphicus* (thesis 17). Length 2.8-3.2 mm. Insufficiently studied species, perhaps conspecific with *scripticollis* *pentheri* GANGLBAUER, 1905.
 - 44. Apical part of aedeagus (figs 167, 168) gradually arcuately narrowed. Colouration of body as in *hippophaes* (thesis 42) 45.
 - . Apical part of aedeagus (figs 165, 166) suddenly narrowed. Colouring of body as in *sinuatus* (thesis 30). Length 3.0-3.5 mm. Variation: the narrowed apical part of aedeagus longer than normally (subsp. *sibillinus* BURLINI, 1959, ?endemic to Monti Sibillini, Marche, Italy). Distributed in central and southern part of Italy *ruffoi* BURLINI, 1956.
 - 45. Aedeagus (figs 167, 168) in dorsal view not particularly broad. Length 3.0-3.6 mm. (= *chiusafortensis* BURLINI, 1968). Distributed in nord-eastern Italy *fraudolentus* MÜLLER, 1955.



159-168. Aedeagus in dorsal and lateral view: 159, 160 – *Pachybrachis sinuatus* (after WARCHALOWSKI 1991); 161, 162 – *P. velarum* (after WARCHALOWSKI 1998); 163, 164 – *P. hippophaes* (after WARCHALOWSKI 1991); 165, 166 – *P. ruffoi* (after BURLINI 1968); 167, 168 – *P. fraudulentus* (after BURLINI 1968)

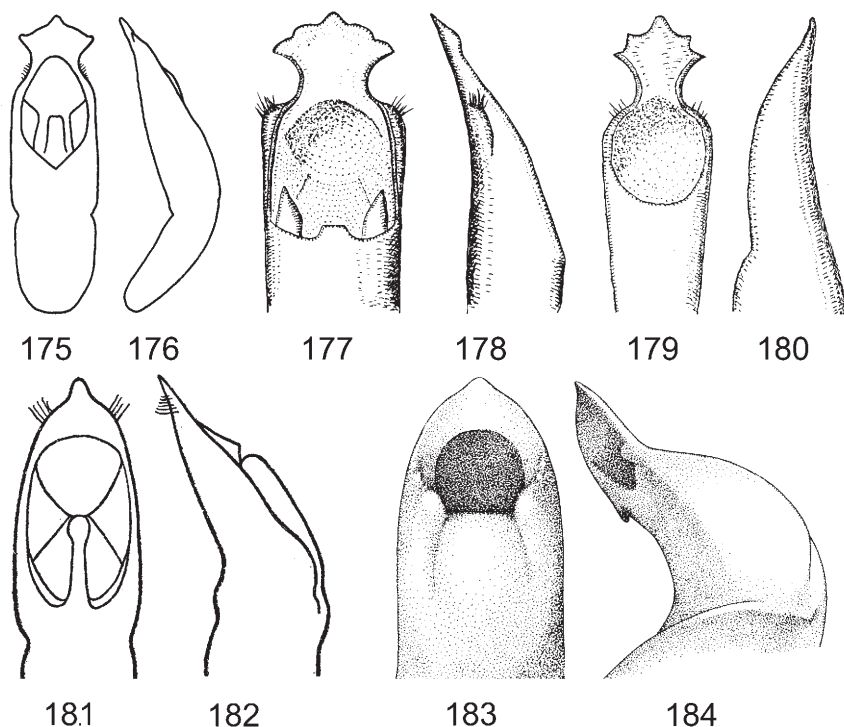
- . Aedeagus (figs 169, 170) in dorsal view broad. General view as in plate I, phot. 2. Length 3.5-4.0 mm. Described from High Alps *alpinus* RAPILLY, 1982.
- 46. Each elytron black, without spots, all round yellow margined. General view as in plate II, phot. 7. Apical part of aedeagus (figs 171, 172) gradually narrowed and broadly rounded. Length 2.3-2.8 mm. Endemic to Corsica and Sardinia *cinctus* SUFFRIAN, 1848.
- . Elytra with yellowish spots 47.
- 47. Apex of aedeagus laterally deeply emarginate, its anterior margin with five variously formed teeth or convexities (*fimbriolatus*-affinity) 48.
- . Apex of aedeagus laterally not emarginate 52.
- 48. Anterior tarsi in male almost as long as corresponding tibiae 49.
- . Anterior tarsi in male significantly shorter than corresponding tibiae 50.
- 49. Last tarsomeron of anterior tarsi in male thickened apically. General view as in plate III, phot. 10. Aedeagus as in figs 173, 174. Length 2.5-2.8 mm. (= *ungiculatus* BURLINI, 1968). Perhaps a race of *fimbriolatus* (thesis 50). It has been already formally synonymized with mentioned species by LOPATIN (1975: 197), but in account of existing doubts it is here discussed separately. Distributed in France and Spain *danieli* BURLINI, 1968.
- . Last tarsomeron of anterior tarsi in male not thickened apically. Length 2.5-2.8 mm. Distributed in the Alps and in Piemonte *danieli* subsp. *assiettae* BURLINI, 1968.
- 50. Apex of aedeagus (figs 175, 176) laterally not very deeply emarginate. General view as in plate XVI, phot. 141. On elytra postmedian dorsal spot almost always absent. Length 2.5-2.8 mm. (= *tristis* OLIVIER, 1808 nec LAICHARTING 1781, *mulsanti* PERRIS, 1852). Characterized by a geographical variability in shape of aedeagus (see *danieli*, thesis 49 and *nitidicollis*, thesis 51). General view as in plate III, phot. 12. Variations: yellow pattern of upper side partly reduced (ab. *varanensis* PIC, 1913), upper side almost entirely black (ab. *weisei* BURLINI, 1968). One subspecies was described: puncturation of upper side stronger, colouration of elytra paler, aedeagus somewhat differently shaped (subsp. *sibiricus* LOPATIN, 1962) Distributed in



169-174. Aedeagus in dorsal and lateral view: 169, 170 – *Pachybrachis alpinus* (after RAPILLY 1982); 171, 172 – *P. cinctus* (after BURLINI 1968); 173, 174 – *P. danieli* (after PETITPIERRE 2000)

southern and central part of Europe from northern Spain to Asia Minor and basin of Volga, subspecies *sibiricus* described from Siberia

- *fimbriolatus* SUFFRIAN, 1848 s. str.
- Apex of aedeagus laterally very deeply emarginate 51.
51. Aedeagus broader (figs 177, 178). Punctures of pronotum relatively finer and less densely scattered. On elytra usually a little, yellowish, postmedian spot. Length 2.4-2.9 mm. Distributed in Central Asia, reported also from Asia Minor. Perhaps, similarly as *danieli* (thesis 49), a race of *fimbriolatus* (thesis 50) *nitidicollis* WEISE, 1894.
- Aedeagus slender (figs 179, 180). Punctures of pronotum relatively stronger and more densely scattered. Generally lighter coloured than nominotypical subspecies, on elytra dorsal postmedian spot present. Length 2.3-2.8 mm (= *probus* WEISE, 1882, *dissecticeps* ROUBAL, 1916). Variation: mesoepimeres yellow (ab. *kislovodskensis* ROUBAL, 1916. Distributed in Ukraine, Asia Minor, Caucasian countries and in Central Asia. Perhaps a distinct species, see also remarks at *fimbriolatus* s. str. (thesis 50) *mendax* SUFFRIAN, 1860.
52. Transcaspian species. Frons broader than diameter of upper part of eye. Externally similar to *distictopygus* (thesis 31). General view as in plate VI, phot. 24. Underside



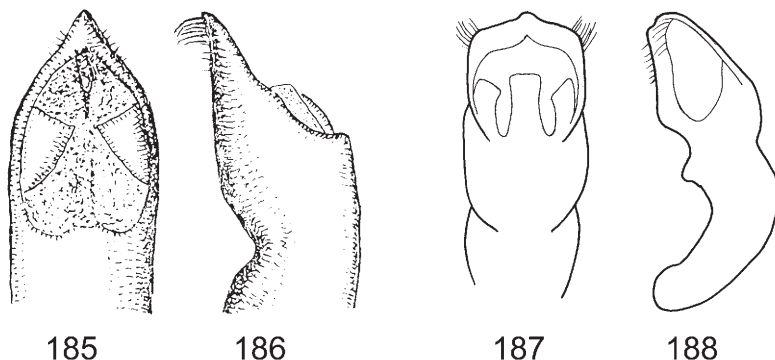
175-184. Aedeagus in dorsal and lateral view: 175, 176 – *Pachybrachis fimbriolatus* (after WARCHALOWSKI 1991); 177, 178 – *P. nitidicollis* (after BURLINI 1968); 179, 180 – *P. mendax* (after BURLINI 1968); 181, 182 – *P. merkensis* (after LOPATIN 1968); 183, 184 – *P. antigae* (after PETITPIERRE 2000)

- of aedeagus (figs 181, 182) in lateral view without distinct convexity. Length about 3.0 mm Described from S Kazakhstan **merkensis** LOPATIN, 1968.
- SW European species 51.
53. Body smaller. Aedeagus as in figs 183, 184. Yellowish pattern on upper side similar as in *fimbriolatus* (thesis 50). Length 2.0-2.5 mm. Distributed in eastern Spain **antigae** WEISE, 1900.
- Body larger. Aedeagus as in figs 185, 186. Colouring of upper side similar to *limbatus* (auxiliary group C, thesis 13) Length 2.5-3.0 mm (= ? *ogloblini* ROUBAL, 1927). Distributed in Italy, Istria and Dalmatia **karamani** WEISE, 1893.

AUXILIARY GROUP C

KEY TO SPECIES

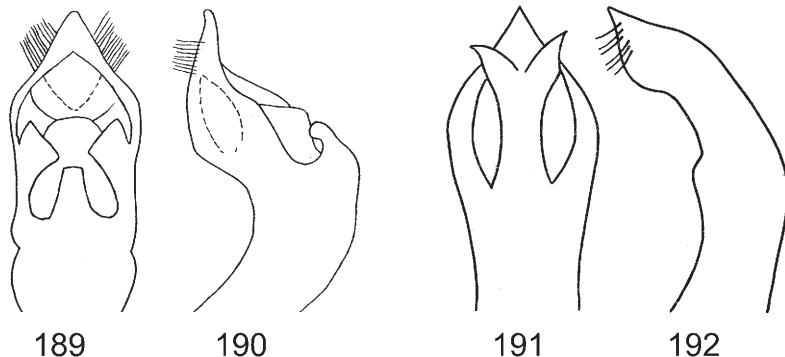
1. Mesoepimeres yellow, black with yellowish stripe or black with yellow spot 2.
- Mesoepimeres black, sometimes at most with indistinct, blurred lightening 6.
2. Frons broader than diameter of upper part of eye. Underside of aedeagus (figs 181, 182) in lateral view without distinct convexity. See *merkensis* (auxiliary group B, thesis 52).
- Frons narrower than diameter of upper part of eye. Underside of aedeagus in lateral view with distinct convexity or elevation 3.
3. Aedeagus (figs 187, 188) in dorsal view broad, almost transversely cut, with short and broad lamella, in lateral view its apex very thick. Punctuation of pronotum very dense and uniform, punctuation of elytra considerably stronger and more loosely scattered. Length 3.0-3.5 mm. Described from Mongol Altai mountains basing on one couple only **latipes** LOPATIN, 1971.
- Aedeagus differently shaped 4.
4. Apex of aedeagus (figs 189, 190) in dorsal view approximately triangular, in lateral view bent upwards. Black pattern on elytra partly fused, hind spots before apex



185-188. Aedeagus in dorsal and lateral view: 185, 186 – *Pachybrachis karamani* (after BURLINI 1968); 187, 188 – *P. latipes* (after LOPATIN 1971)

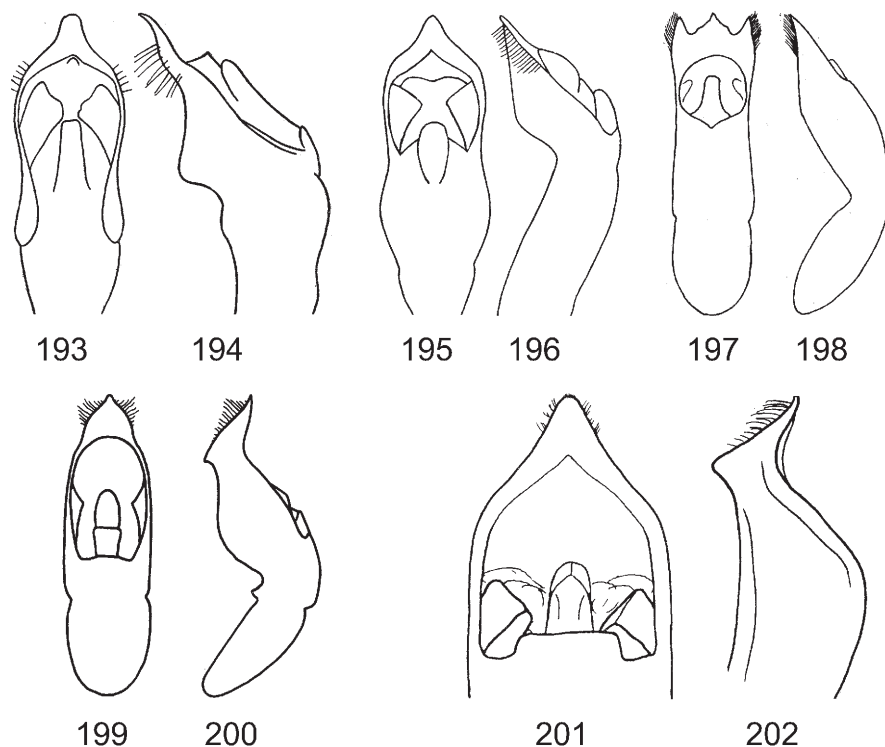
form a horseshoe-shaped pattern. Pronotum with M-shaped black pattern, femora with darkened ventral- and dorsal margins, pygidium with two oval yellow spots. Punctuation of pronotum dense, particularly on black parts. Punctuation of elytra considerably stronger, on scutellar area random, on remaining part of elytra arranged in regular or semiregular rows. Length 3.5 mm. Described basing on two males from Chulak mountains (E Kazakhstan) ***fraudator*** LOPATIN, 1991.

- Apex of aedeagus not bent upwards 5.
- 5. Frons convex, in hind part not impressed. Body smaller and less convex. In male the first tarsomere of anterior and mid legs not broadened. Aedeagus as in figs 191, 192. Length about 3.0 mm. Described from Tadzhikistan ***kuramensis*** LOPATIN, 1974.
- Frons flat, in hind part slightly impressed. Body larger. In male first the tarsomere of fore and mid legs strongly broadened. General view as in plate I, phot. 4. Aedeagus as in figs 193, 194. Length about 3.8 mm (male) to about 4.0 mm (female). Described from SE Kazakhstan ***atraxaphidis*** LOPATIN, 1968.
- 6. Apex of aedeagus laterally deeply emarginate, its anterior margin with three or five variously formed teeth or small lobes. On elytra yellow apical stripe not forked. See auxiliary group B, theses 48-51 (*fimbriolatus*-group)
- Apex of aedeagus laterally not emarginate 7.
- 7. Head with deep longitudinal furrow, frons divided into two separate convexities. Colouring of body like in *P. limbatus* (thesis 13). Length 3.5 mm. Here *dissecticeps* (ROUBAL, 1916) described from northern Caucasian foothills from on one specimen (sex not determined) only, later synonymized with *mendax* (see list of species).
- Head not divided into two convexities 8.
- 8. Species from Europe, Mediterranean area (Asia Minor and Caucasian countries included) and Iran 9.
- Central- and E Asiatic species 21.
- 9. On elytra apical yellowish transverse stripe not forked 10.
- On elytra apical yellowish transverse stripe forked. Yellowish pattern on pronotum and elytra as in *tessellatus* (thesis 17), but usually partly reduced. Last abdominal segment entirely black 15.



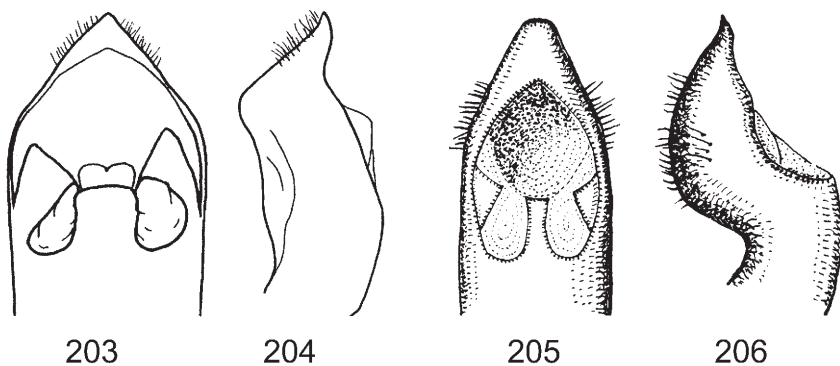
189-192. Aedeagus in dorsal and lateral view: 189, 190 – *Pachybrachis fraudator* (after LOPATIN 1991); 191, 192 – *P. kuramensis* (after LOPATIN 1977a)

10. Species from Iran 11.
- species from E Mediterranean area. Here a few species externally very similar to each other, distinguishable by the shape of aedeagus and to some extent by area of distribution 12.
11. An insufficiently known species, coloured similarly as *limbatus* (thesis 13), but smaller and yellow pattern weakly convex. Aedeagus not studied. Length 2.8-3.6 mm (= *misellus* WEISE, 1900, *callosus* SAHLBERG, 1913) *laticollis* SUFFRIAN, 1860.
- On pronotum anterior and lateral margins rust-yellow, at hind margin two oblique, short, blurred stripes. Elytron black, with yellow border, in the middle of lateral sides and on suture several times interrupted. At midlength, somewhat laterally, with an irregular yellowish spot. Underside and pygidium entirely black. Legs partly blackened. Aedeagus as in figs 195, 196. Length about 3.4 mm. Described from NE Iran (N Khorassan) *boreopersicus* LOPATIN, 1991.
12. Apex of aedeagus (figs 197, 198) with three approximately triangular processes (central lamella and two lateral angles). Length of body 3.5-4.3 mm. (= *seidenstueckeri* KIPPENBERG, 1974). Distributed in southern Turkey *mardinensis* WEISE, 1900.



193-202. Aedeagus in dorsal and lateral view: 193, 194 – *Pachybrachis atraphaxidis* (after LOPATIN 1974); 195, 196 – *P. boreopersicus* (after LOPATIN 1991); 197, 198 – *P. mardinensis* (after WARCHAŁOWSKI 2003); 199, 200 – *P. limbatus* (after WARCHAŁOWSKI 1991); 201, 202 – *P. leonardii* (after SASSI et SCHÖLLER 2003)

- Apex of aedeagus simple, bent upwards. 13.
- 13. Apex of aedeagus as in figs 199, 200. Ground of upper side black. General view as in plate VI, phot. 21. Pronotum anteriorly and laterally yellowish margined, sometimes also with a very narrow median stripe. On each elytron epipleura (partly), anterior margin, two lateral and one apical stripes, alike a median spot near suture, yellow. Underside entirely black, mid and hind legs darkened. Length 3.2-3.8 mm. Variations: upper- and underside entirely black (ab. *ater* WEISE, 1882), pronotum less strongly punctate, poorly shining (ab. *maculatus* SUFFRIAN, 1848). Distributed in Balkan countries and in Asia Minor *limbatus* (MÉNÉTRIÉS, 1836).
- Apex of aedeagus differently shaped 14.
- 14. Apex of aedeagus as in figs 201, 202. Species distributed in Dodekanes (Rhodos, Kos) *leonardii* SASSI et SCHÖLLER, 2003.
- Apex of aedeagu as in figs 203, 204. Species distributed in S Turkey, Syria and Jordan *cordatus* SASSI et SCHÖLLER, 2003.
- 15. Apical part of aedeagus (figs 205, 206) regularly arcuately narrowed. Mid and hind femora blackish with pale apical spot. Length 3.0-3.5 mm (= *cephalenicus* BURLINI, 1968). Described from Greece *freyi* BURLINI, 1957.
- Apical part of aedeagus not regularly arcuately narrowed 16.
- 16. Apical part of aedeagus (figs 207, 208) shortly, sinuately narrowed, with a distinct tooth in the middle. General view as in plate XVII, phot. 150. Mid and hind femora fulvous. Length 3.0-3.5 mm. Distributed from northern Spain, central France and Belgium to Hungary and central Italy *picus* WEISE, 1882.
- Aedeagus formed differently 17.
- 17. Apex of aedeagus (figs 209, 210) shallowly excised. General view as in plate IX, phot. 36. Great black spot on pronotum with lateral yellowish dot Length 3.5-4.0 mm (= *tauricus* SUFFRIAN, 1848, *bisignatus* REDTENBACHER, 1849). Variations: a little smaller (3.3-3.8 mm), yellowish pattern pale flavous, aedeagus shorter (subsp. *orientalis* WEISE, 1894 occurring in Asia Minor), pygidium entirely black (ab. *melanopygus* MÜLLER, 1953), yellowish colour more extended; little spots of lateral



203-206. Aedeagus in dorsal and lateral view: 203, 204 – *Pachybrachis cordatus* (after SASSI et SCHÖLLER 2003); 205, 206 – *P. freyi* (after WARCHALOWSKI 2003)

stripes fused (ab. *picturatus* REY, 1883), yellowish colour very extended, on elytra both lateral stripes fused together (ab. *syriacus* WEISE, 1882), body entirely black except for mid and hind legs partly brownish (ab. *aethiops* WEISE, 1882). Distributed in southern and central part of Europe from northern Spain to the Caspian Sea

..... ***tessellatus*** (OLIVIER, 1791).

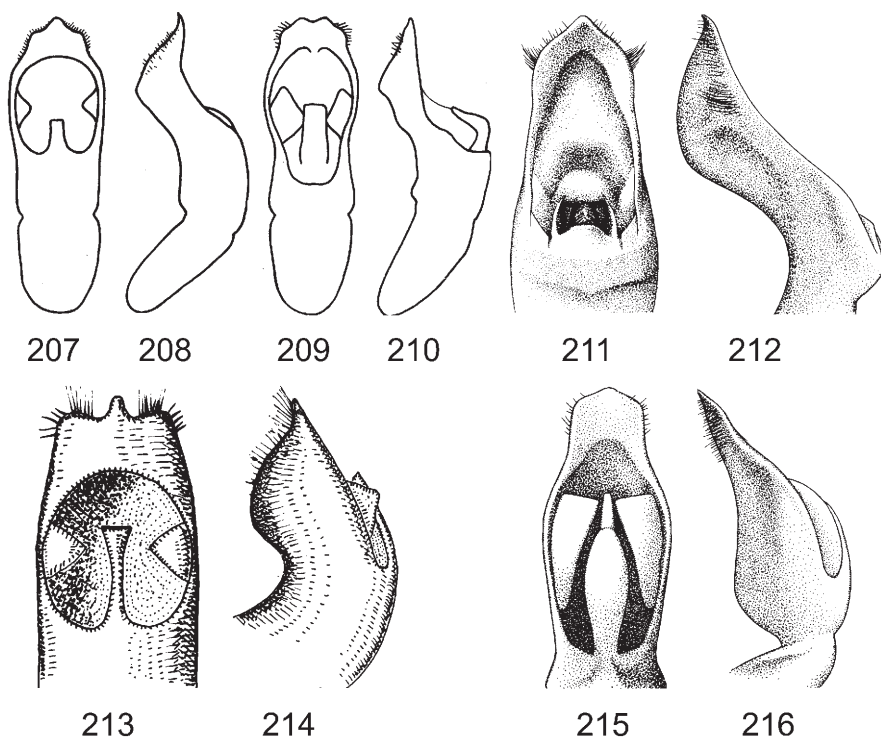
- Apex of aedeagus not excised, but shortly rounded or with a tooth in the middle 18.

- 18. Externally not differing from *tessellatus* (thesis 53), similar also to *picus* (thesis 52). Aedeagus as in figs 211, 212. Distributed in Pyrenees and in N Spain

..... ***aragonicus*** TEMPÈRE et RAPILLY, 1981.

- Apex of aedeagus differently formed 19.

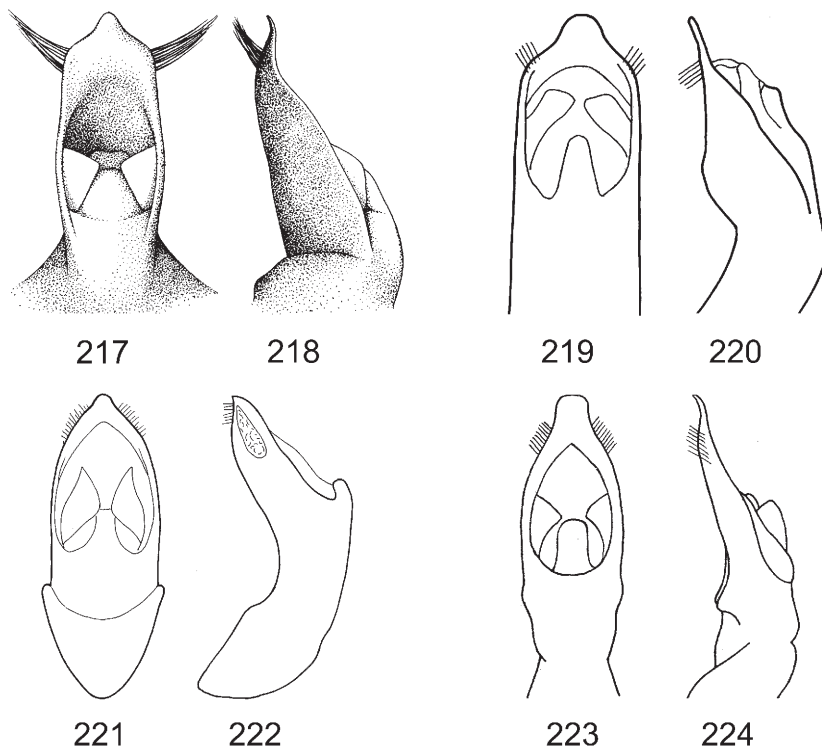
- 19. Aedeagus as in figs 213, 214. Large black spot on pronotum without lateral yellowish dot. Length 3.5-4.0 mm. Variations: aedeagus broader than in typical form, last abdominal sternite without yellowish spots (subsp. *etruscus* WEISE, 1886), yellowish colour more extended, on elytra interstices for the most part pale (subsp. *etruscus* ab. *liguricus* BURLINI, 1968), on the disc of elytra yellowish spots replaced by irregular longitudinal lines, mesoepimera with yellowish spots (a doubtful form,



207-216. Aedeagus in dorsal and lateral view: 207, 208 – *Pachybrachis picus* (after WARCHAŁOWSKI 1991); 209, 210 – *P. tessellatus* (after WARCHAŁOWSKI 1991); 211, 212 – *P. aragonicus* (after PETITPIERRE 2000); 213, 214 – *P. exclusus* (after BURLINI 1968); 215, 216 – *P. korbi* (after PETITPIERRE 2000)

ab. *guilhemii* PIC, 1955). Sometimes considered as conspecific with *tessellatus* (thesis 53), in opinion of some authors *lecerfi* PIC, 1947 from Morocco belongs here also. Distributed from southern France to Dalmatia, subsp. *etruscus* occurs in Italy **exclusus** REY, 1883.

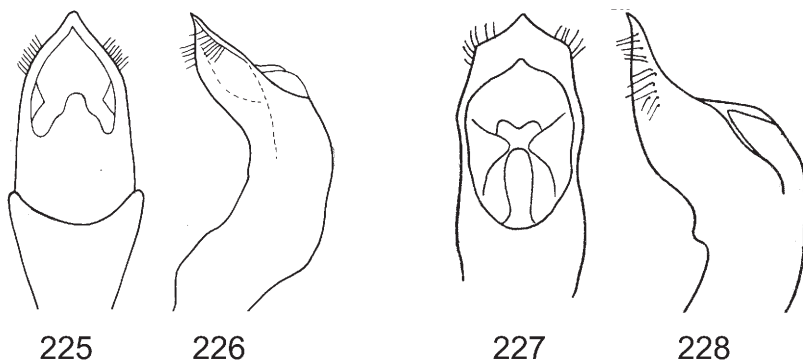
- Aedeagus formed differently, large black spot on pronotum usually with lateral yellowish dot 20.
- 20. Body length exceeding 3.2 mm. Apex of aedeagus (fig 215, 216) shortly rounded, sometimes with a very little tooth in the middle. Length 3.4–4.1 mm. (= *alcarriensis* BURLINI, 1968). Distributed in Spain **korbi** WEISE, 1891.
- Body length not exceeding 3.2 mm. Upper side black with sparse yellowish pattern. Apex of aedeagus (figs 217, 218) with a rather large, obtuse lamella, apical bristles forms horn-like wisps. General view as in plate IV, phot. 14. Length 2.8–3.0 mm. One subspecies was described: two yellowish spots in posterior part of pronotum situated at some distance before posterior margin, on elytron anterior margin and a little yellowish spot on humerus only (subsp. *albarracinus* WAGNER, 1927). Variation (often confused with *terminalis*, auxiliary group B, antithesis 35): elytra black



217–224. Aedeagus in dorsal and lateral view: 217, 218 – *Pachybrachis fulvipes* (after PETITPIERRE 2000); 218, 219 – *P. paganus* (after LOPATIN 1990); 221, 222 – *P. tuvensis* (after LOPATIN 1995); 223, 224 – *P. koktumensis* (after LOPATIN 1991)

with narrow pale marginal stripe only (ab. *albolimbatus* WEISE, 1891). Distributed in SW Spain (nominotypical subspecies) and in NE Spain (subsp. *albarracinus*)

- *fulvipes* SUFFRIAN, 1848.
21. Pronotum moderately strongly, but very densely punctured, interstices at most as broad as diameter of punctures. Externally similar to *atraxoidis* (plate I, phot. 4). Aedeagus as in figs 218, 219. Length about 3.0 mm (male) to 3.4 mm (female). Described from S Kazakhstan *paganus* LOPATIN, 1990.
- Pronotum not particularly densely punctured, interstices on average broader than diameter of punctures 22.
22. Aedeagus (fig 221, 222) with a low carina on underside of apical part. In male the first tarsomere of fore legs very feebly elongate, broadened but not rounded. Length 3.0-3.4 mm (male) to 3.9-4.0 mm (female). Pronotum in male yellow with M-shaped black pattern, in female black, its lateral and anterior margins and thin shortened median stripe pale yellow. General view as in plate X, phot. 38. Described from Tuva *tuvensis* MEDVEDEV, 1974.
- Aedeagus without carina on underside of apical part 23.
23. Punctuation of elytra almost entirely random, along lateral sides arranged in a row, interrupted behind humeral callus. Upper side yellow, on pronotum M-shaped pattern, on elytra large, black, partly fused spots. Yellow parts of elytral surface distinctly convex. Aedeagus (figs 223, 224) on apex with a broad, almost transversely cut lamella. Length 2.9-3.0 mm (male) to 3.6-3.7 mm (female). Described from SE Kazakhstan *koktumensis* LOPATIN, 1991.
- Punctuation of elytra in hind half at least partly arranged in regular or semiregular rows. Pronotum black, its lateral and anterior margins and thin shortened median stripe pale yellow 24.
24. On average smaller. Legs dark yellow, femora on apex whitish. In male first tarsomere of fore legs strongly elongate and broadened, slightly rounded. Yellowish pattern on elytra partly chain-like. Aedeagus as in figs 225, 226. Length 3.1-3.2 mm. Described from Tuva *korotjaevi* LOPATIN, 1995.



225-228. Aedeagus in dorsal and lateral view: 225, 226 – *Pachybrachis korotjaevi* (after LOPATIN 1995); 227, 228 – *P. sericans* (after LOPATIN 1974)

- On average larger. Legs darker, femora partly black, with large dark yellow spot at apex. Elytra black with yellow pattern consisting of thin short stripes and chains. General view as in plate VIII, phot. 32. Aedeagus as in fig 227, 228. Length 3.0-4.0 mm. Distributed from Kyrgyzstan and E Kazakhstan to Altai, Mongolia and Transbaicalia *sericans* SUFFRIAN, 1860.

ALPHABETICAL LIST OF SPECIES

***Pachybrachis absinthii* LOPATIN, 1990**

Pachybrachys absinthii LOPATIN, 1990: 46.

Terra typica: Dzhungarskiy Alatau range, SE Kazakhstan.

***Pachybrachis adaliensis* WEISE, 1886**
(not included in the key)

Pachybrachys adaliensis WEISE, 1886: 25.

Locus typicus: Antalya, SW Turkey.

***Pachybrachis additus* LOPATIN, 1991**

Pachybrachis additus LOPATIN, 1991: 23.

Locus typicus: Toru-Aygir, N Issyk-Kul lake, Kirgystan.

***Pachybrachis afghanensis* LOPATIN, 1966**

Pachybrachys afghanensis LOPATIN, 1966b: 366.

Locus typicus: Banda-e-Mir, distr. Hazarajat, Afghanistan.

***Pachybrachis akbesianus* PIC, 1907**

Pachybrachis akbesianus PIC, 1907: 112.

Locus typicus: Akbes, Syria.

***Pachybrachis albicans* WEISE, 1882**

Pachybrachys albicans WEISE, 1882: 248.

Locus typicus: Kasumkent, E Caucasus, Russia

***Pachybrachis alpinus* RAPILLY, 1882**

Pachybrachis alpinus RAPILLY, 1882: 53.

Locus typicus: Torrent de la Rouanne, Ancelle, Hautes Alpes, France.

***Pachybrachis altimontanus* LOPATIN, 1968**

Pachybrachys altimontanus LOPATIN, 1968: 545.

Locus typicus: pass Ak-Bel, Alai Mts., Kirgystan.

***Pachybrachis amurensis* MEDVEDEV, 1973**

Pachybrachis amurensis MEDVEDEV, 1973: 880.

Pachybrachis mohri LOPATIN, 1974b: 177.
mohri = *amurensis*: MEDVEDEV, 1992: 553.

Locus typicus: Kalimoucy, Ussuria, Russia.

***Pachybrachis anatolicus* LOPATIN, 1985**

Pachybrachis anatolicus LOPATIN, 1985: 768.

Locus typicus: Başkale, distr. Van, SE Turkey.

***Pachybrachis anoguttatus* SUFFRIAN, 1866**

Pachybrachys ano-guttatus SUFFRIAN, 1866: 208.

Terra typica: Mallorca, Baleares, Spain.

***Pachybrachis antigae* WEISE, 1900**

Pachybrachys Antigae WEISE, 1900: 280.

Terra typica: Catalunya, Spain.

***Pachybrachis aragonicus* TEMPÈRE et RAPILLY, 1981**

Pachybrachys aragonicus TEMPÈRE et RAPILLY, 1981: 313.

Locus typicus: Linas de Broto, prov. Huesca, Spain.

***Pachybrachis arnoldii* LOPATIN, 1967**

Pachybrachys arnoldii LOPATIN, 1967: 216.
Pachybrachis parvissimus LOPATIN, 1975: 198.
parvissimus = *arnoldii*: LOPATIN, 1991: 27.

Locus typicus: Koksengir, S of Zhana-Arka, distr. Karagandskaya, Kazakhstan.

***Pachybrachis atraphaxidis* LOPATIN, 1968**

Pachybrachys atraphaxidis LOPATIN, 1968: 546.

Terra typica: valley of river Ili, Chulak range, distr. Alma-Ata, Kazakhstan.

***Pachybrachis auliensis* BREIT, 1921**

Pachybrachys auliensis BREIT, 1921: 67.

Locus typicus: Aulie-Ata, Centr. Kazakhstan.

***Pachybrachis baeticus* WEISE, 1882**

Pachybrachys baeticus WEISE, 1882: 269nota.
Pachybrachys Moroderi PIC, 1913: 139.
Pachybrachis baeticus var. *subinterruptus* PIC, 1914: 78.
moroderi = *baeticus*: BURLINI, 1968: 43.

Terra typica: Andalusia, Spain.

***Pachybrachis bodemeyeri* WEISE, 1906**

Pachybrachys Bodemeyeri WEISE, 1906: 472.
Pachybrachis bodemeyeri morpha *humeralis* BURLINI, 1968: 85.
Pachybrachis bodemeyeri morpha *anteconnexus* BURLINI, 1968: 86.

Locus typicus: Bilecik, NW Turkey.

***Pachybrachis boreopersicus* LOPATIN, 1991**

Pachybrachis boreopersicus LOPATIN, 1991: 26.

Terra typica: vicinity of Nishapur, Kuh-e-Binalud range, NE Iran.

***Pachybrachis burlinii* DACCORDI et RUFFO, 1971**

Pachybrachis burlinii DACCORDI et RUFFO, 1971: 42.

Terra typica: Isole Pontiane, Italy.

***Pachybrachis caprea* WEISE, 1887**

Pachybrachys caprea WEISE, 1887: 329.

Pachybrachys caprea subsp. *dzhungaricus* MEDVEDEV et RYBAKOVA, 1980: 44.

Terra typica: Kyndyr-Tau Mts., SE Kazakhstan.

***Pachybrachis caraganae* LOPATIN, 1977**

Pachybrachys caraganae LOPATIN, 1977d: 154.

Pachybrachys caraganae subsp. *changaica* MEDVEDEV et RYBAKOVA, 1980: 44.

Locus typicus: Baga Bogd ul, Uburchangay distr., Mongolia.

***Pachybrachis carpathicus* REY, 1883**

Pachybrachys carpathicus REY, 1883: 271.

Terra typica: Carpathians.

***Pachybrachis catalonicus* BURLINI, 1968**

Pachybrachis catalonicus BURLINI, 1968: 22.

Pachybrachis catalonicus subsp. *fallaciosus* BURLINI, 1968: 24.

Locus typicus: Tuixent, Catalunya, Spain.

***Pachybrachis cedri* PIC, 189**
(not included in the key)

Pachybrachys cedri PIC, 1898: 139.

Terra typica: mountains Djurdjura, N Algeria.

***Pachybrachis cinctus* SUFFRIAN, 1848)**

Pachybrachys cinctus SUFFRIAN, 1848: 123.

Terra typica: Sardinia, Italy.

***Pachybrachis coquereli* REY, 1883**

Pachybrachys Coquereli REY, 1883: 304.

Locus typicus: Lambessa, distr. Batna, NE Algeria.

***Pachybrachis cordatus* SASSI et SCHÖLLER, 2003**

Pachybrachis cordatus SASSI et SCHÖLLER, 2003: 144.

Locus typicus: Amasya, Turkey.

***Pachybrachis creticus* WEISE, 1886**

Pachybrachys creticus WEISE, 1886: 21.

Pachybrachis creticus var. *Theresae* PIC, 1907: 112 (4).

Terra typica: Crete, Greece.

***Pachybrachis cribricollis* PIC, 1907**

Pachybrachis nigropunctatus var. *cribricollis* PIC, 1907: 112 (sep.: 4).

cribricollis = bona species: BREIT, 1921: 66.

Terra typica: Dzhambul (former Aulie-Ata), E Kazakhstan.

***Pachybrachis curtipennis* BREIT, 1921**

Pachybrachys curtipennis BREIT, 1921: 66

Terra typica: Transcaspiia.

***Pachybrachis danieli* BURLINI, 1968**

Pachybrachis danieli BURLINI, 1968: 26.

Pachybrachis unguiculatus BURLINI, 1968: 94.

Pachybrachis danieli subsp. *assiettæ* BURLINI, 1968: 26.

unguiculatus = *danieli*: BURLINI, 1968: 94.

Terra typica: Alpi Cozie, Alpes, Italy.

***Pachybrachis dimorphus* MEDVEDEV, 1978**

Pachybrachis dimorphus MEDVEDEV, 1978: 868.

Locus typicus: Kandahar, SE Afghanistan.

***Pachybrachis distictopygus* JACOBSON, 1901**

Pachybrachys distictopygus JACOBSON, 1901: 115.

Pachybrachys kaszabi LOPATIN, 1966a: 237.

kaszabi = *distictopygus*: MEDVEDEV et VORONOVA, 1977: 328.

Terra typica: NE China (Dauria).

***Pachybrachis eruditus* BALY, 1873**

Pachybrachys eruditus BALY, 1873: 98.

Terra typica: Japan.

***Pachybrachis excisus* WEISE, 1897**

Pachybrachys excisus WEISE, 1897: 66.

Locus typicus: Ankara, Turkey.

***Pachybrachis exclusus* REY, 1883**

Pachybrachys exclusus REY, 1883: 268.

Pachybrachys etruscus WEISE, 1886: 23.

Pachybrachys Le Cerfi PIC, 1947: 6.

Pachybrachus exclusus var. *Guilhemi* PIC, 1955: 6.

Pachybrachis exclusus morpha *liguricus* BURLINI, 1968: 73.

exclusus = *tessellatus* (OLIVIER): CLAVAREAU, 1913: 107.

exclusus = bona species: MÜLLER, 1949: 84.

etruscus = *exclusus* subsp.: MÜLLER, 1949: 24.
lecerfi = ? *exclusus*: KOCHER, 1958: 67 nota.

Terra typica: depart. Var (Hyères, Nice), SE France.

***Pachybrachis fimbriolatus* SUFFRIAN, 1848**

Cryptocephalus tristis OLIVIER, 1808: 810, nec LAICHARTING 1781: 184.
Pachybrachys fimbriolatus SUFFRIAN, 1848: 142.
Pachybrachys Mulsanti PERRIS, 1852: 186.
Pachybrachys probus var. *nitidicollis* WEISE, 1894a: 69.
Pachybrachys fimbriolatus var. *varanensis* PIC, 1913: 138.
Pachybrachis fimbriolatus morpha *weisei* BURLINI, 1968: 92.
mulsanti = *fimbriolatus*: MARSEUL, 1875: 278.
tristis = *fimbriolatus*: WEISE, 1882: 266.
nitidicollis = bona species: BURLINI, 1968: 95.
nitidicollis = *fimbriolatus*: MEDVEDEV et SAMODERZHENKOV, 1989: 406.

Terra typica: S Europe.

***Pachybrachis flexuosus* WEISE, 1882**

Pachybrachys flexuosus WEISE, 1882: 254.
Pachybrachys flexuosus var. *viennensis* WEISE, 1882: 256.
Pachybrachys Oertzeni WEISE, 1886: 22.
Pachybrachys dalmatinus PIC, 1908: 45.
Pachybrachis flexuosus morpha *stramineus* BURLINI, 1968: 45.
oertzeni = *flexuosus* subsp.: BURLINI, 1968: 44.
dalmatinus = *oertzeni*: BURLINI, 1968: 44.

Terra typica: Tirol.

***Pachybrachis fraudator* LOPATIN, 1991**

Pachybrachis fraudator LOPATIN, 1991: 24.

Locus typicus: canyon Kizil-Auiz, Chulak Mts., E Kazakhstan.

***Pachybrachis fraudulentus* MÜLLER, 1955**

Pachybrachis fraudulentus MÜLLER, 1955: 67.
Pachybrachis chiusafortensis BURLINI, 1968: 82.
chiusafortensis = *fraudulentus*: BURLINI, 1968: 82.

Terra typica: distr. Veneto, Italy.

***Pachybrachis freidbergi* LOPATIN, 1994**

Pachybrachis freidbergi LOPATIN, 1994: 525.

Locus typicus: El-Arbain, Sinai Mts., Israel.

***Pachybrachis freyi* BURLINI, 1957**

Pachybrachys Freyi BURLINI, 1957: 25.
Pachybrachis cephalenicus BURLINI, 1968: 77 nota.
cephalenicus = *freyi*: BURLINI, 1968: 77 nota.

Locus typicus: Argostoli, Kefalonia isl., Greece.

***Pachybrachis fulvipes* (SUFFRIAN, 1848**

Pachybrachys fulvipes SUFFRIAN, 1848: 145.
Pachybrachis fulvipes subsp. *albarracinus* WAGNER, 1927: 107

Pachybrachys fulvipes var. *albolimbatus* WEISE, 1891: 147.

Terra typica: vicinity of Cadix, SE Spain.

***Pachybrachis ghilarovi* LOPATIN, 1974**

Pachybrachys ghilarovi LOPATIN, 1974a: 659.

Locus typicus: Sartagoy, valley of river Charin, SE Kazakhstan.

***Pachybrachis glycirrhizae* (OLIVIER, 1808)**
(*glycyrrhizae* OLIV. auctorum)

Cryptocephalus Glycirrhizae OLIVIER, 1808: 838.

Pachybrachys glycyrrhizae var. *transcaspicus* BREIT, 1921: 69.

Locus typicus: Baghdad, Iraq.

***Pachybrachis gobicus* LOPATIN, 1977**

Pachybrachys gobicus LOPATIN, 1977c: 304.

Terra typica: Gobi-Altai aimak, Mongolia.

***Pachybrachis hauseri* PIC, 1907**

Pachybrachis Hauseri PIC, 1907: 111 (sep.: 3).

Terra typica: vicinity of lake Kuku-Nor (NE Tibet).

***Pachybrachis heptapotamicus* LOPATIN, 1997**

Pachybrachis heptapotamicus LOPATIN, 1997: 370.

Terra typica: SE Kazakhstan (Semiryetche).

***Pachybrachis hieroglyphicus* (LAICHARTING, 1781)**

?*Buprestis lunata* SCOPOLI, 1763: 66.

Cryptocephalus hieroglyphicus LAICHARTING, 1781: 182.

Cryptocephalus tristis LAICHARTING, 1781: 184.

Cryptocephalus Histrio FABRICIUS, 1781: 145.

Cryptocephalus atomarius GEBLER, 1830: 201.

Pachybrachys apicalis REY, 1883: 266.

Pachybrachys noticollis REY, 1883: 273.

Pachybrachis pseudoscriptus WAGNER, 1927: 108.

Pachybrachys hieroglyphicus var. *ictericus* WEISE, 1882: 249.

Pachybrachys hieroglyphicus var. *italicus* WEISE, 1882: 249.

Pachybrachys apicalis REY, 1883: 272.

Pachybrachys hieroglyphicus var. *posticinus* REY, 1883: 270.

Pachybrachys hieroglyphicus var. *disconotata* PIC, 1908: 47.

Pachybrachys hieroglyphicus var. *doctoris* PIC, 1910: 2.

Pachybrachys hieroglyphicus var. *subapicalis* PIC, 1919: 14.

Pachybrachis hieroglyphicus pseudoscriptus morpha *cuencanus* BURLINI, 1968: 49.

Pachybrachis hieroglyphicus pseudoscriptus morpha *niger* BURLINI, 1968: 49.

Pachybrachis hieroglyphicus pseudoscriptus morpha *imitans* BURLINI, 1968: 49.

Pachybrachis hieroglyphicus morpha *pseudosuturalis* BURLINI, 1968: 2.

lunatus = *hieroglyphicus*: REY, 1883: 270, syn. incertum

tristis = *hieroglyphicus*: WEISE, 1882: 249.

histrio = *hieroglyphicus*: GYLLENHAL, 1827: 668.

atomarius = *hieroglyphicus*: SUFFRIAN, 1854: 160.

apicalis = *hieroglyphicus*: BURLINI, 1968: 47.

pseudoscriptus = *hieroglyphicus* subsp.: BURLINI, 1968: 48nota.

noticollis = *hieroglyphicus*: BURLINI, 1968: 47 syn. incertum

Terra typica: Tirol.

***Pachybrachis hippophaes* SUFFRIAN, 1848**

- Pachybrachys hippophaes* SUFFRIAN, 1848: 125.
Pachybrachys hippophaes var. *Galeazii* PIC, 1910: 2.
Pachybrachys hippophaes var. *lignosus* WEISE, 1882: 260.
Pachybrachus hippophaes var. *pratsensis* PIC, 1955: 6.

Terra typica: C Europe (Hungary, Austria, Switzerland).

***Pachybrachis instabilis* WEISE, 1887**

Pachybrachys instabilis WEISE, 1887: 330.

Terra typica: Kyndyr-Tau Mts., SE Kazakhstan.

***Pachybrachis issykensis* JACOBSON, 1901**

- Pachybrachys sexsignatus* subsp. *issykensis* JACOBSON, 1901: 116
Pachybrachys issykensis subsp. *gussakovskii* LOPATIN, 1968: 546.
Pachybrachys laevigatus BREIT, 1921: 67.
issykensis = bona species: LOPATIN, 1968: 545.
laevigatus = *issykensis* subsp.: LOPATIN, 1977a: 107.

Terra typica: vicinity of lake Issyk-Kul, Kirgystan.

***Pachybrachis jacobsoni* LOPATIN, 1968**

Pachybrachys jacobsoni LOPATIN, 1968: 544.

Locus typicus: Baysun, Uzbekistan.

***Pachybrachis jastschenkoi* LOPATIN, 1995**

Pachybrachis jastschenkoi LOPATIN, 1995: 21

Locus typicus: Turfan, prov. Sinkiang, NW China.

***Pachybrachis jordanicus* LOPATIN, 1984**

Pachybrachis jordanicus LOPATIN, 1984a: 197.

Locus typicus: Been near Jerash, E Jordania..

***Pachybrachis kaplini* LOPATIN, 1986**

Pachybrachis kaplini LOPATIN, 1986: 25.

Locus typicus: Repetek, Turkmenistan.

***Pachybrachis karamani* WEISE, 1893**

- Pachybrachys Karamani* WEISE, 1893: 348.
Pachybrachys Ogloblini ROUBAL, 1927: 74.
ogloblini = *karamani*: synonym suppositum.

Locus typicus (*karamani*): Split (Spalato), Croatia.

Terra typica (*ogloblini*): Centr. Dalmatia, Croatia.

***Pachybrachis kazakhstanicus* LOPATIN, 1974**

Pachybrachys kazakhstanicus LOPATIN, 1974a: 651.

Locus typicus: Kulsari, Mantishlak, distr. Gurevskaya, W Kazakhstan.

***Pachybrachis kirghizicus* LOPATIN, 1974**

Pachybrachys kirghizicus LOPATIN, 1974a: 655.

Pachybrachys kirghizicus subsp. *salsolae* LOPATIN, 1974: 655.

Locus typicus: Ribache at Issyk-kul lake, Kirgyzstan.

***Pachybrachis koktumensis* LOPATIN, 1991**

Pachybrachis koktumensis LOPATIN, 1991: 25.

Locus typicus: vicinity of Koktummy, Zhabyn range, SE Kazakhstan.

***Pachybrachis korbi* WEISE, 1891**

Pachybrachys Korbi WEISE, 1891: 145.

Pachybrachis alcarriensis ESCALERA in litt.: BURLINI, 1968: 83.

alcarriensis = *korbi*: BURLINI, 1968: 83.

Locus typicus: Cuença, Spain.

***Pachybrachis korotjaevi* LOPATIN, 1995**

Pachybrachis korotjaevi LOPATIN, 1995: 20.

Terra typica: vicinity of Chadan, Tuva, Russia.

***Pachybrachis kraatzii* WEISE, 1882**

Pachybrachys Kraatzii WEISE, 1882: 255.

Pachybrachys obscuricolor FUENTE, 1909: 308.

Pachybrachis carpetanus BURLINI, 1968: 62.

carpetanus = *kraatzii*: BURLINI, 1968: 62.

obscuricolor = ? *kraatzii* ab.: BURLINI, 1968: 62.

Terra typica: Spain.

***Pachybrachis kuramensis* LOPATIN, 1974**

Pachybrachys kuramensis LOPATIN, 1974a: 660.

Locus typicus: Tashbulak, Kuraminskiy range, N Tadzhikistan.

***Pachybrachis laetificus* MARSEUL, 1875**

Pachybrachis laetificus MARSEUL, 1875: 256.

Terra typica: not given [?S Russia].

***Pachybrachis laevigatus* BREIT, 1921**

Pachybrachis laevigatus BREIT, 1921: 67.

Locus typicus: Aulie-Ata (SE Kazakhstan)

***Pachybrachis lallemanti* MARSEUL, 1875**

Pachybrachis Lallemanti MARSEUL, 1875: 254.

Terra typica: vicinity of Alger, Algeria.

***Pachybrachis laticollis* SUFFRIAN, 1860**

Pachybrachis laticollis SUFFRIAN, 1860: 61.

Pachybrachys callosus SAHLBERG, 1913: 68.
Pachybrachys misellus WEISE, 1900: 280.
callosus = *laticollis*: LOPATIN, 1991: 27.
misellus = *laticollis*: LOPATIN, 1991: 27.

Terra typica: Iran.

***Pachybrachis latipes* LOPATIN, 1971**

Pachybrachys latipes LOPATIN, 1971: 230.

Locus typicus: Uljasutajn gol, Mongol Altai Mts., Chovd aimak, Mongolia.

***Pachybrachis leonardii* SASSI et SCHÖLLER, 2003**

Pachybrachis leonardii SASSI et SCHÖLLER, 2003:

Locus typicus: Trianda, Rhodos, Greece.

***Pachybrachis libanicola* REY, 1883**

Pachybrachis(*Pachystylus*) *libanicola* REY, 1883: 304nota.
 ?*Pachybrachis akbesianus* PIC, 1907: 112 (4).
akbesianus = *libanicola*: **synonym suppositum**

Terra typica: Lebanon.

***Pachybrachis limbatus* (MÉNÉTRIÉS, 1836)**

Cryptocephalus limbatus MÉNÉTRIÉS, 1836: 151.
Pachybrachys maculatus SUFFRIAN, 1848: 139.
Pachybrachys limbatus var. *ater* WEISE, 1882: 264.
maculatus = *limbatus* var.: WEISE, 1882: 264.

Terra typica: [Turkey].

***Pachybrachis lindbergi* BURLINI, 1963**

Pachybrachys lindbergi BURLINI, 1963: 148.

Terra typica: vicinity of Algeciras, S Spain.

***Pachybrachis lineatus* WEISE, 1889**

Pachybrachys lineatus WEISE, 1889: 591.

Terra typica: [Mongolia, China]

***Pachybrachis lineolatus* SUFFRIAN, 1848**

Pachybrachys lineolatus SUFFRIAN, 1848: 122.

Terra typica: vicinity of Cadix, S Spain.

***Pachybrachis lopatini* MEDVEDEV et RYBAKOVA, 1980**

Pachybrachys lopatini MEDVEDEV et RYBAKOVA, 1980: 43.

Locus typicus: Shamar, Selenga distr., Mongolia.

***Pachybrachis mardinensis* WEISE, 1900**

Pachybrachys mardinensis WEISE, 1900: 279.
Pachybrachis seidenstueckeri KIPPENBERG, 1974: 47.

seidenstueckeri = *mardinensis*: LOPATIN, 1991: 27.

Locus typicus: Mardin, SE Turkey (prov. Mardin).

***Pachybrachis marki* LOPATIN, 1997**

Pachybrachis marki LOPATIN, 1997: 371.

Terra typica: nat. res. "Tigrovaya balka", S Tadzhikistan.

***Pachybrachis marocanus* PIC, 1945**

Pachybrachys marocanus PIC, 1945: 11.

Terra typica: Morocco.

***Pachybrachis mendax* SUFFRIAN, 1860**

Pachybrachys mendax SUFFRIAN, 1860: 60.

Pachybrachys probus WEISE, 1882: 267nota.

Pachybrachys dissecticeps ROUBAL, 1916: 239.

Pachybrachys fimbriolatus ab. *kislovodskensis* ROUBAL, 1916: 239.

Pachybrachys probus subsp. *sibiricus* LOPATIN, 1962: 320.

mendax = *fimbriolatus*: WEISE, 1882: 267.

probus = bona species: LOPATIN, 1962: 320.

probus = *fimbriolatus* subsp.: BURLINI, 1968: 93nota.

sibiricus = *fimbriolatus* subsp.: BURLINI, 1968: 93nota.

mendax = bona species: LOPATIN, 1991: 27.

probus = *mendax*: LOPATIN, 1991: 27.

dissecticeps = *mendax*: LOPATIN, 1991: 27.

Terra typica: Caucasus.

***Pachybrachis merkensis* LOPATIN, 1968**

Pachybrachys instabilis subsp. *merkensis* LOPATIN, 1968: 546.

merkensis = bona species: LOPATIN, 1974: 658.

Terra typica: montes Kirgizskij Alatau (Kazakhstan).

***Pachybrachis mitjaevi* LOPATIN et KULENOVA 1982**

Pachybrachis mitjaevi LOPATIN et KULENOVA, 1982: 43

Terra typica: vicinity of lake Zaisan, E Kazakhstan.

***Pachybrachis mogul* LOPATIN, 1986**

Pachybrachis mogul LOPATIN, 1986: 26.

Terra typica: Mogol-tau range, N Tadzhikistan.

***Pachybrachis mongolensis* MEDVEDEV et RYBAKOVA, 1982**

Pachybrachys mongolensis MEDVEDEV et RYBAKOVA, 1980: 138.

Terra typica: Mongolia.

***Pachybrachis nigropunctatus* SUFFRIAN, 1854**

Pachybrachys nigropunctatus SUFFRIAN, 1854: 152.

Pachybrachys paulonotatus PIC, 1908: 45.

paulonotatus = *nigropunctatus*: LOPATIN, 1991: 27

Locus typicus: Shiraz, Iran (prov. Fars).

Pachybrachis nitidicollis* WEISE, 1894Pachybrachys nitidicollis* WEISE, 1894a: 69.

Terra typica: Transcaspia ("Turkestan").

Pachybrachis normandi* PIC, 1919Pachybrachis Normandi* PIC, 1919: 22.

Locus typicus: Le Kef, Tunisia.

Pachybrachis ochropygus* SOLSKY, 1872Pachybrachys ochropygus* SOLSKY, 1872: 253.*Pachybrachys sexsignatus* WEISE, 1889: 589.*sexsignatus* = *ochropygus*: GRESSIT et KIMOTO, 1961: 112.

Locus typicus: Vladivostok, Ussuria, Russia.

Pachybrachis oertzeni* WEISE, 1886Pachybrachys Oertzeni* WEISE, 1886: 22.

Terra typica: Greece.

Pachybrachis ogloblini* ROUBAL, 1927Pachybrachys Ogloblini* ROUBAL, 1927: 74.*ogloblini* = *karamani* **synonym suppositum**

Terra typica: Dalmatia.

Pachybrachis osellai* DACCORDI et RUFFO, 1975Pachybrachis osellai* DACCORDI et RUFFO, 1975: 428.

Terra typica: Egadi Isl., near Sicily, Italy.

Pachybrachis paganus* LOPATIN, 1990Pachybrachis paganus* LOPATIN, 1990: 48.

Locus typicus: canyon Karakunuz, Zheltizhol range, S Kazakhstan.

Pachybrachis pallidulus* SUFFRIAN, 1851Pachybrachys pallidulus* SUFFRIAN, 1851: 652.*Pachybrachys suturalis* WEISE, 1882: 252.*Pachybrachys suturalis* var. *gallicus* WEISE, 1882: 253.*Pachybrachys suturalis* var. *quadrinaculatus* REY, 1883: 275.*Pachybrachys suturalis* var. *bimaculatus* REY, 1883: 275.*Pachybrachys suturalis* var. *subtilis* REY, 1883: 275.*Pachybrachys suturalis* var. *reductus* REY, 1883: 276.*Pachybrachys pallidulus* var. *angustifrons* REY, 1883: 278.*Pachybrachus pallidulus* subsp. *Gavoyi* PIC, 1955: 6.*Pachybrachus pallidulus* var. *molloensis* PIC, 1955: 6.*Pachybrachis pallidulus* morpha. *gavoyi* BURLINI, 1968: 54.*Pachybrachys pallidulus* var. *Leveillei* PIC, 1913: 138.*suturalis* = *pallidulus* subsp.: BURLINI, 1968: 52.

Locus typicus: Perpignan, France (Pyrénées-Orientales).

Pachybrachis petitpierrei* DACCORDI, 1976Pachybrachis petitpierrei* DACCORDI, 1976: 595.

Locus typicus: Estracon, distr. Zaragoza, Spain.

Pachybrachis peyroni* PIC, 1914Pachybrachis Peyroni* PIC, 1914: 78.

Terra typica: Syria.

Pachybrachis picus* WEISE, 1882Pachybrachys picus* WEISE, 1882: 264.

Terra typica: Central Europe [Germany, Austria].

Pachybrachis pistor* BREIT, 1921Pachybrachys pistor* BREIT, 1921: 67.

Terra typica: Transcaspia.

Pachybrachis planifrons* WAGNER, 1927Pachybrachis planifrons* WAGNER, 1927: 106.*Pachybrachis planifrons* morpha *perplexus* BURLINI, 1968: 66.*Pachybrachis planifrons* morpha *avignonensis* BURLINI, 1968: 66.

Locus typicus: Valdovetar, Central Spain.

Pachybrachis potanini* MEDVEDEV et RYBAKOVA, 1980Pachybrachys potanini* MEDVEDEV et RYBAKOVA, 1980: 48.

Terra typica: E Sikang, China.

Pachybrachis pradensis* MARSEUL, 1875Pachybrachis pradensis* MARSEUL, 1875: 254.*Pachybrachys (Pachystylus) incallidus* PIC, 1897: 2.*Pachybrachys (Pachystylus) incallidus* var. *obscurior* PIC, 1898: 140.*Pachybrachys rugifer* var. *teruelensis* PIC, 1913: 138.*Pachybrachis pradensis* morpha *segrensis* BURLINI, 1968: 38nota.*Pachybrachis pradensis* var. *Schaeferi* PIC, 1948: 14.*incallidus* = *pradensis* subsp.: KOCHER,*teruelensis* = *pradensis* var.: BURLINI, 1968: 40.

Locus typicus: E Pyrenees, SW Alps.

Pachybrachis pteromelas* GRAËLLS, 1858Pachybrachis pteromelas* GRAËLLS, 1858: 99.

Locus typicus: Escorial, prov. Madrid, Spain.

Pachybrachis pubipennis* LOPATIN, 1977Pachybrachis pubipennis* LOPATIN, 1977b: 30.

Terra typica: Caucasus.

Pachybrachis pudicus* LOPATIN, 1984Pachybrachis pudicus* LOPATIN, 1984b: 81.

Locus typicus: Sisakt Dena, S Iran.

Pachybrachis rapillyi* LOPATIN, 1984Pachybrachis rapillyi* LOPATIN, 1984b: 79.

Terra typica: vicinity of Yasuya, S Iran.

Pachybrachis rondanus* BURLINI, 1968Pachybrachis rondanus* BURLINI, 1968: 20.

Locus typicus: : Ronda, SW Spain.

Pachybrachis rufescens* LOPATIN, 1974Pachybrachys rufescens* LOPATIN, 1974: 659.

Terra typica: vicinity of Baltakul, Tschemkent distr., S Kazakhstan.

Pachybrachis ruffoi* BURLINI, 1956Pachybrachys Ruffoi* BURLINI, 1956: 4.*Pachybrachys ruffoi* subsp. *sibillinus* BURLINI, 1959: 201.

Terra typica: Italy.

Pachybrachis rugifer* ABEILLE, 1904Pachybrachis rugifer* ABEILLE, 1904: 281.*Pachybrachys Coquereli* REY, 1883: 304nota, **synonym suppositum**.

Locus typicus: Le Beausset, dept. Var, S France.

Pachybrachis salfi* BURLINI, 1968Pachybrachys Salfii* BURLINI, 1956: 1.*Pachybrachis salfi* morpha *solarii* BURLINI, 1968: 62.

Terra typica: : Monte Pollino, Campania, Italy.

Pachybrachis saudicus* LOPATIN, 1979Pachybrachys saudicus* LOPATIN, 1979: 299.

Locus typicus: Quaraah Khamis Mushayt, Saudi Arabia.

Pachybrachis scripticollis* FALDERMANN, 1837Pachybrachis scripticollis* FALDERMANN, 1837: 381.*Pachybrachys israelita* TAPPES, 1871: 267.*Pachybrachys scripticollis* var. *Arisi* PIC, 1908: 45.*Pachybrachys scripticollis* var. *Letourneuxi* PIC, 1900: 5.*Pachybrachys Pentheri* GANGLBAUER, 1905: 280.*israelita* = *scripticollis*: CLAVAREAU, 1913: 105.*pentheri* = *scripticollis*: **synonym suppositum**

Terra typica: Transcaucasia.

***Pachybrachis scriptidorsum* MARSEUL, 1875**

- Pachybrachys piceus* SUFFRIAN, 1848: 116.
Pachybrachis scriptidorsum MARSEUL, 1875: 253 (nomen conservandum).
Pachybrachys scripticollis FALD.: SUFFRIAN, 1848: 129 (interpretatio falsa).
Pachybrachys scriptidorsum var. *lugubris* WEISE, 1882: 248.
Pachybrachys albicans var. *thoracicus* WEISE, 1889: 564, nec JACOBY, 1889: 136.
Pachybrachys scriptidorsum var. *Beckeri* PIC, 1910: 2.
Pachybrachys albicans var. *chinensis* WEISE, 1913: 219
 cripticollis FALD. sensu SUFFR. = *scriptidorsum*: MARSEUL, 1875: 261.
 horacicus = *chinensis*: WEISE, 1913: 219 (nom. nov. pro *thoracicus*).
 hinensis = *albicans* subsp.: GRESSIT et KIMOTO, 1961: 111.
 chinensis = *scriptidorsum* subsp.: MEDVEDEV et RYBAKOVA, 1982.

Terra typica: S Russia, Caucasus, Siberia.

***Pachybrachis scriptus* HERRICH-SCHÄFFER, 1838**

- Pachybrachis scriptus* HERRICH-SCHÄFFER, 1838, nr 164: 4.
Pachybrachys Marchii PIC, 1923: 28.
Pachybrachys scriptus var. *erycinus* WEISE, 1882: 254.
Pachybrachys scriptus var. *Hellwigi* WEISE, 1882: 254.
Pachybrachis scriptus var. *diversepunctatus* PIC, 1907: 111 (sep.: 3).
 marchii = *scriptus*: BURLINI, 1968: 35.

Terra typica: [Italy].

***Pachybrachis semidesertus* LOPATIN, 1994**

- Pachybrachis semidesertus* LOPATIN, 1994: 526.

Terra typica: vicinity of Inder Lake (north of Astrakhan), W Kazakhstan.

***Pachybrachis sculus* WEISE, 1891**

- Pachybrachys sculus* WEISE, 1891: 145nota.
Pachybrachys sculus morpha *madoniensis* BURLINI, 1963: 134.
Pachybrachis sculus morpha *imitator* BURLINI, 1968: 59.

Terra typica: Sicily, Italy.

***Pachybrachis sidonius* PIC, 1914**
(not included in the key)

- Pachybrachis sidonius* PIC, 1914: 78.

Locus typicus: Sidon, Syria.

***Pachybrachis simius* MARSEUL, 1875**

- Pachybrachis Simius* MARSEUL, 1875: 283.
Pachybrachis Normandi PIC, 1919: 22.
Pachybrachys marocanus PIC, 1954: 206 nom. praeocc., nec PIC, 1945: 11.
Pachybrachys Lépineyi PIC, 1955: 41, nom. nov. pro *marocanus*
Pachybrachys simius var. *Favarcqi* PIC, 1900: 5.
Pachybrachys simius var. *pallidicolor* PIC, 1900: 5.
Pachybrachys simius var. *externenotatus* PIC, 1910: 2.
Pachybrachys simius var. *sculus* PIC, 1913: 139, nom. praeocc., nec WEISE, 1891: 145.
 lepineyi = *simius*: **synonym novum**, type (relatively large female) examined.
 normandi = *simius*: **synonym suppositum**.

Terra typica: Algeria.

Pachybrachis sinkianensis* LOPATIN, 1995Pachybrachis sinkianensis* LOPATIN, 1995: 21

Terra typica: Bogdoshan range, distr. Urumchi, prov. Sinkiang, NW China.

Pachybrachis sinuatus* MULSANT, 1859Pachybrachys sinuatus* MULSANT, 1859: 47.*Pachybrachys haliciensis* MILLER, 1868: 29.*Pachybrachys haliciensis* var. *rufimanus* WEISE, 1882: 258.*haliciensis* = *sinuatus*: SEIDLITZ, 1891: 768.

Locus typicus: Grande-Chartreuse, Lyonnais, France.

Pachybrachis skopini* LOPATIN, 1967Pachybrachys skopini* LOPATIN, 1967: 217.

Locus typicus: Sartagoy, valley of river Charin, E Kazakhstan.

Pachybrachis suffrianii* SCHAUFUSS, 1862Pachybrachys Suffrianii* SCHAUFUSS, 1862: 312.

Locus typicus: Burgos, N Spain.

Pachybrachis sulcithorax* PIC, 1896Pachybrachis sulcithorax* PIC, 1896: 203.

Locus typicus: Daïa de Tilremt, distr. Laghouat, Algeria.

Pachybrachis tekensis* LOPATIN, 1983Pachybrachis tekensis* LOPATIN, 1983: 91.

Locus typicus: canyon Kelyatinskoe, Bakhardenskiy distr., Turkmenistan.

Pachybrachis terminalis* SUFFRIAN, 1849Pachybrachys terminalis* SUFFRIAN, 1849: 291.*Pachybrachis terminalis* var. *Martini* PIC, 1909: 186.

Terra typica: Portugal.

Pachybrachis tessellatus* (OLIVIER, 1791)(tesselatus* OLIV. auctorum)*Cryptocephalus Histrion* OLIVIER, 1791: 618, interpretatio falsa¹.*Cryptocephalus tessellatus* OLIVIER, 1791: 618.*Pachybrachys tauricus* SUFFRIAN, 1848: 137.*Pachybrachys bisignatus* REDTENBACHER, 1849: 653.*Pachybrachys tessellatus* var. *aethiops* WEISE, 1882: 262.*Pachybrachys histrio* var. *picturatus* REY, 1883: 291.*Pachybrachys tessellatus* var. *orientalis* WEISE, 1894b: 144.*Pachybrachys tessellatus* var. *syriacus* WEISE, 1900: 281.*Pachybrachis tessellatus* var. *melanopygus* MÜLLER, 1953: 352.*tauricus* = *histrion* var.: MARSEUL, 1875: 266.*bisignatus* = *histrion* var.: MARSEUL, 1875: 265.*orientalis* = *tessellatus* subsp.: BURLINI, 1968: 70.

Terra typica: Europe.

¹OLIVIER (op. cit.) described any new species as *histrion*, he cites the description of FABRICIUS only.

***Pachybrachis testaceus* PERRIS, 1865**

Pachybrachys testaceus PERRIS, 1865: 510.

Pachybrachys testaceus var. *Paganettii* PIC, 1935: 12.

Pachybrachis Riguus MARSEUL, 1875: 287.

riguus = *testaceus* var.: REY, 1883: 314.

Terra typica: Corsica.

***Pachybrachis tibetanus* GRESSIT et KIMOTO, 1961**

Pachybrachys tibetanus GRESSIT ET KIMOTO, 1961: 112.

Locus typicus: Posho, valley of the river Du Chu, E Tibet.

***Pachybrachis transbaicalicus* MEDVEDEV, 1974: 181**

Pachybrachis transbaicalicus MEDVEDEV, 1974: 181.

Locus typicus: at the lake Khara-Nor, Tshita distr., Russia

***Pachybrachis tuvensis* MEDVEDEV, 1974**

Pachybrachis tuvensis MEDVEDEV, 1974: 179.

Pachybrachis tuvensis subsp. *saluki* LOPATIN, 1995: 21.

Locus typicus (pro *tuvensis*): at the lake Khara-Nor, distr. Tshita, Tuva, Russia.

Terra typica (pro *saluki*): Altai mts.

***Pachybrachis velarum* WARCHAŁOWSKI, 1998**

Pachybrachis velarum WARCHAŁOWSKI, 1998: 85

Locus typicus: Refahiye, prov. Ersincan, Turkey.

***Pachybrachis vermicularis* SUFFRIAN, 1854**

Pachybrachys vermicularis SUFFRIAN, 1854, 156.

Pachybrachys astragali STIERLIN, 1863: 500.

Pachybrachys vermicularis var. *pallidiventris* JACOBSON, 1894: 158.

astragali = *vermicularis*: DOHRN, 1864: 195.

Terra typica: SE Russia.

REFERENCES

- ABEILLE DE PERRIN, E., 1904. Diagnoses de trois Coléoptères français nouveaux. Bull. Soc. ent. France, **1904**: 281.
- BALY, J. S., 1873. Catalogue of the Phytophagous Coleoptera of Japan with descriptions of the species new to science. Trans. ent. Soc. Lond., **1873**: 69-99.
- BREIT, J., 1921. Die mittelasiatischen *Pachybrachys*-Arten aus der Verwandtschaft der *P. glycyrrhizae* OL. und *vermicularis* SUFFR. Ent. Bl., **17**, 4/6: 64-74.
- BURLINI, M., 1956. Due nuovi *Pachybrachys* italiani (Chrysomelidae). Ann. Ist. Mus. Zool. Univ. Napoli, **8**, 3: 1-7.
- , 1957. Un nuovo *Pachybrachys* dell'Isola di Cefalonia (Col. Chrysomelidae). Boll. Soc. ent. Ital., **87**, 1/2: 25-26.
- , 1959. Note su alcuni *Pachybrachys* appenninici e descrizione di una nuova razza. Mem. Mus. civ. Stor. nat. Verona, **7**: 199-201.
- , 1963. Nota sul *Pachybrachys siculus* WEISE (Coleoptera, Chrysomelidae). Mem. Mus. civ. Stor. nat. Verona, **11**: 133-134.

- , 1968: 94. Revisione delle specie italiane e della maggior parte delle specie europee del genere *Pachybrachis* CHEVR. (Coleoptera Chrysomelidae). XXII Contributo alla conoscenza dei Cryptocephalini. Mem. Soc. ent. ital., **47**: 11-116.
- CLAVAREAU, H., 1913. Chrysomelidae. In: JUNK W. SCHENKLING S. 1914. Coleopterorum Catalogus, **24**, pars 5, 278 pp.
- DACCORDI, M., 1976. Una nuova specie di *Pachybrachis* CHEVR. della penisola iberica (Coleoptera Chrysomelidae). Boll. Mus. civ. Stor. nat. Verona, **3**: 595-597.
- DACCORDI, M., RUFFO, S., 1971. Coleotteri Crisomelidi raccolti nelle Isole Ponziane e descrizione di una nuova specie del genere *Pachybrachis* REDT. Fragm. ent., **8**, 1: 41-48.
- , 1975. Coleotteri Crisomelidi delle Isole Egadi e descrizione di una nuova specie del genere *Pachybrachis* CHEVR. Boll. Mus. civ. Stor. nat. Verona **1** (1974): 427-437.
- DOHRN, C. A., 1864. Zur Synonymie der Cryptocephaliden. Ent. Ztg., Stettin, **25**, 2: 195-196.
- FABRICIUS, J. C., 1781. Species Insectorum exhibentes eorum differentias specificas synonyma auctorum loca natalia metamorphosin adiectis observationibus descriptionibus. II. Hamburgi et Kilonii 494 p.
- FALDERMANN, F., 1837. Fauna Entomologica Trans-Caucasica. II. Nouv. Mém. Soc. Nat. Mosc., **5**: 1-538.
- FUENTE, J. M., 1909. Datos para la fauna de la provincia de Ciudad Real. XX. Bol. R. Soc. esp. Hist. nat., **9**, 6: 306-310.
- GANGLBAUER, L., 1905. In: PENTHER A, ZEDERBAUER, E, 1905 (see).
- GEBLER, F., 1830. Bemerkungen über die Insekten Sibiriens vorzüglich des Altai. In: LEDEBOUR C. F. 1829 (see).
- GODMAN, F., (editor) 1881-1911. Biologia Centrali-Americana. Zoologia. Insecta. Coleoptera, vol. **6**, part 1, *Phytophaga*, Suppl. (1888) 1889: 81-168.
- GRAËLLS, M., 1858. Zoologie espagnole. Insectes. Mem. comm. Mapa zool. Esp., 111 pp.
- GRESSIT, J. L., KIMOTO, S., 1961. The Chrysomelidae (Coleopt.) of China and Korea. Part 1. Pac. Ins. Monogr., **1A**, 299 pp.
- GYLLENHAL, L., 1827. Insecta Svecica. **I**, pars III. Scaris, 730 pp.
- HAUSER, F., 1894. Beitrag zur Coleopteren-Fauna von Transcaspien und Turkestan. Dtsch. ent. Ztschr., **1892**, 1: 17-74.
- HERRICH-SCHÄFFER, G. A. W., 1838. Die Fortsetzung von Panzer FAUNAE insectorum Germaniae initia (1829-1844), Heft 164.
- HEYDEN, L., 1887. XI Beitrag zur Coleopteren-Fauna von Turkestan. Dtsch. ent. Ztschr., **31**, 2: 305-336.
- CHEVROLAT, A., 1837. In: DEJEAN P. F. 1837 (see).
- DEJEAN, P. F., 1837. Catalogue des Coléoptères de la collection de M. le Comte DEJEAN. Troisième édition, révue, corrigée et augmentée. Paris, XIV + 503 pp.
- JACOBSON, G. G., 1894. K fauna listoedov Astrakhanskoy gubernii. Horae Soc. Nat. Mosc., **28**, 1/2: 150-160.
- , 1901. Symbola ad cognitionem Chrysomelidarum Rossiae asiaticae. Öfv. Finska Vet. Soc. Förh., **43** (1900/1901): 99-147.
- , 1917. De genere *Thelyterotarso* WEISE (Coleoptera, Chrysomelidae). Russk. ent. Obozr., **16**: 266-274.
- JACOBY, M., 1889. In: GODMAN F. 1881-1911 (see).
- KIESENWETTER, H., 1851. Énumération des Coléoptères trouvés dans le midi de la France et en Catalogne. Ann. Soc. ent. Fr., sér. 2, **9**: 385-440, 577-656.
- KIPPENBERG, H., 1974. *Pachybrachis seidenstueckeri*, eine neue Art aus Kleinasien. Ent. Blätter, **70**, 1: 47-50.
- KOCHER, L., 1958. Chrysomelidae. In: Catalogue commenté des Coléoptères du Maroc. Trav. Inst. Sci. Chérif, sér. zool., **19**, 8: 42-145.
- LAICHARTING, J. N. E., 1781. Verzeichniss und Beschreibung der Tyroler Insecten. I Theil. Käferartige Insecten. Zürich, 12 + 248 pp.
- LEDEBOUR, C. F., 1929. Reise durch das Altai-Gebirge und die soongorische Kirgisen-Steppe. Zweiter Theil. Berlin, 228 pp.
- LER, P. A., (editor) 1992. Opredelitel' nasekomikh Dalnego Vostoka SSSR v shesti tomakh. S.-Peterburg. Vol. III (Coleoptera) 704 pp., Chrysomelidae (by L. N. MEDVEDEV) on pp. 533-602.
- LOPATIN, I. K., 1962: 320. Neue Paläarktische Chrysomeliden aus der Sammlung des Ungarischen Naturwissenschaftlichen Museums in Budapest (Coleoptera). Ann. hist.-nat. Mus. nat. hung., Pars zool., **54**: 319-324.

- , 1966a. 71. Chrysomelidae II. Ergebnisse der Zoologischen Forschungen von Dr. Z. KASZAB in der Mongolei (Coleoptera). Reichenb., 7: 229-239.
- , 1966b. Die Chrysomeliden Afghanistans. Beitrag zur Kenntnis der afghanischen Chrysomelidenfauna. Ann. hist.-nat. Mus. nat. hung., Pars zool., 58: 361-369.
- , 1967. Materialy k sistematike zhukov-listoedov podsem. Cryptocephalinae (Coleoptera, Chrysomelidae) Srednej Azii i Kazakhstana. Ent. Obozr., 46, 1: 212-221.
- , 1968. Novie vidi zhukov-listoedov (Coleoptera, Chrysomelidae) fauni Srednej Azii i Kazakhstana. Ent. Obozr., 47, 3: 541-552.
- , 1971. Chrysomelidae VI. Ergebnisse der zoologischen Forschungen von Dr. Z. Kaszab in der Mongolei (Coleoptera). Faun. Abh., 3, 18: 219-233.
- , 1974a. Obzor listoedov roda *Pachybrachys* REDTB. (Coleoptera, Chrysomelidae) Srednej Azii i Kazakhstana. Ent. Obozr., 53, 3: 651-661.
- , 1974b. Dva novikh vida zhukov-listoedov (Coleoptera, Chrysomelidae) iz Mongolii. Nasek. Mong., Leningrad, 2: 176-178.
- , 1975. Zhuki-Listoedi Mongol'skoy Narodnoy Respubliki. Nasek. Mong., Leningrad, 3: 191-242.
- , 1977a. Zhuki-Listoedi Srednej Azii i Kazakhstana. Leningrad, 268 pp.
- , 1977b. Novie i maloizvestnie vidi listoedov (Coleoptera, Chrysomelidae) evropeyskoy chasti SSSR i Kavkaza. Leningrad, 115 pp.
- , 1977c. Dva novikh vida zhukov-listoedov podsemeystva Cryptocephalinae (Coleoptera, Chrysomelidae) iz Mongolii. Nasek. Mong., Leningrad, 5: 304-307.
- , 1977d. Weitere Beiträge zur Kenntnis der Chrysomeliden-Fauna der Mongolei (Coleoptera). Ann. hist.-nat. Mus. nat. hung., Pars zool., 69: 153-155.
- , 1979. Coleoptera: Fam. Chrysomelidae, subfam. Cryptocephalinae. Fauna of Saudi Arabia, Paris, 1: 299-303.
- , 1983. Novie vidi zhukov-listoedov (Coleoptera, Chrysomelidae) iz Srednej Azii i yugo-vostochnogo Kazakhstana. Ent. Obozr., 62, 1: 91-94.
- , 1984a. Zwei neue Arten der Chrysomeliden (Coleoptera) aus dem Ungarischen Naturwissenschaftlichen Museum. Ann. hist.-nat. Mus. nat. hung., Pars zool., 76: 197-199.
- , 1984b. Zhuki-listoedi (Coleoptera, Chrysomelidae) Irana. Rezultati chekhoslovacko-iranskikh ekspedicii 1973-1977 gg. III. Ent. Obozr., 63, 1: 79-92.
- , 1985. Zhuki-listoedi (Coleoptera, Chrysomelidae) Irana. Rezultati chekhoslovacko-iranskikh ekspedicii 1973-1977 gg. IV. Ent. Obozr., 64, 4: 760-772.
- , 1986. Novie vidi listoedov podsemeystva Cryptocephalinae (Coleoptera, Chrysomelidae) fauni SSSR. Vestnik Zoologii, 1986, 1: 25-29.
- , 1990. 46. Novie i maloizvestie vidi zhukov-listoedov (Coleoptera, Chrysomelidae) fauni Kazakhstana. Trudi Inst. Zool. Akad. Nauk Kaz., Alma-Ata, 45: 46-58.
- , 1991. Novie vidi roda *Pachybrachis* (Coleoptera, Chrysomelidae) palearkticheskoy fauni s zametkami po sinonimii. Vestnik Zoologii, 1991, 2: 23-27.
- , 1994. In: LOPATIN I. K., A. S. KONSTANTINOV, 1994 (see).
- , 1995. Novie vidi roda *Pachybrachis* (Coleoptera, Chrysomelidae, Cryptocephalinae) iz Centralnoy Azii. Vestnik Zoologii, 1995, 1: 18-22.
- , 1997. Novie vidi zhukov-listoedov (Coleoptera, Chrysomelidae) aziatskoy fauni. Ent. Obozr., 76, 2: 363-377.
- LOPATIN, I. K., KONSTANTINOV, A. S., 1994. New species of Chrysomelidae (Chrysomelidae) from Palearctic and Oriental regions. Lambillionea, 94, 4: 524-530.
- LOPATIN, I. K., KULENOVA, K. Z., 1982. Dva novikh vida zhukov-listoedov (Coleoptera, Chrysomelidae) iz Kazakhstana. Izv. Akad. Nauk Kazakh. SSR, ser. Biol., 1982, 6: 43-46.
- MARSEUL, S. A., 1875. Monographie des Cryptocéphales de l'Ancien-Monde. Abeille, 13 (1874): 1-326.
- MEDVEDEV, L. N., 1973. Novie zhuki-listoedi (Coleoptera, Chrysomelidae) Palearktiki. Ent. Obozr., 52, 4: 876-885.
- , 1974. Novie vidi listoedov (Coleoptera, Chrysomelidae) iz Mongolii i sopredel'nykh rayonov. Nasek. Mongolii, Leningrad, 2: 179-182.
- , 1978. K faune listoedov (Coleoptera, Chrysomelidae) Afganistana. Ent. Obozr., Leningrad, 57, 4: 859-866.

- , 1992. Sem. Chrysomelidae - listoedi. In: LER P. A. (see).
- MEDVEDEV, L. N., RYBAKOVA, N., 1980. New Species and Subspecies of *Pachybrachys* REDT. from Mongolia and China. *Reichenbachia*, **48**, 4: 43-48.
- , 1982. Reviziya roda *Pachybrachys* (Coleoptera, Chrysomelidae) fauni MNR. In common work "Zoological Investigations in Mongolia", Moskva: 129-149.
- MEDVEDEV, L., SAMODERZHENKOV, E., 1989. A study of Weise's types of Chrysomelidae (Coleoptera). *Ent. Basiliensia*, **13**: 403-409.
- MEDVEDEV, L. N., VORONOVA, N. V., 1977. K faune listoedov (Coleoptera, Chrysomelidae) Mongolii, 2. *Nasekomiye Mongolii*, Leningrad, **5**: 319-352.
- MÉNÉTRIÉS, E., 1836. Insectes nouveaux de la Turquie. *Bull. sci. Acad. Imp. St.-Pet.*, **1**: 149-151.
- MILLER, L., 1868. Eine entomologische Reise in die ostgalizischen Karpathen. *Verh. zool.-bot. Ver.*, **18**: 3-34.
- MÜLLER, G., 1949. Contributo alla conoscenza dei Coleotteri Fitofagi (Cerambycidae e Chrysomelidae). *Atti Mus. civ. Stor. Nat., Trieste*, **17**, 2: 75-98.
- , 1953. I Coleotteri della Venezia Giulia. *Publ. Centr. sperim. agr e forest.*, Trieste, **4**: 225-610.
- , 1955. I *Pachybrachis* del gruppo *haliciensis* MILL. ed *hippophæa* SUFFR. (Col. Chrysomelidae). *Boll. Soc. ent. Ital.*, **85**, 5/6: 67-70.
- MULSANT, E., REY, C., 1859. Description de deux Cryptocéphalides nouveaux ou peu connus. *Opusc. ent.*, **9**: 45-51.
- OLIVIER, A. G., 1791. *Encyclopédie méthodique. Dictionnaire des Insectes*, vol. VI. Paris, 704 pp.
- , 1808. *Entomologie ou histoire des Insectes, avec leur caractères génériques et spécifiques, leur description, leur synonymie et leur figure enluminée*. Paris, **6**, pp. 613-1104.
- PENTHER, A., ZEDERBAUER, E., 1905. Ergebnisse einer naturwissenschaftlichen Reise zum Erdschias-Dag (Kleinasien). *Ann. naturh. Hofmus.*, **20**, 2/3: 99-310.
- PERRIS, E., 1852. Seconde excursion dans les Grandes-Landes. Lettre adressée à M. MULSANT. *Ann. Soc. linn. Lyon*, **1852**: 145-216.
- , 1865. Description de quelques espèces nouvelles de Coléoptères, Rectifications et Notes. *Ann. Soc. ent. Fr.*, sér. 4, **5**: 503-512.
- PIC, M., 1896. Sur les *Pachybrachis* voisins de *P. vermicularis* SUFF. *Bull. Soc. ent. Fr.*, **1896**: 202-205.
- , 1897. Descriptions de Coléoptères. *Bull. Soc. Hist nat. Autun*, **10**, proc.-verb.: 194-198.
- , 1898. Diagnoses de Coléoptères malacodermes et phytophages. *Misc. ent.*, Castanet-Tolosan, **6**: 137-140.
- , 1900. Notes diverses sur les Coléoptères. *Frelon*, **8** (1899/1900): 1-8.
- , 1907. Sur divers "*Cryptocephalus*" et "*Pachybrachis*" peu connus ou présumés nouveaux. *l'Echange*, **23**: 109-112 (sep.: 1-4).
- , 1908. Sur divers Coléoptères français rares ou nouveaux. *l'Echange*, **24**: 46-47.
- , 1909. Descriptions ou diagnoses et notes diverses. *l'Echange*, **25**: 185-186.
- , 1910. Descriptions ou diagnoses et notes diverses. *l'Echange*, **27**: 1-2.
- , 1913. Notes diverses, descriptions et diagnoses. *l'Echange*, **29**: 137-139.
- , 1914. Notes diverses, descriptions et diagnoses. *l'Echange*, **30**: 77-79.
- , 1919. Notes diverses, descriptions et diagnoses. *l'Echange*, **35**: 13-14.
- , 1919. Notes diverses, descriptions et diagnoses. *l'Echange*, **35**: 21-23.
- , 1923. Un nouveau Coléoptère Phytophage d'Italie. *Boll. Soc. ent. Ital.*, **55**: 28-29.
- , 1935. Notes diverses, nouveautés. *l'Echange*, **51**: 11-12.
- , 1945. Coléoptères du globe. *l'Echange*, **61**: 10-12.
- , 1947. Coléoptères du globe. *l'Echange*, **63**: 5-8.
- , 1948. Coléoptères du globe. *l'Echange*, **64**: 13-16.
- , 1954. Phytophage présumé nouveau du Maroc. *C. R. Soc. Sci. nat. phys. du Maroc*, **1954**, 8: 206.
- , 1955. Rectificatif. *C. R. Soc. Sci. nat. phys. du Maroc*, **1955**, 28: 41.
- , 1955. Coléoptères du globe. *l'Echange*, **71**: 5-8.
- RAPILLY, M., 1882. Description d'une nouvelle espèce de *Pachybrachis* de France (Col. Chrysomelidae). *l'Entomologiste*, **38**, 2: 53-56.
- REDTENBACHER, L., 1845. *Die Gattungen der deutschen Käferfauna nach der analytischen Methode bearbeitet*. Wien, 177 pp.

- , 1849. Fauna Austriaca. Die Käfer nach der analytischen Methode bearbeitet.. Wien. XXVII + 883 pp.
- REY, C., 1883. Révision des genres *Disopus*, *Pachybrachys* et *Stylosomus*. Rev. Ent., **2**, 10: 257-285, 11: 289-306, 12: 313-326.
- ROUBAL, J., 1916. Nová odrůda a nový druh rodu *Pachybrachys* REDTENBACHER. Čas. Morav. Mus. zemsk., **15**: 239-241.
- , 1927. Eine coleopterologische Reise nach Mittel-Dalmatien im Juli 1924. Ent. Anz., **7**: 8-11, 25-28, 38-40, 50-51, 62-63, 74-75.
- SAHLBERG, J., 1913. *Coleoptera mediterranea et rosso-asiatica nova et minus cognita*. Öfv. Finsk. Vet.-Soc. Förh., **55**, 8: 68-75.
- SASSI, D., SCHÖLLER, M., 2003. Two new species of *Pachybrachis* CHEVROLAT, 1837 closely related to *P. limbatus* (MÉNÉTRIÉS, 1836). Senkenbergiana biologica, **82**, 1/2: 135-156.
- SCHAUFUSS, L., W. 1862. Diagnoses de Coléoptères nouveaux. Ann. Soc. ent. Fr., sér. 4, **2**: 309-312. SCOPOLI J. A. 1763. Entomologia carniolica exhibens insecta Carnioliae indigena et distributa in ordines, genera, species, varietates methodo Linnaeana. Vindobonae, XXXVI + 420 pp.
- SEIDLITZ, G. C., M. 1891. Die Käfer (Coleoptera) Siebenbürgens. Fauna transsylvanica. Königsberg, LVI + 914 pp. + 5 innum.
- SOLSKY, S., 1872. Coléoptères de la Sibirie Orientale. Horae Soc. ent. ross., **8** (1871): 232-277.
- STIERLIN, G., 1863. Ueber einige neue oder wenig gekannte Insekten der Gegend von Sarepta. Bull. Soc. imp. Nat. Mosc., **36**, 4: 489-502.
- SUFFRIAN, E., 1848. Revision der Europäischen Arten der Gattung *Cryptocephalus*. (Fortsetzung und Schluss). Linn. ent., **3**: 1-152.
- , 1849. Abermals zwei neue europäische Cryptocephali. Ent. Ztg., Stettin, **10**, 10: 290-293.
- , 1851. In: KIESENWETTER, 1851 (see).
- , 1854. Verzeichnis der bis jetzt bekannt gewordenen Asiatischen *Cryptocephalen*. Linn. ent., **9**: 1-169.
- , 1860. Berichtigtes Verzeichniss der bis jetzt bekannt gewordenen asiatischen Cryptocephalen. Linn. ent., **14**: 1-72.
- , 1866. Synonymische Miscellaneen XXIX. Ent. Ztg., Stettin, **27**: 205-210.
- TAPPES, G., 1871. Cryptocéphalides d'Europe et de pays limitrophes. Ann. Soc. ent. Fr., sér. 5, **1**: 253-270.
- TEMPÈRE, G., RAPILLY, M., 1981. *Pachybrachis aragonicus*, nouvelle espèce de la faune espagnole. Nouv. Rev. d'Ent., **11**, 3: 313-314.
- WAGNER, H., 1927. Eine Sammel-Reise nach Zentral-Spanien. Col. Centralbl., **2**, 2: 101-112, 3/4: 234-237.
- WARCHAŁOWSKI, A., 1998. Über einige kleinasiatische Arten der Gattung *Pachybrachis* CHEVROLAT, 1837 (Coleoptera: Chrysomelidae: Cryptocephalinae). Ann. Zool., Warszawa, **48** (1/2): 85-90.
- WEISE, J., 1881-1893. *Chrysomelidae*. In: Naturgeschichte der Insekten Deutschlands. **VI**. Berlin, XIV + 1161 pp.
- , 1882. See Weise J. 1881-1892..
- , 1886. Vier neue *Pachybrachys*-Arten. Dtsch. ent. Ztschr., **30**: 21-25.
- , 1887. In: HEYDEN L. 1887 (see).
- , 1889. Insecta, a Cl. G. N. POTANIN in China et in Mongolia novissime lecta. IX. Chrysomelidae et Coccinellidae. Trudi Russk. ent. Obshch., **23**: 560-653.
- , 1891. Bekannte und neue Chrysomeliden aus Spanien. II. Dtsch. ent. Ztschr., **1891**, 1: 145-150.
- , 1893. *Pachybrachys Karamani*. Dtsch. ent. Ztschr., **1893**, 2: 348.
- , 1894a. In HAUSER F. 1894 (see).
- , 1894b. *Pachybrachys tessellatus* OL. Dtsch. ent. Ztschr., **1**: 144.
- , 1897. Neue Chrysomeliden aus Angora. Ent. Ztg., Stettin, **58**, 1: 63-68.
- , 1900. Beschreibungen von Chrysomeliden und synonymische Bemerkungen. Arch. Naturg., **66**: 267-296.
- , 1906. *Pachybrachys Bodemeyeri*. Dtsch. ent. Ztschr., **1906**, 2: 472.
- , 1913. Synonymische Bemerkungen. Wien. ent. Ztg., **32**, 1: 17-18, 7/9: 218-220.

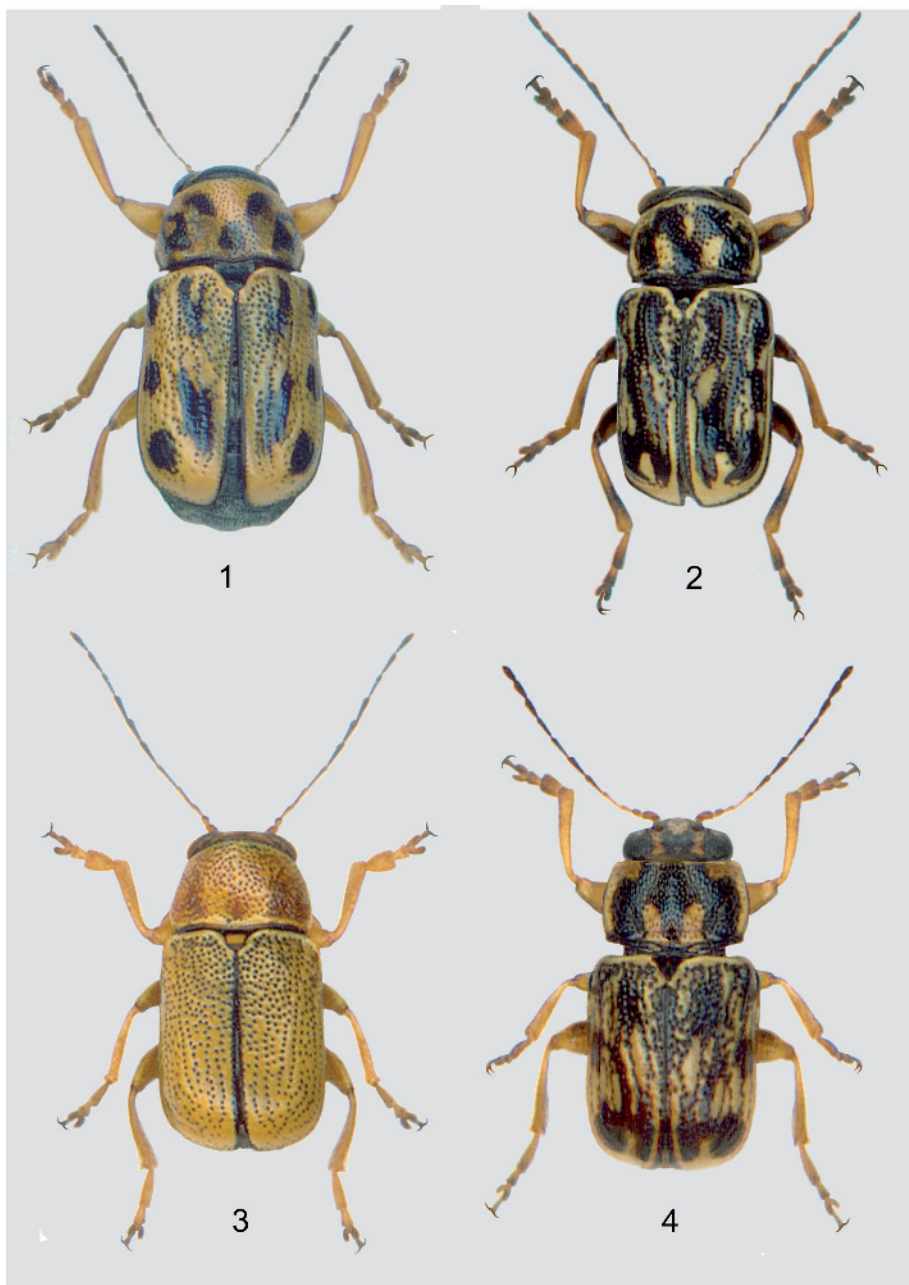


Plate I. General View:

1 – *Pachybrachis albicans*, 2 – *P. alpinus*, 3 – *P. anoguttatus*, 4 – *P. atraphaxidis*

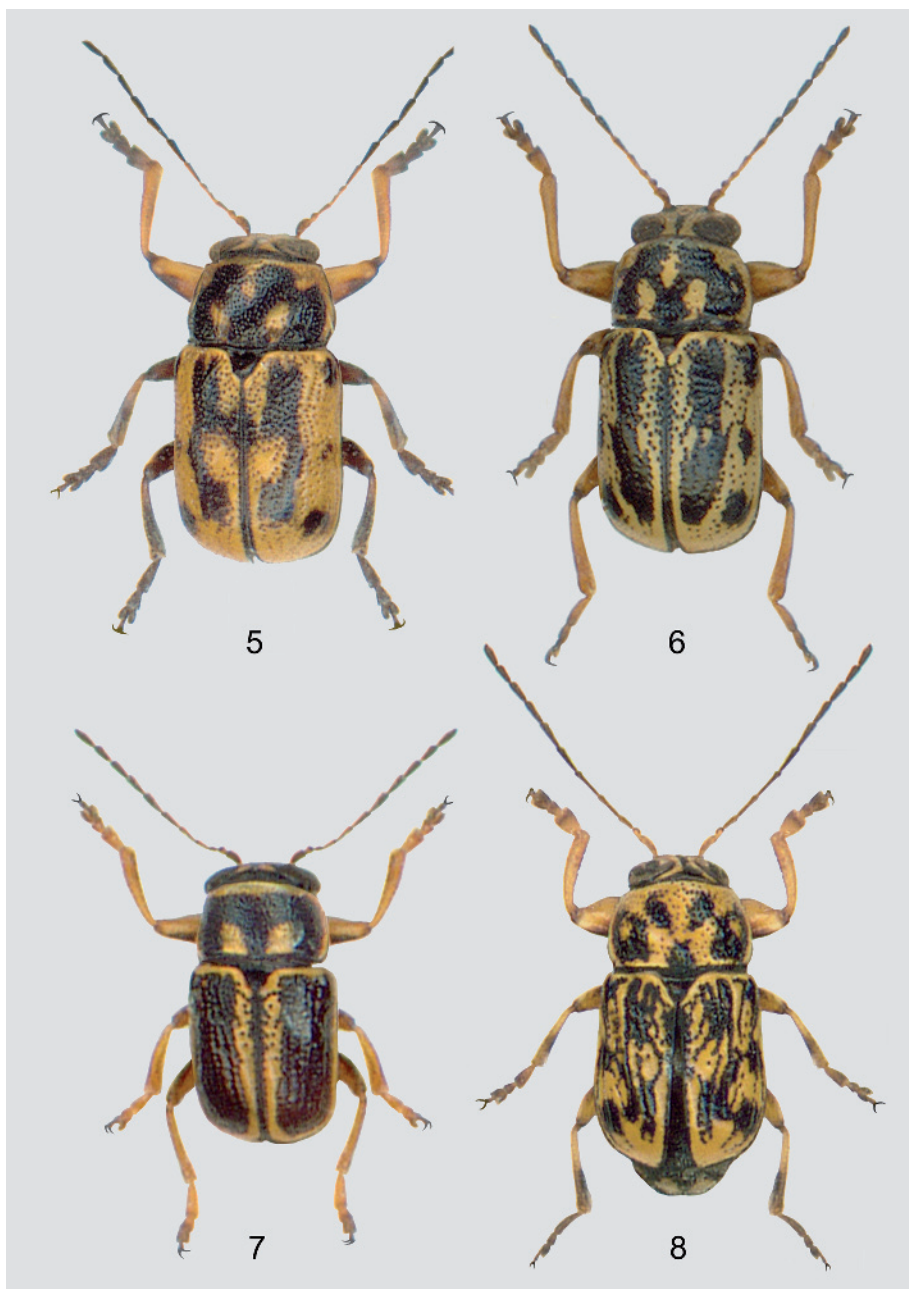


Plate II. General view:

5 – *Pachybrachis bodemeyeri*, 6 – *P. catalonicus*, 7 – *P. cinctus*, 8 – *P. creticus*

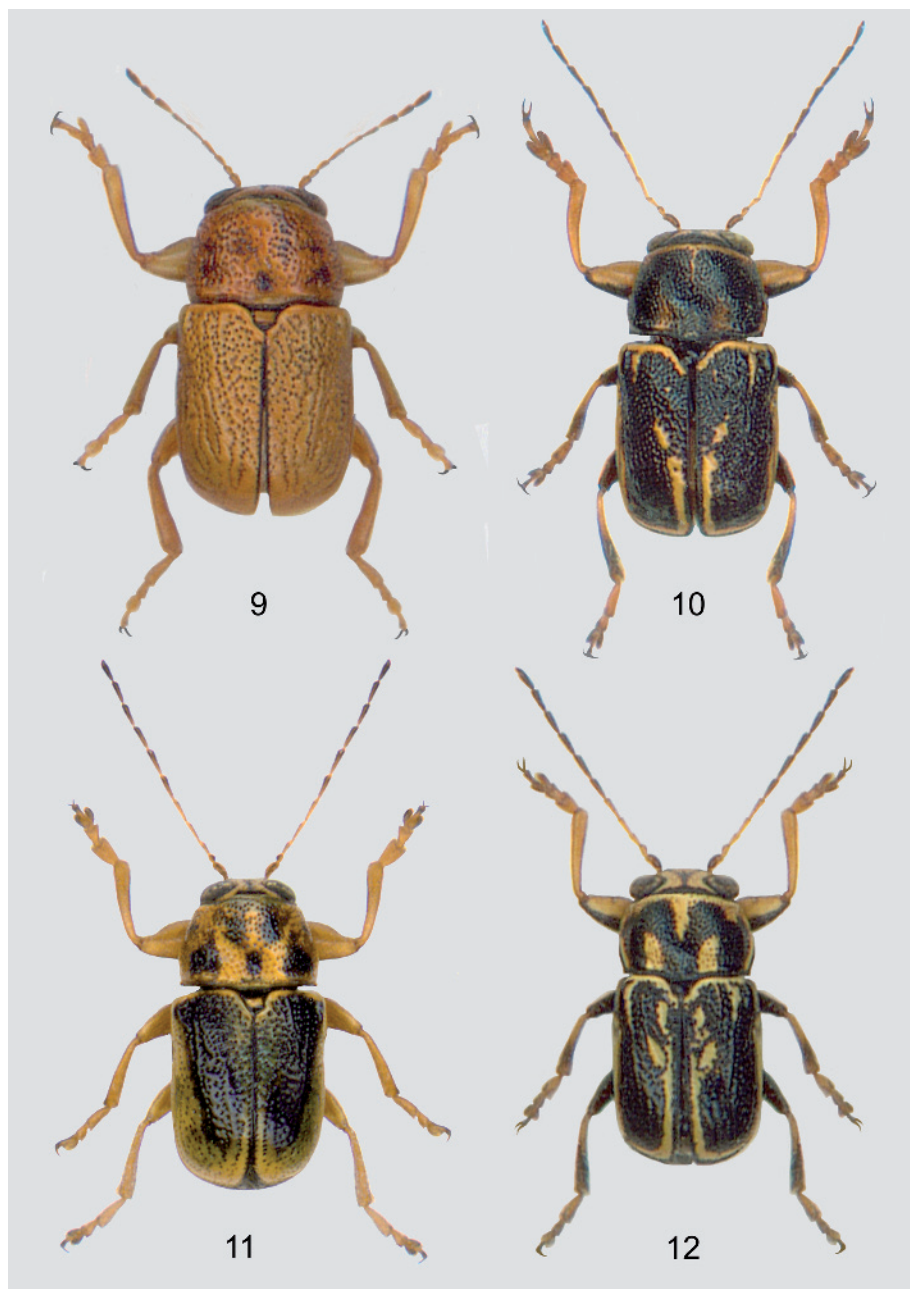


Plate III. General view:

9 – *Pachybrachis curtipennis*, 10 – *P. danieli*, 11 – *P. eruditus*, 12 – *P. fimbriolatus*

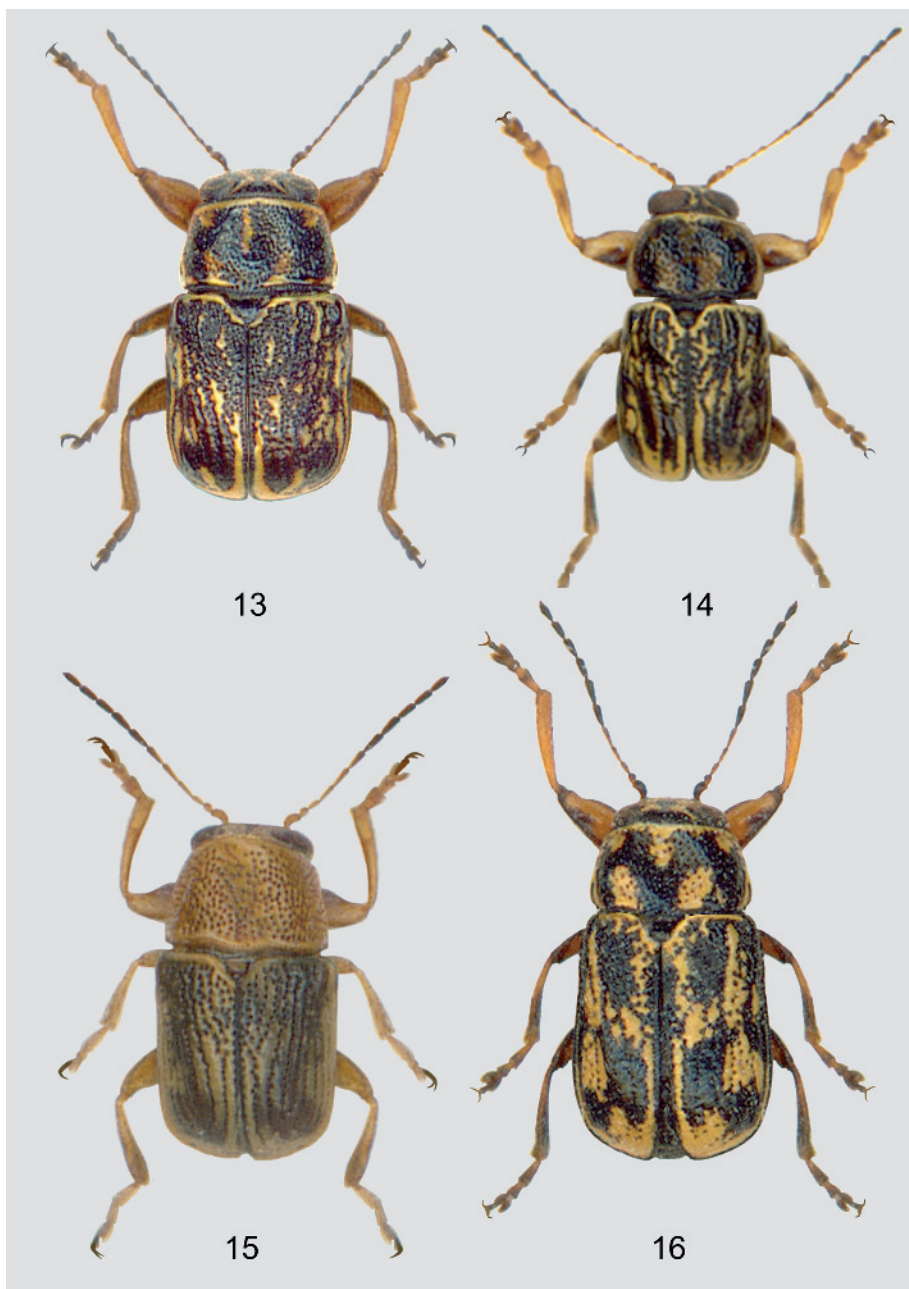


Plate IV. General view:

13 – *Pachybrachis flexuosus*, 14 – *P. fulvipes*, 15 – *P. glycirrhizae*, 16 – *P. hieroglyphicus*

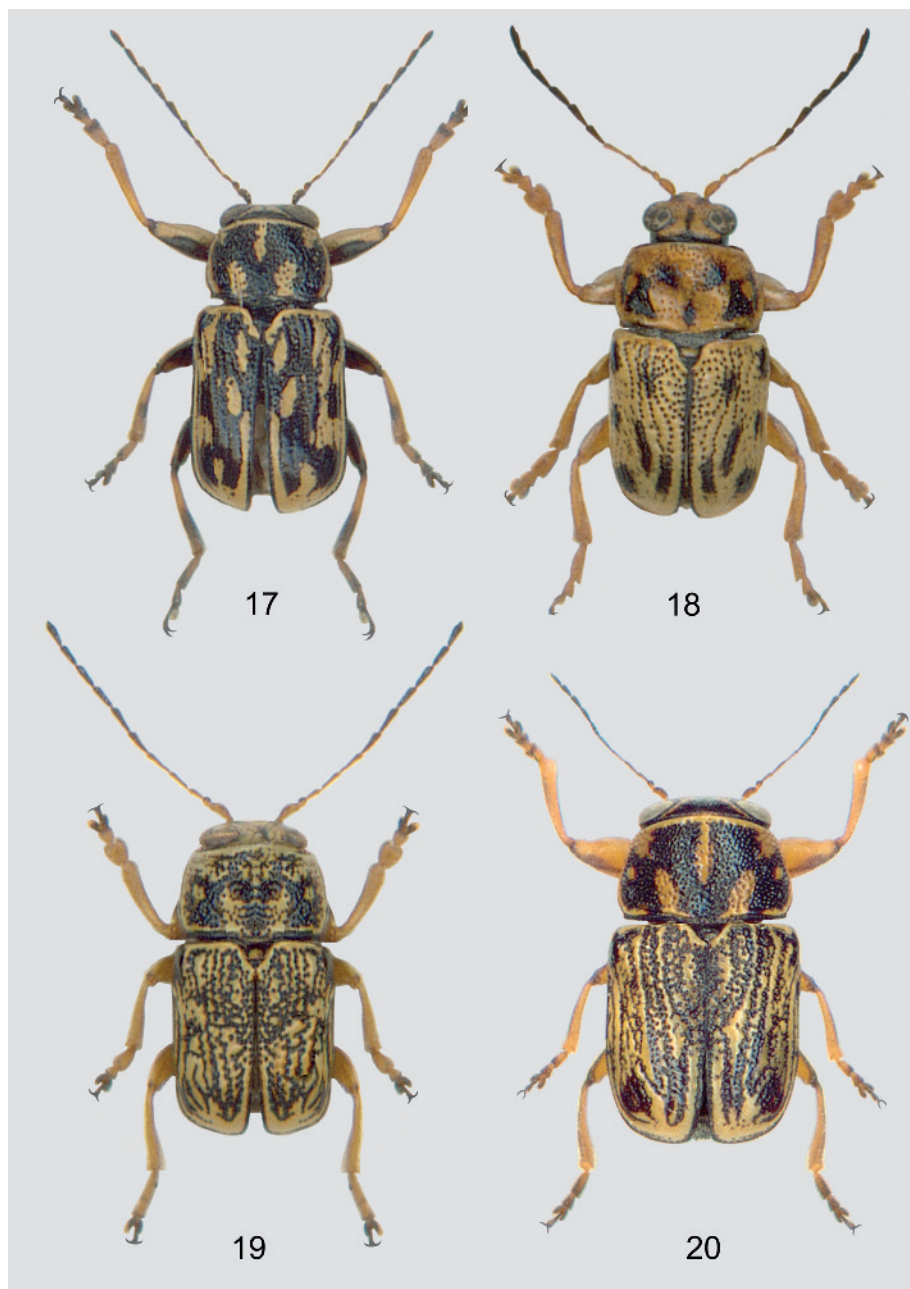


Plate V. General view:

17 – *Pachybrachis hippophaes*, 18 – *P. jacobsoni*, 19 – *P. jordanicus*, 20 – *P. kraatzi*

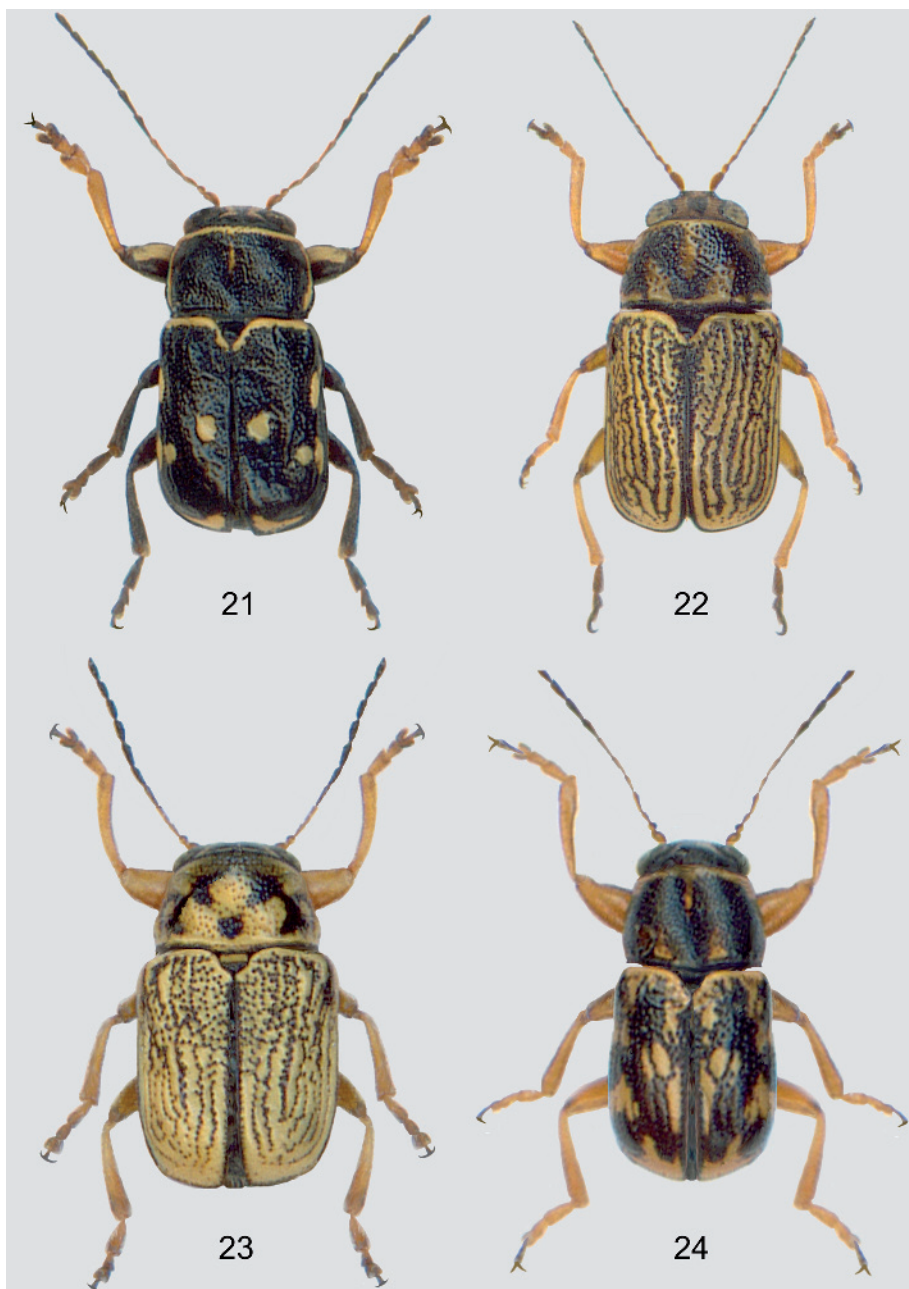


Plate VI. General view:

21 – *Pachybrachis limbatus*, 22 – *P. lineolatus*, 23 – *P. lopatini*, 24 – *P. merkensis*

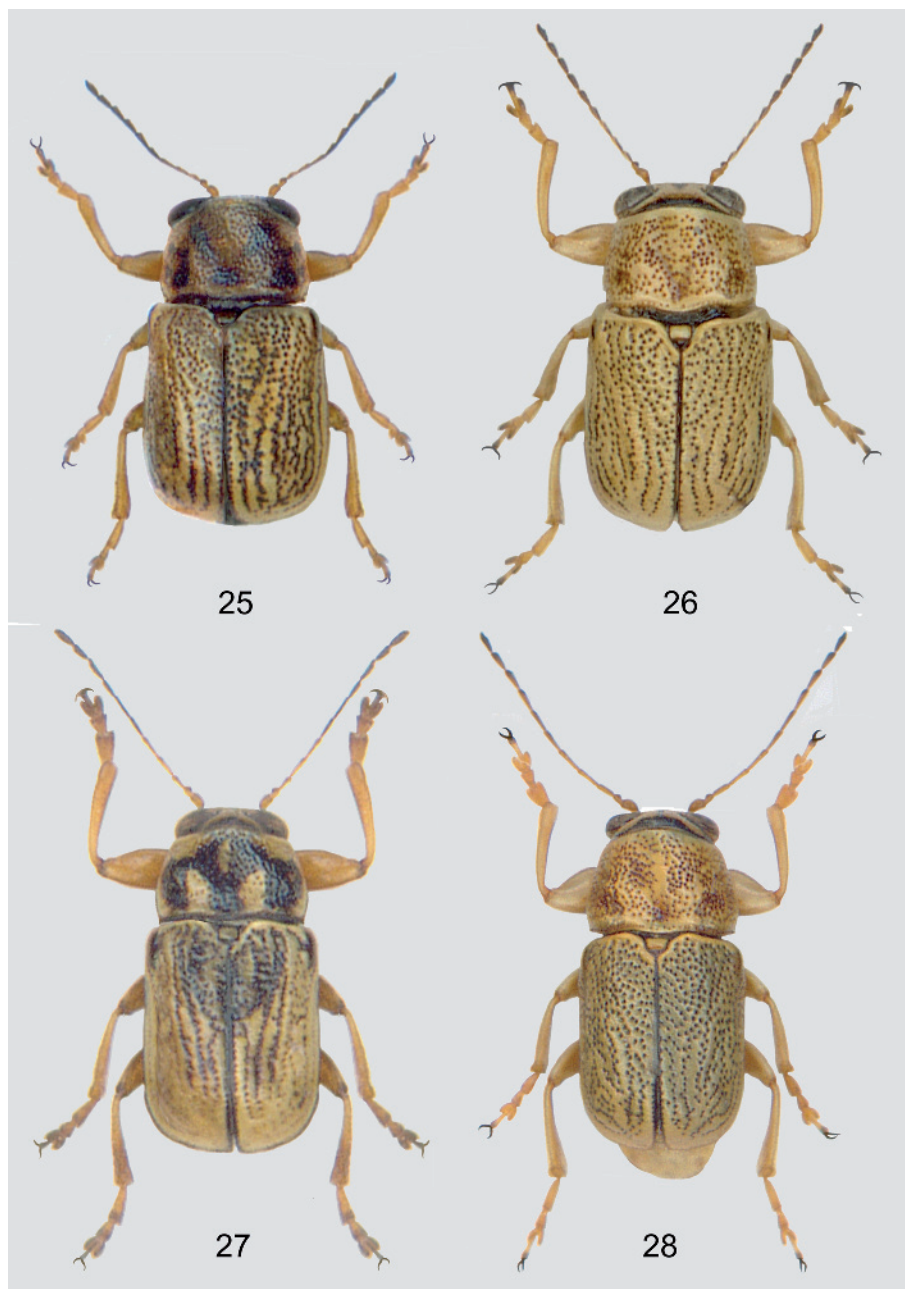


Plate VII. General view:

25 – *Pachybrachis mongolensis*, 26 – *P. nigropunctatus*, 27 – *P. pallidulus*, 28 – *pistor*

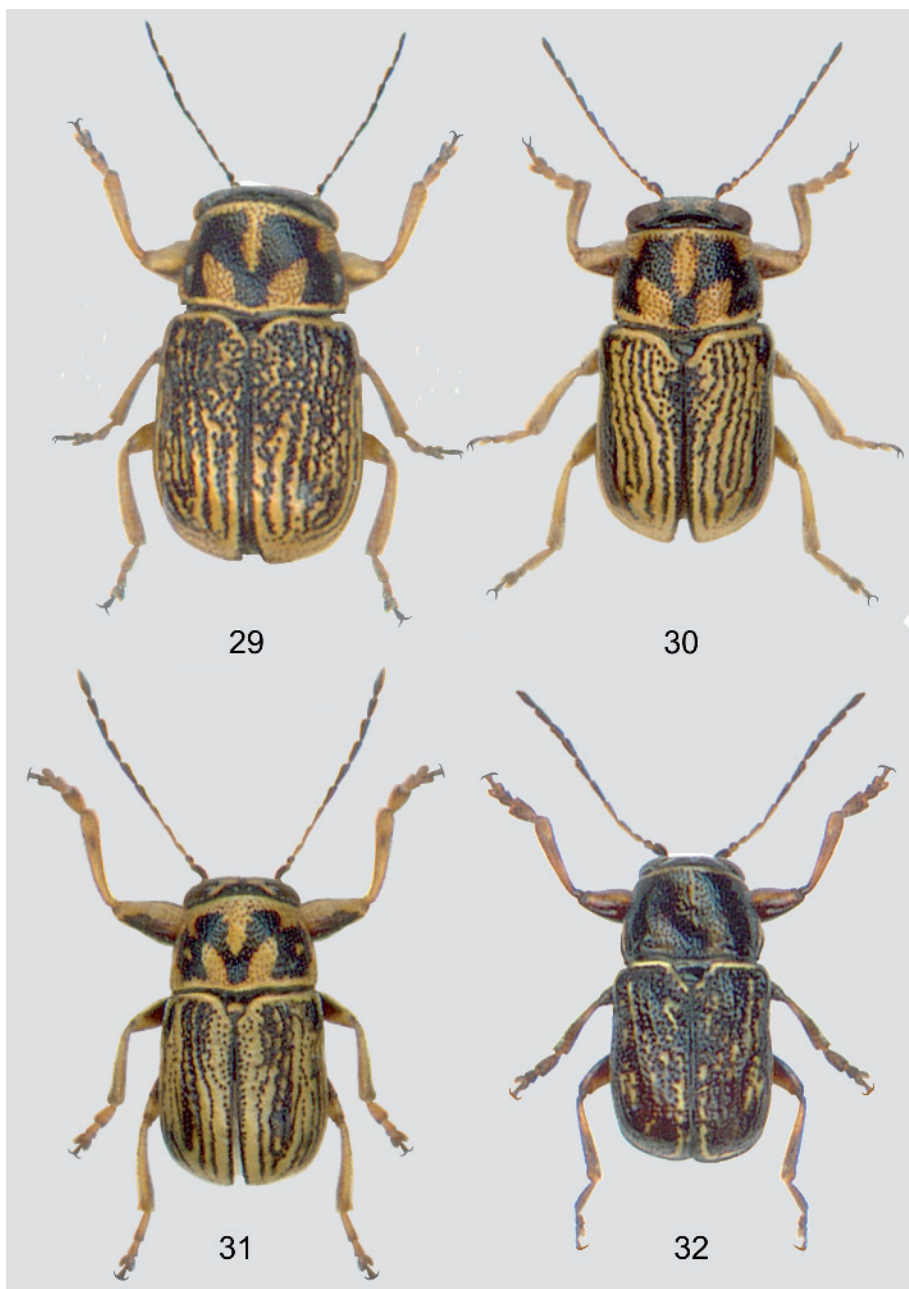


Plate VIII. General view:

29 – *Pachybrachis pradensis*, 30 – *P. pteromelas*, 31 – *P. scripticollis*, 32 – *P. sericans*

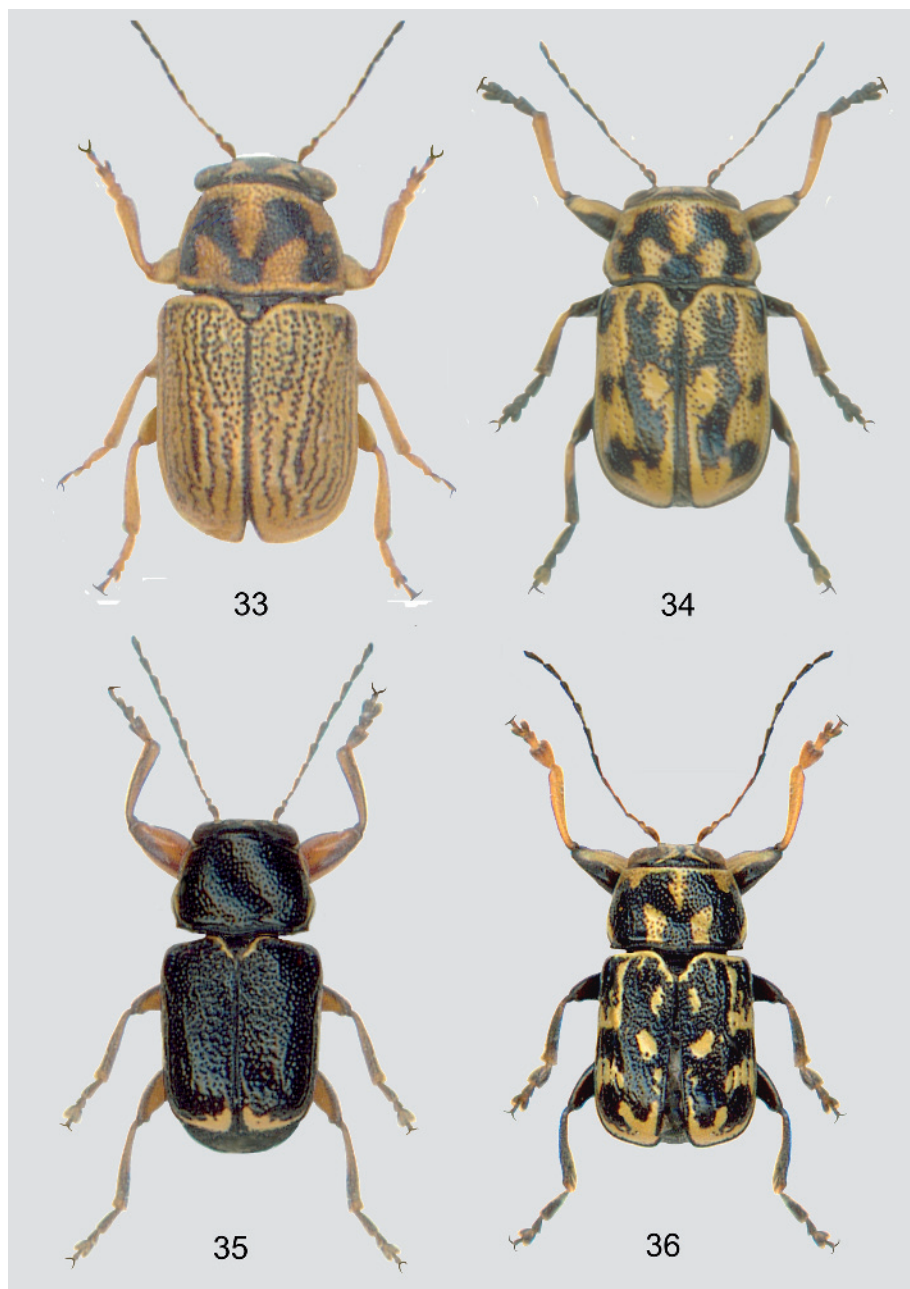


Plate IX. General view:
 33 – *Pachybrachis simius*, 34 – *P. sinuatus*, 35 – *P. terminalis*, 36 – *P. tessellatus*

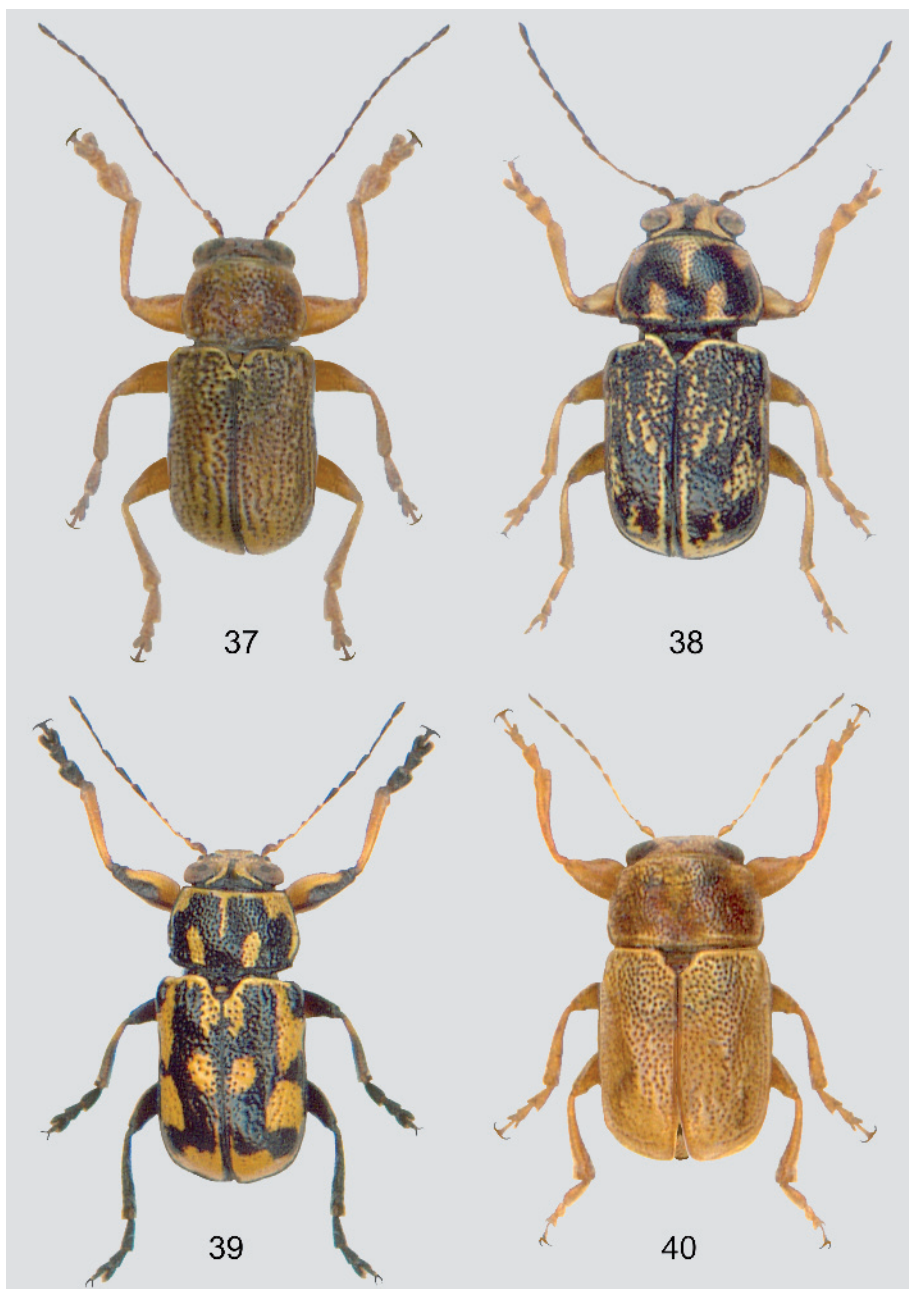


Plate X. General view:

37 – *Pachybrachis testaceus*, 38 – *P. tuvensis*, 39 – *P. velarum*, 40 – *P. vermicularis*

INDEX OF LATIN NAMES

bold = used in the key

* = caption to figure

(ab.) = aberration

(spec.) = species

(homon.) = homonym

(subsp.) = subspecies

(syn.) = synonym

? = rank doubtful

- absinthii* (spec.) **222***, 251
adaliensis (? spec.) 215, 251
additus (spec.) **219***, 251
aethiops (ab.) 265
afghanensis (spec.) **228***, 251
akbesianus (?syn.) 259
akbesianus (spec.) 251
albarracinus (subsp.) 255
albicans (spec.) **233***, 251, 271*
albolimbatus (ab.) 256
alcarriensis (syn.) 258
alpinus (spec.) **242***, 251, 271*
altimontanus (spec.) **237***, 251
amurensis (spec.) 239*, **240**, 251
anatolicus (spec.) 222*, **223**, 252
angustifrons (ab.) 261
anoguttatus (spec.) 215*, **217**, 252, 271*
anteconnexus (ab.) 252
antigae (spec.) 243*, **244**, 252
apicalis (syn.) 256
aragonicus (spec.) **248***, 252
arisi (ab.) 263
arnoldii (spec.) 215*, **216**, 252
assiettae (subsp.) **242**, 254
astragali (syn.) 266
ater (ab.) 259
atomarius (syn.) 256
atraxidis (spec.) **245**, 246*, 252, 271*
auliensis (spec.) **218**, 252
avignonensis (ab.) 262
baeticus (spec.) 224*, **225**, 252
beckeri (ab.) 264
bimaculatus (ab.) 261
bisignatus (syn.) 265
bodemeyeri (spec.) 239*, **240**, 252, 272*
boreopersicus (spec.) **246***, 253
burlinii (spec.) **233***, 253
callosus (syn.) 259
caprea (spec.) **218***, 253
caraganae (spec.) **237***, 253
carpathicus (spec.) **236***, 253
carpetanus (syn.) 258
catalonicus (spec.) **233***, 253, 272*
cedri (?spec.) 215, 253
cephallenicus (syn.) 255
changaica (subsp.) 253
chinensis (ab.) 264
chiusafortensis (syn.) 255
cinctus (spec.) **242***, 253, 272*
coquereli (?syn.) 263
cordatus (spec.) **247***, 253
creticus (spec.) 231*, 254, 272*
cribricollis (spec.) **220**, 221*, 254
cuencanus (ab.) 256
curtipennis (spec.) **220**, 221*, 254, 273*
dalmatinus (syn.) 255
danieli (spec.) **242***, 254, 273*
dimorphus (spec.) 229*, **230**, 254
disconotatus (ab.) 256
dissecticeps (syn.) 260
distictopygus (spec.) **238***, 254
diversepunctatus (ab.) 264
doctoris (ab.) 256
dzhungaricus (subsp.) 252
eruditus (spec.) **237**, 238*, 254, 273*
erycinus (ab.) 264
etruscus (syn.) 254
excisus (spec.) **230***, 254
exclusus (spec.) 248*, **249**, 254
externenotatus (ab.) 264
fallaciosus (subsp.) 253
favarqi (ab.) 264
fibriolatus (spec.) **243***, 255, 273*
flexuosus (spec.) 230*, **231**, 255, 274*
fraudator (spec.) **245***, 255
fraudolentus (spec.) **241***, 255
freidbergi (spec.) 216*, **217**, 255
freyi (spec.) **247***, 255
fulvipes (spec.) 249*, **250**, 255, 274*
galeazii (ab.) 257
gallicus (ab.) 261
gavoyi (subsp.) 261
gavoyi (ab.) 261
ghilarovi (spec.) **237**, 238*, 256
glycirrhizae (spec.) **217***, 256, 274*
gobicus (spec.) **220**, 221*, 256
gussakovskii (subsp.) 257
haliciensis (syn.) 265
hauseri (spec.) **217***, 256
hellwigi (ab.) 264
heptapotamicus (spec.) **228***, 256
hieroglyphicus (spec.) **232**, **234***, **236**, **239**, 256, 274*
hippophaes (spec.) **241***, 257, 275*
histrion (syn.) 256, 265
humeralis (ab.) 252
ictericus (ab.) 256
imitans (ab.) 256

- imitator* (ab.) 264
incallidus (syn.) 262
instabilis (spec.) 257
israelita (syn.) 263
issykensis (spec.) 222, 223*, 257
italicus (ab.) 256
jacobsoni (spec.) 236*, 257, 275*
jastschenkoi (spec.) 221, 222*, 257
jordanicus (spec.) 231*, 257, 275*
kaplini (spec.) 218*, 257
karamani (spec.) 244*, 257
kaszabi (syn.) 254
kazakhstanicus (spec.) 215* 216, 257
kirghizicus (spec.) 220*, 258
kislovodskensis (ab.) 260
koktumensis (spec.) 249*, 250, 258
korbi (spec.) 248*, 249, 258
korotjaevi (spec.) 250*, 258
kraatzii (spec.) 235*, 258, 275*
kuramensis (spec.) 245*, 258
laetificus (spec.) 225, 258
laevigatus (spec.) 222*, 257, 258
lallemani (spec.) 224*, 258
laticollis (spec.) 246, 258
latipes (spec.) 244*, 259
lecerfi (?syn.) 254
leonardii (spec.) 246*, 247, 259
lepineyi (syn.) 264
letourneuxi (ab.) 226, 263
leveillei (ab.) 261
libanicola (spec.) 227, 259
lignosus (ab.) 257
liguricus (syn.) 254
limbatus (spec.) 239, 246*, 247, 259, 275*
lindbergi (spec.) 235*, 236, 259
lineatus (spec.) 227*, 259
lineolatus (spec.) 223*, 259, 276*
lopatini (spec.) 238*, 259, 276*
lugubris (ab.) 264
lunatus (? syn.) 256
maculatus (syn.) 259
madoniensis (ab.) 264
mardinensis (spec.) 256*, 259
marchii (syn.) 264
marki (spec.) 219, 220*, 260
marocanus (homon.) 264
marocanus (spec.) 216, 260
martini (ab.) 265
melanopygus (ab.) 265
mendax (spec.) 233, 243*, 260
merkensis (spec.) 243*, 244, 260, 276*
misellus (syn.) 259
mitjaevi (spec.) 230, 269
mogol (spec.) 229*, 230, 260
mohri (syn.) 252
molloensis (ab.) 261
mongolensis (spec.) 228, 229*, 260, 277*
moroderi (syn.) 252
multisanti (syn.) 255
niger (ab.) 256
nigropunctatus (spec.) 221*, 260, 277*
nitidicollis (?spec.) 243*, 255, 261
normandi (spec.) 261, 264
noticollis (syn.) 256
obscuricolor (? syn.) 258
obscurior (ab.) 262
ochropygus (spec.) 236, 238, 239*, 261
oertzeni (spec.) 261
oertzeni (syn.) 255
ogloblini (?syn.) 257, 261
orientalis (subsp.) 265
osellai (spec.) 226*, 261
paganettii (ab.) 266
paganus (spec.) 249*, 250, 261
pallidicolor (ab.) 264
pallidiventris (ab.) 266
pallidulus (spec.) 231*, 232, 261, 277*
parvissimus (syn.) 252
paulonotatus (syn.) 260
pentheri (?syn.) 241, 263
perplexus (ab.) 262
petitpierrei (spec.) 224*, 225, 262
peyroni (spec.) 228, 262
piceus (nom. oblitum) 264
picturatus (ab.) 265
picus (spec.) 247, 248*, 262
pistor (spec.) 221, 222*, 262, 277*
planifrons (spec.) 230, 235*, 262
posticinus (ab.) 256
potanini (spec.) 227*, 228, 262
pradensis (spec.) 225*, 262, 278*
pratsensis (ab.) 257
probus (syn.) 260
pseudoscriptus (syn.) 232, 256
pseudosuturalis (ab.) 256
pteromelas (spec.) 233, 234*, 262, 278*
pubipennis (spec.) 216, 262
pudicus (spec.) 239*, 263
quadrimaculatus (ab.) 261
rapillyi (spec.) 227*, 228, 263
reductus (ab.) 261
riguus (syn.) 266
rondanus (spec.) 225*, 263
rufescens (spec.) 219*, 263
ruffoi (spec.) 241*, 263
rufimanus (ab.) 265
rugifer (spec.) 226, 227*, 263
salfii (spec.) 234*, 235, 263

salsolae (subsp.) 258
saluki (subsp.) 266
saudicus (spec.) **237**, 263
schaeferi (ab.) 262
scripticollis (spec.) **228**, **232**, 233*, 263, 278*
scriptidorsum (spec.) 234*, **235**, **239**, 264
scriptus (spec.) **223***, 224, 264
segregensis (ab.) 262
seidenstueckeri (syn.) 259
semidesertus (spec.) **219**, 220*, 264
sericans (spec.) 250*, **251**, 278*
sexsignatus (syn.) 261
sibillinus (subsp.) 263
sibiricus (subsp.) 260
siculus (homon.) 264
siculus (spec.) **233**, 234*, 264
sidonius (? spec.) 215, 264
simius (spec.) **226***, 264, 279*
sinkianensis (spec.) **227***, 265
sinuatus (spec.) **240**, 241*, 265, 279*
skopini (spec.) **219**, 265
solarii (ab.) 263
stramineus (ab.) 255
subapicalis (ab.) 256
subinterruptus (ab.) 252
subtilis (ab.) 261
suffrianii (spec.) **230**, 234*, **235**, 265
sulcithorax (spec.) **216**, 265
suturalis (?subsp.) 261
syriacus (ab.) 265
tauricus (syn.) 265
tekensis (spec.) **229***, 265
terminalis (spec.) **239***, **240**, 265, 279*
teruelensis (ab.) 262
tessellatus (spec.) **248***, 265, 279*
testaceus (spec.) **216***, 217, 266, 280*
theresae (ab.) 254
thoracicus (homon.) 264
tibetanus (spec.) **218**, 266
transbaicalicus (spec.) **229***, 266
transcaspicus (ab.) 256
tristis (homon.) 255
tristis (syn.) 256
tuvensis (spec.) 249*, **250**, 266, 280*
unguiculatus (syn.) 254
varanensis (ab.) 255
velarum (spec.) **240**, 241*, 266, 280*
vermicularis (spec.) **218**, 219*, 266, 280*
viennensis (ab.) 255
weisei (ab.) 255