

13. *P. longipedicellatum* H. RIEDL, sp. nov.

Typus: NEUBAUER 4144, W!

Annuum, tenuissimum, unicaule, 7–12 cm altum. Caulis simplex vel ramificatione unica, flaccidus, erectus, subpatule pilosus, pilis 0,5–0,7 mm longis. Folia basalia rosularia lineari-spathulata vel linearia, cum petiolo mox indistincto mox laminae subaequilongo 15–22 mm longa, 2–3 mm lata, obtusa, supra densius, subtus laxius subappresse antrorse pilosa. Folia caulina 10–18 mm longa, sessilia vel subsessilia, lineari-oblonga vel lineari-lanceolata, obtusiuscula. Inflorescentiae laxissimae, pauciflorae, floribus 3–5 valde remotis, imprimis flos infimus a ceteris longissime (usque ad 6 cm) distat. Pedicellus floris infimi sub fructu arcuato-deflexus, longissimus, 15–25 mm longus, tenuis, floris sequentis 10–15 mm, florum ceterum sub anthesi subnullus, demum usque ad 5 mm. Bracteae nonnullae plerumque evolutae, foliis valde similes sed minores. Calyx florifer \pm 1,5 mm longus, fructifer usque ad 2 mm elongatus laciniis anguste linearibus, acutis, subpatule pilosis. Corolla late campanulata, 2,5–2,8 mm longa, limbo coeruleo tubo albedo paulo longiore, fere ad basin usque in lobos late rotundatos diviso. Fornices subquadrati longitudine latitudinem ad minimum aequante. Antherae ellipsoideae, medio in tubo affixae, fornices non attingentes. Stylus 0,5 mm longus. Nuculae oblongo-ovoideae 2,5–3 mm longae, area mediana parce tuberculata, ala subintegra, laevi, praeter annulum e dentibus late triangularibus brevibus marginem crassum secundum exteriorem formantibus. — Differt a ceteris speciebus inflorescentiis laxi- et paucifloris, pedicellis infimis longissimis, corolla paulo majore, fornicibus longioribus, nucularum forma valde distincta.

Afghanistan: E. Kabul: In valle Ghorband, NEUB. 4144! — SW: Jija, 900 m, KOEHL 4382!

Distr. gen.: Endem.

14. *P. serpenticum* RECH. f. & H. RIEDL, sp. nov. — Tab. 19, Fig. 5.

Typus: RECH. 31459, W!

Annuum, a basi densissime divaricato-ramosum, pluricaule. Caules \pm erecti, 1–1,5 mm crassi, prope basin patule hirsuti, superne appresse strigosi, saepissime coerulescenti-suffusi. Pili caulis quam 1 mm paulo breviores. Folia caulina infima lineari-spathulata, usque ad 2,2 mm longa, usque ad 3 mm lata, obtusa vel acutiuscula, in basin angustam gradatim attenuata vel subpetiolata, caulina cetera 10–17 mm longa, 2–3 mm lata, aut inferioribus similia aut linearia, omnia marginibus revoluta, supra subappresse vel subpatule strigosa pilis ut in caulibus, infra coeruleo-canescencia pilis patentibus tuberculis albis insidentibus ceteris saepe brevioribus vestita, pilis deciduis tandem interdum dense minute albotuberculata. Inflorescentiae fructiferae tantum notae strictae, quam cetera pars caulis longiores. Pedicelli floriferi indistincti, fructiferi usque ad 1 mm longi, primo recti, dein recurvato-patentes. Calyx usque ad 1 mm longus, immutatus, usque ad basin in lacinias 5 lineares vel lineari-lanceolatas angustas acutas patule hispidas divisus. Corolla minutissima, 1,5 mm longa, infundibuliformis, coerulea, tubo conico, limbo quam tubus duplo fere brevior, subexplanato, lobis late rotundatis vix 0,5 mm longis latisque. Antherae medio in tubo sessiles, late ovatae, basi subsagittatae, fornices apice obtuso vix attingentes. Fornices minutissimi, inconspicui, ad plicas transversales subbilobas reducti, maculis albis suborbicularibus in fauce insidentes. Stylus vix 0,3 mm longus. Nuculae 4, saepissime

inaequales, 2—3-alatae, 1—2 exalatae. Nuculae alatae ambitu orbiculares, 2—2,5 mm in diam., area mediana dense aculeis et glochidiis tenuibus obsita, ala bullato-rugosa, membranacea, coeruleo-suffusa mox deciduae. Nuculae exalatae lineari-triquetrae, 2 mm longae, dense aculeatae, persistentes. — Species a *P. intermedio* (FRESEN.) LIPSKY valde affini pedicellis etiam fructiferis brevissimis, fornicibus ad plicas reductis, nuculis minoribus differt.

Afghanistan: E: Kabul: 50 km a Kabul versus Gardez, substr. serpent., 1900 m, RECH. 31459!

Distr. gen.: Endem.

15. *P. salsum* BOISS., Fl. Or. 4: 255 (1879).

Typus: Persia, ad margines magni deserti salsi in distr. Veronina S Tehran, BODE.

Annum, \pm 15 cm altum, setulis basi tuberculis insidentibus hispidum. Caulis a basi dichotome ramosus. Folia carnosula, 10—25 mm longa, \pm 6 mm lata, oblonga vel oblongo-lanceolata, inferiora subsessilia, cetera basi attenuata sessilia. Inflorescentiae fructiferae elongatae. Pedicelli fructiferi brevissimi vel subnulli. Calyx florifer \pm 1,5—2 mm longus, fructifer 4—5 mm, laciniis ovato-lanceolatis, acutis. Corolla 2—2,5 mm longa, campanulata, coerulea, limbo suberecto, lobis late rotundatis tubo multoties brevioribus. Fornices minutissimi, semiorbiculares. Antherae fornices non attingentes. Nuculae globoso-calathiformes, 4—5 mm diam., in area mediana echinulatae, ala rugulosa integra valde introflexa.

Persia: C: Tehr.: S Tehran, BODE. Shahr.-Bust.: Inter Mayamey et Shahrud, RECH. 5330-b!

Distr. gen.: Endem.

Species dubia

P. gracile CZERN., Feddes Repert. 27: 277 (1930).

Typus: CZERN. 190.

Perenne, caespitosum, appresse albo-pilosum. Caules numerosi, 7—12 cm alti, simplices. Folia basalia 35—50 mm longa, 3—4 mm lata, longe petiolata, anguste linearia, acuta, caulina 10—15 mm longa, sessilia, lineari-lanceolata. Inflorescentiae primo glomeratae, demum laxae. Calyx 1—4 mm longe pedicellatus, \pm 3 mm longus, usque ad basin in lacinias anguste lineares, acuminatas divisus, hirsutus. Corolla 5 mm longa, limbo tubum aequante, 5 mm diam., lobis rotundatis, coerulea. Nuculae immaturae tantum notae.

Persia: E: Khor.: Kopet Dagh: „M. Rasarosh“, CZERN. 190.

Distr. gen.: Endem.

Da die Gestalt des Fruchtlügels unbekannt ist, kann eine sichere Zuordnung nicht erfolgen.

21. *Mattiastrum*

Mattiastrum (BOISS.) BRAND, Feddes Repert. 14: 150 (1915).

Syn.: *Paracaryum* BOISS. Sect. II. *Mattiastrum* BOISS., Diagn. Pl. Or. Nov. Ser. 1, 11: 130 (1849).

Calyx plerumque usque ad basin quinquepartitus, post florendum non vel parum accrescens. Corolla subcylindrica vel infundibuliformis vel hypocrateriformis, limbo a tubo manifeste distincto, fauce intus fornicibus 5 semper conspi-

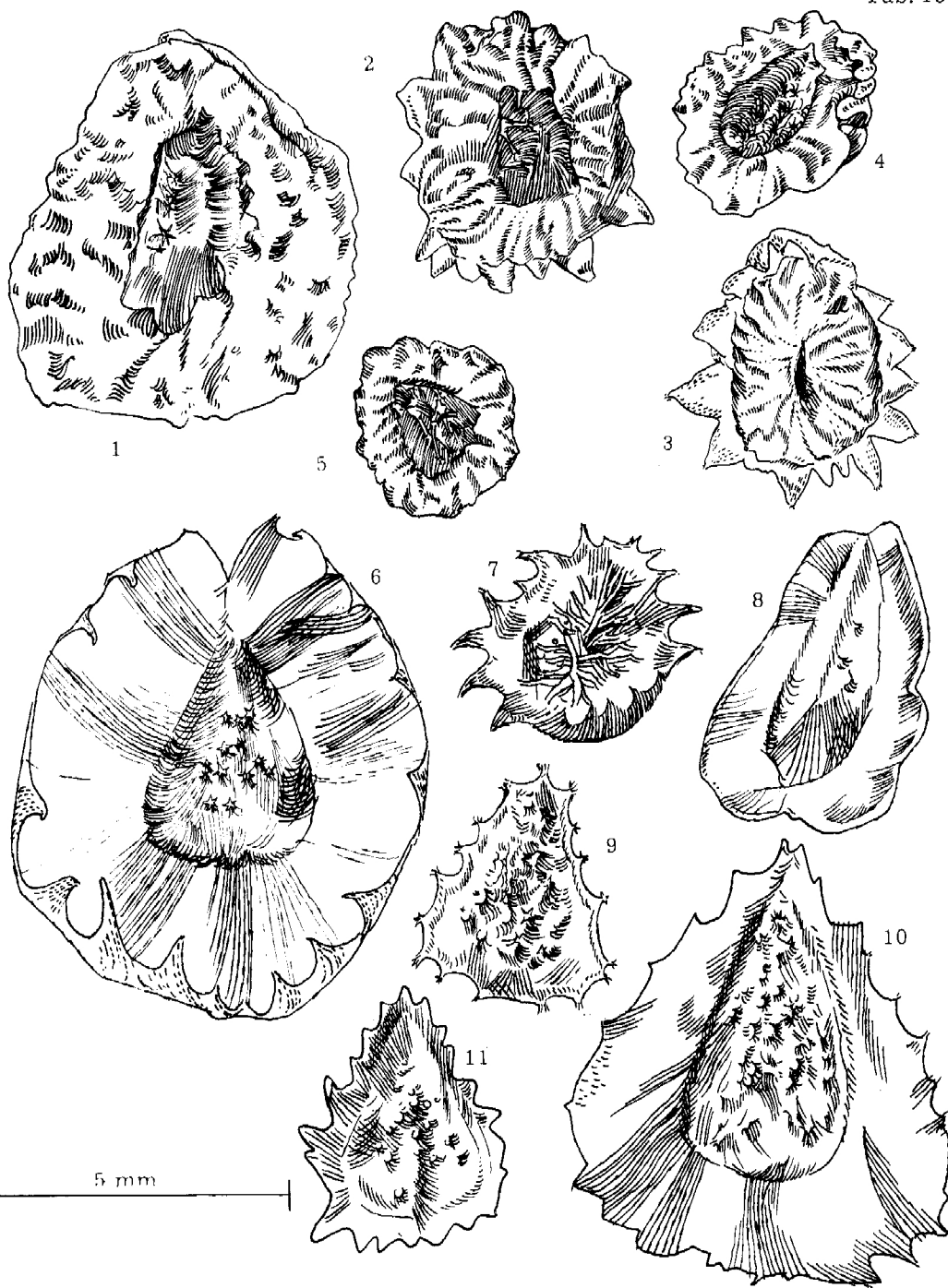


Fig.1. *Paracaryum cyclhymenium* (Boiss.) H. Riedl - Bunge 52. - Fig.2. *P. calathicarpum* (Stocks) Boiss. - Stocks 1003. - Fig.3. *P. stellatum* H. Riedl - Rech. 28434. - Fig.4. *P. intermedium* (Fresen) Lipsky - Rech. 17609. - Fig.5. *P. serpentanicum* Rech. f. et H. Riedl - Rech. 31459. - Fig.6. *Mattiastrum subscaposum* Rech. f. et H. Riedl - Rech. 16926. - Fig.7. *M. Bungei* (Boiss.) Rech. f. et H. Riedl - Koeie 2690. - Fig.8. *M. flaviflorum* Rech. f. et H. Riedl - Rech. 18446. - Fig.9. *M. polyanthum* Rech. f. et H. Riedl - Rech. 17688. - Fig.10. *M. Dielsii* Bornm. - Rech. 18041. - Fig.11. *M. sessiliflorum* Rech. f. et H. Riedl - Rech. 17385.