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Pars systematica

Praemonenda

Monographia haec in herbariâ materie spectabiliore e phyllis plusquam 5000 constante aedificata est. Specimina enim *Ptilostemonum* e herbariis plusquam 60 tam publicis quam privatis conspexi, notis sequentibus indicatis:

B, BAS, BEO, BM, C, CAG, COI, E, FI, G, G-DC, GB, GE, HUJ, JE, K, KW, L, LAU, LD, LE, LISU, LJU, M, MA, MANCH, MPU, MS, MW, NAP, P, PAL, PI, PR, PRC, RO, SARA, SASSA, SOM, TBI, TL, TO, W, WU, Z, ZA, ZT (quarum omnium explicatio in libello Lanjouw & Stafleu 1964 offertur);

Ath: herbarium instituti botanici universitatis Athenarum;

Bas: herbarium societatis botanicae basiliensis;

Cr: herbarium N. Creutzburg proprium, Friburgi Brisgoviae;

FI-Webb: herbarium Webbianum (FI);

G-Boiss: herbarium florum orientalis Boissieri (G);

G-Bu: herbarium europaeum Burnatii (G);

Goul: herbarium musei Goulandrii historiae naturalis, Kephisiae;

Gr: herbarium meum;

Hub: herbarium A. Huber-Morath proprium, Basileae;

Jaca: herbarium centri pyrenaici biologiae experimentalis, Jacae;

Mars: herbarium facultatis scientiarum Sancti Hieronymi, Massiliae;

Mout: herbarium P. Mouterde universitatis catholicae berytensis;

Rech: herbarium Rechingeri proprium (in W depositum);

Sev: herbarium instituti botanici universitatis hispalensis;

Sim: herbarium C. Simon proprium, Basileae;

W-Hal: herbarium graecum et europaeum Halácsyi (in W depositum).

Specimen unum alterumve e herbariis aliis pluribus vidi et citavi (semper notis libelli Lanjouw & Stafleu 1964 usus). Icones photographicas speciminum herbarii Willdenowii a museo botanico berolinensi amabiliter missas accepi, et iis a societate IDC ("International Documentation Company") editis herbariorum Linnaei (LINN), Jussiaeorum (P-JU) et Lamarckii (P-LA) usus sum.

Rectoribus institutorum, dominis et custodibus herbariorum qui benevolenter me acceperunt vel liberaliter speciminum *Ptilostemonum* copiam mihi commodaverunt gratias maximas ago.

Nil carius aestimo quam scientiam plantae vivae. Ipse per annos nunc fere 20 oras insulasque maris mediterranei peragrans *Ptilostemon* complures loco natali observavi et collegi in Graeciâ, Cretâ, Italiâ, Sardinia, Sicilia et Corsica. Comitibus meis, et imprimis eorum assiduissimis: patri venerato et dulcissimae uxori (nec multos alios adjuvantes et munificos obliviscor!) grates ago habeoque.

Amici et confratres multi plantas novas et fructus mecum benevolenter communicaverunt, e quibus dominam F. Valsecchi et dominos C. Barclay, N. Creutzburg,

M. Dittrich, E. Galiano, P. Hainard, C.-P. Herrn, A. di Martino, K. H. Rechinger, S. Snogerup, A. Strid et B. Vigo nominatim commemorem.

Citationes originales nominum et synonymorum citatorum omnium caute inspexi. Libellos nonnullos perraros, qui Genavae desiderantur, ab amicis et confratribus perscrutatos habui, vel a munificis accepi. Hoc loco gratias agere licet dominae I. P. Mandenova et dominis O. de Bolós, E. Guinea et W. T. Stearn. Nomina periodicorum citatorum ad exemplum catalogi "B-P-H" (Lawrence & al. 1968), auctores et titulos librorum secundum appendices "Florae europaeae" (Tutin & al. 1964, 1968) breviavi.

Specimina typica nominum et synonymorum omnium recognoscere conatus sum, confratribus nonnullis, inter quos dominos J. Chrtek et H. Heine memorem, ad amissa quaerenda valide adjuvantibus. Lectotypum selegi ubi syntypi plures aderant, et neotypum designavi ubi scilicet typus in herbariis non conservatur. Tandem nomina icone vel descriptione typificata, plantae "typotypicae" (Dandy ex Stearn 1957) carentia, specimine normali ("standard specimen") instruxi, quia specimen quam iconem ad naturam nominis illustrandam aptius puto.

Sub voce typi indicationes protologii in extenso citatas invenies; holo-, lecto-, neotypum vel specimen normale referendo verbum schedulae specimini affixae secutus sum.

Descriptiones generis, subgeneris, sectionis, speciei et, cum adsit, subspeciei vel varietatis semper additiciae, cunctae tantum effigiem absolutam plantae reddunt.

Observationes taxonomicas et nomenclaturales, disceptationes annotationesque varias, e parte systematicâ exclusas, in parte tertiâ operis invenies.

Nomina locorum in schedulis commemorata iis atlantum, chorographiarum et catalogorum recentiorum comparavi eorumque graphiam si opus erit emendavi; si nomina aliqua reperire nequivi, ea inter signa " " posui; si locus unus appellationibus pluribus plane diversis respondet, aptissimam accepi, alias interpositas habui. Textûs schedularum latine reddidi et saepe valde breviavi (rarius incertum vel ambiguum circumscripsi).

Locorum consecutionem in enumerationibus naturalem potius quam rigide logicam volui: a proximo ad proximum currit, ut facultas tulit. In graphidibus arearum etiam loca e scriptis tantum mihi nota inserui (nec certe omnia unquam publicata reperi), quae ab enumerationibus et a bibliographiâ brevitatis causâ exclusi. Hic memorem dominam F. Valsecchi catalogum scriptorum sarduorum *Ptilostemonem Casabonae* citantium mecum amabilissime communicavisse.

Notis sequentibus usus sum (flexione plerumque scilicet omissâ):

a.	annus	h.	hortus
adv.	adversus	herb.	herbarium
austr.	australis	ibid.	ibidem
bor.	borealis	inf.	inferior
c.	circa	ins.	insula
centr.	centralis	lat.	latus
coll.	collector	m.	mons
d.	dies	mer.	meridies, meridionalis
distr.	districtus	mon.	monasterium
dit.	ditio	mont.	montes
fauc.	fauces	n.	numerus
fl.	flumen	obs.	observavi

occ.	occidens, occidentalis	prov.	provincia
opp.	oppidum	rad.	radices
or.	oriens, orientalis	s.	sine
penins.	peninsula	sept.	septemtrio, septemtrionalis
pr.	prope	sup.	superior
promont.	promontorium	vs.	versus

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Clavis analytica specierum et subspecierum

- 1a. Planta annua. Folia supra scabrida, margine spinulis remotis perparvis praedita (vel superiora inermia), basi utrinque spinosa 14. *P. stellatus*
- 1b. Plantae biennes vel perennes. Folia supra laevia margine aut valide spinosa, aut omnino inermia (tunc plantae fruticosae foliis basi ad summum spinulosis) 2
- 2a. Frutices foliis linearibus margine integerrimis inermibus 3
- 2b. Plantae non plane fruticosae, foliis margine spinosis 5
- 3a. Folia apice breviter acutata inconspicue mucronulata, basi inermia non dilatata. Phylla media involucri in mediâ parte latissima 5. *P. Chamaepeuce*

- 3b. Folia apice longe subulato-attenuata spinulosa, ramealia et caulina superiora basi dilatata utrinque spinulosa. Phylla media involucri prope basin latissima 6. *P. gnaphaloides* 4
- 4a. Subulae phyllorum mediorum involucri 2-4 mm longae, apice breviter indistincte spinescentes a. subsp. *gnaphaloides*
- 4b. Subulae phyllorum mediorum involucri 4-8 mm longae, in spinulam tenuem distinctam desinentes b. subsp. *pseudofruticosus*
- 5a. Caulis foliis decurrentibus spinoso-alatus. Folia reticulato-nervosa nervis crebre anastomosantibus 1. *P. strictus*
- 5b. Caulis non alatus. Folia sessilia ad summum oblique inserta subdecurrentia, nervis praeter spinigeros fere omnino obsoletis 6
- 6a. Phylla involucri margine valde araneosa et saepe spinulosa, a basi sensim angustata, appendice planâ a parte basali non conspicue sejunctâ 7
- 6b. Phylla involucri margine nunquam spinulosa, e basi appressâ in subulam tri- tetraquetram ad ortum extus flexam contracta 9
- 7a. Planta polycarpica. Folia supra persistenter araneoso-cana. Limbus corollae 13-15 mm longus 2. *P. niveus*
- 7b. Plantae rite monocarpicae (rarius dicarpicae). Folia supra praeter nervos cito glabrescentia. Limbus corollae 10-12 mm longus 3. *P. afer* 8
- 8a. Phylla involucri apice purpurascentia. Corolla roseo-purpurea, tubo (11-)12-16(-18) mm longo (si tubus 11-12 mm longus, tunc involucrium spinis inclusis quam 35 mm manifeste brevior) a. subsp. *afer*
- 8b. Phylla involucri nunquam purpurascentia. Corolla albida, tubo (9-)10-12(-13) mm longo (si tubus 12-13 mm longus, tunc involucrium spinis inclusis quam 35 mm longior) b. subsp. *eburneus*
- 9a. Planta fere semper monocarpica (raro dicarpica). Folia lanceolata, lobis ad spinas marginales digitatas omnino reductis . . . 13. *P. Casabonae*
- 9b. Plantae perennes polycarpicae. Folia distincte lobata, spinis palmatim dispositis, i.e. basi parenchymate chlorophyllifero conspicuo sejunctis 10
- 10a. Folia lobis exclusis anguste linearia, 2-4 mm lata. Appendices antherarum apice tantum vittatae 11
- 10b. Folia lobis exclusis lanceolata, quam 4 mm evidenter latiora 12
- 11a. Capitula nutantia, longe pedunculata. Appendices phyllorum involucri intus ad ortum alte spongioso-gibbosae 7. *P. leptophyllus*
- 11b. Capitula erecta, breviter pedunculata. Appendices phyllorum involucri intus ad ortum spongioso-tumidae, sed non gibbosae 8. *P. echinocephalus*
- 12a. Synflorescentia racemosa vel spiciformis, capitulis lateralibus rite subsessilibus. Phylla involucri (subulis interdum exceptis) dorso glabra 13

- 12b. Synflorescentia corymbiformis, laxa vel conferta. Phylla involucri dorso pubescentia 15
- 13a. Subulae phyllorum involucri crispule araneoso-puberulae. Corolla atropurpurea, limbo 9-10 mm longo. Fructus 4.8-5.5 mm longus
10. *P. abylenis*
- 13b. Subulae phyllorum involucri glabrae (perraro parce floccosae). Corolla purpurea, rosea vel albida, limbo 10-12(-14) mm longo. Fructus minores 14
- 14a. Subulae phyllorum involucri mediorum validae elongatae, apicem phyllorum interiorum attingentes vel superantes. Fructus 3.8-4.5 mm longus 11. *P. rhiphaeus*
- 14b. Phylla involucri regulariter imbricata, subulis gracilibus in mediis non distincte elongatis apicem interiorum nunquam attingentibus. Fructus 3.4-3.8 mm longus 12. *P. dyricola*
- 15a. Suffrutex ramis aëreis lignescentibus simplicibus perennibus foliis et vestigiis foliorum opertis. Appendices antherarum apice tantum vittatae
9. *P. hispanicus*
- 15b. Planta hemicryptophytica fasciculis foliorum basaliū florendi tempore plerumque decompositorum et caulibus aëreis annuis. Appendices antherarum totam per longitudinem vittatae 14. *P. diacantha* 16
- 16a. Phylla media involucri basi (3.5-)4-5 mm lata. Fructus 4.5-5(-5.5) mm longus a. subsp. *diacantha*
- 16b. Phylla media involucri basi 2.5-3.5 mm lata. Fructus 4-4.5 mm longus
b. subsp. *turcicus*

Ptilostemon Cass. in Bull. Sci. Soc. Philom. Paris 1816: 200. 1816 $\equiv$ *Chamaepeuce* DC., Prodr. 6: 657. 1838, nom. illeg. $\equiv$ *Chamaepeuce* sect. *Ptilostemon* (Cass.) DC., Prodr. 6: 657. 1838 $\equiv$ *Staelina* subg. *Chamaepeuce* ["*Chamepeuce*"] Raf., Fl. Tellur. 4: 118. 1838 (serius) $\equiv$ *Carduus* sect. *Chamaepeuce* Baillon, Hist. Pl. 8: 7. 1886, nom. illeg. $\equiv$ *Cirsium* sect. *Ptilostemon* (Cass.) O. Hoffm. in Engler & Prantl, Natürl. Pflanzenfam. 4/5: 323. 1893 $\equiv$ *Cirsium* sect. *Chamaepeuce* Fiori in Fiori & Paol., Fl. Anal. Ital. 3: 362. 1904, nom. illeg. $\equiv$ *Cirsium* subg. *Chamaepeuce* (Raf.) Petrak in Österr. Bot. Z. 64: 455. 1914.

- Holotypus:** *Serratula Chamaepeuce* L. (i.e. *Ptilostemon Chamaepeuce* (L.) Less.).
= *Koechlea* Endl., Gen. Pl. Suppl. 2: 48. 1842. **Holotypus:** *Koechlea mitis* Endl. (i.e. *Ptilostemon Chamaepeuce* (L.) Less. var. *camptolepis* (Boiss.) Greuter).
= *Lamyra* Cass. (vide cit. sub *P.* subg. *Lamyra*).
= *Platyraphium* Cass. (vide cit. sub *P.* sect. *Cassiniä*).
– *Carduus* vel *Cnicus* auct. partim (non L. s.str.).
– *Cirsium* auct. partim (non Miller s.str.).
– *Pteronia* vel *Serratula* vel *Staelina* auct. partim, quoad sp. e sect. *Ptilostemone* (non L. s.str.).

Plantae annuae vel biennes vel perennes monocarpicae vel polycarpicae interdum frutescentes, radice primariâ validâ subverticali munitae (raro eae carentes), rite spinosae (rarius inermes). *Folia* lanceolata vel linearia, pinnatilobata vel sinuata vel integerrima, rite eximie discoloria, supra cito glabrescentia (raro tomento tenui araneoso persistenti induta vel setuloso-scabra), subtus tomento candido laevi compacto oblecta (raro laxe canescentia vel fere glabrescentia). *Caules* capituligeri (post maturitatem fructuum deperientes) axem unicum vel surculos anni praeteriti terminantes, erecti, costati, medullâ repleti, rite exalati (raro alati). *Synflorescentia* corymbosa vel turriiformis vel paniculiformis vel spiciformis; pedunculi recti (raro apice recurvi et capitula nutantia). *Phylla* involucri e parte basali appressâ et ex appendice acerosâ (raro omnino vel fere reductâ) constituta: appendix rite subuliformis integerrima quam basis ex ortu angustior, ad ortum plus minusve extus flexa ibique intus parce vel conspicue spongioso-tumida interdum plane gibbosa (rarius ad ortum quam basis non constricta aequilata, non extus flexa, non distincte tumida, margine tunc saepe spinulosa); phylla margine interdum araneosa, infra plerumque papillis flavescentibus claviformibus obsita, apicem versus interdum antrorse ciliolato-scabrida; dorso glabra vel infra vel omnino vel praecipue marginem versus vel in subulâ tantum pilis crispulis tomentosa vel floccosa vel farinosa vel subaraneosa, saepe cito glabrata; intus glabra (raro in appendice crispule floccosa). *Setae* receptaculi crebrae laeves taeniiformes, omnes subaequilongae, (6-)8-12(-16) mm longae, hygroskopicae nam in sicco tortae. *Flosculi* marginales rite non fructiferi functione tantum masculâ (rarius fructiferi), pappo leviter vel conspicue reducto nam setis minus numerosis interdum non plumosis, corollis rite obringentibus; flosculi centrales semper hermaphroditici. *Pappi* normalis setae a dorso compressae, 2-4-fariae, extimis saepe reductis exceptis subaequales vel exteriores paulo tenuiores et breviores (raro conspicue inaequales), praeter apicem eleganter bifariam plumosae, apice vario modo confectae sed saepius subteretes crassiusculae circumcirca barbellatae vel scabridae, basi annulo sclerenchymatico pericarpiali plano coalitae et unâ cum eo a fructu secedentes. *Corollae* tubus praeter basin infundibuliformi-expansam anguste cylindricus; limbus a tubo rite bene distinctus (raro subindistinctus), tubum rite subaequans (raro manifeste superans), basi plus minusve ampliatus, inde cylindricus vel parum ventricosus, per tertiam partem vel ad medium (raro ultra) in lacinias 5 lineares fissus, fissuris rite inaequalibus exterioribus 2 quam caeteris distincte profundioribus (raro omnibus subaequalibus), laciniiis linearibus valvatis erectis (raro patentibus) apice acutis concoloribus (rarius apiculo obtusiusculo luteo e cellulis magnis hyalinis constituto coronatis). *Staminum* filamenta ad basin limbi corollae orientia, infra glabra, inde dorso et marginibus densius laxiusve, rarius etiam intus parce pilosa pilis sursum decrescentibus, apice (jam sub articulatione) denuo glabra; antherae in tubum rectum vel incurvum coalitae, basi caudato-sagittatae caudis eleganter fimbriato-laciniatis, inter thecas secus nervum medianum ut videtur nectariferae, in appendicem gladiatam acutam vel apiculatam, totam per longitudinem vel saltem apicem versus ducto resinifero et simul ut videtur nectarifero vittatam desinentes (raro vitta omnino abest). *Grana pollinis* tricolporata, post acetolysin prolata (axi quam diametro 1.35-1.6-plo longiore), tuberculis rite acute conicis (rarius obtusiusculis parum prominentibus) prope aequatorem quam ad polos saepe productionibus obsita, transectu aequatoriali a formâ orbiculari ad triangularem vergente aperturis in mediis lateribus sitis, colpibus brevibus anguste linearibus interdum fere clausis, poris secus planum aequatoriale elongatis transectum lenticulae aemulantibus (aper-

tura ideo quadriradiata conspicitur), nexine in sectione meridianâ ad oras pori evidenter incrassatâ. *Stylus* basi in centro disci nectariferi parum prominenti insertus, supra articulationem conico- vel bulbiformi-incrassatus induratus nitidus longitudinaliter minute striatus, inde usque sub apicem exacte cylindricus; apex styli brevis (ad 3.6 mm longus), undique minutissime antrorse papillosus, papillis basin versus valde elongatis anulum distinctum horizontalem vel parum obliquum formantibus (raro vix elongatis, annulo basali indistincto), apice breviter bilobus lobis a dorso applanatis linearibus vel lineari-spatulatis rotundatis (raro acutis) intus stigmatiferis, lateraliter untrinque saepe plus minusve (raro usque ad anulum papillarum) decurrentibus. *Fructus* induratus laevis undique rotundatus, costis et sulcis omnino destitutus, oblique obovoideus vel pyriformis (nam extus magis quam intus convexus), a latere parum vel distincte compressus, areolâ abscissionis basali late ellipticâ vel rotundatâ, disco apicali orbiculari fere exacte plano nullo modo mammillato, margine minimo ad summum 0.3 mm alto sed saepius omnino obsoleto cincto. Numerus somaticus *chromosomatum* 32 vel 24.

I. *Ptilostemon* subg. *Ptilostemon*

Plantae biennes vel perennes. *Folia* supra laevia, margine aut inermia integerima aut spinis nervos conspicuos prominentes terminantibus armata. *Flosculi* exteriores, marginales saltem, corollis obringentibus (nam tubus sigmoideus apice extus curvatus) et tubo antherarum incurvo. Limbus *corollae* a tubo bene distinctus, basi plus minusve ampliatus. *Staminum* filamenta in parte mediâ pilis rite medio-cribus vel longis, quam crassitie filamenti ipsius valde longioribus obsita; appendices antherarum apice vel totam per longitudinem vittatae. Apex *styli* mediocris (1.2-3.6 mm longus), basi annulo papillarum elongatarum horizontali vel obliquo cinctus. *Fructus* a latere vix vel paulo tantum compressus; diameter disci apicalis dimidium c. diametri majoris fructûs aequans. Numerus somaticus *chromosomatum* 32.

A. *Ptilostemon* sect. *Pterocaulos* Greuter, sect. nova. Holotypus: *Ptilostemon strictus* (Ten.) Greuter

— *Lamyra* vel *Chamaepeuce* sect. *Lamyra* vel *Cirsium* sect. *Lamyra* auct. partim (non *Cirsium* subg. *Lamyra* Cass.).

Planta perennis hemicryptophytica rhizomatosa, radice primariâ ut videtur carens. *Surculi* ineunte hieme e rhizomate lignoso subterraneo ramoso orientes, abbreviati, fasciculato-foliosi foliis cito evanidis, aestate insequenti caules capituligeros terminales edentes, folia basalia ideo florendi tempore nulla. *Folia* elevatim reticulato-nervosa, spinoso-lobata, subtus laxe araneoso-cana vel subglabra viridia, basi manifeste decurrentia, caules ideo interrupte vel continue spinoso-alati; nervatio lorum subirregularis: nervus princeps furcatus, ramo proximali (primo) semper indiviso in spinam excurrente, distali (secundo) rite in spinam excurrente

saepe iterum bi- trifurcato, nervum spiniferum distalem (tertium) tantum, vel distalem et proximalem (quartum) edente; nervi illi haud raro iterum ramos spinuliferos edentes, sed regula certa dispositionis et sequentiae abest, nam rami praesertim distales (jam tertii ordinis) cum nervis aliis connectuntur, cursum angulosum nec rectum sequuntur, et non nervo primario principi tantum tributarii sunt. *Synflorescentia* spicata vel paniculiformis. *Phylla* involucri margine praeter papillas saepe parce araneosa, dorso glabra rarius crispule floccosa, appendice intus laxe floccoso-puberulâ sed rite cito glabrâtâ, ad ortum valde gibbosâ. *Flosculi* marginales haud fructiferi, pappo plumoso parum reducto ei flosculorum centralium sub-simili. *Pappi* setae in parte apicali circumcirca barbellatae vel scabrae, validiores interdum summo apice nudae laeves aciculares. Limbus *corollae* tubo manifeste (saepe duplo) longior. Appendices *antherarum* per totam longitudinem aequaliter vittatae, vittâ autem parum prominenti, cute validâ tectâ, nectar haud secer-nente.

1. ***Ptilostemon strictus*** (Ten.) Greuter in Boissiera 13: 147. 1967 $\equiv$ *Cnicus stric-tus* Ten., Fl. Nap. 1: xlviii. 1811 $\equiv$ *Carduus strictus* (Ten.) Steudel, Nomencl. Bot. 1: 154. 1821 $\equiv$ *Cirsium strictum* (Ten.) Link, Enum. Hort. Berol. Alt. 2: 299. 1822 $\equiv$ *Chamaepeuce stricta* (Ten.) DC., Prodr. 6: 659. 1838 $\equiv$ *Lamyra stricta* (Ten.) Soják in Novit. Bot. Delect. Seminum Horti Bot. Univ. Carol. Prag. 1962: 46. 1962. **Typus:** non indicatur ["Habitat in saepibus montuosis Vesevi, Montis Virginis etc." sec. Ten., Cat. Pl. Horti Neap. App. 1: 69. 1815]. **Lectotypus:** "Cnicus strictus Nob. [manu Ten.] Ms. Tenore 1814" (G-DC; inter specimina Tenoreana infra citata unicum cum nostro schedâ et habitû omnino congruens isotypicum putandum: LE).
- = *Cirsium rheginum* Sprengel, Pl. Min. Cogn. Pug. 2: 77. 1815 $\equiv$ *Carduus rheginus* (Sprengel) Steudel, Nomencl. Bot. 1: 153. 1821. **Typus:** "in agro rhe-gino Calabriae". **Holotypus:** "Cnicus syriacus L., Reggio" [s. coll., schedâ certe falsâ], herb. Schultz Bip. (P).
- = *Lamyra alata* Cass. in Dict. Sci. Nat. 25: 222. 1822 $\equiv$ *Cnicus rectus* Ten. ex Desf., Cat. Pl. Hort. Paris.: 152. 1829, nom. illeg. **Typus:** "Un individu vivant, cultivé au Jardin du Roi, où il est étiqueté Cnicus rectus, Ténore, et où on le dit bisannuel et originaire de Calabre". Specimen non conservatum, vel cum herbario Cassinii amissum (fide cl. Heine in litteris). **Neotypus** (vel isotypus?): "Cnicus rectus. Tenore, Lamyra alata. Cass. Dict., h[ortus] p[arisiensis] juill., Italie", herb. Poiret (P [excl. folio basali ad Cirsii sp. pertinente]; alia specimina Cnici recti e horto parisiensi in G-DC, LE).
- = *Lamyra glabella* Cass. in Dict. Sci. Nat. 25: 223. 1822. **Typus:** "un échantillon sec, innommé, recueilli près Salerne, dans les bois des environs de la Cava, et donné à M. de Jussieu par M. Passy, en 1811". **Holotypus:** "Cirsium, Bois des environs de Lacava, près Salerne", a. 1811, Passy in herb. de Jussieu n. 8146 (P-JU).
- = *Chamaepeuce stricta* var. *graeca* Boiss. & Heldr. in Boiss., Diagn. Pl. Or. Nov. ser. 2, 3: 47. 1856 $\equiv$ *Cirsium strictum* f. *graecum* (Boiss. & Heldr.) Hayek in Repert. Spec. Nov. Regni Veg. Beih. 30/2: 726. 1931. **Typus:** "In umbrosis subhumidis regionis sylvaticae montis Olympi Thessali prope coenobium Hagio Dionysi (Heldr.)". **Lectotypus:** "Chamaepeuce atropurpurea B. & H. n. sp.!

In umbrosis subhumidis reg. sylvaticae m. Olympi Thessaliae pr. coenob. Hagii Dionysii", 27.7.1851, *Heldreich* 2480 (G-Boiss; isotypi: Ath, FI, G-Boiss, G-Bu, GE, K, LE, NAP, W).

- = *Chamaepeuce atropurpurea* Boiss. ex Pančić, Fl. Princ. Serb.: 432. 1874. **Typus:** "u Nerezini izmedju Pricela i Korenataca u Knjaževačkoj". **Lectotypus:** "Chamaepeuce atropurpurea, In dumetis Neresina Serb. austr.", 8.1872, *Pančić* (LAU; isotypus: Gr).
- = *Cirsium strictum* f. *paniculatum* Fiori in Fiori & Paol., Fl. Anal. Ital. 3: 363. 1904. **Typus:** non indicatur. **Lectotypus:** "Chamaepeuce stricta [Cirsium strictum DC. b. paniculatum Nob., Adr. Fiori], Sanseverino in luogo montagnoso", *Narducci* (FI).
- = *Cirsium strictum* f. *dentatum* Fiori in Fiori & Paol., Fl. Anal. Ital. 3: 363. 1904. **Typus:** "nel Laz. a M. Cavi (Gennari in hb. flor.!)". **Holotypus:** "Cirsium strictum Spr., M^e Cavi nel Lazio", 25.8.1849, *Gennari* (FI; isotypus: TO).

Fig. 3b, p. 20 (structura schematica plantae); fig. 6, p. 27 (lobi foliorum); fig. 9a, p. 33 (phyllum involucri); fig. 13e, p. 39 (flos longitudinaliter sectus); fig. 14a, p. 43 (apices setarum pappi); fig. 20b, p. 52 (appendices et caudae antherarum); fig. 21a-b, p. 56 (apices stylorum); tab. II c (granum pollinis).

Folia basalia hiemalia tenera, ambitu spatulato-lanceolata, leviter lobata lobis angulatis vel fere rotundatis subcontiguus, spinis spinulisque gracilibus in quoque lobo 3-8, basi longe angustata petioliformia; supra laxe araneosa subtus densiuscule albescenti-tomentosa [descriptio ad specimina mense Decembri a Schouw in m. Vesuvio (C) et a Gavioli pr. Potenza (GB) lecta]. *Caules* aestate evoluti, 25-100 cm alti, initio laxe densiusve araneosi serius saepissime glabrati, remotiuscule foliati, propter foliorum bases decurrentes interrupte vel continue, angustissime vel latiuscule, plane vel crispule, integre vel sinuatim spinoso- vel spinuloso-alati; folia caulina inferiora et media 10-20(-30) cm longa et 2-5(-6) cm lata, superiora sensim decrescentia caeterum similia, omnia summopere variabilia, tenera vel coriacea, ambitu late vel anguste lanceolata vel ovato-lanceolata, margine plana vel crispa, subintegra vel sinuata vel ad vel ultra mediam latitudinem lobata lobis rotundatis vel angulatis vel palmatim in lacinias triangulares fissis, spinis spinulisque flavescentibus in quoque lobo 2-4(-8); apice rite triangularia in spinam excurrentia, basi parum angustata in caulem decurrentia; supra glabra vel praecipue ad nervos araneosa glabrescentia, viridia vel propter nervos albo-marmorata, subtus aut densiuscule cano-tomentosa aut laxe griseo-araneosa aut viridia cito glabrescentia; nervi laterales crebri, supra parum subtus valde prominentes. *Synflorescentia* aut depauperata (interdum ad capitulum terminale reducta), racemosa capitulis praeter terminale subsessilibus vel breviter vel praecipue mediis longiuscule pedunculatis, aut paniculiformis ramis nonnullis elongatis suâ vice racemose capituligeris, tunc dives capitulis usque ad 20 vel interdum 30. *Involucrum* e basi rotundatâ vel truncatâ campanulatum, 18-24 mm longum, saepe parce araneosum. *Phyllorum* exteriorum et mediorum pars basalis anguste lanceolata 1-2 mm lata, infra pallescens supra virens, medio in dorso sub flexurâ saepe aurantiaco-notata (an glandulosa?); appendix virens subuliformis gracilis sed vulnerans, apice tri- infra tetraquetra, in phyllis mediis longissima (6-)8-14(-20) mm longa erecto-patens vel patula; phylla interiora recta anguste linearia, longe spinuloso-acuminata, e basi pallidâ purpurascentia, praeter papillas marginales glabra vel apice parce floccosa. *Setae* receptaculi strami-

neae, 8-11 mm longae. *Flosculi* atropurpurei. *Pappus* (13-)14-18 mm longus, setis 2-3-fariis mediocriter (ad c. 2 mm) plumosis (in flosculis marginalibus 1-2-fariis brevius plumosis). *Corolla* (15-)16-20 mm longa; tubus 5-8 mm longus; limbus 10-13 mm longus, basi vix vel paulo, supra basin gradatim leviter ampliatus, per tertiam partem vel paulo ultra inaequaliter 5-fidus (differentiâ fissurarum 0.4-0.9 mm), laciniis basi 0.6-1 mm latis. *Staminum* filamenta post anthesin 6-9 mm longa, a medio vel parum infra laxae vel densiuscule breviter pilosa; tubus antherarum per 1-4 mm e corollâ exsertus, 8.5-11 mm longus, 0.9-1.1 mm crassus, caudis 2-3 mm longis, appendicibus 2.2-2.8 mm longis distincte apiculatis. Apex *styli* 2-2.8 mm longus; lobi stigmatiferi lineari-spatulati apice rotundati, per 0.3-0.5 mm liberi vix hiantes, lateraliter saepe usque ad medium apicem, rarius usque ad annulum papillarum decurrentes. *Fructus* oblique obovoideus vel subpyriformis vel fere globosus, 3.5-4.8 mm longus, 2.8-3.5 mm crassus, brunneus vel griseolus vel atropurpurascens-brunneus, saepe stramineo-lineolatus; discus apicalis diametro 1.2-1.6 mm, margine minutissimo vel indistincto.

Habitat in rariis et in subumbrosis silvarum et caeduarum caducifoliarum praecipue *Quercus* et *Castaneae* nec non in pteridetis et in herbis lapidosae regionis silvaticae, solo vario (calcareo, siliceo, vulcanico, arenoso, schistoso...), a 100 ad 1600 m (plerumque inter 300 et 1200 m) supra maris aequor. Floret a Julio ad Septembrem vel etiam Octobrem mensem.

Area

In peninsulâ italicâ (Marche mer., Umbria mer.-or., Lazio mer.-or., Abruzzi, Campania, ad oras Apuliae bor.-occ., Basilicata, Calabria bor.) et balcanicâ (Dalmatia austr., Hercegovina, Crna Gora, Kosovo-Metohija, Serbia austro-or., Macedonia sept. et austro-occ., Albania, Epirus, Thessalia, Phthiotis, Eurytania, Aetolo-acarnania) territorium fere rectangulare inter 38°30' et 44° latitudinis bor. et inter 12°30' et 23° longitudinis ad or. observatorii Greenwich amplectens. In regionibus montosis tantum, ubi interdum haud procul a mari reperitur. Vide fig. 24 et 25.

Specimina visa

Cultus (saepe sub nominibus *Cnici recti* vel *Cnici picti* hort.) in hortis botanicis nonnullis, saeculo XIX: Genavae, Hauniae, Londini (h. Chelsea), Lutetiae, Petropoli et certe alibi.

Italia: 8.1934, *Bauer* (Z); "Pizzali", a. 1830, *Cecchetti* (RO); "Napoli, Principati, Abruzzi", *Gussone* (G-DC); "Regnum neapolitanum", *Tenore* (G, G-DC, L, LE, M, MPU, NAP, TO).

Calabria: *Schouw* (G-DC, LE); Sersale, 8.9.1883, *Fiori* (FI, RO); Tiriolo, *Zwierlein* (E, FI, G, GB, LD, LE, M, MPU, TO, WU), et inde vs. Rogliano, 3.7.1884, *Zwierlein* (FI); supra San Donato di Ninea, 5.10.1970, *Greuter* 8958 in Exs. Genav. n. 80 (AAU, AD, BM, BR, BRNU, BSD, C, CL, CANB, DUKE, FI, G, GB, Gr, GZU, H, KRA, LD, LE, LISE, LJU, M, MW, NO, NSC, NSW, OKL, OSC, OULU, PAL, QFA, RSA, SOM, SPN, TUR, UBC, UC, US, W, WTU); pr. Morano, 10.7.1877, *Huter & al.* 444 (G, G-Bu, LAU, M, MANCH, MPU, TO, W, WU), et 24.6.1898,

Rigo 477 (B, BAS, G, G-Bu, LD, LE, MPU, NAP, P, PR, W, W-Hal, WU); in mont. Pollino, ad occ. jugi Colle del Dragone ad viam vs. Rotonda, 12.8.1965, *Merxmüller & Grau* (M); in valle fl. Lao, 16.8.1892, *Longo* (RO); ad rad. m. Gada pr. Laino Borgo, 10.10.1900, s. coll. (RO).

Basilicata (= Lucania): s. coll. (PAL); pr. Lauria, 6.8.1918, *Guadagno 2373* (PI); pr. Latronico, 9.1907, *Cavara* (GB); pr. Abriola, in silvâ "Buffata", 1.8.1933, *Gavioli* (BM, FI, PR); in m. Arioso, 22.8.1880, *Giordano* (MS, RO); pr. Pignola, in m. "Petrucchio", 2.7.1922, *Gavioli* (FI); ibid., in silvâ "Acquafredda", 10.10.1923, *Gavioli* (PR), et 12.8.1926, *Gavioli* (MA); in silvâ Gallipoli-Cognato in lat. dextro fl. Basento, 7.1918, *Fiori* (FI); pr. Vaglio, loco "Costa del Monte", 8.1923, *Gavioli* (TO); pr. Potenza, in m. "Ciceniello", 7.7.1921, *Gavioli* (FI, TO), 11.12.1924 et 9.7.1925, *Gavioli* (GB), 10.7.1925, *Gavioli* in Petrak, Cirsioth. Univ. n. 192 (BM, C, E, FI, G, Gr, K, LAU, LD, PR, W, Z), et 12.7.1929, *Gavioli* (FI); ibid., loco "Mezzina della Signora", 10.1923, *Gavioli* (TO); ibid., in silvâ "Pallareta", 11.8.1928, *Gavioli* (FI); ibid., in silvâ "Mamma Rosa", 24.6.1939, *Gavioli* (RO); in m. Foi, 7.1923, *Gavioli* (PR); pr. Balvano, 21.10.1935, *Lusina* (RO); pr. Avigliano, in m. Caruso, 13.6.1932, *Gavioli* (FI), et 7.1942, *Gavioli* (W); in m. Vulture, 6.1860, *Terracciano* (FI); ibid., in silvis pr. Monticchio, 7.1880, *Biondi* (FI); ibid., pr. San Michele, loco "Pizzuto", 14.7.1880, *Biondi* (FI).

Campania: "Curano", *Paolillo* (NAP); "San Nicola, m. Tipata", 10.1920, *Guadagno* (PI); "Pietralta", *Tenore* (NAP); "Vallata di Santo Spirito" [an Spirito Santo ad m. Vesuvio?], *Tenore* (NAP); pr. Sala Consilina, *Schouw* (C); in mont. Alburno, pr. Corleto Monforte vs. "C. Sierro", 12.8.1939, *DePhilippis* (FI); ibid., supra Petina vs. m. Figliolo, 13.8.1941, *DePhilippis* (FI); ibid., supra Controne, 28.9.1941, *DePhilippis* (FI); pr. Salerno, 22.7.1845, s. coll. (K); in m. Croce pr. Salerno, 18.7.1882, s. coll. (TO); pr. Cava de' Tirreni, s. coll. (RO), a. 1811, *Passy* (P-JU), 8.1871, *Cesati* (RO), et 14.8.1872, *Levier* (FI); ibid., loco Vallone di Contrappone, 17.10.1909, *Guadagno* (PI); ibid., vs. sanctuarium Trinità supra Corpo di Cava, 17.5.1871, *Cesati* (RO), et a. 1879, *Cesati* (RO); inter Scala et Minori, 8.1920, *Palma* (PR); pr. Ravello, 6.1920, *Palma* (MA), 7.1920, *Palma* (FI), et 8.1920, *Palma* (PR); ibid., loco "San Cesario", 10.6 et 13.8.1920, *Palma* in Petrak, Cirsioth. Univ. n. 169 (BM, E, G, Gr, K, LAU, LD, PR, W, Z); inter Ravello et Amalfi in silvâ "Santa Chiara", 29.7.1921, *Guadagno* (PI); in mont. supra Castellammare di Stabia (= Stabiae), *Pedicino* (FI, LAU, PAL, RO), et 7.1878, *Comes* (FI); ibid., in m. Sant'Angelo, 31.10.1814, *Schouw* (C), 7.1844, *Leresche* (G, G-Bu, LAU), 12.7.1846, *Cosson* (G, MPU), 29.7.1881, *Pasquale* (NAP), 22.8.1891, *Caruel* (FI) et *Martelli* (M), et 20.8.1910, *Pellanda* (FI, GB); pr. Castellammare di Stabia, s. coll. (RO), *Citarda* (PAL), *Gussone* (G, NAP, W), *Moricand* (G), 8.1832, *Splitgerber* (G-DC, L), 8.8.1839, *Gussone* (NAP), et 7.1883, *Lojacono 686* (BM, G, G-Bu, LD, MANCH, W-Hal); ibid., pr. "Chiusano", *Gussone* (NAP); ibid., pr. "Mosano", 22.8.1891, *Martelli* (FI); pr. Quisisana, s. coll. (PAL), et 8.1883, *Comes* (FI); inter Quisisana et Pimonte, 8.9.1909, *Guadagno* (PI); pr. Pimonte, 10.1909, *Guadagno* (PI); pr. Gragnano, loco "Valle dei Molini", 9.1910, *Guadagno* (PI); pr. Vico Equense, 24.8.1891, *Biondi* (FI); ibid., inter "Moggiona" [an Moiano?] et casam Giusso, 22.8.1891, *Sommier* (FI); ad viam inter Napoli et Castellammare di Stabia, a. 1884, s. coll. (TO); in m. Vesuvio, *Tenore* (FI-Webb, LE, MPU, TO, W), et 31.12.1829, *Schouw* (C); ibid., in m. Somma, *Reynier* (MPU), ad rad. m. Vesuvio, *Thomas* (G-DC, P); pr. Somma, 14.10.1868, *Pasquale* (NAP); "Napoli", a. 1840, s. coll. (M), et a. 1911, *Pellanda* (GB, PR); vs. sanctuarium Monte



Fig. 24. — Distributio geographica *P. stricti* in peninsulâ italicâ, secundum specimina herbaria visa (orbiculi nigri) et indicia literaturae floristicae (circuli).

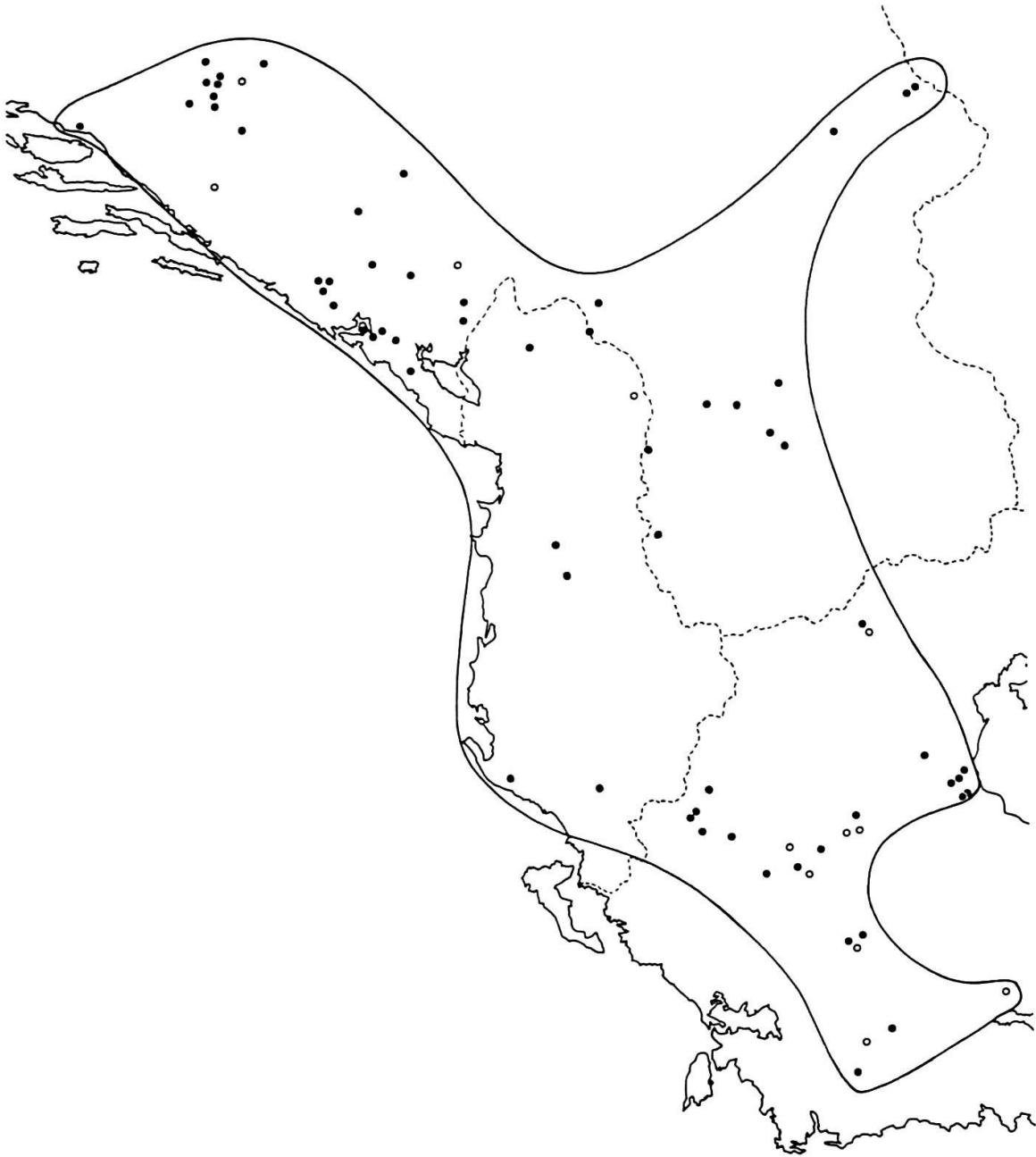


Fig. 25. — Distributio geographica *P. stricti* in peninsulâ balcanicâ, secundum specimina herbaria visa (orbiculi nigri) et indicia literaturae floristicae (circuli).

Vergine pr. Avellino, *Gussone* (L), 6.8.1855, *Huet du Pavillon* (COI, G, K, TO), 7.1875, *Pedicino & Valiante* (RO), 29.6.1897, *Guadagno* (PI), 7.1907, *Guadagno* (PI), 8.1907, *Guadagno* (G-Bu, MA, PR, W), 25.8.1911, *Pellanda* in Fl. Ital. Exs. n. 1988 (FI, G-Bu, GE, K, LAU, LE, PI, RO, TO, WU, Z, ZT), et 3.9.1911, *Pellanda* (JE); pr. Picinisco ad rad. m. Meta, 8.1872, *Terracciano* (FI), et 6.8.1872, *Levier* (FI, G, G-Bu, WU).

Abruzzi: *Gasparrini* (PAL), *Porta* (G), et a. 1819, *Mauri* (RO); pr. Castellone al Volturno (= Castel San Vincenzo), 8.1906, *Fiori* (FI); Villa Vallelonga, a. 1924, *Grande* (RO); pr. Pettorano, loco "Vellavozz", 3.8.1873, *Levier* (COI, FI, JE, MA, WU, Z), et 8.1873, *Groves* (FI, K, MPU, W, WU); inter Altino et Casoli, *Tenore* (RO); in mont. Maiella, 9.1826, *Gussone* (NAP), 15.8.1899, *Rigo* 69 (PRC, W), et a. 1923, *Martelli* (FI); in m. Morrone, 8.1900, *Rigo* (FI), et 8.1906, *Rigo* (GB, Rech, W); ibid., in lat. mer., loco "Guado di San Leonardo", 4.8.1873, *Levier* (FI); ibid., "Caramanico, Campo di Giove, etc.", a. 1905, *Rigo* (G); pr. Caramanico, 29.7.1874, *Porta & Rigo* (FI, G, G-Bu, GB, JE, K, M, MPU, P, PR, PRC, W, WU, Z), 2.8.1874, *Levier* (B, E, FI, G, G-Bu, K, L, PAL, PI, RO, TO, W, W-Hal, WU), a. 1874, *Groves* (E, FI, LAU, MANCH, W), a. 1875, *Groves* (G, K, PI, ZT), a. 1876, *Groves* (FI), a. 1877, *Groves* (E, LAU), a. 1881, *Groves* (G), a. 1905, *Rigo* (G-Bu), et 8.1906, *Rigo* (LD); pr. Salle, 8.1884, *Groves* (G); c. Roccamorice, 10.8.1873, *Levier* (FI); in m. Sirente, pr. Gagliano, 7.1876, *Groves* (FI); inter Cappadocia et Capistrello, 30.10.1900, *Pappi* (RO); pr. Oricola, 8.8.1901, *Pirotta* (RO); in m. Velino, 8.1903, *Martelli* (TL); ibid., pr. Rosciolo, 1.8.1903, *Martelli* 115 (FI, GE); ad sept. m. Velino, ad rad. mer.-occ. mont. della Duchessa, 31.7.1882, *Levier* (FI); pr. Assergi, loco "Macchia Grande", 8.1897, *Cortesi* (RO); pr. Crognaleto, loco "Paladini", 7.1963, *Zodda* (MS); in m. dei Fiori, *Tenore* (NAP).

Lazio: "Roma", *Diamanti* (FI) et *Sebastiani* (RO); in mont. Lepini, pr. Carpineto, *Lusina* (RO), et 6.1854, *Rolli* (FI); in mont. Albani, s. coll. (C); in m. Cavo, 25.8.1849, *Gennari* (FI, TO), et 3.8.1896, *Cortesi* (RO); ibid., loco "Rocca-rara", 29.9.1889, *Chiovenda* (RO); ibid., loco "Potano", 9.1894, *Baldini* (RO); pr. Rocca di Papa, 8.7.1857, *Rolli* (RO); et 9.1889, *Martelli* (FI); pr. Monte Porzio, *Fiorini-Mazzanti* (RO); in mont. Simbruini pr. Filettino, 11.8.1897, *Pappi* 236 (RO); ibid., loco "Fiumata", 11.9.1886, *Baldini* (RO); inter Guarcino et Arcinazzo, 12.7.1891, *Terracciano* (RO); pr. Subiaco, 9.8.1897, *Chiovenda & Pappi* (RO); inter Poli et Guadagnolo, 29.9.1894, *Baldini* (RO); in mont. Sabini, *Sebastiani* (RO); pr. Tivoli, *Sanguinetti* (RO); in m. Gennaro, 24.5.1951, *Cacciato* (RO); ibid., loco "Fontanone", 21.9.1895, *Chiovenda & Pappi* (RO); ibid., loco Pratone, 29.6.1929, *Lusina* (RO); ibid., in lat. occ., 12.9.1948, *Montelucci* (FI); ibid., supra Palombara, 15.7.1906, *Vaccari* (FI); in m. Folletoso (= Fogliettoso), 27.7.1890, *Terracciano* (RO); pr. Riofreddo, 2.8.1896, *Pirotta* (RO); pr. Poggio Mirteto, 17.8.1900, *Pappi* (RO); ad fl. Turano in planitie pr. Rieti, 23.8.1900, *Pappi* (RO).

Umbria: pr. Finocchietto ad mer. pagi Stronccone, 18.8.1893, *Mari* (FI); pr. Spoleto, 9.1845, *Ball* (E), 9.1889, *Corozza* (RO), et 8.9.1893, *Grampini* (RO); in m. Subasio, 8.1898, *Bellini* (RO); in m. Pennino supra Colle Croce, 16.8.1883, *Tanfani* (FI); pr. Colfiorito, *Moretti* (W).

Marche: inter Acquasanta et "Umito", 16.7.1877, *Gemmi* (FI, PI); in m. Pizzo di Sevo, supra "Umito", 11.7.1856, *Caruel* (PI); ibid., et pr. Trisungo, 6.7.1856, *Parlatore* (FI); inter Acquasanta et Trisungo, 6.7.1856, *Caruel* (PI); pr. Montefortino, 7.1839, *Marzialetti* (FI); pr. Visso, 7.1877, *Ricci* 39 (FI); pr. Pioraco, 8.1954, s. coll. (RO); ad Serrapetrona pr. Tolentino, 7.1877, *Ricci* (FI); pr. Sanseverino,

Narducci (FI); pr. Macerata, in silvâ "Bandini", *Narducci* (E, FI); in m. San Vicino, s. coll. (E), et 4.7.1867, *Bucci* (FI); pr. Serra San Quirico, in m. "la Rossa", *Piccinini* (FI).

Jugoslavia. Dalmatia: pr. Kučice inter Omiš et Zadvarje, 3.8.1913, *Čelakovsky* (PRC).

Hercegovina: in valle fl. "Idbar", 8.1902, *Schiller & Stark* (WU); pr. "Ivanjica", 7.1907, *Adamović* 19 (W); in valle fl. Rama inter Prozor et Jablanica, 22.7.1907, *Stadlmann & al.* (WU), et 17.7.1910, *Maly* (SARA); in fauc. pr. "Dragočaj" supra Brdjani, 28.8.1908, *Maly* (SARA); in fauc. fl. Neretva (= Narenta), pr. Jablanica, 7.1889, *Vandas* (PR, SARA), 9.1891, *Vandas* (W-Hal), 4.7.1897, *Saint-Lager* (G, L), 2.7.1898, *Saint-Lager* (G, PR), 22.7.1909, *Prodan* (WU), 29.6.1912, *Preissmann* (W), 14.7.1933, *Sillinger & Deyl* (PR), et 6.8.1934, *Fiedler* (Bas); ibid., pr. Donja Jablanica, 15.8.1908, *Maly* (G, K, LD, Rech, SARA, WU, ZA); ibid., pr. Grabovica, 21.8.1908, *Maly* (SARA); ibid., pr. Prenj, 16.7.1911, *Schneider* (W); ibid., inter Prenj et Drežnica, 21.7.1929, *Ronniger* (W); ibid., c. Drežnica, 8.1896, *Fiala* (PRC, SARA, W-Hal), 25.7.1898, *Saint-Lager* (C, G, LE, MA), et 4.8.1900, *Maly* (FI); pr. Striževu in valle fl. Drežanka, 8.7.1909, *Handel-Mazzetti* (WU); in mont. ad austro-occ. opp. Jablanica, m. Ploča planina, in colle "Crni vrh", 7.7.1933, *Sillinger & Deyl* (PRC); ibid., m. Glogovo planina, 24.7.1893, *Čurčić* (SARA) et *Fiala* (PRC, SARA); inter Lišani et m. Rujište dit. Mostar, 21.7.1898, *Saint-Lager* (G); ad or. opp. Trebinje, loco "Rudjin do" inter "Arslan-Agić" et Orahovac, 10.8.1886, *Vandas* (PR); ibid., c. Orahovac, 7.1891, *Vandas* (W); ibid., in colle "Petni vrh" pr. Orahovac, 9.8.1886, *Vandas* (PRC); ibid., ad "Radešić" pr. castrum Konjsko, 8.1891, *Vandas* (PR); ibid., pr. Bogojevic Selo, 14.8.1886, *Vandas* (PR).

Montenegro (= Crna Gora): ad rad. m. Jastrebica (= Orjen), 22.8.1905, *Adamović* (G, LAU); pr. Krstac, 7.1906, *Adamović* (Z), 7.1907, *Adamović* (K), et 8.1907, *Adamović* (LE); secus rivum Sušica, 7.8.1897, *Matulić* (SARA); pr. Bijele Rudine in dit. opp. Nikšić, 7.1904, *Rohlina* (PRC); pr. mon. Ostrog, 7.1871, *Pančić* (G), et 8.1899, *Horák* (PRC); supra opp. Kotor (= Cattaro), 7.1886, *Pichler* (G), 7.1899, *Sagorski* (JE), et 3.8.1927, *Černjavski* (BEO, LE); supra "Stolivo" pr. Kotor, *Pichler* in Fl. Exs. Austro-Hung. n. 2248 (B, FI, G, G-Bu, Gr, K, L, LD, LE, LJU, M, MANCH, P, PR, PRC, Rech, W, W-Hal, WU, Z, ZT), 20.6.1885, *Pichler* (LAU, Z), 7.1885, *Pichler* (Bas, Gr), et 11.7.1927, *Korb* (Gr, W); in m. Vrmac pr. Kotor, 8.1885, *Pichler* 567 (G, K, MANCH, PAL, PR, PRC), 7.1902, *Vierhapper* (WU), 25.7.1905, *Schneider* (W), et 7.1907, *Vierhapper* (W-Hal, WU); supra opp. Kotor, pr. Sveti Trojica, 8.8.1907, *Hiro* (ZA); ibid., inter Krstac et Njeguši, 8.1906, *Pejović* (PR, PRC); ibid., pr. Njeguši, 7.1870, *Pichler* (K, W-Hal), 7.1904, *Sagorski* (LD, M), et 7.1907, *Pejović* (PRC); pr. Njeguši, loco "Šanik", 7.1922, *Rohlina* (PRC); ibid., loco "Kunji do", 9.1924, *Rohlina* (K, PRC, Z); ibid., loco "Golo brdo", 7.1935, *Pejović* (LAU, PRC); pr. Cetinje, 7.1899, *Sagorski* (JE), a. 1900, *Gross* (B), a. 1901, *Gross* (B, GE, M, PR), 22.7.1905, *Schneider* (W), 30.7.1905, *coll.*? (TL), 3.6.1908, *Janchen* (WU), et inde vs. locum "Belvedere", 1.8.1906, *Petry* (GB, W); inter Virpazar et Petrovac, 11.9.1934, *Hadač* (PRC); pr. Medun, 24.7.1886, *Szyszylovicz* (W); in lat. austro-occ. m. Vjetrnik inter Titograd (= Podgorica) et Kolašin, 17.7.1916, *Janchen* (WU).

Kosovo-Metohija: supra fl. Bistrica pr. Dečani, 8.1914, *Vandas* (PR).

Serbia: c. urbem Niš, 6.1880, *Petrović* (G), 7.1883, *Petrović* in Schultz, Herb. Norm. ser. 2, n. 1594 (C, COI, G, G-Bu, Gr, JE, M, MANCH, MPU, P, PRC, TL, W, Z), et 6.1885, *Petrović* (W-Hal); pr. Kamenica distr. Knjaževac, 8.1879, *Pančić*

(G); ad or. pagi Kamenica in regione inter fl. Timok et fines Bulgariae, 7.1853, *Pančić* (W); ibid., loco "Neresina", 8.1872, *Pančić* (Gr, LAU); ibid., pr. Korenatac, 8.1870, *Pančić* (FI, G); ibid., pr. Pričel, 8.1872, *Pančić* (K, M, W-Hal); ibid., inter Pričel et "Rovenabat", 8.1872, *Pavlović* (K); ibid., in m. Ivanova Livada, *Pančić* (WU).

Macedonia sept.: inter "Poreč" ("Pusta Bresnica") et m. "Kula", 28.8.1939, *Černjavski* (BEO); in mont. Skopska Crna Gora pr. Kučevište, 17.7.1923, *Vandas* (GB); mont. Karadžica, pr. Kadina, 18.8.1940, *Grebenščikov* (BEO); inter Držilovo et fl. Suva reka, 25.8.1922, *Vandas* (PR); in dit. opp. Tetovo (= Karkandelen), ad m. Gramada, 29.7.1929, *Černjavski* (BEO, MW); ibid., pr. Selce, 16.8.1917, *Bornmüller* 1308 (B, JE); in m. Korab, 7.1908, *Dimonie* (PRC); in fauc. Crni Drim pr. Lukovo, 19.7.1939, *Černjavski* (BEO).

Albania: 10.1917, *Grande* (NAP); inter jugum Čafa Morina ad occ. opp. Djakovica et pag. Tropojë, 21.8.1918, *Jávorka* (K); inter Abata et Lekaj distr. Šala, 5.8.1916, *Dörfler* 310 (GB, LD, W, WU); pr. Tiranë, 15.7.1918, *Schneider* (G, W); ibid., in m. Dajtit, 9.8.1938, *Černjavski* (BEO) et *Hepburn* 27 (K); in jugo Krrabë inter Tiranë et Elbasan, 20.7.1938, *Lempert* 1430 (E, K, LAU, W); ad passum "H. Georgios" vs. Trbač in regione Keravnia (= Acroceraunia), 3.8.1894, *Baldacci* 263 (BM, FI, G, G-Bu, K, PR, WU); pr. "Zhej" in mont. Mal'i Lunxhëriës, 8.8.1935, *Alston & Sandwith* 2397 (BM, K).

Graecia. Epirus. Ioannina: in m. Timphi, infra pagum Vikos, 13.7.1958, *Rechinger* 21150 (W); ibid., pr. Papingo, 4.8.1931, *Guiol* (BM); pr. Koukouli in regione Zagorio, 18.7.1958, *Rechinger* 21598 (B, G, K, LD, M, W); inter Vrisochori et m. Tsouka-Arosia, 5.8.1961, Camb. Univ. Exp. n. L 290 (K); ad rad. sept. m. Smolikas pr. Bivium ad pagum Pournia ducens, 23.7.1971, *Stamatiadou* 13417 (Goul).

Macedonia austr.: inter "Kanesko" et "Denisko", 27.8.1937, *Balls & Gourlay* B 3916 (BM, E, K). **Pella:** in m. Kaimaktsalan, supra pag. "Tschechowa", a. 1932, *Rechinger* 3072 (Rech). **Pieria:** in m. Olimbos, s. coll. (RO), *Orphanides* 794 (G, G-Bu, GB, JE, LD, PRC, W, W-Hal, WU), et 29.7.1937, *Grebenščikov* (BEO, K); ibid., inter Litochoro et mon. Ajios Dionisios, 19.7.1937, *Stojanov & Jordanov* (SOM); ibid., supra Litochoro, vs. deversorium Stavros, 24.7.1971, *Greuter* 9526 (Gr, Goul); ibid., pr. mon. Ajios Dionisios, 27.7.1851, *Heldreich* 2480 (Ath, FI, G-Boiss, G-Bu, GE, K, LE, NAP, W), 30.7.1857, *Orphanides* 794 (Ath, COI, FI, G-Boiss, JE, K, LE, P, W), et 30.7.1891, *Sintenis & Bornmüller* 1315 (B, G, LD, W-Hal); ibid., pr. fontes Prionia, 8.1950, *Goulimis* (Goul, K); in mont. Pieria, in silvâ "Karajanni" supra Skotina, 8.1960, *Goulimis* (Goul). **Grevena:** in mont. Chasia pr. Paraskevi, a. 1895, *Formánek* (PR).

Thessalia. Larisa: ad rad. austro-or. m. Olimbos inter Leptokaria et Karia, 26.7.1970, *Rechinger* 38679 (W). **Trikala:** in valle sup. fl. Pinios, inter Tsoungouro et "Ouraneos chan", 17.7.1885, *Heldreich* (E); ibid., pr. "Ouraneos chan", 25.7.1896, *Sintenis* 1020 (LAU, LD); pr. Kastania, 20.7.1893, *Halácsy* (G, W, W-Hal, WU); inter "Oxia" et Chaliki, 20.7.1885, *Haussknecht* (JE). **Karditsa:** inter Karditsa et mon. Koroni, 16.10.1954, *Goulimis* (Goul); supra Bezoula pr. Philakti (= Sermeniko), 8.8.1896, *Sintenis* 1063 (B, G, JE, LD, PRC).

Graecia media (= Sterea Ellas). **Eurytania** (vel Phthiotis?): pr. "Janakinovrisi" inter Karpenisio et Makrakomi (= Varibopi), 9.8.1857, *Samaritani & Guicciardi* in Heldr., Herb. Graec. Norm. n. 712 (C, G-Boiss, L, M, P, W). **Aetoloacarnania:** pr. "Tsviliasa" in m. Panetoliko, 23.8.1928, *Renz* (BAS).

Loca excludenda

Adsunt specimina schedis falsis instructa in RO ("in Catania alla Piana", s. coll.) et P ("Reggio", s. coll., typus *Cirsii rugini*): nam species Siciliae et Calabriae ulterioris certe aliena. Specimina ex Apuliâ non vidi: indicatur pr. Orsara et olim a Tenore etiam in m. Gargano, sed indicatio altera a recentioribus non confirmata summopere dubia videtur.

B. Ptilostemon sect. Platyrhaphium Greuter, sect. nova. **Holotypus:** *Ptilostemon afer* (Jacq.) Greuter

- *Platyrhaphium* sensu Cass. in Dict. Sci. Nat. 35: 173. 1825, partim, quoad descr. et nominis rationem (non quoad typum).
- *Chamaepeuce* sect. *Platyrhaphium* auct. (non (Cass.) DC. s. str.).
- *Lamyra* vel *Cirsium* sect. *Lamyra* auct. partim (non *Cirsium* subg. *Lamyra* Cass.).

Plantae perennes vel biennes, hemicryptophyticae. *Surculi* aestate lateraliter e surculis annorum praeteritorum orientes, rite subterranei, abbreviati vel subelongati, apice saltem dense rosulati foliati foliis cito decompositis, per annos nonnullos procrecentes dein caules capituligeros edentes; vel axis unicus abbreviatus rosulati foliatus, anno altero (vel tertio quartove) caulem capituligerum edens et deperiens. *Folia* supra araneosa tomento tenui detersili vel densiusculo persistenti, spinoso-lobata, nervis praeter spinigeros omnibus vel fere obsoletis; nervatio lorum regularis, nervis omnibus si evolutis spinigeris vel spinuligeris: nervus princeps rite furcatus, ramo proximali (primo) semper indiviso, distali (secundo) saepe iterum bi- trifurcato, nervum distalem (tertium) tantum, vel distalem et proximalem (quartum) edente; haud raro et nervus tertius bi- trifurcatus invenitur, nervum quintum (distalem) vel etiam sextum (proximalem) producens, quem furcatio nervi quarti (nervum septimum distalem et octavum proximalem edentis), raro quinti, dein sexti eodem modo insequi potest. *Synflorescentia* corymbosa vel turiformis vel fere racemosa. *Phylla* involucri longe anguste triangularia, ad ortum appendicis non contracta nec repentine extus flexa, appendice a parte basali non evidenter sejunctâ, intus non conspicue spongioso-tumidâ, margine saepe spinulosâ; in faciebus laxae araneosa vel glabra, margine longe araneosa basin versus papillosa vel papillis carentia. *Flosculi* marginales capitulorum fructiferi pappo normaliter evoluto, vel non fructiferi pappo inconspicue tantum reducto semper plumoso. *Pappi* setae, validiores saltem, apice laxius densiusve circumcirca (raro subbifariam) barbellatae. *Laciniae corollae* apiculo obtusiusculo luteo e cellulis magnis hyalinis constituto coronatae. Appendices *antherarum* totam per longitudinem vittatae, vittâ sub apice latiusculâ prominulâ nectar secernente, basin versus gradatim angustatâ dein suturiformi.

2. ***Ptilostemon niveus*** (C. Presl) Greuter in Boissiera 13: 147. 1967 $\equiv$ *Cnicus niveus* C. Presl in J. & C. Presl, Del. Prag.: 108. 1822 $\equiv$ *Cirsium niveum* (C. Presl) Sprengel in L., Syst. Veg. ed. 16, 3: 373. 1826 $\equiv$ *Chamaepeuce nivea* (C. Presl)

DC., Prodr. 6: 659. 1838 $\equiv$ *Cirsium afrom* var. *niveum* (C. Presl) Fiori in Fiori & Paol., Fl. Anal. Ital. 3: 364. 1904 $\equiv$ *Lamyra nivea* (C. Presl) Soják in Novit. Bot. Delect. Seminum Horti Bot. Univ. Carol. Prag. 1962: 46. 1962. **Typus:** "in apricis montis Scalune Nebrodum in Sicilia. fl. Jul." **Holotypus:** "Cnicus niveus. Pr., In aspricis siccissimis montis Scalune Nebrodum Siciliae, jul. 1817", C. Presl (PRC).

— *Cnicus afer* auct. quoad pl. Italiae (non *Carduus afer* Jacq.).

Fig. 3a, p. 20 (structura schematica plantae); fig. 9b, p. 33, et 12b, p. 36 (phylla involucri); fig. 13c, p. 39 (flos longitudinaliter sectus); fig. 14b, p. 43 (apex setae pappi); fig. 18a et i, p. 49 (limbus corollae explanatus et apex lobi corollini); fig. 22a-b, p. 58 (fructus).

Planta perennis, caudice lignoso subterraneo crasso ramoso. *Surculi* aestate lateraliter e surculis annorum praeteritorum orientes, rite subterranei abbreviati vel subelongati, apice saltem dense rosulatum foliati foliis cito decompositis, per annos nonnullos procreantes dein caules capituligeros terminales (interdum forsitan et surculos novellos laterales) edentes. *Folia* rosularum ad 40 cm longa, ambitu anguste lanceolata, profunde (ad $\frac{3}{4}$ vel ultra) dissite pinnato-lobata, spinis spinulisque flavescentibus in quoque lobo 4-6(-8) lacinias profundas triangulares inaequales palmatim dispositas terminantibus; apice elongato-triangularia in spinam excurrentia, basi in petiolum margine remote spinosum sensim longe angustata imo vaginato-ampliata; discoloria nam subtus candida tomento valde compacto, supra griseo-araneosa indumento persistenti sed facilius amovendo; nervi spinigeri validi, praesertim subtus valde prominentes (caeteri obsoleti). *Caules* ineunte aestate evoluti, (20-)30-50(-70) cm alti, validi, tomento araneoso densiusculo candidi vel praesertim ad costas glabrescentes, sparsiuscule foliati; folia caulina basalibus subconformia sed breviora (ad 20 cm longa), rite minus profunde (ad mediam c. latitudinem) lobata, lobis tantum 2-4(-5)-spinosi; media et superiora gradatim diminuta sessilia vel basi latâ rotundatâ pectinato-spinosâ semiamplexicaulia. *Synflorescentia* densiuscule corymbosa, capitulis 2-4(-8), lateralibus mediocriter pedunculatis. *Involucrum* e basi truncatâ late campanulatum, 4-5 cm longum (ad apices phyllorum longiorum mensum), valde araneosum. *Phylla* exteriora breviter recurvata; media longissima recta (rarius subpatentia) valide spinosa, basi (4-)5-6(-8) mm lata, praeter nervum medianum validum carinae instar prominentem evenia plana, margine inermia vel ultra medium spinuloso-ciliata spinulis (semper in phyllis nonnullis cujusque capituli obviis) utrinque 0-4(-7), atroviridia saepe usque fere ad basin purpurascentia; phylla interiora quam media subbreviora, angustiora, vix costata, e basi stramineâ in apicem membranaceum vivide purpureum molliter spinulosum attenuata. *Setae* receptaculi candidae, c. 12 mm longae. *Flosculi* purpurei, marginales fructiferi pappo normaliter evoluti. *Pappus* 23-26 mm longus, setis 2-3-fariis longe (ad c. 4 mm) eleganter plumosis, apice irregulariter laxè circumcirca barbellatis vel (praecipue in debilioribus) subbifariam plumulosis. *Corolla* (28-)30-33(-36) mm longa; tubus 15-20(-21) mm longus; limbus (13-)14-15 mm longus, basi aliquanto ampliatus inde tubulosus, per $\frac{2}{5}$ vel usque ad medium inaequaliter 5-fidus (differentiâ fissurarum 1-2 mm), laciniiis basi 0.5-0.8 mm latis. *Staminum* filamenta post anthesin 7-9.5 mm longa, a medio vel parum infra laxè mediocriter pilosa; tubus antherarum per 2-3.5 mm e corollâ exsertus, 12-13.5 mm longus, 1-1.1 mm crassus, caudis 2.8-3.6 mm longis, appendicibus 3-3.6 mm longis acutis vel apiculatis. Apex *styli* 2.2-2.6 mm

longus; lobi stigmatiferi lineari-spatulati apice rotundati, per 0.6-0.8 mm liberi demum arcuato-patentes, non decurrentes. *Fructus* oblique obovoideo-pyriformis, (4.5-)5-5.5 mm longus, 2.5-3 mm crassus, aut griseo-brunnescens vittis 5 atropurpureis aut omnino atropurpurascens, praeterea irregulariter minute stramineo-maculatus; discus apicalis diametro 1.3-1.6 mm, margine minuto sed distincto colliformi 0.2-0.3 mm alto cinctus.

Habitat in clivis apricis sterilibus petrosis vel glareosis saepe mobilibus et in saxosis ad margines viarum, solo calcareo, inter 800 et 2000 m supra maris aequor. Floret a mense Junio ad Augustum.

Area

Disjunctim in montibus Madonie Siciliae et in montosis Calabriae septentrionalis et regionis finitimae Lucaniae. Vide fig. 26.

Specimina visa

Italia: s. coll. (C); "ex Aprutio", s. coll. [prob. *Tenore*] (RO); "Pollino, Abruzzo", *Tenore* (NAP).

Basilicata (= Lucania): in mont. Pollino, ad rivum Canale Duglia supra Terranova di Pollino, 4.8.1929, *Gavioli* (FI); ibid., in pascuis Piano Cardone, 4.8.1929, *Gavioli* (FI), et 21.7.1935, *Gavioli* (FI, RO); ibid., inter Piano Cardone et refugium Casina Toscano, 4.8.1929, *Gavioli* (BM, FI); ibid., in m. Serra di Crispo, 23.7.1935, *Gavioli* (FI), 2.7.1937, *Gavioli* (B), et 7.1940, *Gavioli* (W); ibid., ad "Montalato" supra Viggianello, 30.7.1901, *Longo* (RO).

Calabria: *Tenore* (FI); in mont. Pollino, 29.7.1898, *Rigo 452a* (B, BAS, G-Bu, NAP, PRC, W, WU), et 22.6.1899, *Fiori* (FI); ibid., "Mandera di Pollino", *Schouw* (C); ibid., "Bellizia", *Terracciano* (RO); ibid., "Salituri", 24.7.1917, *Guadagno* (PI), et 24.6.1918, *Guadagno* (PI); ibid., secus viam a Campotenese ad jugum Colle del Dragone ducentem, 31.5.1968, *Merxmüller & Lippert* (M), et 14.10.1970, *Greuter 8947* (G, Gr, W); Campotenese, in valle "San Martino", 4.8.1827, *Pasquale* (NAP), et 11.8.1827, *Gussone* (NAP); pr. Morano Calabro, loco "Acqua Fredda", 25.7.1902, *Longo* (RO); ibid., ad rad. mont. Pollino, 27.6.1891, *Saint-Lager* (BM, G); ibid., in m. Dirupata, a. 1877, *Huter & al. 420* (BM, C, E, FI, G, G-Bu, GB, Gr, K, LAU, M, MANCH, MPU, NAP, P, PR, PRC, TO, W, W-Hal, WU, Z), 7.1880, *Biondi* (FI), 5.7.1898, *Rigo 452* (B, G, G-Bu, MA, MANCH, MPU, NAP, W, WU) et in Dörfler, Herb. Norm. n. 4140 (B, BM, E, G, G-Bu, GB, GE, Gr, JE, LAU, LE, M, MANCH, MPU, PR, SARA, W, W-Hal, WU, Z), 21.6.1899, *Fiori* (FI), et 7.1907, *Rigo* (FI, G, Gr, JE, LE, PR, Rech, W); in mont. supra San Donato di Ninea, loco "Costa della Salvia", 23.8.1912, *Lacaita 350* (BM); ibid., loco "la Tona", 7.7.1914, *Lacaita 55* (BM); ibid., loco "Acqua di Perciacucco", 5.10.1970, *Greuter 8967* (G, Gr, LD, W).

Sicilia: *Jan* (FI, G-DC, LD, W); in mont. Nebrodes, s. coll. (W), *Gussone* (G, G-DC), *Jan* (K, TO), *Lojacono* (E, FI, G-Bu, MANCH, PR), *Todaro* (PI, W), et 7.1887, *Lojacono 180* (TO); in mont. Madonie, *Calcara* (FI), *Gussone* (G, G-DC, RO), *Lojacono* (PAL), *Todaro* (E, FI), *Todaro 1476* (COI, FI, JE, MPU, MS, PAL, PI, TO,

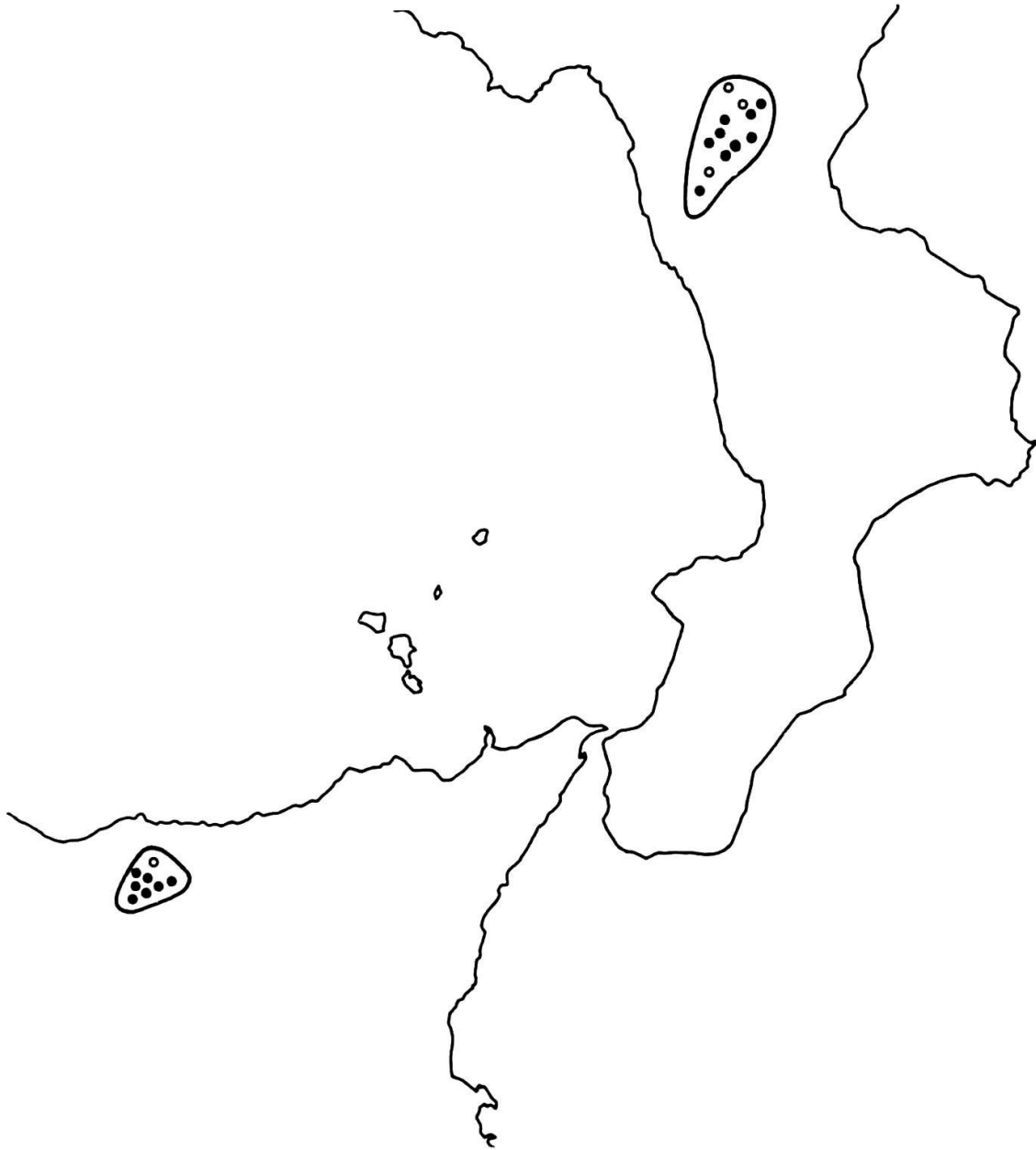


Fig. 26. – Distributio geographica *P. nivei*, secundum specimina herbaria visa (orbiculi nigri) et indicia literaturae floristicae (circuli).

W-Hal), a. 1860, *Citarda* (JE), 7.1877, *Lojacono* (WU), 7.1882, *Lojacono* (FI), et 7.1888, *Ross* (W-Hal); ibid., loco Manderini, *Minà* 209 (FI); ibid., loco Canna, *Minà* 736 (FI); ibid., loco Favare di Petralia, 7.1905, *Lojacono* (BM); ibid., in m. Serra dei Cavalli, 7.1879, *Lojacono* 659 (BM, G, G-Bu, LE, MANCH, MPU, PR, PRC, W-Hal); ibid., in jugo Passo della Botte, *Lojacono* (FI), 28.6.1881, *Lojacono* 180 (E), 7.1886, *Lojacono* (Z), et 7.1903, *Lojacono* (G-Bu); ibid., inter jugum Passo della Botte et casas pastorales "Canna", 27.10.1911, *Lacaita* 315 (BM); ibid., ad fontem Acqua dei Daini, 7.7.1881, *Lojacono* (W-Hal); ibid., inter locos Piano Zucchi et Piano Battaglia ad viam, 30.9.1970, *Greuter* 8880 (E, G, Gr, HUJ, LD, M, W); ibid., loco Quacella, *Maravigna* (RO); ibid., in lat. occ. m. Quacella secus viam a Polizzi Generosa ad Isnello ducentem, 4.8.1965, *Merxmüller & Grau* (M); ibid., in m. Scalone, 7.1817, *Presl* (PRC), a. 1827, *Gussone* (NAP), et 22.7.1874, *Strobl* (BM, FI, G, G-Bu, K, M, MANCH, PR, W, WU); pr. Polizzi Generosa, ad sanctuarium Madonna della Pietà, 12.7.1890, *Lojacono* (GE).

Loca excludenda

A Tenore olim e duobus locis Aprutii indicabatur, sed a recentioribus ibi non repertus: loca certe delenda.

3. *Ptilostemon afer* (Jacq.) Greuter in Boissiera 13: 147. 1967 $\equiv$ *Carduus afer* Jacq., Pl. Rar. Horti Schoenbrunn. 2: 10, tab. 145. 1797 $\equiv$ *Cnicus afer* (Jacq.) Willd. in L., Sp. Pl. ed. 5, 3: 1682, 1803 (excl. β) $\equiv$ *Cnicus diacantha* β *C. afer* (Jacq.) Pers., Syn. 2: 389. 1807 $\equiv$ *Carduus diacantha* var. *Carduus afer* (Jacq.) Poiret in Lam., Encycl. Méth. Bot. Suppl. 2: 199. 1811 $\equiv$ *Cirsium afrum* (Jacq.) Fischer in Cat. Jard. Gorenki 1812: 35. 1812 $\equiv$ *Platyraphium Jacquini* ["Jacquini"] Cass. in Dict. Sci. Nat. 41: 306. 1826, nom. illeg. $\equiv$ *Chamaepeuce afra* (Jacq.) DC., Prodr. 6: 659. 1838 $\equiv$ *Lamyra afra* (Jacq.) Soják in Novit. Bot. Delect. Seminum Horti Bot. Univ. Carol. Prag. 1962: 46. 1962. **Typus:** "Ex Barbaria" [in h. Schoenbrunn]. Specimen non conservatur. **Lectotypus:** tabula "Carduus afer" in Jacq., Pl. Rar. Horti Schoenbrunn. 2: tab. 145. 1797. **Specimen normale** ("standard specimen"): "Carduus afer. Hort. Bot. Vind. 1799", herb. Jacquin (W).
- = *Lamyra bulgarensis* Tamamšjan in Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR 16: 476. 1954. **Typus:** "Flora serbica: in petrosis ad Perronek, VIII 1903, Bierbach". **Holotypus:** "Chamaepeuce afra DC. Flora serbica. In petrosis ad Prvonek, VIII 03", *Bierbach* (LE).
- *Lamyra lobata* Cass. in Dict. Sci. Nat. 25: 221. 1822, nom. inval. (provis.).
- *Chamaepeuce princeps* Boiss. & Heldr. in Heldr., sched. autogr. ad pl. Taygeti a. 1844. 1845, nom. nud.
- *Carduus diacantha* vel *Cnicus diacantha* vel *Cirsium diacantha* vel *Chamaepeuce diacantha* hort. omnium (non *Carduus diacantha* Labill.).
- *Cirsium cynaroides* sensu Griseb., Spicil. Fl. Rumel. 2: 254. 1846 (non *Carduus cynaroides* Lam.).

Fig. 4, p. 25 (lobus folii); fig. 9c, p. 33 (phyllum involucri); fig. 14c, p. 43 (apices setarum pappi); fig. 20c, p. 52 (appendices et caudae antherarum); fig. 21c, p. 56 (apices stylorum).

Plantae biennes vel perennes rite monocarpicae. *Axis* unicus abbreviatus rosulatum foliatus, anno altero (vel tertio quartove) caulem capituligerum terminalem edens et deperiens (rarius plantae praesertim mutilae surculum lateralem unum alterumve proferunt et supersunt). *Folia* rosularum ad 40 cm longa, ambitu anguste lanceolata, profunde dissite pinnato-lobata, spinis spinulisque flavescentibus in quoque lobo 3-6(-12) lacinias profundas triangulares inaequales palmatis dispositas terminantibus; apice elongato-triangularia in spinam excurrentia, basi in petiolum margine remote spinosum sensim longe angustata imo vaginato-ampliata; eximie discoloria nam subtus candida tomento valde compacto, supra ad nervos eburneos araneoso-tomentosa caeterum tenuissime araneosa cito glabrescentia glaucovirentia; nervi spinigeri validi, utrinque valde prominentes (caeteri obsoleti). *Caulis* ineunte aestate evolutus, albo-araneoso-tomentosus vel praecipue ad costas glabrescens, sparsius densiusve foliatus; folia caulina basalibus subconformia sed breviora (ad 20, raro ad 30 cm longa), saepe minus profunde lobata, sessilia basi saepe rotundatâ spinoso-amplexicauli; superiora diminuta rite leviter tantum sinuato-lobata, lobis 1-2-spinosis. *Synflorescentia* racemosa vel racemoso-corymbosa vel subpaniculata saepe turiformis vel hemisphaerica, capitulis tunc numerosis (ad 20 vel ultra), vel capitula pauca (2-6) ad apicem caulis racemoso-aggregata. *Involucrum* e basi umbilicatâ vel truncatâ campanulatum, valde araneosum. *Phylla* exteriora breviter recurvata; media saepe longissima recta vel paene patentia valide spinosa, praeter nervum medianum carinae instar prominentem evenia, plana vel apicem versus plicata et intus canaliculata; phylla interiora quam media saepe breviora, semper angustiora, vix costata, apice membranacea molliter spinulosa. *Setae* receptaculi candidae, 9-12 mm longae. *Flosculi* marginales non fructiferi, pappo autem plumoso. *Pappus* (15-)16-20 (-23) mm longus, setis 2-3-fariis (in flosculis marginalibus 1-2-fariis) longiuscule (ad c. 3 mm) plumosis, debilioribus apice saepe subbifariam plumulosis, validioribus densius laxiusve circumcirca barbellatis. Limbus *corollae* 10-12 mm longus, per tertiam partem vel usque ad medium inaequaliter 5-fidus (differentiâ fissurarum 0.5-1.7 mm). Tubus *antherarum* per 1.2-4.5 mm e corollâ exsertus, 9.5-12 mm longus, 0.7-0.9 mm crassus, caudis 2.4-3.8 mm longis, appendicibus 2.2-3.6 mm longis obtusiuscule subindistincte apiculatis. Apex *styli* 1.4-2.2 mm longus; lobi stigmatiferi lineares vel lineari-spatulati apice rotundati. *Fructus* oblique obovoideus, (3.5-)3.8-4.5(-5) mm longus, (2.3-)2.5-3(-3.2) mm crassus, griseo-brunneus vel pallide brunnescens, saepissime vittis 5 atrioribus notatus, saepe flavido-marmoratus; discus apicalis diametro (1-)1.2-1.6 mm, margine humili indistincto.

3a. *Ptilostemon afer* subsp. *afer* (vide synonyma sub specie oblata).

Caulis validus 20-50(-80) cm altus, infra simplex. *Involucrum* (ad apices phyllorum longiorum mensum) 20-40(-50) mm longum. *Phylla* media basi 3-5(-6) mm lata, margine inermia vel circa medium utrinque 1-2(-4)-spinulosa, e basi pallescenti pallide virentia, in parte superiore purpureo-suffusa; interiora basi straminea apice vivide roseo-purpurea. *Flosculi* laete roseo-purpurei. *Corolla* 22-27(-30) mm longa; tubus (11-)12-16(-18) mm longus; limbus basi aliquanto ampliatus inde tubulosus,

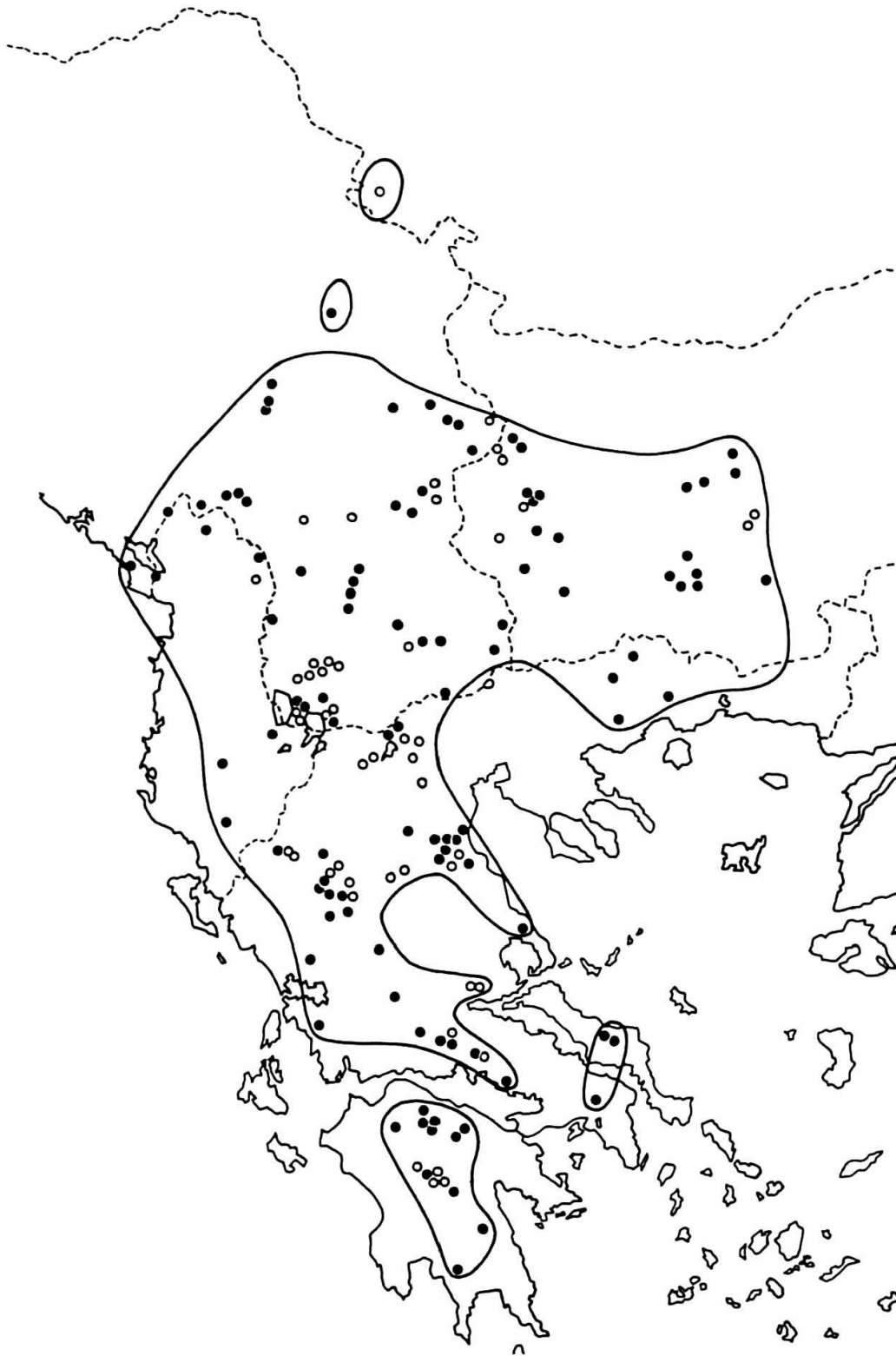


Fig. 27. — Distributio geographica *P. afri* subsp. *afri*, secundum specimina herbaria visa (orbiculi nigri), indicia literaturae botanicae et observationes meas in situ (circuli).

laciniis basi 0.4-0.8 mm latis. *Staminum* filamenta post anthesin 6-7.5 mm longa, a medio vel parum infra mediocriter densiuscule pilosa. *Lobi* stigmatiferi per 0.5-1 mm liberi, demum arcuato-patentes, latere non vel breviter (ad 0.6 mm) decurrentes.

Habitat in apricis sterilibus rupestribus, petrosis, glareosis saepe mobilibus montium, in alveis calculosis rivorum, in pascuis aridis, in clivis viarum, solo plerumque calcareo, sed etiam serpentinico et — refertur — siliceo, rite inter 600 et 2300 m supra maris aequor, sed haud raro secus flumina in planities devectus (e.g. prope Svetozarevo, Plovdiv, Arta). Floret a Junio ad Augustum mensem.

Area

In montibus peninsulae balcanicae australis, ab oris meridionalibus Montisnegri, a Serbiâ et Bulgariâ per Albaniam et Graeciam continentalem fere omnem usque ad montem Taygetum Peloponnesi; deest in insulis praeter Euboeam. Praeterea semel in regione Banat Romaniae occidentalis lectus (Nyárády 1964; specimen non vidi) et advenus in regione Ploiesti montium Carpatorum austro-orientalium (Prodan 1939). Vide fig. 27.

Specimina visa

Cultus a fine saeculi XVIII ad tempora nostra in hortis multis (non tantum botanicis) Europae, plerumque sub nomine *Cirsii diacanthae*; vidi specimina ex hortis botanicis Abrincarum, Jenae, Lutetiae, Matriti, Monspeli, Monachii, Neapolis, Ottawae, Pisarum, Taurini, Valentiae, Varsaviae et Vindobonae nec non e coemeterio Munimenti Valentiniani.

Albania: distr. Gjirokastrë, in mont. Mal'i Lunxhëriës supra "Erindi", 10.7.1933, *Alston & Sandwith* 2178 (BM); mont. Tomorr, in cacumine mer. "Abbas Ali" infra casas "Kulmak", 13.8.1892, *Baldacci* 207 (FI, G, M, RO, W, WU); in collibus ad mer. pagi Pogradec, pr. "Drackovo", 11.8.1938, *Hepburn* 60 (K); inter Krumë et Kishaj, 4.7.1918, *Zerny* (W); mont. Hekuravë, in valle Valbonë sup., 30.8.1918, *Jávorka* (W), et 20.7.1936, *Lempert* 278 (E, GB, LAU); in colle Tarabosh supra portum Shkodër (= Scutari), 6.1871, *Grimburg* (W), et 22.6.1916, *Janichen* (WU).

Jugoslavia. Montenegro (= Crna Gora): in lat. mer. m. Rumija, 15.7.1930, *Dostál* 2233 (PRC); in mont. Kuči ad fines Albaniae, ad cacumen Maj'e Koshticis in dit. pagi Trijepši, 27.8.1902, *Baldacci* 254 (BM, G-Bu); inter Gusinje et "Vusanj", 23.7.1933, *Rudski & al.* (BEO).

Kosovo-Metohija: in lat. or. jugi Čakor, 3.8.1970, *Strid* (LD); pr. Peć, in fauc. fl. Pećska Bistrica, 3.7.1933, *Rechinger & Scheffer* (Rech); ibid., infra vicum "Gubavac", 7.1959, *Cook & al.* 354 (K); ibid., pr. Bjelo Polje, 8.1914, *Vandas* (PR).

Macedonia sept.: in valle "Zaduka" sup., *Herzog* 9, (M); pr. "Mala Rupa", 22.6.1925, *Černjavski* (BEO); supra fauc. "Sv. Ilija", 19.6.1926, *Černjavski* (BEO); inter "Vučidol" et "Đeneral Janković", 25.6.1927, *Černjavski* (BEO); mont. Šar planina, in m. Kobilica supra Tetovo, 14.8.1917, *Bornmüller* 1315 (B); in m. Korab, 7.1908, *Dimonie* (PRC, W, WU); in mont. supra Ohrid, 7.1908, *Dimonie* (W-Hal); pr. Petrino inter Ohrid et Rosen, *Vandas* (PR); in m. Bigla planina supra Gopeš, 19.7.1917, *Bornmüller* 1310 (JE); pr. Ljubojno, 7.1891, *Formánek* (PR); in mont. Kožuf (= Dudica) et "Saharupa planina" pr. Konjsko, 6.1917, *Schultze* 197

(B); supra Ilovica, 26.5.1926, *Černjavski* (BEO); pr. Berovo ad fl. Bregalnica, 17.7.1929, *Černjavski* (BEO); vs. Skoruša in valle fl. Kriva Lakavica, 24.6.1926, *Černjavski* (BEO); supra Krivolak pr. Negotino, 4.7.1968, *Weber* (Bas); in fauc. "Jeni" pr. Titov Veles, 10.6.1918, *Burgeff* 15 (M); c. Držilovo ad fl. Suva reka, 25.8.1922, *Vandas* (PR); pr. Skopje (= Üsküb), *Formánek* (PR), et 16.6.1936, *Dolšák* (LJU); ibid., ad Kisela Voda, 11.7.1918, *Bornmüller* 4344 (B, JE); in mont. Skopska Crna Gora, pr. mon. "Sveti Ilija", 20.6.1968, *Roessler* 5992 (M).

Serbia: ad "Litcheva", 7.1903, *Bierbach* (LE); c. Vranje, 6.1884, *Petrović* in Schultz, Herb. Norm. ser. 2, n. 2003 (COI, G, G-Bu, Gr, K, LE, M, MPU, PR, PRC, TL, W, ZA), et 7.1894, *Adamović* (M); ad Prvonek supra Vranjska Banja, *Ilić* (BEO), et 8.1903, *Bierbach* (LE); pr. Surdulica, *Ilić* (WU), et 7.1894, *Adamović* (Gr, K, MANCH, MPU, PRC, W, Z); in rupe "Koštur" pr. Raška, 8.1869, *Pančić* (FI, WU); ad Beoci pr. Raška, *Pančić* (W-Hal), 8.1869, *Pančić* (G, LAU, ZT), et 8.1871, *Pančić* (FI); ad Beoci et ad "Čačanskoj" pr. Ušće, 8.1872, *Pančić* (PR); pr. Svetozarevo (= Jagodina), 7.1876, *Pančić* (MANCH); pr. Niš, 30.6.1898, *Moravac* (JE, WU); in m. Svrlijske planine supra "Sv. Petka", 30.7.1945, *Matvejev* (BEO); in m. Belava, 7.1897, *Adamović* (K, W, WU), et 28.7.1898, *Adamović* (FI, PR, TL); pr. Pirot, 3.8.1903, *Adamović* (G, LAU); in m. Basara, 2.7.1894, *Adamović* (G), et 7.7.1898, *Moravac* (Z).

Bulgaria: in fauc. inter "Sivit" et "Selište", *Baev* (SOM); "Burštjaro", 7.1903, *Neičev* (SOM); mont. Stara planina occ., in m. "Zdravčena", 13.8.1959, *Bondev* (SOM); pr. Ginci, a. 1900, *Urumov* (SOM); in m. "Bučina balkan" supra Bučin, 8.1885, *Velenovsky* (PRC); ad Sofia, a. 1899, *Urumov* (PR), et 3.8.1902, *Mrkvička* (SOM); ibid., in m. Ljulin ad fl. Vladajska reka, 7.8.1952, *Gančev & Vyhodcesvki* in Pl. Bulg. Exs. n. 737 (BM, COI, E, W); ibid., ad m. Vitoša pr. Knjaževo, a. 1891, *Milde* (PRC), 6.1928, *Hruby* 1050 (LD), et 29.7.1937, *Baschant* (LD); ibid., supra Dragalevci, 8.1887, *Velenovsky* (PR); in m. Verila, loco "Dervena", 5.7.1910, *Davidov* (SOM); pr. Samokov, 7.1903, *Bierbach* (LE); ibid., ad fl. Iskār, 6.7.1911, *Davidov* (SOM); ibid., loco "Dragošinsky Läg", 2.7.1909, *Davidov* (SOM); mont. Rila, loco "Varnicite" in m. "Carska Rila", 23.7.1910, *Davidov* (SOM); ibid., ad or. pagi Rila vs. mon. Rilski manastir, 31.7.1968, *Merxmüller & Zollitsch* (M); ibid., in lat. austr. pr. Banja in distr. Blagoevgrad, 28.8.1931, *Fenenko* (SOM); in mont. Stara planina (= Balkan) centr., loco "Buzluža", 15.7.1907, *Davidov* (SOM); pr. Karlovo, 24.7.1899, *Urumov* 489 (PRC); supra Kalofer, 13.8.1893, *Wagner* (BAS); in m. Šipčenska planina supra Šipka, 7.8.1893, *Wagner* 87 (BM, G, G-Bu, Gr, MANCH, WU, Z); inter Šipka et "Sveti Nikola", 20.7.1905, *Javahov* (SOM); inter "Sveti Nikola" et Gabrovo, 3.8.1928, *Jurkovski* 841 (SOM); pr. Plovdiv (= Philippopolis), 7.1909, *Stříbrný* (LD); in mont. Rodopi, ad mer. pagi "Belaštica", 21.7.1930, *Ronniger* (W); in mont. Rodopi centr., pr. "Novo Selo", 21.7.1930, *Rechinger* 1333 (Rech); pr. Bojkovo, a. 1903, *Stříbrný* (SOM, TL, W); pr. Bjala čerkva, 12.7.1909, *Stranskij* (LE); pr. Asenovgrad (= Stanimaka), *Stříbrný* (GE), 6.1890, *Stříbrný* (G, G-Bu, LE, MANCH, MPU, PAL, Rech, W, W-Hal, ZA) et *Pichler* 174 (PRC), 7.6.1893, *Stříbrný* (LE), 1.7.1893, *Stříbrný* (PRC), 28.7.1895, *Stříbrný* (E, SOM, W, WU), 4.7.1896, *Stříbrný* (B, FI, G-Bu, JE, M, MA, W, ZA), 7.1897, *Stříbrný* (BM, E, G, LAU, MANCH, WU), 7.1903, *Bierbach* (LE), 7.1907, *Stříbrný* (E, FI, PR), et 7.1909, *Neičev* (SOM) et *Stříbrný* (G, L, PI, PR, W); inter Asenovgrad et Bačkovovo, 4.7.1892, *Wagner* 86 (G, G-Bu, JE, MANCH, PRC); pr. Bačkovovo, 7.1907, *Stříbrný* (GB, JE, M, PR), et a. 1915, *Stříbrný* (SOM); pr. Haskovo, a. 1897, *Stříbrný* (PRC).

Graecia: *Heldreich* (BM) et *Zuccarini* (M); "in Oriente", *Sibthorp* (G-DC); *Rumelia*, *Noé* (K).

Thracia: "Moustafchova", *Tedd* 696 (K).

Macedonia austr. **Kavala:** inter pagos Lekani, Skopos et Platamon, a. 1953, *Goulimis* (Goul); in m. Pangeo, 6.1936, *Rechinger* 10268 (Rech). **Drama:** inter Sidironero et Skaloti, a. 1953, *Goulimis* (Goul); pr. Pirji in m. Phalakro (= Boz dag), 7.1936, *Rechinger* 10648 (Rech). **Pella:** in m. Kaimaktsalan, 9.1938, *Humbert & Topali* 285 (G) et 305 (G); ibid., supra lacum Vegoritis (= Ostrovo), 7.1909, *Dimonie* (W, WU). **Grevena:** inter Smixi et Perivoli, 14.7.1937, *Balls & Gourlay* B 3603 (E, K); pr. Krania, 9.7.1971, *Greuter* (obs.). **Kozani:** ad passum Stena Portas pr. Servia, 20.8.1970, *Rechinger* 39063 (Gr, W). **Pieria:** in m. Olimbos, inter Litochoro et deversorium Stavros, 24.7.1971, *Greuter* 9503 (Goul); ibid., pr. mon. Ajos Dionisios, 31.7.1851, *Heldreich* 386 (Ath, FI, G, G-Boiss), 6.8.1857, *Orphanides* (Ath), et 30.7.1891, *Sintenis & Bornmüller* 1322 (B, BM, G, JE, K, LD, MANCH, MPU, PR, W-Hal); ibid., pr. refugium, 8.1950, *Goulimis* (Goul).

Thessalia. **Larisa:** in m. Olimbos, 25.7.1962, *Kasy* (W); ibid., pr. Kokkinoplo, 8.1913, *Tuntas* 1819 (W-Hal); ibid., in lat. mer. infra refugium B, 29.7.1970, *Strid* (LD); ibid., supra Sparmos, 25.7.1970, *Strid* (LD); pr. Rapsani, 8.1913, *Tuntas* 1820 (W-Hal). **Magnisia:** in m. Pilio, inter Chania et "Kiphissochori", 7.1954, *Goulimis* (Goul). **Karditsa:** supra Philakti (= Sermeniko), in m. "Gionskala", 14.8.1896, *Sintenis* 1200 (G, GE, LAU, LD, M, PRC, W-Hal). **Trikala:** "Tragopetria", 3.7.1952, *Goulimis* (Goul); pr. Desi in valle infra Pertouli, 8.7.1971, *Greuter* 9252 (Goul); mont. Tzoumerka, in lat. or. m. Kakarditsa, 10.8.1929, *Renz* (Rech); in valle pr. Stephani et vs. m. Dokimi, 8.7.1971, *Greuter* 9227 (Gr, Goul); inter "Oxia" et Chaliki, 20.7.1885, *Haussknecht* (JE); in valle fl. Pinios pr. "Tripa chan", 22.7.1896, *Sintenis* 1027 (LD), et in lat. or. jugi Katara, 9.7.1971, *Greuter* (obs.).

Epirus. **Ioannina:** in m. Timphi, supra pagum Papingo, 14.7.1958, *Rechinger* 21278 (W); pr. Metsovo, a. 1929, *Guiol* 1326 (BM), et 28.7.1956, *Rechinger* 18308 (M, W); in m. Peristeri, supra pagum Anthochori, 8.1956, *Goulimis* (Goul); **Arta:** ad fl. Arachthos supra urbem Arta, 6.7.1893, *Halácsy* (W-Hal).

Graecia media (= Sterea Ellas). **Aetoloacarnania:** in m. Boumistos, 10.7.1906, *Maire & Petitmengin* 80 (W-Hal). **Eurytania:** in m. Timphristos (= Veluchi), supra opp. Karpenisi, 7.1932, *Rechinger* 2907 (Rech). **Phocis:** in m. Korakas, 8.1896, *Heldreich* 29 (G) et *Tuntas & Leonis* (W-Hal); in m. Giona, *Zuccarini* (M); ibid., pr. Viniani (= Segditsa), 10.7.1888, *Halácsy* (JE, PR, PRC, W-Hal, WU); in m. Parnassos, *Heldreich* (B, G-Bu, GE, K, LAU, W, W-Hal), 12.8.1852, *Guicciardi* in *Herb. Heldr.* n. 386 (Ath, BM, G-Boiss, M, W), 7.1855, *Guicciardi* in *Heldr.*, *Herb. Graec. Norm.* n. 29 (G, W) et *Fl. Graeca Exs.* (BM, C, E, FI, G-Boiss, L, LD, M, MANCH, MPU, PR, W, Z), 7.1856, *Heldreich* 29 (PI), et 8.1857, *Heldreich* (FI). **Boeotia:** in m. Elikona, ad cacumen Paliovouna, 19.7.1932, *Rechinger* 2726 (Rech).

Euboea (= Evvia). **Chalkis:** in m. Dirphis, 25.7.1910, *Tuntas* (GB), 8.1910, *Tuntas* (PI), et 7.1932, *Rechinger* 2520 (Rech); in m. Xirovouni, 7.1932, *Rechinger* 2600 (Rech).

Attica: in m. Parnis, 6.8.1906, *Tuntas* (LD, W, W-Hal), 4.7.1907, *Tuntas* 703 (PI), 18.7.1913, *Tuntas* (G-Bu, GB, JE, PR) et in Petrak, *Cirsioth.* Univ. n. 79 (BM, C, E, G, JE, K, LAU, LD, LE, LISU, MA, PR, W, Z), et 8.1929, *Guiol* (BM).

Peloponnesus. **Corinthia:** in m. Killini, 7.1876, *Pichler* (BM, G, G-Boiss, G-Bu, K, LAU, LE, MANCH, MPU, PRC, W, W-Hal, WU), et 27.7.1930, *Guiol* (BM);

ibid., pr. Trikala, ad mon. Ajos Vlasios, 24.6.1851, *Orphanides* (Ath, GB, LD, W-Hal), 28.6.1877, *Heldreich* (E), et 7.1949, *Goulimis* (Goul). **Achaia:** in m. Chelmos, 29.6.1852, *Orphanides* (Ath); ibid., loco "Xirokambos", a. 1949, *Goulimis* (Goul); ibid., inter "Soudena" et refugium, 4.7.1968, *Stamatiadou* 3579 (Goul); ibid., pr. Peristera, 6.1949, *Goulimis* (Goul); pr. Kalavrita, 10.5.1926, *Bornmüller* 928 (B, LD, Z), et 29.6.1935, *Beauverd* 564 (G); in valle fl. Vouraikos, inter Kalavrita et Zachlorou, 6.7.1896, *Saint-Lager* (G, K); in m. Erimanthos (= Olonos), 7.1946, *Goulimis* (Goul). **Arcadia:** pr. Langada, 12.7.1971, *Greuter* (obs.); pr. Karkalou, 12.7.1971, *Greuter* 9347 (Gr, Goul); pr. Elati, Vitina, et in m. Menalo, 13.7.1971, *Greuter* (obs.); pr. Tripolis, *Sartori* (G, FI, M, W); in m. Parnon, c. refugium, 13.7.1971, *Stamatiadou* 13256 (Goul). **Laconia:** in m. Taijetos, inter sanctuarium Ajia Varvara et cacumen Prophitis Ilias, 8.1844, *Heldreich* (BM, FI, FI-Webb, G, G-Boiss, LAU, LE, MANCH, NAP, TO, W, ZT); ibid., loco "Kerane", 3.8.1934, *Regel* (G).

Loca excludenda

Planta Barbariae, ubi a Jacquinio indicatur, certe aliena. Specimina cretica a Siebero olim sub nomine *Cnici afri* distributa ad *Lamyropsem cynaroidem* (Lam.) Dittrich pertinent. Adsunt specimina schedis falsis instructa in herbario Gussonei (NAP: "Mannarini, Sicilia", 7.1844) et ex herbario Roux in MPU ("Talus près Portovecchio, Corse", 7.1913, *Santini*), in TL ("Rochers à Betalzza, montagne de Cagna, Corse", 8.1912, *Digoy*) et in Mars ("Montagne de Cagna, Corse", 8.1912, *Roux*). Plantae italicae sub synonymis *Ptilostemonis afri* indicatae *P. niveo* tribuendae. Specimina anatolica speciei nostrae adnumerata subspeciem propriam sistunt (vide infra).

3b. *Ptilostemon afer* subsp. *eburneus* Greuter, subsp. nova. Holotypus: "*Cirsium afrum* (Jacq.) Boiss. fl. or. III. 552, determ. J. Freyn. Pontus australis: Amasia, in m^{te} Logman, alt. 1200 m s. m., 10. V. 1890", *Bornmüller*, plantae Anatoliae orientalis 1890, n. 2661 (G; isotypi: B, JE, LD, W).

— *Cirsium afrum* vel *Chamaepeuce afra* auct. quoad pl. Anatoliae (non *Carduus afer* Jacq.).

— *Chamaepeuce diacantha* sensu Tschihatscheff, As. Min. Bot. 2: 343. 1860, partim (non *Carduus diacantha* Labill.).

Tab. III (specimen holotypicum).

Caulis validissimus interdum ultra metralis, ut refertur saepe jam a basi ramosus. *Involucrum* (ad apices phyllorum longiorum mensum) 30-45(-50) mm longum. *Phylla* media basi 3.5-6(-8) mm lata, margine inermia vel utrinque 1(-2)-spinulosa, e basi pallescenti pallide virentia apice et ad costam eburnea; interiora straminea vel albescientia. *Flosculi* albidii. *Corolla* (15-)19-24 mm longa; tubus tantum (8-)9-12 (-13) mm longus; limbus basi vix vel paulo tantum ampliatus, anguste tubulosus, laciniis basi 0.4-0.6 mm latis. *Staminum* filamenta 5-6.6 mm longa, paulo supra medium parce breviter pilosa. *Lobi* stigmatiferi per 0.4-0.8 mm liberi, parum hiantes, latere conspicue (interdum usque ad annulum papillarum) decurrentes.

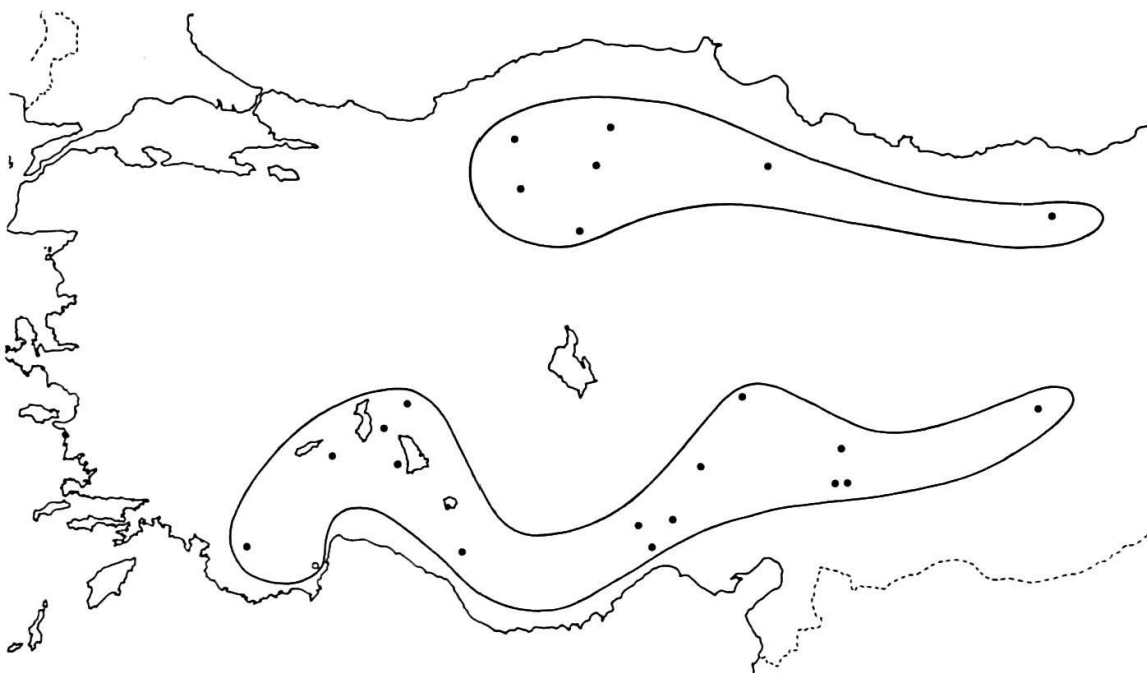


Fig. 28. — Distributio geographica *P. afri* subsp. *eburnei*, secundum specimina herbaria visa (orbiculi nigri) et adnotationem quandam Davisii (circulus).

Habitat in clivis apricis sterilibus vel dumulosis, rupestribus, lapidosis vel glareosis, et in alveis siccis rivorum, solo calcareo, serpentinico vel margaceo, a 900 ad 2450 m supra maris aequor. Floret a Junio ad Augustum mensem.

Area

Montes Anatoliae, sed deest in regione occidentali et boreo-occidentali; orientem versus non ultra meridianum a greenwichiano quadragesimum reperta. Vide fig. 28.

Specimina visa

Anatolia. Galatia. Prov. **Ankara:** in m. "Kyrkys dağ" pr. Kalecik, in valle fl. "Keci deresi", 10.7.1929, *Bornmüller* 14295 (B); pr. Kızılcahamam, 27.6.1953, *Bilger* (Hub). Prov. **Çankırı:** pr. Eskipazar, 6.8.1962, *Davis & Coode* 39057 (E); inter Çankırı et Ilgaz, 11.7.1964, *Huber-Morath* 17316 (Hub). Prov. **Amasya:** in m. "Logman", 10.5.1890, *Bornmüller* 2661 (B, G, JE, LD, W); in m. Ak dağ supra Amasya, 16.7.1889, *Bornmüller* 1481 (B, LE).

Paphlagonia. Prov. **Kastamonu:** ad rad. sept. m. Ilgaz dağ, 8.9.1954, *Davis & Polunin* 25067 (K); ibid., in valle fl. Karasu deresi secus viam a Kastamonu ad Ilgaz ducentem, 30.6.1958, *Simon* (Sim).

Euphrates sup. Prov. Gümüşane: in m. Köse dağ, vs. "Birachmed", 20.8.1890, *Sintenis 3377* (LD, JE, W, WU). Prov. **Elazığ**: in m. "Hazarbaba dağ" supra lacum Hazar gölü (= Göldşik), 29.7.1910, *Handel-Mazzetti 2571* (W, WU).

Amanus. Prov. **Maras**: in m. Ahır dağ, 15.8.1865, *Haussknecht* (G-Boiss, JE, W); in valle fl. Ceyhan inter m. Kavkirt et m. Engizek dağ (= Alişer dağ), 16.8.1865, *Haussknecht* (JE).

Antitaurus. Prov. **Maras**: in m. Berit dağ, in valle supra Erecik dit. pagi Cardak, 27.7.1952, *Davis & al. 20379* (BM, E, K). Prov. **Niğde**: in mont. Ala dağları, in parte inf. fauc. "Narpiz", 25.6.1963, *Parry 141* (E); ibid., in valle "Nuns" fl. "Çemis deresi", 26.8.1938, *Ellenberg 1013* (B); ibid., in m. Demirkazık dağ, 14.9.1938, *Ellenberg 680* (B).

Cappadocia. Prov. **Kayseri**: in lat. or. m. Erciyas dağ, 17.6.1964, *Zohary & Plitman 1761-1-2* (HUJ); [ibid., ad Enderlik], *Tschihatscheff* (LE).

Cilicia: in mont. Toros dağı (= Taurus), a. 1836, *Kotschy 280* (COI, G, K, LE, PRC, W). Prov. **Içel**: pr. Gülek, in colle "Gülek tepe", a. 1896, *Siehe 645* (JE); ibid., in fauc. Gülek boğası (= portis cilicicis), 7.7.1853, *Kotschy 89c* (G-Boiss, LE, W), et 3.8.1855, *Balansa 655* (B, BM, C, FI-Webb, G, JE, K, L, LAU, LE, MANCH, MPU, TL, W); pr. Gösne ad sept. urbis Mersin, 16.8.1931, *Eig & Zohary* (HUJ); in mont. Bolkar dağları (= Bulgar dağ), inter "El-Mala" et "Biridglek", 21.8.1931, *Eig & Zohary* (HUJ).

Isauria. Prov. **Antalya**: in m. Ak dağ pr. m. Geyik dağ supra pagum Köprülü, 31.8.1947, *Davis 14506* (K).

Lycaonia. Prov. **Konya**: in jugo m. Sultan dağ supra Akşehir, 3.7.1948, *Huber-Morath 9975* (Hub).

Pisidia. Prov. **Konya**: distr. Beyşehir, ad rad. or. m. Dedegöl dağ, pr. "Kuruca ova", 4.8.1949, *Davis 16092* (E, K). Prov. **Isparta**: in m. Anamas dağ (= Davros dağ, "m. Stavros"), 11.8.1845, *Heldreich* (G-Boiss). Prov. **Burdur**: in m. "Budrun" supra ruinas Aglasun ad mer. opp. Isparta, 6.8.1845, *Heldreich* (G-Boiss, LE, MANCH).

Lycia. Prov. **Antalya**: in m. Tahtalı dağ supra Kemer, *Davis* (obs.). Prov. **Muğla**: in m. Eren dağ (= Girdev dağ) supra "Juga", 6.8.1947, *Davis 14010* (E, W).

C. Ptilostemon sect. Cassinia Greuter, sect. nova. **Holotypus**: *Ptilostemon diacantha* (Labill.) Greuter

≡ *Platyraphium* Cass. in Dict. Sci. Nat. 35: 173. 1825, quoad typum (sed excl. descr.) ≡ *Chamaepeuce* sect. *Platyraphium* (Cass.) DC., Prodr. 6: 659. 1838 (non *Ptilostemon* sect. *Platyrrhaphium* Greuter). **Holotypus**: *Carduus diacantha* Labill.

– *Lamyra* vel *Cirsium* sect. *Lamyra* auct. partim (non *Cirsium* subg. *Lamyra* Cass.).

Planta perennis hemicryptophytica. *Surculi* autumnno e caudice lignoso rite subterraneo breviter ramoso orientes, abbreviati, fasciculatim foliosi foliis cito decompositis, autumnno insequenti procrecentes vel jam ineunte aestate caules capituligeros terminales edentes, folia basalia florendi tempore nulla vel juvenilia. *Folia* spinoso-sinuato-lobata, nervis praeter spinigeros omnibus vel fere obsoletis, spinigeris modo *Platyrrhaphiorum* regulariter dispositis (sed in quoque lobo non ultra 4).

Synflorescentia corymbosa. *Phylla* involucri basi plurinervia, margine saepe papillosa, haud araneosa, dorso breviter crispule pubescentia. *Flosculi* exteriores non fructiferi, pappo in extimis valde reducto setis paucis non plumosis singulatim delabentibus, in sequentibus intermedio setis partim ad medium plumulosis basi leviter cohaerentibus. *Pappi* normalis plumosi setae sub apice bifariam barbellatae, inde circumcirca scabridae papillis e basi evidenter ventricosoinflatâ conicis, in summo vertice stellatim 2-4-papillosae. Appendices *antherarum* totam per longitudinem aequaliter vittatae, vittâ prominulâ nectar secernente.

4. ***Ptilostemon diacantha*** (Labill.) Greuter in Boissiera 13: 146. 1967 $\equiv$ *Carduus diacantha* Labill., Icon. Pl. Syr. 2: 7, tab. 3. 1791 $\equiv$ *Cnicus afer* var. *Carduus diacantha* (Labill.) Willd. in L., Sp. Pl. ed. 5, 3: 1682. 1803 $\equiv$ *Cirsium diacantha* (Labill.) Fischer in Cat. Jard. Gorenki 1808: 57. 1808 $\equiv$ *Cnicus diacantha* (Labill.) Desf., Tabl. Ecole Bot. ed. 2: 107. 1815 $\equiv$ *Carduus afer* var. *C. diacantha* (Labill.) Steudel, Nomencl. Bot. 1: 151. 1821 $\equiv$ *Lamyra diacantha* (Labill.) Cass. in Dict. Sci. Nat. 25: 221. 1822 $\equiv$ *Platyraphium Billardierei* ["*Billardieri*"] Cass. in Dict. Sci. Nat. 41: 307. 1826, nom. illeg. $\equiv$ *Chamaepeuce diacantha* (Labill.) DC., Prodr. 6: 659. 1838. **Typus**: "in Libano". **Lectotypus**: "Card. Casabonae. Liban", *Labillardière* (G; isotypi: FI-Webb, G-DC).

Fig. 3c, p. 20 (structura schematica plantae); fig. 7a, p. 28 (lobus folii); fig. 14d, p. 43 (apices setarum pappi); tab. II d (granum pollinis).

Folia basalia ambitu lineari-lanceolata, ad medium c. latitudinis dissite sinuato-lobata lobis angulatis, spinis spinisque saepe aurantiacis in quoque lobo 2-4 lacinias inaequales vix productas late triangulares palmatim dispositas terminantibus; apice elongato-triangularia in spinam excurrentia, basi sensim angustata imo vaginato-ampliata; eximie discoloria nam subtus candida tomento compacto laevi crassiusculo, supra ad nervos persistenter crispule floccoso-puberula (in plantis nonnullis, saltem in foliis caulinis, ibidem glaberrima) caeterum citissime glabrata atro- vel glaucovirentia; nervi spinigeri validiusculi saepius utrinque prominuli, caeteri plerumque obsoleti (nervi laterales inter lobos siti marginem non attingentes haud raro observantur). *Caules* ineunte aestate evoluti, (30-)40-75(-110) cm alti, graciles, albotomentosi vel praecipue ad costas, raro omnino glabrescentes, sparsius densiusve foliati; folia caulina basalibus subconformia sed media et superiora sessilia, basi latâ saepe spinoso-semiamplexicauli; ramealia valde diminuta integra ovato-lanceolata vel subulata, apice et basi tantum spinosa. *Synflorescentia* laxè irregulariter corymbosa, capitulis (1-)3-10, lateralibus longe graciliter pedunculatis. *Involucrum* e basi rotundatâ vel truncatâ campanulatum, 15-25 mm longum, densius laxiusve pubescens. *Phyllorum* exteriorum et mediorum pars basalis evidenter nervosa nervis 5-7 parallelis quorum medius caeteris validior, pallide virens praesertim apicem versus — ut subula — purpurascens; appendix subuliformis recta triquetra spinosa, reflexa, patula vel erecto-patula; phylla interiora recta, teneriora, lineari-lanceolata vel linearia, e basi stramineâ purpurea spinuloso-angustata. *Setae* receptaculi candidae, 10-12 mm longae. *Flosculi* purpurei. *Pappus* 15-20 mm longus, setis 3-4-fariis longiuscule (ad c. 3 mm) plumosis (in floribus marginalibus setae

1-2-fariae, infra bifariam, supra circumcirca scabridae papillis crebris vesiculoso-inflatis acutis). *Corolla* texturâ quam in speciebus caeteris crassiore, 20-27(-29) mm longa; tubus 10-14(-16) mm longus; limbus 10-14 mm longus, basi aliquanto ampliatus inde tubulosus (rarius paulo ventricosus), per tertiam partem vel usque ad medium inaequaliter 5-fidus (differentiâ fissurarum 0.5-1.5 mm), laciniis basi 0.7-1 mm latis. *Staminum* filamenta post anthesin 4-9 mm longa, paulo supra medium dense longiuscule sublanato-pilosa; tubus antherarum per 0.5-3.5 mm e corollâ exsertus, 8-13.5 mm longus, 0.7-1.1 mm crassus, caudis 2.5-3.2 mm longis, appendicibus 2-3.5 mm longis acutiusculis vel breviter apiculatis. Apex *styli* 1.5-2.5 mm longus; lobi stigmatiferi lineares vel lineari-spatulati, apice rotundati, per 0.2-0.5 mm liberi, parum hiantes, lateraliter non vel valde (interdum per 1 mm) decurrentes. *Fructus* oblique obovoideus vel subpyriformis, crassus, vix compressus, griseo-brunneus vittis 5 atrioribus notatus, saepe plus minusve flavido-marmoratus, rarius omnino brunneus; discus apicalis diametro 1.4-1.6(-1.8) mm, margine minimo vel indistincto.

4a. *Ptilostemon diacantha* subsp. *diacantha* (vide synonyma sub specie oblata).

Fig. 9d, p. 33 (phyllum involucris).

Phylla media involucris basi ovato-lanceolatâ (3.5-)4-5 mm latâ, appendice robustâ quarum maxima cujusque capituli longitudinem (15-)20-30 mm attingit. *Fructus* 4.5-5(-5.5) mm longus, (3.3-) 3.5-4.1 mm crassus.

Habitat in silvis raris *Pini* vel *Cedri*, praesertim autem in apricis sterilibus vel dumulosis, lapidosis vel glareosis saepe mobilibus et in alveis calculosis rivorum, solo calcareo, usque ad altitudinem 2100 m ascendens, secus flumina interdum ad litora maris fere devectus. Floret a Junio ad Augustum mensem.

Area

Endemicus in montibus Libani, Antilibani et Hermonis, in territorio Libani et in finitimis Syriae. Vide fig. 29.

Specimina visa

Libanus: "Oriens", *Labillardière* (FI-Webb, G-DC) et *Montbret* (W); "Syria", *Labillardière* (FI-Webb); Libanus, *Aucher-Eloy* 311 (G-DC, W), *Blanche* (LAU), *Keddie* (E), *Labillardière* (FI-Webb, G), et a. 1837, *Aucher-Eloy* 3490 (FI-Webb, G, G-DC, P); "Aïn Macherah", 9.7.1880, *Peyron* 1138 (G); inter Baïno et "Amouah", 14.6.1943, *Davis* 6336A (K); inter fontem "Aïn-el-Dib" et planum Sahl Qamou'a, 15.7.1934, Stud. Rer. Nat. (HUI); ad or. urbis Tripoli, pr. "Talchime", 11.7.1934, *Olami* (HUI); ibid., "Ouadi Moual Abou Yerra", 17.7.1934, *Olami* (HUI); ibid., pr. Sir, 8.7.1934, Stud. Rer. Nat. (HUI) et Bot. Dept. (HUI); inter Sir et Beyrouth, 8.7.1934, Stud. Rer. Nat. (HUI); ad rad. m. Qornet es-Saouda ("Karnita") inter vicum "Kafer Domine" et planum "Sahl Aïn Tafikhe", 11.7.1934, Stud. Rer.

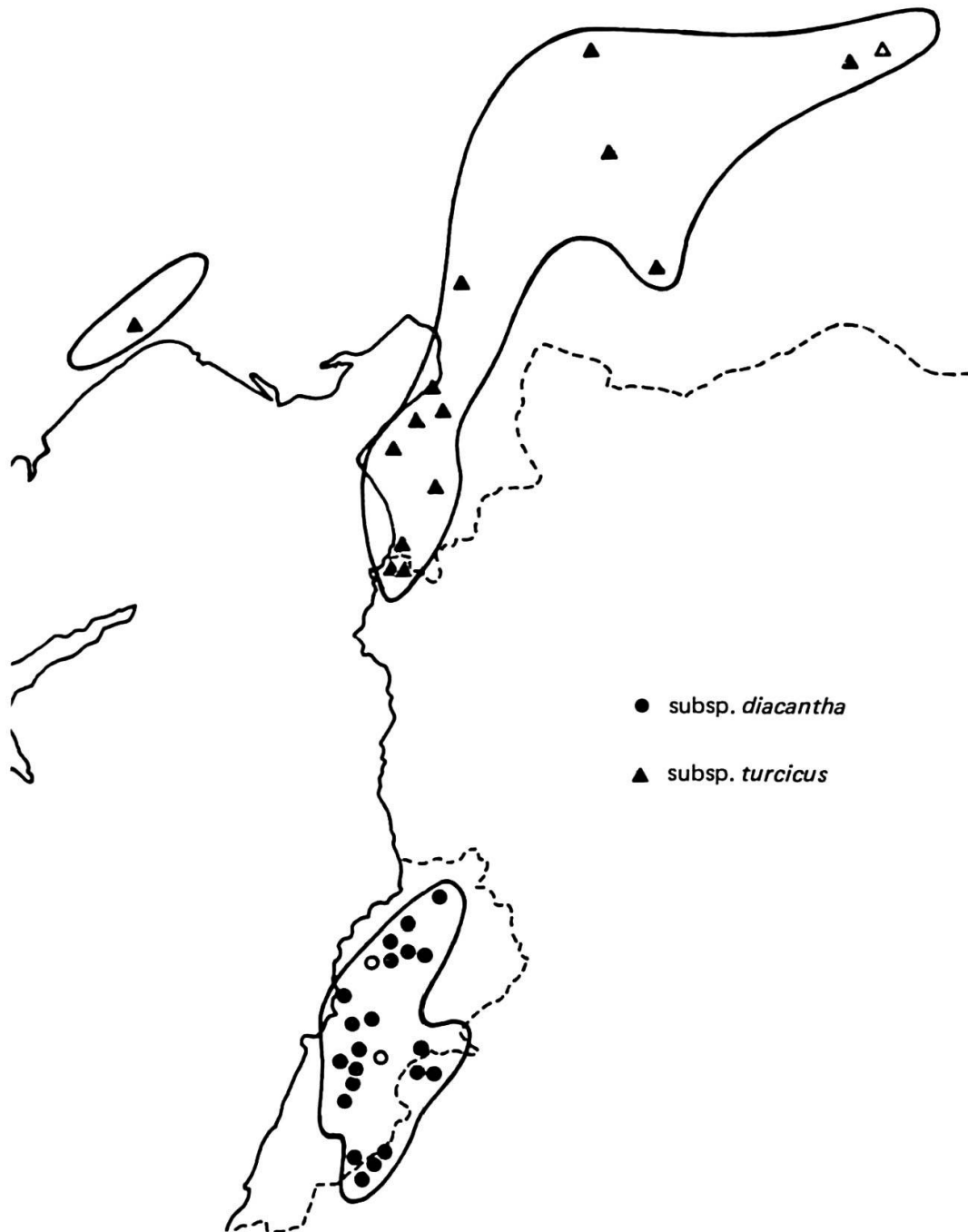


Fig. 29. — Distributio geographica subspecierum *P. diacanthae*, secundum specimina herbaria visa (signa expleta), indicia literaturae floristicae et adnotationes collectorum (signa circumscripta).

Nat. (HUI); pr. Ehden, 3.7.1854, *Blanche 1320* (G-Boiss, JE, P, TL), 8.1855, *Blanche* (FI), et 9.1877, *Blanche* (MANCH); pr. Dimane, 11.9.1864, *Blanche 1320* (G-Boiss, JE); pr. Bcharré, 3.7.1960, *Mavromoustakis 10* (K); ibid., pr. mon. Deir Mar Sarkis et c. cedretum, 19.7.1855, *Kotschy 221* (BM, G-Boiss, LE, P, PR, RO, W, ZT); pr. ostia fl. Nahr Ibrahim, 30.4.1965, *Roessler 5218* (M); supra Bikfaya, 5.7.1897, *Bornmüller 893* (B, E, G, JE, LE, MANCH, P, PR, W, WU, Z); ad m. Jabal Sannine, 17.6.1897, *Bornmüller 893b* (B); in m. Jabal Kneissé, 28.8.1932, *Mouterde 1632* (Mout); in dit. urbis Beyrouth, loco ignoto, *Gaillardot* (JE); pr. Bhamdoun, 11.6.1910, *Bornmüller 12026* (B, BM, E, G, JE, LD, LE, W); pr. Qrayé ("Cabou Krey"), 28.7.1895, *Peyron* (G); pr. Sofar, 14.7.1953, *Pabot* (G); pr. Aïn Zehalta, 31.8.1952, *Pabot* (G); in lat. or. jugi Togra inter Sidonem et Damascum, 15.6.1853, *Gaillardot 983* (G-Boiss, JE); in m. Hermon (= Jabal ech-Cheikh), *Gaillardot 1996a* (PRC); ibid., in lat. occ. supra pagum Cheba'a, 18.7.1856, *Gaillardot* (BM, G-Boiss, JE, LE, W, Z), et in Reliq. Maill. n. 1348 (C, G, GB, JE, MPU, PI, PR, PRC, W); ibid., in valle Ouadi Cheba'a, 20.7.1924, *Smolly* (HUI), et 21.7.1924, *Naftolsky* (HUI); pr. Massa (lapsu scribae: "Arisa"), 6.1824, *Ehrenberg* (LE).

Syria: Antilibanus, pr. Bloudane, 7.8.1945, *Davis 10019* (E); ibid., inter Bloudane et fontem "Aïn-en-Sour", 7.8.1945, *Davis 9752* (E, K); ibid., pr. Madaya, 6.6.1951, *Pabot* (G); ad m. Hermon, pr. Arné, 10.7.1951, *Pabot* (G); ibid., in valle Ouadi Jinna'a, 21.7.1924, *Naftolsky* (HUI); ibid., supra Mejdél Chams, 23.7.1968, *Danin* (HUI).

Loca excludenda

Indicationes ex Anatoliâ (hodie Turciâ, olim pro maiore parte Syriâ boreali), paucis omnino falsis exceptis, ad subsp. *turcicum* referenda. Plantae cultae sub synonymis speciei nostrae oblatae omnes ad *Ptilostemonem afrum* pertinent (vide Ludwig 1966).

4b. *Ptilostemon diacantha* subsp. *turcicus* Greuter, subsp. nova. Holotypus: "Chamaepeuce diacantha, DC. (Boiss.). Pentès schisteuses bordant le Guzel-Déré, en amont de Sédichig, à 4 lieues au NO. de Mersina. 5. juin", *Balansa*, Pl. d'Orient 1855, n. 640 (G; isotypi: B, BM, C, FI-Webb, G, G-Boiss, Gr, JE, LE, LAU, MANCH, MPU, P, TL, W).

— *Cirsium diacantha* vel *Chamaepeuce diacantha* auct. quoad pl. Turciae (non *Carduus diacantha* Labill.).

Fig. 9e, p. 33 (phyllum involucri); tab. IV (specimen holotypicum).

Phylla media involucri basi lanceolatâ 2.5-3.5 mm latâ, appendice graciliore, quarum maxima cujusque capituli longitudinem 7-15(-22) mm attingit. *Fructus* 4-4.5 mm longus, (3.1-)3.3-3.7 mm crassus.

Habitat in silvis raris *Pini*, praecipue autem in apricis sterilibus vel dumulosis, lapidosis vel glareosis saepe mobilibus, solo calcareo, margaceo, schistoso..., a radicibus montium usque ad altitudinem 1800 m. Floret a fine mensis Maji ad Julium.

Area

Anatolia meridionalis in montosis Ciliciae, Antitauri et praecipue Amani, ubi fines Syriae litoralis attingit; semel in prov. Adıyaman Anatoliae orientalis lectus. Vide fig. 29.

Specimina visa

Anatolia. Cilicia: in mont. Toros dağı (= Taurus), s. coll. (M) et a. 1836, *Kotschy* 364 (W); "Kagiraki", 4.1896, *Siehe* 181 (BM, E, G, JE, LE, WU). Prov. **İçel:** in fauc. rivi "Güzel dere" supra "Sedişig" ad boreo-occ. urbis Mersin, 5.6.1855, *Balansa* 640 (B, BM, C, FI-Webb, G, Gr, JE, LE, LAU, MANCH, MPU, P, TL, W) et 1103 (G-Boiss).

Amanus: a. 1863, *Kotschy* (G); "Bityâs", a. 1882, *Post* (BM). Prov. **Hatay:** ad rad. m. Akra dağı (= Cassius), a. 1846, *Boissier* (G-Boiss, Gr, LAU, LE); ibid., "Libanus et Cassius", 6.1846, *Boissier* (G, K, LAU, M, MANCH, P, W, WU); pr. Antakya, 20.9.1886, *Post* (BM); ibid., in lat. or. m. "Silpius", *Delbès* (HUI); supra Arsuz ad pagum "Ursusa", 2.7.1862, *Kotschy* 112 (BM, C, G-Boiss, Gr, JE, L, LE, W, ZT); supra Karakaş vs. Aşağı Zorhun, 30.6.1932, *Eig & Zohary* (HUI); inter Kırıkhan et Iskenderun (= Alexandretta), 9.5.1931, *Zohary* (HUI); pr. Iskenderun, 10.5.1931, *Zohary* (HUI); Prov. **Seyhan:** ad rad. m. Amanus pr. Osmaniye, 15.10.1957, *Wagenitz & Beug* 428 (B). Prov. **Gaziantep:** in m. Sof dağı ad boreo-occ. opp. Gaziantep (= Aintab), 27.6.1865, *Haussknecht* (G-Boiss, JE). Prov. **Maraş:** in m. Ahır dağı supra Maraş, 18.7.1865, *Haussknecht* (JE, LAU, W).

Antitaurus. Prov. **Maraş:** in m. Berit dağı, supra Erecik in dit. pagi Çardak, 27.7.1952, *Davis & al.* 20385 (BM, E, W).

Mesopotamia. Prov. **Adıyaman:** in m. "Nimrud dağı" (= Halof dağı?) pr. vicum Kâhta, infra vicum "Urik", 12.7.1910, *Handel-Mazzetti* 2167 (W, WU).

Syria litoralis: in valle Karadourane ad occ. pagi Kessab, 20.7.1955, *Pabot* (G); in regione Bassit, loco Froulok, 23.7.1955, *Pabot* (G); ibid., in jugo m. Kizil dagh ad mer. pagi Kessab, 1.6.1956, *Pabot* (G).

Loca excludenda

Specimen a Péronin pr. Anamur Isauriae lectum, a Boissiero (Fl. Or. 3: 551. 1875) sub *Cirsio diacanthâ* citatum, ad *Lamyropsem cynaroidem* (Lam.) Dittrich pertinet. Tschihatscheff *Chamaepeucen diacantham* ad Enderlik pr. Caesaream indicat, sed specimen ejus in herbario petropolitano adservatum, schedâ reverâ incompletâ instructum, *Ptilostemonem afrum* subsp. *eburneum* sistit.

D. Ptilostemon sect. Ptilostemon (vide synonyma sub genere oblata).

Frutices inermes vel subinermes. *Surculi* plus minusve elongati, infra densiuscule, supra densissime foliati, post annum lignescentes apice surculos 1-3 novellos laterales edentes et aut procrecentes aut caulem capituligerum terminalem proferentes.

Folia sicca diu persistentia, linearia margine inermia integerrima rite arcte revoluta (prope basin interdum utrinque spinulifera vel lacinulata), nervis praeter costam omnino obsoletis. *Synflorescentia* corymbosa. *Phylla* involucri appendice haud raro carentia, margine infra papillosa superne saepe ciliolato-scabrida haud araneosa, dorso omnino vel praesertim marginem versus crispule puberula raro glabra. *Flosculi* marginales non fructiferi, pappo valde reducto setis paucis non plumosis singulatim delabentibus, interiores fructiferi pappo plumoso (transitûs pauci observantur). *Pappi* setae praesertim validiores apice circumcirca regulariter densiuscule plumulosae, barbellatae vel scabridae. *Corollae* limbus aut inaequaliter per tertiam partem superiorem vel ad medium, aut subaequaliter ad medium vel per $\frac{2}{3}$ longitudinis fissus. Appendices *antherarum* totam per longitudinem aequaliter vittatae, vittâ prominulâ nectar secernente. *Lobi* stigmatiferi apice rotundati vel acuti.

5. **Ptilostemon Chamaepeuce** (L.) Less., Gen. Cynaroceph. Spec. Arctot.: 5. 1832 $\equiv$ *Serratula Chamaepeuce* ["*Chamaepeuce*"] L., Sp. Pl.: 819. 1753 $\equiv$ *Staezelina Chamaepeuce* (L.) L., Syst. Nat. ed. 12, 2: 538. 1767 $\equiv$ *Cnicus Chamaepeuce* (L.) Desf., Hist. Arb. 1: 280. 1809 $\equiv$ *Pteronia Chamaepeuce* (L.) Sprengel in L., Syst. Veg. ed. 16, 3: 440. 1826 $\equiv$ *Ptilostemon muticus* ["*muticum*"] Cass. in Dict. Sci. Nat. 44: 59. 1826, nom. illeg. $\equiv$ *Cirsium Chamaepeuce* (L.) Ten., Fl. Nap. 5: 211. 1835-1838 (excl. descr. et locis) $\equiv$ *Chamaepeuce mutica* DC., Prodr. 6: 657. 1838 $\equiv$ *Chamaepeuce* ["*Chamaepeuce*"] *imbricata* Raf., Fl. Tellur. 4: 118. 1838 (serius), nom. inval. (provis.) $\equiv$ *Chamaepeuce Alpini* Jaub. & Spach, Ill. Pl. Or. 5: 26. 1854, nom. illeg. $\equiv$ *Chamaepeuce Alpini* var. *mutica* (DC.) Boiss., Fl. Or. 3: 554. 1875, comb. illeg. $\equiv$ *Chamaepeuce mutica* var. *typica* Halácsy, Consp. Fl. Graec. 2: 127. 1902, nom. illeg. $\equiv$ *Cirsium Alpini* ["*Rasse*"] b *muticum* (DC.) Vierh. in Verh. Zool.-Bot. Ges. Wien 69: 255. 1919, comb. illeg. $\equiv$ *Cirsium Chamaepeuce* var. *muticum* (DC.) Pamp. in Bull. Soc. Bot. Ital. 1921: 47. 1921, comb. illeg. $\equiv$ *Chamaepeuce mutica* var. *Alpini* Beauverd & Topali in Bull. Soc. Bot. Genève 28: 159. 1937, nom. illeg. **Typus**: "Habitat in Creta". Specimina Linnaeana vel Cliffortiana desunt in BM, LINN, S. **Lectotypus**: "*Chamaepeuce*", tabula in Alpino, Pl. Exot.: 76. 1627. **Specimen normale** ("standard specimen"): "*Chamaepeuce mutica* D.C. Kreta. Distr. Hagios Vasilis. An Felsen ober Spili, 16. IV." Dörfler, Iter Creticum 1904, n. 1014 (G; dupla in B, GB, Gr, M, PI, PR, Rech, W-Hal, WU).
- $\equiv$ *Chamaepeuce polycephala* DC., Prodr. 6: 658. 1838 $\equiv$ *Chamaepeuce mutica* var. *polycephala* (DC.) Halácsy, Consp. Fl. Graec. 2: 127. 1902 (excl. syn.) $\equiv$ *Chamaepeuce Alpini* var. *polycephala* (DC.) Fiori in Ann. Ist. Super. Forest. Naz. 9: 182. 1924 $\equiv$ *Ptilostemon polycephalus* ["*polycephalum*"] (DC.) Soják in Novit. Bot. Delect. Seminum Horti Bot. Univ. Carol. Prag. 1962: 46. 1962. **Typus**: "In Oriente circa Tschesmé leger. cl. Olivier et Bruguière". **Holotypus**: *Centaurea*? Tschesmé, herb. Olivier 1822" (G-DC; isotypi: G, L, P).
- $\equiv$ *Chamaepeuce Alpini* f. *leucocephala* P. Candargy in Bull. Soc. Bot. France 44: 454. 1898. **Typus**: non indicatur (in ins. Lesbo a P. A. Candargy lectus), non vidi, ut videtur amissus.
- $\equiv$ *Cirsium Chamaepeuce* f. *laciniatum* Pamp. in Bull. Soc. Bot. Ital. 1921: 47: 1921. **Syntypi**: "specim. Bal. n. 271 et specim. Pinard in Herb. Webb". **Lec-**

totypus: "Chamaepeuce gnaphaloides DC., Rochers situés à l'est de Koukou-loudja, près de Smyrne, 27 juin", *Balansa*, Pl. d'Orient 1854, n. 271 (FI-Webb; isotypi: BM, C, G, G-Boiss, JE, K, MANCH, MPU, P, TL, W).

- = *Chamaepeuce mutica* var. *thessala* Beauverd & Topali in Bull. Soc. Bot. Genève 28: 158. 1937. **Syntypi**: "ad rupes verticales montis Pelionis, ad viam inter vicos 'Drakia' et 'Agria' supra 'Lehonia'; idem ad viam 'Hagios Vlasios' supra 'Lehonia'; idem prope 'Kissos'; leg. S. Topali, A. Triantaphyllou et G. Beauverd, VI. 1935". *Lectotypus*: "Chamaepeuce Alpini var. *mutica* nov. var. *thessala*. Thessalie: rochers de Drakia, sur Lehonia, ca. 350 m", 18.6.1935, *Beauverd* (G; isotypi: G).
- *Chamaepeuce Alpini* var. *camptolepis* vel *Cirsium Alpini* var. *camptolepis* vel *Cirsium Chamaepeuce* var. *camptolepis* auct. plur., sed excl. pl. Corcyrae, ins. Karpathos, Cypri, "Tauri" et Amani (non s. str.).
- *Chamaepeuce gnaphaloides* sensu Boiss. in *Balansa*, sched. impr. Pl. Or. a. 1854, n. 271; et sensu Nyman, *Consp. Suppl.* 2: 179. 1889, partim, quoad pl. m. Athonis (non *Carduus gnaphaloides* Cyr.).
- *Chamaepeuce cynaroides* lapsu Boiss. in Bourgeau, sched. autogr. Pl. Lyc. a. 1860, n. 150 (non *Carduus cynaroides* Lam.).
- *Chamaepeuce fruticosa* sensu Griseb., *Reise Rumelien* Brussa 1: 321. 1841, et *Spicil. Fl. Rumel.* 2: 255. 1846; et ejusdem var. sec. Boiss. in Heldr., sched. autogr. ad pl. Anatoliae a. 1845 (non *Cnicus fruticosus* Desf.).

Fig. 1a, p. 12 (plantulae); fig. 2a, p. 17 (structura schematica plantae); fig. 10a, p. 34 (phyllum involucri); fig. 13a-b, p. 39 (flores longitudinaliter secti); fig. 15a, p. 44 (apices setarum pappi); fig. 18b, p. 49 (limbus corollae explanatus); fig. 19a, p. 50 (filamentum); fig. 20a et d, p. 52 (tubus antherarum, appendices et caudae); fig. 21d, p. 56 (apices stylorum); tab. 1a (capitula speciminis normalis).

Pedalis vel metralis. *Folia* surculorum (3-)4-12(-15) cm longa, recta vel saepius curvata, anguste linearia marginibus arcte revolutis causâ subteretia 1-1.5 mm lata (vel praecipue in formis umbriculis subplana anguste lineari-spatulata 2.5-4 mm lata), a basi usque ad apicem exacte aequilata ibique subito contracta parce mucronulata; eximie discoloria nam subtus candida tomento compacto crasso, supra praesertim ad costam parce subaraneoso-floccosa cito glabrata viridia. *Caules* vere evoluti, 10-60 cm alti, graciles, densius laxiusve albo-floccoso-tomentosi vel passim (raro omnino) glabrati, infra dense supra laxius foliati; folia caulina iis surculorum conformia sed sensim breviora, superiora basi non dilatata, integrâ vel perraro utrinque lacinulâ carnosâ non spinescenti auctâ. *Synflorescentia* laxius densiusve corymbosa, capitulis paucis (interdum singulo) vel pluribus, lateralibus brevius longiusve pedunculatis terminale interdum subsessile saepe magnopere superantibus. *Involucrum* valde variabile, e basi cuneatâ vel rotundatâ vel truncatâ vel umbilicatâ anguste vel late ovoideum vel cylindricum vel campanulatum vel hemisphaericum, plerumque 14-22 mm longum, glabrum vel pubescens vel subtomentosum. *Phylla* appendice rite carentia, regulariter imbricata, apice anguste triangularia acuta appressa, basi pallida flavescentia, apice virentia vel purpurascentia; extima interdum omnino foliacea, sequentia triangularia rarius appendice subcarnosâ foliaceâ patulâ vel recurvâ aucta; media linearilanceolata, ad mediam partem latissima, 2-2.2(-3) mm lata, raro tantum parce patule foliaceo-appendiculata, rite exappendiculata vel apiculo minimo (ad 0.5 mm longo) erecto-patulo aucta; interiora mediis similia

sed longiora et teneriora. *Setae* receptaculi candidae, 6-10 mm longae. *Flosculi* purpurei. *Pappus* (11-)12-18 mm longus, setis 2-3-fariis breviter vel mediocriter (ad 1.5-2 mm) plumosis, apice circumcirca barbellatis vel scabridis (in flosculis marginalibus setae 1-2-fariae, bifariam et ad apicem circumcirca scabridae). *Corolla* (15-)16-24(-27) mm longa; tubus (6-)7-12(-14) mm longus; limbus (8-)9-13 mm longus, basi valde campanulato-amplius inde tubulosus (interdum subventricosus), per tertiam partem vel usque ad medium inaequaliter 5-fidus (differentiâ fissurarum 0.5-1.5 mm), laciniis basi 0.7-1 mm latis. *Staminum* filamenta post anthesin 4.2-6.2 mm longa, a medio vel parum infra dense vel densissime longiuscule sublanato-pilosa; tubus antherarum per 0.5-2.5 mm e corollâ exsertus, 7.5-12 mm longus, 0.7-1 mm crassus, caudis 1.6-3.2 mm longis, appendicibus 2-3.2 mm longis distincte apiculatis. Apex *styli* 2-3.2 mm longus; lobi stigmatiferi lineari-spatulati apice rotundati, in flosculis marginalibus reducti per 0.2-0.3 mm tantum liberi vix hiantes non decurrentes, in centralibus per 0.3-0.6 mm liberi, parum hiantes, lateraliter non vel per 0.5 mm decurrentes. *Fructus* oblique obovoideus vel subpyriformis, 3.5-5(-5.3) mm longus, (2.2-)2.5-3.8 mm crassus, brunneus vel griseolus vel atropurpurascens-brunneus, saepe stramineo-lineolatus et vittis 5 atrioribus notatus; discus apicalis diametro 1.2-1.7 mm, margine minimo vel indistincto.

Habitat saepissime in fissuris rupium calcarearum praeruptarum, raro ad moenia vel in alveis siccis rivorum, interdum in clivis rupestribus vel saxosis dumuletis mediterraneis vel silvâ rarâ obtectis, substrato calcareo raro serpentinico, a mari ad 700 m (in Graeciâ) vel ad 850 m (in Cretâ et Anatoliâ) vel ad 1500 m altitudinis (in Libano). Floret ab Aprili ad Junium mensem.

Area

Regio mediterranea orientalis a Graeciâ per Turciam ad Libanum (et Syriae Terraeque Israëlitis regiones finitimas); haud procul mari in partibus borealibus et occidentalibus areae; in regionibus australioribus et praecipue austro-orientalibus profundius in gremium terrarum penetrat. Vide fig. 30 et 31.

Specimina visa

Cultus in hortis botanicis Europae saeculo XVIII et ineunte XIX: Bruxellae, Londini (h. Chelsea), Lugduni Batavorum, Lutetiae, Neapoli, Panormi, Taurini, Vindobonae (h. Schoenbrunn) et certe alibi. Saeculo nostro sporadice tantum denuo colitur, e.g. in h. kewensi (a. 1940) et halensi (tempore praesenti).

Graecia: Zuccarini (M) et Spruner (W).

Graecia media (= Sterea Ellas). **Aetoloacarnania:** ad lacum pagi Vonitsa, 27.5.1971, *Stamatiadou* 12379 (Goul); in fauc. "Glosses" pr. Mitikas, 11.7.1906, *Maire & Petitmengin* 338 (W-Hal); in fauc. "Klissura" inter Etoliko et Agrinio, 27.5.1926, *Bornmüller* 931 (B), et 22.5.1964, *Rechinger* 25360 (W); pr. Etoliko, 24.5.1964, *Rechinger* 25474 (W).

Insulae Ioniae: "Leucadiae, Corcyrae et Zacynthi", *Mazziari* 179 (W). Ins. **Lefkas** (= Santa Maura): ad promont. Tsouanna, 15.5.1878, *Spreitzenhofer* (W-Hal, WU); ad occ. urbis Lefkas, 20.6.1966, *Snogerup* 23913 (LD). Ins. **Kephallinia:** pr. Asos, 12.6.1966, *Snogerup* 23656 (LD); pr. Poros, 15.6.1966, *Snogerup* 23792

(LD). Ins. **Zakynthos** (= Zante): pr. "Stavromenos" inter urbem et promont. Krioneri, *Margot* 622 (G, G-Boiss, G-DC, LAU, MPU); pr. Xirokastelo, 5.6.1971, *Merkatis* 13943 (Goul); in scop. Pelouzo, 23.3.1936, *Ronniger & Versluys* (W).

Peloponnesus (= Morea): *Chaubard* (G). **Achaia**: in fauc. fl. Vouraikos inter Zachlorou et Diakopto, 8.7.1896, *Saint-Lager* (G, K), 11.5.1926, *Bornmüller* 930 (B, JE, LD, Z), 11.6.1926, *Mattfeld* 1714 (C, K), 30.6.1935, *Beauverd* (G), 26.12.1936, *Topali* (G), et a. 1937, *Lempert* 1058 (GB, K, LAU); inter Trapeza et Diakopto, 18.5.1968, *Stamatiadou* 2988 (Goul); pr. Trapeza, 5.1968, *Phitos* 8548 (M, W). **Messenia**: in scopulo Sphaktiria adv. Pilos, 12.5.1964, *Phitos* 1721 (M) et *Rechinger* 24917 (Gr, W); pr. Pilos (= Navarin), 18.5.1831, *Daenzer* (G-Boiss), et 20.5.1917, *Maire* (G); pr. Methoni (= Modon), *Bory* (FI-Webb), *Chaubard* (G-Bu), *Despréaux* (JE) et *Lenormand* (MPU). **Laconia**: inter "Vavila" et "Kri-thina", 5.1955, *Goulimis* (Goul); penins. Mani, ad litus pr. Areopolis, 22.5.1964, *Runemark & al.* 20712 (LD); ibid., pr. Jerolimin, 5.1958, *Rechinger* 20169 (W); ibid., pr. Marmari in lat. occ. promont. Tenaro, 10.6.1958, *Rechinger* 20116 (B, K, M, W); penins. Malea, pr. Monemvasia, 9.5.1964, *Greuter* 6449 (G, Gr, LD, W), 23.5.1964, *Runemark & al.* 20753 (LD), et 19.5.1970, *Stamatiadou* 8965 (Goul); ad sept. loci Kambos dit. Neapolis, 24.5.1964, *Runemark & al.* 20797 (LD); in promont. supra Neapolis, 8.6.1958, *Rechinger* 20059 (B, G, K, LD, M, W). Ins. **Kithira**: pr. Ajia Pelajia, 4.5.1964, *Rechinger* 24151 (Gr, W); in arce urbis, vs. portum Kapsali, 11.5.1964, *Greuter* 6522 (G, Gr, W), et 25.5.1964, *Runemark & al.* 20808 (LD); pr. Kapsali, 5.5.1964, *Phitos* 1288 (M).

Creta: *Frivaldsky* (W), *Guiol* (BM), *Gundelsheimer* (M), *Maly* (W), *Sibthorp* (BM, G-DC, W), *Sieber* (C, E, L, M, PRC) et *Tournefort* (BM); in mont. sphakioticis (= Lefka Ori), *Frivaldsky* (W) et *Sieber* (BM, C, FI-Webb, G-DC, H, K, JE, L, LAU, LE, M, NAP, PR, PRC, W, W-Hal). **Kissamos**: in ins. Gramvousa et ad promont. Tigani, 7.6.1962, *Greuter* (obs.); pr. Platanos, loco Poros Mesojia, 26.4.1960, *Greuter* 2696 (Gr); pr. Polirrinia, 6.4.1915, *Gandoger* 8797 (G, K, P); in fauc. pr. Topolia, 18.6.1884, *Reverchon* (Z), 5.1956, *Goulimis* (Goul), et 6.6.1962, *Greuter* 4677 (G, Gr, LD, W, Z); in fauc. pr. Rokka, 3.6.1964, *Snogerup & al.* 21026 (LD); in penins. Rodopou, ad mer. sinus Menjes, 13.4.1961, *Greuter* (obs.); inter Palea Roumata et Voukolie, secus rivum "Tavroniti", 25.6.1893, *Baldacci* 26 (BM, FI, G, G-Bu, K, MS, PAL, RO, W, W-Hal, WU). **Selinos**: in fauc. pr. Paleo-chora, 1.6.1942, *Rechinger* 13530 (Bas, BM, LD, M, W); in planitie Omalos, 12.6.1884, *Reverchon* 90 (BM, COI, G, G-Bu, GB, JE, K, LD, MANCH, MPU, PAL, PRC, W, W-Hal, Z). **Kidonia** (= Chania): ins. Aji Theodori, 28.5.1942, *Rechinger* 13348 (BM, G, K, W); pr. Perivolita, 20.6.1915, *Gandoger* 7408 (G, K, P); in fauc. inter Perivolita et Theriso, 25.5.1962, *Goulimis* (Goul), et 4.6.1964, *Roessler* 4679 (M); pr. Theriso, *Sieber* (TO), et 28.5.1915, *Gandoger* 7407 (G); in fauc. pr. Mour-nie, 31.5.1938, *Davis* 200 (BM, E, K); pr. Malaxa, 27.6.1883, *Reverchon* 90 (BM, E, FI, G, G-Boiss, G-Bu, JE, K, LAU, MANCH, MPU, PAL, PR, PRC, RO, TL, W-Hal, WU), et 11.6.1915, *Gandoger* 7630 (G, K); penins. Akrotiri, ad mer. mon. Gouverneto, 20.3.1961, *Greuter* (obs.); ibid., ad litus boreo-or., 18.3.1961, *Greuter* (obs.); ibid., pr. Perivolitsa, 10.10.1966, *Greuter* 7703 (G, Gr, LD, W). **Sphakia**: 6.1932, *Guiol* (BM); in fauc. inter Samaria et Ajia Roumeli, 5.1914, *Cousturier* in *Gandoger*, Herb. Cret. n. 6399a (K), et 6.1914, *Cousturier* (TL) et in *Duffour*, Soc. Franç. Exs. n. 1496 (G, MPU, TL); in fauc. pr. Aradena, 5.1845, *Raulin* 405 (G-Boiss, P), et 22.9.1966, *Greuter* 7567 (G, Gr, LD, W); in fauc. pr. Mouri, 10.6.1914, *Cousturier* (TL); in fauc. Sphakiano ad boreo-or. Chora Sphakion, a. 1970,

Polunin 10108 (Goul); in fauc. infra Imbros (= Nibros), 3.4.1921, *Rikli* (ZT), et 5.1951, *Goulimis* (Goul); in fauc. infra Asphendos, 8.10.1966, *Greuter 7684* (G, Gr, LD, W). **Apokoronos**: in fauc. pr. Macheri, 18.5.1960, *Creutzburg* (Cr). **Rethimnis**: pr. Episkopi, 14.4.1971, *Hansen 493* (C); pr. Kouphi, 17.9.1966, *Greuter 7534* (B, C, E, FI, G, GB, Goul, Gr, K, LD, LE, M, P, S, UC, W). **Ajos Vasilios**: pr. Sellia, 31.3.1962, *Greuter* (obs.); in fauc. inter Asomatos et Koxare, 10.6.1962, *Greuter* (obs.); pr. mon. Preveli, 22.5.1967, *Barclay 279* (Gr, K); pr. Spili, 16.4.1904, *Dörfler 1014* (B, G, GB, Gr, M, PI, PR, Rech, W-Hal, WU); ins. Paximadia occ., 31.5.1964, *Snogerup & al. 20890* (LD); pr. Kria Vrissi, 1.6.1964, *Snogerup & al. 20962* (LD), et 2.11.1966, *Greuter 7857* (G, Gr, W). **Amari**: ad ruinas Sibrita pr. Thronos, 4.6.1915, *Gandoger 12635* (G, K). **Malevizi**: supra Krousona, 10.6.1899, *Baldacci 83* (BM, G, G-Bu, GE, LAU, LE, P, W, WU); in fauc. inter Tilisos et Gonies, 3.4.1961, *Greuter* (obs.); ad promont. Stavros, 6.4.1961, *Greuter* (obs.); pr. mon. Savvathiana, 21.4.1915, *Gandoger 9302* (G, K); ad fontem salsum inter Rodia et Gazi, 25.9.1966, *Greuter* (obs.). **Monophatsi**: pr. Phournopharango, 24.5.1962, *Greuter* (obs.). **Temenos** (= Iraklio): pr. Prophitis Ilias (= Kani Kastelli), 2.6.1899, *Baldacci 329* (BM, G, G-Bu, GE, LAU, LE, TO, W, WU); in m. Jouktas, 14.9.1966, *Greuter* (obs.). **Pedias**: supra Kastamonitsa, 2.7.1899, *Baldacci 229* (BM, G, G-Bu, GE, LAU, LE, M, P, TO, W, WU); supra Kera, 19.7.1971, *Petamidis 409* (Goul); in m. Kouna supra Milliarado, 21.10.1966, *Greuter 7773* (E, G, Gr, LD, W). **Viannos**: pr. Ano Viannos, 2.4.1962, *Greuter* (obs.); in fauc. "Kapnistis" inter Sikologos et Gdochia, 27.10.1966, *Greuter 7797* (G, Gr, LD, W). **Mirabello**: in fauc. infra Vrachasi pr. sanctuarium Ajos Jeorjos Selinaris, 11.7.1942, *Rechinger 14346* (BM, G, K, W), 6.1957, *Goulimis* (Goul), et 26.9.1966, *Greuter 7590* (G, Gr, W); ad ruinas Lato pr. Kritsa, 5.4.1962, *Greuter* (obs.). **Ierapetra**: in fauc. inter Christos et Metaxochori, 27.10.1966, *Greuter* (obs.); pr. Ajos Joannis, 28.9.1966, *Greuter 7612* (G, Gr, W); pr. Thriphiti, 4.4.1972, *Peisl 28* (Goul); in fauc. pr. Monastiraki, 14.5.1962, *Runemark & al. 17611* (LD), et 26.9.1966, *Greuter 7592* (G, Gr, W); in fauc. pr. Kavousi, 1.11.1966, *Greuter 7848* (G, Gr, W); pr. Kavousi, loco "Skala", 13.6.1962, *Goulimis* (Goul); ibid., loco "Kalo Choraphi", 14.6.1962, *Goulimis* (Goul). **Sitia**: 5.1932, *Guiol* (BM); inter Sphaka et Tourloti, 17.5.1942, *Rechinger 13026* (BM, G, Hub, K, M, W); pr. Tourloti, 13.5.1962, *Runemark & al. 17327* (LD); in colle Liopetro pr. Chamezi, 18.5.1962, *Runemark & al. 18483* (LD), et 3.10.1966, *Greuter 7668* (G, Gr); inter Achladia et Paraspori, 18.5.1962, *Runemark & al. 18544* (LD).

Kyklades. Ins. **Astipalea**: in m. "Forni", 2.6.1960, *Runemark & Nordenstam 15326* (LD); loco "Baia della Sabbia", 30.5.1960, *Runemark & Nordenstam 15096* (LD). Ins. **Amorgos**: *Orphanides* (K) et 22.5.1898, *Leonis 61* (B, G, GE, Gr, JE, K, MANCH, PR, PRC, W, W-Hal, WU); ad promont. Xodotos, 3.7.1958, *Runemark & Snogerup 12218* (LD); in m. Krikelo, 4.7.1958, *Runemark & Snogerup 12249* (LD); ibid., loco "Langada", 7.1932, *Rechinger 2366* (Rech); pr. mon. Panajia Chozoviotissa, 8.8.1881, *Heldreich* (G, G-Bu, W-Hal), 7.1932, *Rechinger 2321* (K, LD, Rech), et 5.7.1958, *Runemark & Snogerup 12323* (LD); in m. Prophitis Ilias, 7.1897, *Leonis* (PR). Ins. **Sikinos**: in lat. mer. m. Troullo, 10.4.1967, *Runemark & Bentzer 24953* (LD); ad occ. pagi "Kastro" litoris sept., 11.4.1967, *Runemark & Bentzer 25003* (LD). Ins. **Pholegandros**: in scopulo Pelajia adv. promont. austro-or., 23.5.1960, *Runemark & Nordenstam 14671* (LD); ad promont. boreo-or., 11.4.1967, *Runemark & Bentzer 25060* (LD); pr. urbem Pholegandros, 6.6.1938, *Davis 225* (BM, E, K). Ins. **Naxos**: a. 1872, *Orphanides* (Ath); ad boreo-or.

pagi Apirathos, 4.4.1958, *Runemark & Snogerup* 5069 (LD); *ibid.*, in lat. mer. m. "Ammomachis", 6.6.1958, *Runemark & Snogerup* 10587 (LD); ad sinum Liona, 22.5.1958, *Runemark & Snogerup* 9183 (LD); ad austro-occ. sinus Liona, 21.5.1958, *Runemark & Snogerup* 9129 (LD); ad or. pagi Skado, 1.6.1957, *Runemark* 3751 (LD). Ins. Siros: ad Episkopi, 14.7.1933, *Malakates* 2984 (E; scheda dubia!). Ins. Kea: c. mon. Kastriani, 4.6.1968, *Snogerup & Bothmer* 34316 (LD), 34327 (LD) et 34339 (LD).

Attica: *Heldreich* (C, TL); ad sept. pagi Raphina, loco "Kokkino Limanaki", 25.4.1972, *Greuter* 9853 (Goul, Gr), et 9.6.1972, *Greuter* 10345 in Soc. Ech. Pl. Vasc. (G, Goul, Gr...); in scopulo Raptopoula, 6.1929, *Guiol* (BM); ad sinum Rapti, 30.5.1963, *Snogerup* 20335 (LD); ad austro-or. pagi Markopoulo Mesojeas, in m. Merenda, 12.5.1963, *Snogerup* 20106 (LD); pr. Vouliagmeni, 5.1967, *Pfadenhauer* (Gr), *Podlech* (M) et *Zollitsch* (COI); in m. Imittos (= Hymettus), *Sartori* (FI, W), *Spruner* (C, G-Boiss, G-Bu, RO, W), *Swainson* 35 (K), *Zuccarini* (M), 23.6.1848, *Orphanides* 261 (Ath, BM, C, COI, FI, G, G-Boiss, G-Bu, GB, Gr, JE, K, L, LAU, LD, LE, MANCH, MPU, P, PAL, PRC, W, W-Hal, WU, Z, ZT), a. 1849, *Clementi* (LE), 16.6.1854, *Heldreich* (C, E, G, K, L, M, MANCH, MPU, PR, W-Hal, Z), 16.6.1855, *Heldreich* 433 (COI, G, JE, K, PRC, W, W-Hal), 6.1857, *Guicciardi* (RO), 16.6.1857, *Heldreich* 433 (TO), 16.6.1859, *Heldreich* 433 (PI), 16.6.1861, *Heldreich* 433 (BM, LE, TL), 29.6.1862, *Leutwein* (G, MPU, RO, Z, ZT), 16.6.1865, *Heldreich* 433 (K), 16.4.1873, *Barbey* (G), 16.6.1873, *Heldreich* 433 (FI), 5.1876, *Pichler* (FI, G, G-Bu, K, LE, MANCH, MPU, PRC, W, WU), 2.5.1878, *Heldreich* (P), 6.6.1878, *Heldreich* 433 (FI, G, W-Hal), 8.6.1878, *Heldreich* (M), 21.5.1883, *Lacaita* (BM, FI), 16.6.1885, *Heldreich* 433 (GE), 23.6.1886, *Heldreich* in Baenitz, *Herb. Eur.* (JE), 6.7.1888, *Halácsy* (W-Hal), 6.1895, *Heldreich* 1257 (B, BAS, BM, FI, G, G-Bu, GE, JE, K, LAU, LD, MANCH, MPU, PR, PRC, Rech, RO, SARA, W, W-Hal, WU, Z), 2.10.1905, *Bretzl* (W-Hal), et 6.1932, *Rechinger* 1844 (LD, Rech); pr. Egaleo, *Goulimis* (Goul); pr. Daphni, 5.1967, *Bedford* (BM); in m. Parnis, *Sartori* 344 (G), 10.6.1863, *Leutwein* (BM, Z, ZT), 8.1929, *Atchley* 84 (K), et 6.1937, *Pinatzi* (W); *ibid.*, pr. mon. Panajia Kliston, 21.6.1852, *Heldreich* 613 (FI, G-Boiss, LAU, W), 2.5.1908, *Maire* 3066 (G), et 20.5.1928, *Guiol* (BM); *ibid.*, in lat. mer. pr. Tatoi (= Dekelia), 13.6.1883, *Heldreich* (BM, G, LD, W-Hal), 7.7.1888, *Halácsy* (E, W-Hal), 6.1890, *Heldreich* (GB), 26.4.1894, *Grampini* (RO), 5.1895, *Burnat & Jaccard* (LAU), et 23.7.1971, *Greuter* 9470 (Goul, Gr).

Euboea (= Evvia): *Beck* (M). **Karistia:** inter promont. Kaphirefs et promont. Merouthi, 24.6.1958, *Rechinger* 19059 (K, M, W) et *Runemark & Snogerup* 11863 (LD); ad austro-occ. promont. Kaphirefs, 22.6.1958, *Rechinger* 18915 (W) et *Runemark & Snogerup* 11767 (LD); in mont. Ocha, pr. Ajos Dimitrios, 5.1955, *Rechinger* 16968 (G, M, W), et inde vs. mare, 23.6.1958, *Rechinger* 19025 (W) et *Runemark & Snogerup* 11783 (LD); in fauc. pr. Vrisi, 18.6.1958, *Rechinger* 18679 (M, W); pr. Kimi, 6.1958, *Rechinger* 18795 (W), et 4.6.1969, *Stamatiadou* 6483 (Goul); *ibid.*, in litoreis Platana, a. 1966, *Rechinger* 37827 (W); *ibid.*, pr. mon. Sotir, 17.5.1966, *Phitos* 4750 (G). **Chalkis:** pr. Steni Dirphios, 6.1947, *Goulimis* (Goul), 27.6.1958, *Rechinger* 19227 (W), 10.7.1965, *Phitos* 4518 (M), et 27.6.1970, *Strid* 518 (Gr, LD); in m. Dirphis (= Delphi), *Spruner* (G-Boiss, JE), a. 1930, *Guiol* (BM), et 2.7.1931, *Giuseppi* 99 (K); in mont. Kandili ad austro-occ. pagi Prokopio (= Achmet Aga), 20.7.1956, *Rechinger* 18173 (G, K, M, W); pr. Mandoudi inter Prokopio et Strophilia, 29.5.1955, *Rechinger* 16994 (W); ad austro-

or. pagi Limni vs. mon. Galatakis, 28.7.1972, *Greuter 10572* (Goul); pr. Limni, 26.4.1902, *Leonis* (SARA, W, W-Hal). **Istiea**: pr. Ellinika, 3.6.1969, *Stamatiadou 6435* (Goul); pr. Gouves, *Wild* (BM, W-Hal), et 6.1863, *Leutwein* (Z). Ins. **Skiros**: "Ajos Artemios", 19.6.1908, *Tuntas 542* (W-Hal).

Thessalia. Magnisia: ins. Skantzoura, 30.5.1963, *Phitos 958* (M); ins. Joura, 27.5.1894, *Reiser* (SARA), 16.6.1933, *Cyrén* (GB), et 6.5.1966, *Phitos 4982* (G); ins. Kira-Panaja (= Pelagos), 6.6.1966, *Phitos 5002* (G); *ibid.*, in scopulo Sphika, 27.7.1960, *Runemark & Nordenstam 16867* (LD); ins. Alonnisos, pr. Votsi, 7.6.1966, *Phitos 5070* (G, Gr); ins. Skopelos, pr. Skopelos, 5.1927, *Rechinger 918* (BM, LD, Rech, W, WU), et 3.6.1966, *Phitos 4907* (G); ins. Skiathos, in scopulo Marangos adv. urbem, 2.7.1962, *Gathorne-Hardy 282* (E); in m. Pilio (= Pelion), infra pagum Drakia, 18.6.1935, *Beauverd* (G); *ibid.*, in lat. or., inter Tsangarada et "Milopotamos", 3.6.1967, *Stamatiadou 469* (Goul); *ibid.*, pr. Ajos Joannis infra Ajos Dimitrios, *Topali 822* (G), et 1.8.1937, *Topali* (G); *ibid.*, pr. Chorefto, *Topali 90* (G); pr. Keramidi, 3.8.1938, *Regel* (G). **Larisa**: in valle Timbi fl. Pinios, 6.7.1968, *Roessler 6479* (M), et 7.7.1971, *Greuter 9203* (G, Goul, Gr).

Macedonia austr. Chalkidiki. Ajon Oros (= m. Athos): *Aucher-Eloy 3227* (BM, FI, FI-Webb, G, G-Boiss, G-DC, K, LE, P, W), *Ballalas 29* (C), *Friedrichsthal 1226* (W), *Frivaldsky* (BM, E, G-Bu, LE, W, WU), et a. 1910, *Adamović* (Z); ad rupes litoreas, 8.1873, *Pichler* (BM, FI, G, G-Boiss, G-Bu, Hub, JE, K, LAU, MPU, PRC, W, W-Hal, WU), a. 1883, *Breuer* (PR), 13.6.1891, *Bornmüller & Sintenis* (GE, JE, M), 5.1908, *Dimonie* (SARA, W-Hal, Z), 6.1908, *Dimonie* (PR), 6.1936, *Schacht* (SOM), et 8.1942, *Rauh* (B); "Delphi", 30.6.1938, *Skřivánek* (Sim); "Limn Omorphonon", a. 1947, *Goulimis* (Goul); pr. mon. Ajos Pandeileimon, 6.1913, *Hartmann* (GB); pr. Daphni, 7.1908, *Dimonie* (PR, PRC, W, WU), et inde vs. mon. Xeropotamos, 7.1938, *Behr* (B); pr. mon. Kousokalivia, 28.6.1891, *Sintenis & Bornmüller 872* (B, LD, W-Hal) et *872b* (B, G, JE, K, LD, MANCH, W, W-Hal); pr. mon. Mejisti Lavra (= Prodomos), 5.1909, *Dimonie* (LD, M, SARA, WU), et inde vs. "Kerasia", a. 1954, *Goulimis* (Goul), et vs. mon. Iviron, 28.8.1926, *Mattfeld 2855* (C, K); pr. mon. Stavronikita, 21.8.1936, *Regel* (G); pr. mon. Vatopedi, 13.6.1891, *Sintenis & Bornmüller 768* (B, BM, G, JE, K, LE, MANCH, P, PR, PRC, W, W-Hal, WU, Z).

Sporades austr. (= ins. aegaeae or.): "Kos, Leros et Samos", *Urville* (G-DC); "Kos et Samos", *Urville* (P). Ins. **Lesvos** (= Mitilini, Mételin): 7.6.1833, *Montbret* (FI-Webb, W) et 29.8.1971, *Hermjakob* (Goul); pr. Loutra, 7.7.1967, *Strid* (fructus). Ins. **Chios**: a. 1853, *Pauli 582* (JE); pr. mon. Panajia Mirthidiotissa, 24.4.1970, *Jeavons 8173* (Goul); pr. Karies, 5.1948, *Goulimis* (Goul), et inde vs. m. "Plaka", 5.1934, *Rechinger 5407* (BM, G, K, LD, Rech); pr. Sklavia, 20.5.1940, *Platt 499* (K). Ins. **Ikaria**: loco "Avlaki" (recte: Vardarades?), 22.4.1958, *Runemark & Snogerup 6335* (LD); ad thermas "Kriphogalia" pr. Ajos Kirikos, 4.1934, *Rechinger 4485* (Rech); pr. sinum "Kerame" litoris or., 13.7.1958, *Runemark & Snogerup 12526* (LD). Ins. **Phourni**: ins. Thimena (= Fimena), ad boreo-occ. pagi Thimena, 13.7.1964, *Strid & Bothmer 21845* (LD). Ins. **Samos**: a. 1819, *Urville* (FI-Webb); pr. mon. "Zoodochos Piji", 4.4.1934, *Rechinger 3670a* (Rech) et *3670b* (BM, K, LD, Rech, W); in m. Kerketefs (= Kerki), 16.6.1886, *Major 447* (G); *ibid.*, supra mon. Ajon Kiriaki, 26.5.1962, *Runemark & al. 19548* (LD); in valle ad occ. pagi Leka, 22.5.1962, *Runemark & al. 18926* (LD); pr. portum pagi Karlovasi, 22.5.1962, *Runemark & al. 18752* (LD); ad occ. pagi Vathi, 6.7.1964, *Strid & Bothmer 21798* (LD); ad arcem pr. Pithagorio (= Tigani), 2.4.1934,

Rechinger 3628 (BM, Rech, W). Ins. **Kalimnos**: ins. Telendos, 10.4.1887, *Major* 18 (FI, G); in m. "Ajos Ilias", 30.6.1886, *Major* 559 (G); in fauc. pr. Chorio, 3.6.1935, *Rechinger* 7864 (BM, K, LD, Rech); ad litus austro-occ. vs. mon. "Ajia Photi", 13.4.1887, *Major* 447 (G), et 14.4.1966, *Runemark & Persson* 22272 (LD); in rupibus "Marsi" pr. "Vrousta", 3.6.1935, *Rechinger* 7840 (BM, LD, Rech, W). Ins. **Kos**: 5.1819, *Urville* (K, MPU); in m. "Dikios" supra Asphendiou, 21.4.1887, *Major* 447 (E, G). Ins. **Tilos** (= Piskopi): 3.6.1937, *Ade* (Rech). Ins. **Simi**: ad sinum Ajos Jeorjos, 28.6.1935, *Rechinger* 8478 (BM, G, JE, K, LD, M, Rech, W), et 6.5.1961, *Gathorne-Hardy* 51 (E, Goul). Ins. **Chalki**: "San Giorgio", 26.4.1931, *Hoffmann-Grobéty* (G), et 1.5.1931, *Hoffmann-Grobéty* (G); infra pagum Chorio, 4.5.1964, *Gathorne-Hardy* 771 (E). Ins. **Rodos**: "Monte Profeta", *Finkl* (M); in m. Akramitis pr. Siana, 18.5.1935, *Rechinger* 7423 (BM, G, K, LD, Rech); in m. Prophitis Ilias pr. Salakos, 12.6.1870, *Bourgeau* 82 (BM, E, FI, G, G-Boiss, K, LD, MPU, P, PR, PRC, RO, TL, W); *ibid.*, loco "Kephala", 11.5.1935, *Rechinger* 7144a (Rech); *ibid.*, in fauc. occ., 12.5.1935, *Rechinger* 7144b (BM, Rech); *ibid.*, in rupe "Turka", 2.7.1935, *Rechinger* 8524 (BM, LD, Rech, W); c. Salakos, 15.6.1964, *Strid & Bothmer* 21739 (LD), et 2.6.1967, *Runemark & Bentzer* 29358 (LD); pr. Archipolis, 14.6.1964, *Strid & Bothmer* 21729 (LD); ad sept. pagi Archangelos, 14.6.1964, *Strid & Bothmer* 21719 (LD); pr. Malona, 1.1944, *Finkl* (M); ad mer. pagi Kalathos, 4.4.1964, *Snogerup* 22122 (LD); in scopulo occ. adv. promont. Ladros (= Phokas), 9.7.1960, *Runemark & Nordenstam* 16726 (LD).

Anatolia: *Aucher-Eloy* (P) et *DeNotaris* (LD).

Bithynia (?): *Gouan* (K) et *Grisebach* (G-Boiss); "in agro Byzantino", *Wiedemann* (LE); "Olympus" (bithynus?), *Forbes* 319 (K).

Lydia. Prov. **Izmir**: "Izmir, Kuşadası, Samsun dağ...", *Kayacık & Yaltırık* 3379 (E); pr. Çeşme, *Olivier* (G, G-DC, L, P); inter Urla et Mordoğan, pr. sinum Kargı, 17.6.1956, *Demiriz* 3090 (B); pr. Izmir (= Smirna), a. 1812, *Rennard* (BM), et 7.1896, *Whittall* 704 (K); *ibid.*, pr. "Koukouloudja", 27.6.1854, *Balansa* 271 (BM, C, FI-Webb, G, G-Boiss, JE, K, MANCH, MPU, P, TL, W); ad sinum smyrnaeum pr. "Ilidja", 29.5.1906, *Bornmüller* 9674 (B, BM, E, JE, K, LE, W, Z); in valle "Kavaklidere" ad or. urbis Izmir, 20.5.1935, *Huber-Morath* 2335 (Hub); *ibid.*, pr. "Bunorbaşı", 6.7.1933, *Schwarz* 794 (B); pr. Kemalpaşa, 1.5.1966, *Peşmen* 814 (G); pr. Kuşadası, 12.5.1931, *Guyot* (BAS, LAU) et *Reese* (Bas), 27.5.1935, *Wall* 671 B (LD), 21.6.1956, *Demiriz* 3146 (B), 28.5.1962, *Runemark & Snogerup* 20014 (LD), et 14.7.1967, *Strid* (fructus).

Caria: a. 1843, *Pinard* (Ath, FI, FI-Webb, G, G-Boiss, K, LAU, P, RO, W). Prov. **Aydın**: in valle ad occ. opp. Söke, 7.8.1969, *Herrn* 967 (Gr, STU); ad rudera Priene, 25.5.1962, *Dudley D* 34971 (E) et *Huber-Morath* 16677 (Hub), 9.4.1965, *Davis* 40806 (E, K), et inde vs. m. Samsun dağ, 6.1906, *Bornmüller* 9675 (B). Prov. **Muğla**: pr. Muğla, 6.1946, *Başarman* (Hub), et 19.6.1954, *Demiriz* (Hub); 7 km ad mer. opp. Muğla, 5.6.1962, *Dudley D* 35387 (E); in penins. Yarımadası, 18.4.1965, *Davis* 41348 (E); inter Marmaris et Emecik, 25.3.1956, *Davis & Polunin* 25360 (BM, E, K); *ibid.*, 35 km ad occ. opp. Marmaris, 26.5.1969, *Barclay* 1651 (G); pr. Hisarönü ad occ. opp. Marmaris, 6.6.1962, *Dudley D* 35417 (E); 5 km ad occ. opp. Marmaris, 26.5.1969, *Barclay* 1659 (G); pr. Marmaris, 24.3.1956, *Davis & Polunin* 25249 (BM, E, K); *ibid.*, loco "Günnücek", 20.7.1966, *Peşmen & Aydar* 597 (G); *ibid.*, loco "Nimara Ada", 16.7.1960, *Khan & al.* 69 (E, K); *ibid.*, loco "Ordugah" (= Ortaca?), 13.7.1960, *Khan & al.* 21 (E, K); pr. "Gölçük" ad km 116 viae a Muğla ad Fethiye ducentis, 7.5.1938, *Huber-Morath* 5464 (Hub);

ibid.? ("Göçik"), 5.6.1967, *Runemark & Bentzer* 29487 (LD); ibid., 6 km ad occ. pagi "Gölçük", 7.6.1938, *Reese* (Bas); inter Fethiye et Üzümlü, 17.6.1967, *Peşmen & Leblebici* 7018 (G); pr. Fethiye, 27.3.1956, *Davis & Polunin* 25419 (BM, E, K); ibid., loco "Yelceğiz", 5.6.1967, *Runemark & Bentzer* 29422 (LD).

Lycia, Pamphylia et Isauria. Prov. Antalya: Çıralı, 5.1894, *Boissieu* (LD); "Antalya, Alanya, etc.", 8.5.1845, *Heldreich* (G-Boiss); [Antalya et] "Alanya", 4.1845, *Heldreich* (Ath, E, FI-Webb, G, G-Boiss, K, LAU, MPU, P, PR, TO, W, ZT); pr. Antalya, 5.1840, *Pestalozza* (G-Boiss, RO, TO, W) et herb. Gennari (TO), 4.1845, *Heldreich* (MANCH), et 1.5.1860, *Bourgeau* (C, COI, G, K, LAU, LE, MPU, P, RO, W); ibid., ad occ. urbis, loco "Konya altı", 17.5.1936, *Tengwall* (Hub, K), et 23.5.1950, *Huber-Morath* 9979 (Hub); pr. Alanya, 5.1845, *Heldreich* (M).

Libanus: "Syria", *Labillardière* (FI-Webb, G) et *Machmoud* 162 (W); Libanus, *Labillardière* (FI-Webb, H); "fleuve du Chien", 5.1869, *Gaillardot* (JE); inter Tripoli et Batroun, 8.8.1931, *Eig & Zohary* (HUJ); ibid., ad Ras Chekka, 17.5.1933, *Reese* (Bas), 11.9.1952, *Pabot* (G), et 4.5.1954, *Pabot* (G); pr. Sir, 8.7.1934, *Olami* (G, HUJ); inter Ehden et "Anubin", 26.7.1855, *Kotschy* 942 (W); pr. Bcharré, a. 1855, *Kotschy* 942 (G-Boiss, P); in valle Nahr Ibrahim, 30.4.1965, *Roessler* 5222 (M); in valle Nahr el Kelb, 24.4.1880, *Barbey* 533 (G, ZT), 16.5.1882, *Peyron* 1371 (G, G-Boiss, LE, MPU), 8.6.1933, *Mouterde* 2403 (Mout), 20.2.1943, *Davis* 5298 (K), 20.4.1951, *Pabot* (G), et 5.6.1959, *Maitland* 410 (K); in valle infra Salima, 7.1849, *Blanche* 214 (G-Boiss); infra pagum Broummana, 6.1897, *Bornmüller* 894 (B), et 5.8.1952, *Mooney* 4563 (K); pr. Saïda, s. coll. (MANCH); in valle Nahr Damour, 29.4.1965, *Roessler* 5208 (M); in valleculâ Barghoutiyé, 7.12.1852, *Blanche* (TL), 25.5.1853, *Blanche* 82 (C, E, FI, G, JE, K, L, MPU, PI, PRC, TL, W) et 671 (G-Boiss, MPU, W) et *Gaillardot* (JE); in m. Hermon, in valle Ouadi Cheba'a inter Cheba'a et Hibbâriyé, 20.7.1924, *Eig* (HUJ) et *Naftolsky* (HUJ).

Syria austr.: pr. Bantias, a. 1863-1864, *Lowne* (BM, E, K).

Terra Israël: pr. Mtulle, loco "Tanur", 31.1.1925, *Smolly* (HUJ); ibid., in fauc. supra cataractas, a. 1942, *Davis* (E, K); in valle Wadi Amud, 10.1.1943, *Davis* 5168 (E).

Loca excludenda

Vide plantas insularum Kasos, Karpathos et Saria nec non partis orientalis provinciae Sitia Cretae sub *Ptilostemone Chamaepeuce* var. *eleganti*; cypriae sub var. *cyprio*; eae e ditone Antiochiae et e "Tauro monte" sub var. *camptolepidi*. Plantae Corcyrae, Italiae et Cyrenaicae synonymis speciei nostrae indicatae ad *P. gnaphaloidem* pertinent, et ejus subsp. *pseudofruticoso* subjungenda sunt specimina e Phocide, Corinthiâ, Argolide et — reor — Laconiâ ab auctoribus cum specie nostrâ confusa. In Bithyniâ a recentioribus non lectus, origo speciminum citatorum valde dubia, indicationes ulterius firmandae.

5β. *Ptilostemon Chamaepeuce* var. *cyprius* Greuter, var. nova. Holotypus: "Chamaepeuce mutica DC. var. *camptolepis* Boiss., Troodos: Felsen am Flusse bei Galata, d. 25./6.", *Sinten*, Reise auf Cypern 1880, n. 548 (LD; isotypi

[plurimi ut *Sintenis & Rigo 548*]: BM, C, FI, G, GB, K, LAU, LD, MANCH, MPU, NAP, PAL, PR, PRC, TL, W).

- *Chamaepeuce fruticosa* vel *Cirsium Chamaepeuce* subsp. *fruticosum* auct. quoad pl. Cypri (non *Cnicus fruticosus* Desf.).
- *Chamaepeuce Alpini* var. *camptolepis* vel *Chamaepeuce mutica* var. *camptolepis* vel *Cirsium Chamaepeuce* subsp. vel var. *camptolepis* vel *Cirsium Alpini* a *camptolepis* auct. quoad pl. Cypri (non s. str.).

Fig. 10b, p. 34 (phyllum involucri); tab. I b (capitulum typi); tab. V (specimen holotypicum).

Dignoscitur phyllis involucribus exterioribus elongatis foliaceis capitulum fulcrantibus, sequentibus appendice crassiusculâ subfoliaceâ recurvâ, inde ad intimas sensim tenuiore minus curvatâ dein aristiformi subrectâ terminatis. Plantae quoad dimensiones omnium partium valde variabiles, involucri 14-22 mm longis, pappo flosculorum 12-19 mm longo, corollâ 18-26 mm longâ limbo tubum c. aequante, fructibus (3.8-)4-5 mm longis, (2.6-)2.8-3.2 mm crassis. Involucri phylla praesertim exteriora extus saepe subtomentosa, caetera crispule pubescenti-floccosa vel glabrescentia; appendices phyllorum mediorum (2-)3-5 (-8) mm longae.

Habitat in fissuris rupium calcarearum rarius ignearum praeruptarum vel — haud raro — in clivis saxosis dumuletis mediterraneis vel silvâ rarâ obtectis, solo calcareo vel vulcanico, a mari ad 1650 m altitudinis. Floret a Majo ad Julium mensem.

Area

Endemicus in Cypri insulâ, ubi montes septentrionales calcareos (Kyrenia) nec non partem austro-occidentalem vulcanicam circa montem Troodos incolit. (Plantae analogae partim vix dignoscendae quandoque alibi in areâ *Ptilostemonis Chamaepeuces* reperiuntur; has autem sub specie “normali” enumeravi). Vide fig. 30.

Specimina visa

Cyprus: “Limniti”, 4.4.1938, *Chapman 355* (K). Mont. **Kyrenia:** 6.1854, *Gaudry 86* (P), et 13.7.1955, *Atherton 142* (K); “Halefka”, 25.6.1940, *Davis 1752* (E, K); pr. “Chiklos”, 25.7.1955, *Atherton 254* (K); c. Komi Kebir, 5.1912, *Haradjian 300* (G, K); pr. domum forestalem Koronia, 4.1937, *Chapman 232* (K), 22.5.1937, *Danks 295* (K), et 23.9.1959, *Feinbrun* (HUJ); in m. Sina, 23.3.1970, *Hansen 401* (C) et *Kaae* (C); supra Kithrea vs. m. Pendadaktilos, 5.1880, *Sintenis 548* (LD) et *Sintenis & Rigo 548* (G-Boiss); inter Nikosia et mon. Chrisostomos, 3.4.1854, *Kotschy 175* (G-Boiss, W); in m. Buffavento, 24.5.1889, *Pichler* (WU); pr. Kirenia, 30.10.1936, *Kennedy 958* (K), et 26.5.1955, *Mapple 53* (K); ibid., secus viam ad Nikosia ducentem, 19.4.1972, *Wood* (Gr); ibid., loco “Boghazi”, 9.6.1939, *Lindberg* (GB, LD); inter Kirenia et mon. Ajos Ilarion, 20.10.1955, *Atherton 746* (K); pr. mon. Ajos Ilarion, 7.6.1939, *Lindberg* (W),

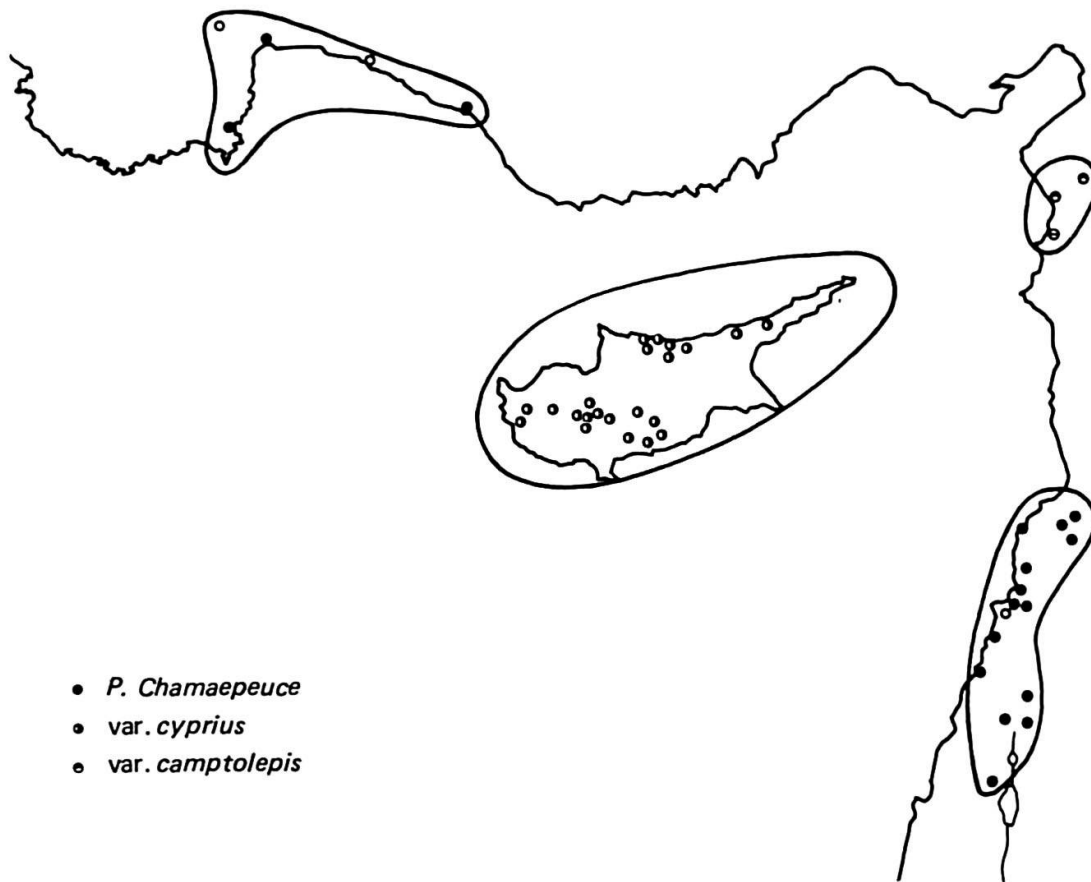


Fig. 30. — Distributio geographica *P. Chamaepeuces* ejusque varietatum in Oriente et Anatoliâ meridionali, secundum specimina herbaria visa (signa saltem partim expleta), indicia literaturae floristicae et adnotationes collectorum (signa circumscripta).

23.5.1941, *Davis* 3627 (E, K), et 10.5.1952, *Probyn* 141 (K); Karmi, 3.5.1948, *Casey* 177 (K). Mont. **Troodos**: a. 1950, *Probyn* (K); distr. Paphos, pr. mon. Ajos Neophitos, 22.7.1939, *Lindberg* (K); pr. Jolou, supra "Baths of Aphrodite", 17.3.1962, *Meikle* 2230 (C, K); pr. Panajia, 6.1913, *Haradjian* 910 (G, K, L); pr. mon. Prodromos, 5.8.1898, *Post* (BM); pr. Pano Platres, 5.5.1930, *Wall* 671 B (GB); in m. Troodos, 1.6.1948, *Mavromoustakis* (K); pr. Kakopetria, 7.1930, *Ussher* 126 (K), 23.6.1939, *Lindberg* (LD), et inde vs. Amiandos, 8.7.1935, *Syngrossides* 735 (K); ibid., pr. Galata, 25.6.1880, *Sintenis* 548 (C, LD) et *Sintenis & Rigo* 548 (BM, C, FI, G, GB, K, LAU, LD, MANCH, MPU, NAP, PAL, PR, PRC, TL, W), et 6.1918, *Reverchon* (LD); pr. Agros, 9.8.1905, *Holmboe* 1143 (G, W); distr. Limassol, inter Moni et Kellaki, 19.3.1956, *Merton* 2553 (K); in m. Machera pr. "Vouri", 19.7.1940, *Davis* 1895 (E, K); pr. Lefkara, 21.7.1940, *Davis* 1900 (E); pr. Kalavassos, 3.5.1905, *Holmboe* 610 (BM); pr. Chirokitia, 7.1894, s. coll. (E).

5γ. *Ptilostemon Chamaepeuce* var. *camptolepis* (Boiss.) Greuter, comb. nova ≡ *Chamaepeuce Alpini* var. *camptolepis* Boiss., Fl. Or. 3: 554. 1875 (excl.

- speciminibus plur.) $\equiv$ *Chamaepeuce mutica* var. *camptolepis* (Boiss.) Sintenis & Rigo in sched. autogr. ad pl. ex ins. Cypro a. 1880, n. 548 (excl. specimine) $\equiv$ *Cirsium Chamaepeuce* subsp. *camptolepis* (Boiss.) Holmboe in Bergens Mus. Skr. ser. 2, 1/2: 186. 1914 (excl. speciminibus) $\equiv$ *Cirsium Alpini* ["Rasse"] a *camptolepis* (Boiss.) Vierh. in Verh. Zool.-Bot. Ges. Wien 69: 255. 1919 (excl. speciminibus plur.) $\equiv$ *Cirsium Chamaepeuce* var. *camptolepis* (Boiss.) Hayek in Repert. Spec. Nov. Regni Veg. Beih. 30/2: 727. 1931 (excl. locis). **Syntypi** plures (vide Boiss., l.c.) quorum omnes praeter lectotypum et specimen *Kotschy* 276 meo sensu excludendi. **Lectotypus**: "Rochers d'Antioche, Syria, Mai-Jul. 1846", *Boissier* (G-Boiss; isotypus: G).
- = *Cnicus fruticosus* Desf., Hist. Arb. 1: 280. 1809 $\equiv$ *Carduus fruticosus* (Desf.) Steudel, Nomencl. Bot. 1: 152. 1821 ($\neq$ Poiret 1811) $\equiv$ *Ptilostemon appendiculatus* ["appendiculatum"] Cass. in Dict. Sci. Nat. 44: 58. 1826, nom. illeg. $\equiv$ *Chamaepeuce fruticosa* (Desf.) DC., Prodr. 6: 658. 1838 (excl. descr. et loco) $\equiv$ *Cirsium Chamaepeuce* subsp. *fruticosum* (Desf.) Holmboe in Bergens Mus. Skr. ser. 2, 1/2: 186. 1914 (excl. specimine) $\equiv$ *Cirsium fruticosum* (Desf.) Petrak ex Vierh. in Verh. Zool.-Bot. Ges. Wien 69: 250. 1919 (excl. descr. et speciminibus) $\equiv$ *Cirsium Chamaepeuce* f. *fruticosum* (Desf.) Pamp. in Bull. Soc. Bot. Ital. 1921: 47. 1921. **Typus**: "Or[iens]", planta culta. **Holotypus**: "Cnicus fruticosus N.", herb. Desfontaines (FI-Webb).
- = *Carduus fruticosus* Poiret in Lam., Encycl. Méth. Bot. Suppl. 2: 199. 1811. **Typus**: "On la cultive au Jardin des Plantes de Paris". Specimen verisimiliter non conservatum. **Neotypus**: "Cnicus fruticosus N.", herb. Desfontaines (FI-Webb).
- = *Koechlea* ["Kochlea"] *mitis* Endl., Gen. Pl. Suppl. 2: 48. 1842. **Typus**: "in Tauro Asiae monte ... planta e seminibus a Theodoro Kotschy olim missis [Vindobonae] nata". Specimen non conservatum. **Neotypus**: "Chamaepeuce fruticosa DC. - Fzl., In monte Tauro, Aestate 1836", *Kotschy* 276 (W; isotypi: BM, G, G-Boiss, K, LE, M, PR, W).
- *Carduus fruticosus* Desf., Tabl. Ecole Bot.: 91. 1804, nom. nud.
- *Ptilostemon fruticosus* ["fruticosum"] Soják in Novit. Bot. Delect. Seminum Horti Bot. Univ. Carol. Prag. 1962: 46. 1962, nom. nud.

Fig. 10c, p. 34 (phyllum involucri); tab. I c (capitula typi).

Phyllis involucribus fere ad apicem usque dense albo-tomentosis, laxiusculis, sensim longe spinescenti-acuminatis et eleganter extus curvatis apice subpatentibus (angulo 60-90°) conspicuus. Capitula parvula, involucri 15-17 mm longis; pappus flosculorum 12-13 mm longus, corolla 17-20 mm tantum longa, limbo tubum c. aequante; fructus subminores, 3.5-4 mm longi, 2.4-2.8 mm crassi.

Habitat ad rupes verisimiliter calcareas regionis inferioris. Floret ut videtur ineunte aestate.

Area

Endemicus videtur in prov. Hatay Turciae et in finitimis Syriae litoralis. Vide fig. 30.

Specimina visa

Cultus in hortis botanicis nonnullis ineunte saeculo XIX: Berolini, Hauniae, Lutetiae (in h. Regio simul cum specie "normali", nec non in Celsiano et pr. Versailles) et forsan alibi.

Anatolia: "in m. Tauro", a. 1836, *Kotschy* 276 (BM, G, G-Boiss, K, LE, M, PR, W). **Amanus.** Prov. **Hatay:** pr. Samandağ (= Suveydiye, "Svedia"), a. 1836, *Kotschy* 276 (K, W); Antakya (= Antioche), a. 1846, *Boissier* (G, G-Boiss).

Syria litoralis: in valle Karadourane ad occ. pagi Kessab, 20.7.1955, *Pabot* (obs.; verisimiliter ad hanc varietatem referendus).

Loca excludenda

Plantae Graeciae mediae et australis nomine *Chamaepeuces fruticosae* vel *Cirsii fruticosi* indicatae ad *Ptilostemonem gnaphaloidem* subsp. *pseudofruticosum*, eae e monte Athone (et, si reverâ inde proveniunt, e Bithyniâ) ad *P. Chamaepeucen* "normalem" pertinent; plantae ex insulâ Carpatho sub synonymis varietatis nostrae citatae ad *P. Chamaepeucen* var. *elegantem*, eae e Cypro ad var. *cyprium*, eae e Corcyrâ ad *P. gnaphaloidem* et eae e penins. Sithonia ad ejus subsp. *pseudofruticosum* spectant, caeterae omnes praeter nostras *P. Chamaepeuce* "normali" adnumerandae. Specimina a *Kotschy* sub n. 276 e "Tauro" distributa cum iis e "Svedia" omnino congruunt et certe e ditione Antiochiae nec e Ciliciâ proveniunt.

5δ. Ptilostemon Chamaepeuce var. **elegans** Greuter, var. nova. **Holotypus:** "Chamaepeuce Alpini Jaub. et Spach β. camptolepis Boiss. Ad rupes calcareas maritimas litor. bor. or. insulae Karpathi, prope Promontor. Gréa, 25. Maj. 1886", *Major* 119 (G; isotypi: Gr, LE).

— *Chamaepeuce Alpini* var. *camptolepis* vel *Cirsium Chamaepeuce* var. *camptolepis* auct. quoad pl. ins. Karpathos (non s.str.).

Fig. 10d, p. 34 (phyllum involucri); tab. I d-e (capitula typi et formae e fauc. Zakros); tab. VI (specimen holotypicum).

Phyllis involucribus fere omnibus sub apice geniculatim extus flexis in subulam 2-5 mm longam pungentem subrectam (raro 5-7 mm longam eleganter curvatam) excurrentibus, subulis inter se similibus (interioribus autem aliquanto gracilioribus et minus divaricatis) cum involucrio plerumque angulum 90-120° (raro 180° et ultra) formantibus singularis. Capitula mediocria, involucri 16-22 mm longis, pappus flosculorum 12-16 mm longus, corolla 18-23 mm longa limbo tubum c. aequante; fructus 4-4.6 mm longi, 2.6-3.2 mm crassi. Involucri phylla marginem versus crispule puberula, medio in dorso (extimis exceptis) plerumque glabra rarius parce floccoso-pubescentia.

Habitat in fissuris rupium calcarearum praeruptarum, a mari ad 600 m altitudinis. Floret a Majo ad Julium mensem.

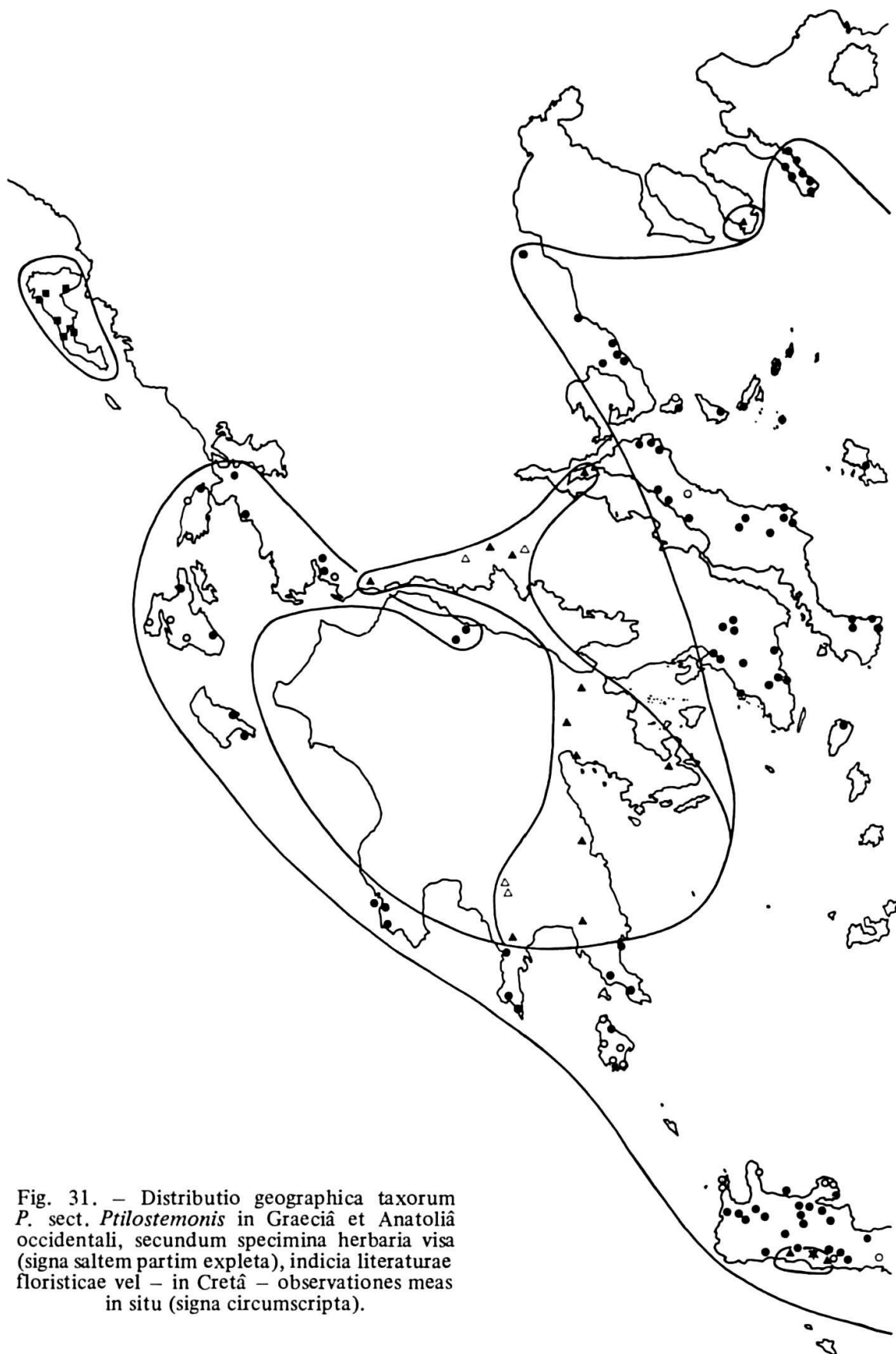
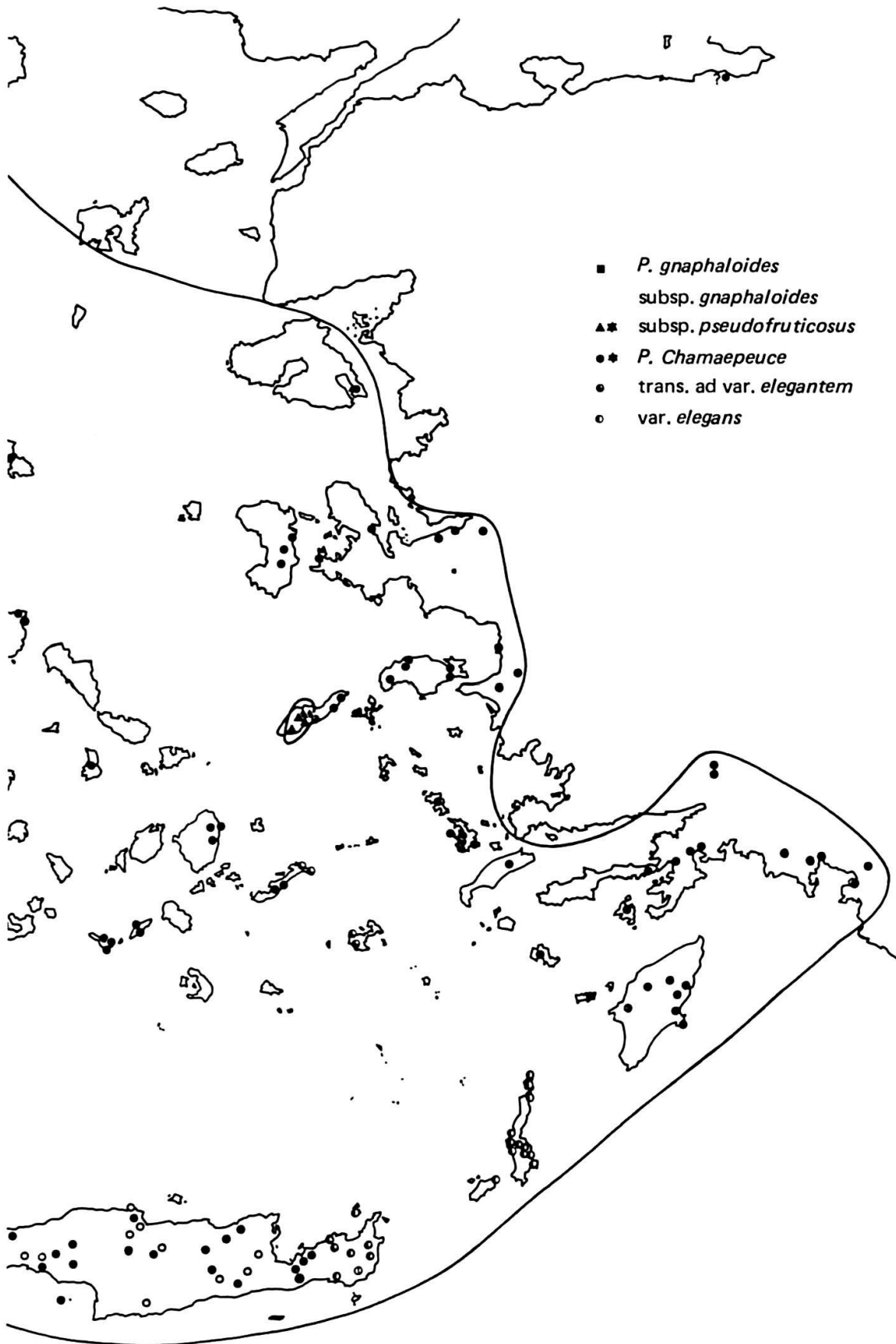


Fig. 31. — Distributio geographica taxorum *P.* sect. *Ptilostemonis* in Graeciâ et Anatoliâ occidentali, secundum specimina herbaria visa (signa saltem partim expleta), indicia literaturae floristicae vel — in Cretâ — observationes meas in situ (signa circumscripta).



Area

Endemicus in insulis meridionalibus maris aegaei, ibique tantum in insulâ Karpathos, cum Kasos et Saria adjacentibus, et in parte austro-orientali et orientali provinciae Sitia Cretae. (Formae *Ptilostemonis Chamaepeuces* ad varietatem nostram transeuntes in areis finitimis observantur, praecipue in parte boreo-occidentali provinciae Sitia et in insulis Astipalea et Amorgos Cycladum: harum specimina sub specie "normali" enumerata sunt.) Vide fig. 31.

Specimina visa

Graecia. Creta. Sitia: in fauc. infra Perivolakia, 8.5.1962, *Greuter 4428* (Gr, W, Z), et 1.10.1966, *Greuter 7638* (B, E, G, GB, Goul, Gr, K, LD, M, W); pr. Katsidoni, 7.1957, *Goulimis* (Goul); in fauc. pr. Chametoulo, 21.5.1962, *Greuter* (obs.); pr. Zakros, 16.5.1962, *Runemark & al. 17891* (LD), et 19.5.1962, *Greuter 4482* (Gr, W, Z); inter Zakros et Palekastros, 4.8.1962, *Gathorne-Hardy 291* (BM, E); ins. Janisada, 31.10.1966, *Greuter 7841* (Gr).

Karpathos. Ins. **Kasos:** pr. locum "Oxokambos", 5.5.1963, *Creutzburg* (Gr). Ins. **Karpathos:** pr. Pigadia, 7.7.1960, *Runemark & Nordenstam 16678* (LD); ad mare infra Aperi, loco Vrondi, 5.6.1886, *Major 119* (COI, FI, G, PI, Z, ZT), et 17.6.1935, *Rechinger 8264* (BM, LD, Rech); infra Aperi, 20.6.1935, *Crisoco* (Rech); ibid., loco "Kolimbithra", 4.6.1886, *Major 119* (COI, FI, G, P, PI, Z, ZT); pr. Aperi, in m. Ajos Ilias, 10.5.1886, *Major 119* (G); ibid., in m. Kollas, 18.6.1935, *Rechinger 8293* (BM, K, LD, Rech, W); in m. Kalilimni (= Lastos), 22.7.1950, *Davis 18065* (E, K); ibid., in lat. austro-occ., loco "Marmakouli", 10.7.1886, *Major 119* (G); ibid., in lat. occ., 9.7.1886, *Major 119* (BAS, G, K, MPU); pr. Mesochorio, 14.5.1963, *Greuter 5238* (G, Gr, LD, W); in promont. Grea litoris boreo-or., 25.5.1886, *Major 119* (G, Gr, LE). Ins. **Saria:** ad sinum Armiro litoris mer., 4.5.1958, *Runemark & Snogerup 7620* (LD); in fauc. "Endi" inter Palatia et Argos, 2.6.1963, *Greuter 5769* (Gr), et 18.8.1971, *Herrn 1147* (Gr, STU).

6. ***Ptilostemon gnaphaloides*** (Cyr.) Soják in Novit. Bot. Delect. Seminum Horti Bot. Univ. Carol. Prag. 1962: 46. 1962 ["*gnaphalodes*"] ≡ *Carduus gnaphaloides* Cyr., Pl. Rar. Neap. 1: 27, tab. 9. 1788 ≡ *Chamaepeuce gnaphaloides* ["*gnaphalodes*"] (Cyr.) DC., Prodr. 6: 658. 1838 ≡ *Cnicus gnaphaloides* (Cyr.) Bertol., Fl. Ital. 9: 40. 1853 ≡ *Cirsium Chamaepeuce* var. *gnaphaloides* ["*gnaphaloides*"] (Cyr.) Pamp. in Bull. Soc. Bot. Ital. 1921: 47. 1921. **Syntypi:** "Habitat in ulteriori Calabria, ab Angelo Fasano collectus anno 1783 ... In Herbario Cl. Ferrantis Imperati sicca reperitur ... Laete floret in hortulo nostro". Specimina desunt in NAP, ubi ipse perquisivi. *Neotypus* (an lectotypus?): "*Carduus gnaphaloides* Cyr., Neapoli", *Cyrillo* in herb. Jacquin (W).
- = *Staezelina tenuifolia* C. Presl, Fl. Sic.: xxix. 1826. **Typus** non indicatur. **Holotypus:** "*Staezelina tenuifolia* Pr. S. *Chamaepeuce* Günther herb. In collibus asperis saxosis Calabriae (Berger); — Siciliae ad Girgenti, Trapani", manu

- C. Presl (PRC); verisim. isotypi: "Calabria, *Berger*", manu Günther (PRC, W); "Gerace en Calabre", *Berger* (G-DC, LAU). Species Siciliae certe aliena; loca sicola schedae Preslianae ficticia, memoriae labenti forsitan imputanda.
- = *Cirsium gnaphalodes* Sprengel in L., Syst. Veg. ed. 16, 3: 375. 1826. **Typus**: "Cnicus gnaphalodes W. herb." *Holotypus*: "Cnicus gnaphalodes", herb. Willdenow n. 14955 (B-Willd).
- = *Cirsium Chamaepeuce* f. *albiflorum* Pamp. in Arch. Bot. (Forlì) 12: 48. 1936. **Typus** non indicatur. *Lectotypus*: "Cirsium Chamaepeuce Ten. var. gnaphalioides (Cir.) Pamp. f. albiflorum Pamp., Libia — Cirenaica, el-Beda: U. Msuria, 10. Maggio 1934", *Pampanini & Pichi-Sermolli* 8651 (FI; isotypi: G, K).
- *Carduus elychrisoides* Cyr., Fund. Bot. 1: 491-492. 1785, nom. nud.
- *Serratula Chamaepeuce* vel *Staehelina Chamaepeuce* vel *Cnicus Chamaepeuce* vel *Pteronia Chamaepeuce* vel *Cirsium Chamaepeuce* vel *Chamaepeuce mutica* vel *Cirsium Alpini* b *muticum* auct. quoad pl. Corcyrae, Italiae et Libyae (non *Serratula Chamaepeuce* L.).
- *Chamaepeuce Alpini* var. *camptolepis* sensu Boiss., Fl. Or. Suppl.: 309. 1888, partim, quoad pl. Corcyrae (non Boiss.).

Fig. 8a, p. 29 (basis folii caulini); fig. 18c, p. 49 (limbus corollae explanatus); fig. 19b, p. 50 (filamentum); fig. 21e, p. 56 (apices stylorum); tab. II e (grana pollinis).

Saepe ultra metralis. *Folia* surculorum saepius 10-15 cm longa, recta vel curvata, anguste linearia marginibus arcte revolutis causâ subteretia 1-2 mm lata (vel praecipue in formis umbricolis subplana anguste lineari-lanceolata ad 5 mm lata); basi sessilia apice longe subulato-attenuata spinulosa saepe flexuosa; eximie discoloria nam subtus candida tomento compacto crasso, supra leviter araneosa et ad costam floccosa, cito glabrata, glaucovirentia. *Caules* vere evoluti, (20-)30-60 cm alti, validiusculi, dense albo-floccoso-tomentosi rarius passim decalvantes, infra dense supra laxius foliati; folia caulina inferiora iis surculorum conformia, media et superiora gradatim breviora, basi subdilatata spinulis gracilibus vel validiusculis utrinque (0-)1-2(-5) stipulis instar dispositis praedita; ramealia bracteiformia ambitu triangulari-subulata basi spinulifera. *Synflorescentia* laxiuscule corymbosa, capitulis paucis (raro singulo) vel numerosis, lateralibus saepe longe pedunculatis. *Involucrum* late ovoideum dein campanulatum, laxius densiusve pubescens. *Phylla* numerosa arcte imbricata, basi pallida flavescentia, apice virentia vel purpurascentia; exteriora et media dorso aequaliter densius laxiusve crispule pubescentia, supra basin latissima, 1.2-2 mm lata, anguste triangulari-subulata, in appendicem gracilem a parte basali appressa tantum flexione minima nec ullâ contractione sejunctam excurrentia; interiora lineari-lanceolata, mediis teneriora et saepe sublitoria. *Setae* receptaculi candidae, 7-11 mm longae. *Pappus* 13-17 mm longus, setis 2-4-fariis mediocriter (ad c. 2 mm) plumosis (in flosculis marginalibus setae 1-2-fariae, infra bifariam, supra — saepe jam infra medium — circumcirca scabridae). *Corolla* 18-23 mm longa; tubus 9-12 mm longus; limbus 9-11 mm longus, basi valde campanulato-amplius inde plus minusve ventricosus, ad medium vel ultra (interdum fere per $\frac{2}{3}$ longitudinis) subaequaliter 5-fidus (fissura interior aliquando subprofundior), laciniis basi 0.6-1 mm latis. *Staminum* filamenta post anthesin 3.5-5 mm longa, jam infra medium densissime longe lanata; tubus antherarum vix vel ad summum per 1 mm e corollâ exsertus, 7.5-10 mm

longus, 0.8-1 mm crassus, caudis 1.6-2.8 mm longis, appendicibus 2.2-3 mm longis distincte apiculatis. Apex *styli* 2.2-3.6 mm longus; lobi stigmatiferi anguste ovati, rite acutiusculi vel acuti, per 0.4-0.8 mm liberi et conspicue hiantes, saepe lateraliter decurrentes (interdum per 1 mm). *Fructus* oblique obovoideus vel subpyriformis, crassus, brunneus vel purpurascenti-brunneus vel griseolus saepe stramineo-marmoratus, interdum vittis 5 atrioribus notatus; discus apicalis diametro 1.4-1.8 mm, margine minimo vel indistincto.

6a. *Ptilostemon gnaphaloides* subsp. *gnaphaloides* (vide synonyma sub specie oblata).

Fig. 10e, p. 34 (phyllum involucris); fig. 15b, p. 44 (apices setarum pappi).

Involucrum basi umbilicatum vel truncatum, 16-22 mm longum. *Phylla* media involucris in appendicem suberectam subulatam vix spinulosam, non vel vix elongatam, 2-3.5(-4) mm longam excurrentia. *Flosculi* purpurei (perraro albidii). *Pappi* setae rite 3-4-fariae, apice circumcirca plumulosae vel barbellatae. *Fructus* 4-5 (-5.4) mm longus, 2.8-3.2 mm crassus.

Habitat saepissime in fissuris rupium calcarearum praeruptarum, rarius in calculis alveorum siccorum vel in dumulosis mediterraneis aridis, solo calcareo, a mari ad 750 m altitudinis. Floret ab Aprili ad Junium mensem.

Area

Disjunctim in insulâ Corcyrâ Graeciae, in locis paucis Calabriae ulterioris orientalis et in orâ mediterraneâ Cyrenaicae. Vide fig. 32.

Specimina visa

Cultus a tempore Cyrilli in hortis botanicis Italiae nonnullis: vidi specimina e Neapolitano, e h. experimentalis "Casa Bianca" in promont. Argentaro et e h. "la Mortola" prope Intemelium, ubi etiam saeculo nostro persistebat.

Inquilinus in rupibus Nicaeae maritimae, ubi anno 1937 primum observabatur et adhuc viget et unde specimina sequentia vidi: "au Lazaret", 5.6.1937, *Rodié* (MPU); "avenue Maurice Rouvier", 5.1949, *Malosse* in Soc. Franç. Ech. Pl. Vasc. n. 1442 (K); "Cap de Nice", 18.4.1961, s. coll. (M).

Graecia. Insulae Ioniae. Ins. *Kerkira* (= Corfù): *Mazziari* (FI); pr. "Pirji", 26.5.1891, *Bicknell* (BM, G-Bu, GE); pr. "Rovina", a. 1967, *McCubbin* 3 (E); ad litus occ. pr. "Gliphada", 26.8.1970, *Barclay* (Gr); in lat. m. Pandokrator ad occ. pagi Nisaki, 17.6.1966, *Snogerup* 23863 (LD); pr. Dukades, 6.1895, *Grimburg* (W-Hal); pr. Lakones (= Paleokastritsa), 6.1895, *Grimburg* (GB), et 4.1968, *Kiener* (W); pr. Pelekas vs. mare, 17.5.1891, *Bicknell* (GE); pr. Garouna, 29.6.1879, *Letourneux* (C, G-Boiss, LAU); in silvâ pagi Aji Deka, 23.5.1949, *Goulimis* (Goul); ad sept. pagi Benitse, 6.6.1966, *Snogerup* 23560 (LD).

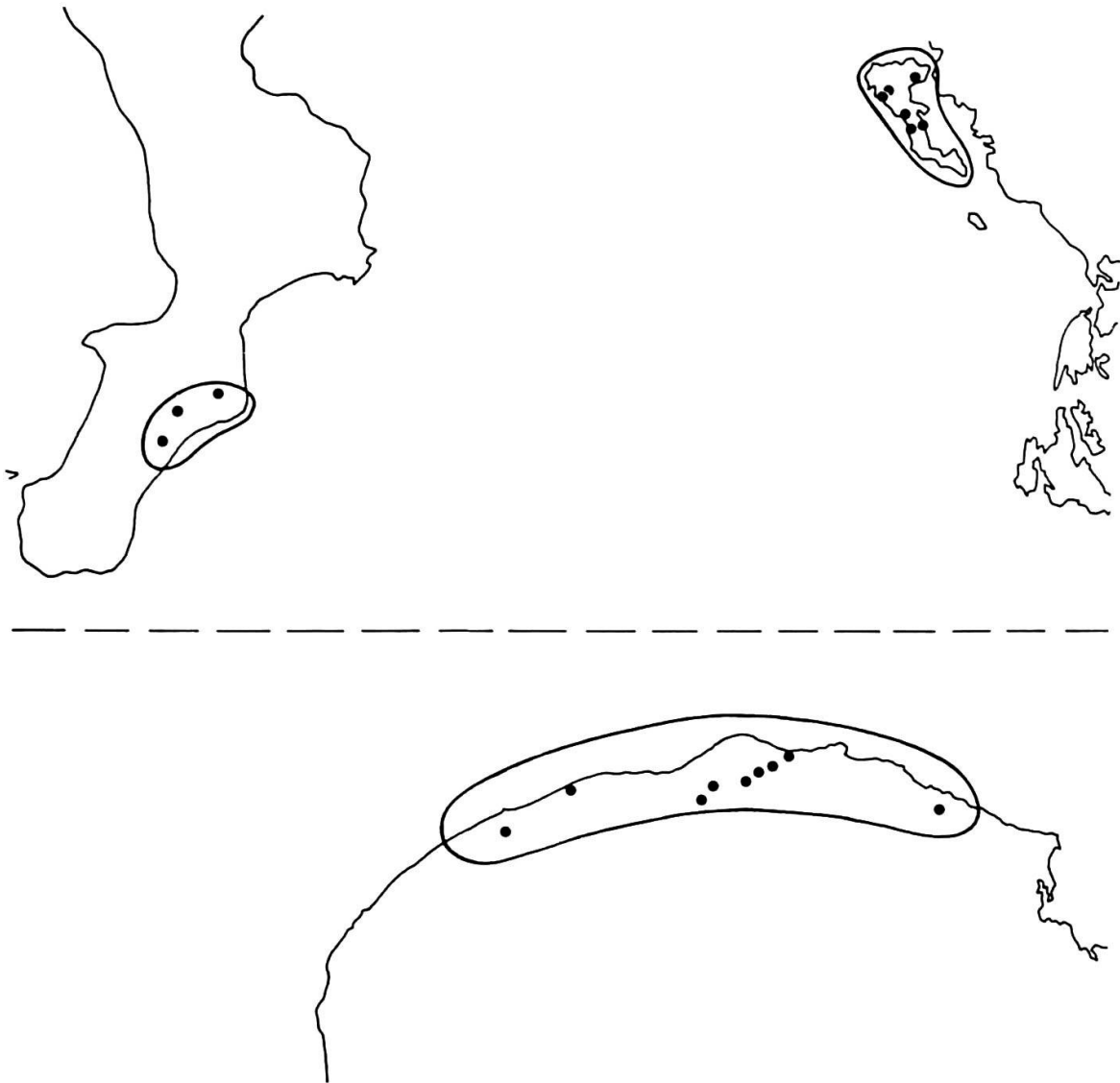


Fig. 32. — Distributio geographica *P. gnaphaloides* subsp. *gnaphaloides*, secundum specimina herbaria visa.

Italia. Calabria: s. coll. (FI-Webb, H) et *Berger* (PRC, W); Calabria ulterior, *Biondi* (K, LAU); pr. Stilo, *Zwierlein* (E, FI, LE, TO), 16.6.1877, *Arcangeli* (FI) et *Biondi* (FI), et 4.10.1970, *Greuter* 8944 (G, Gr, LD, W); ibid., in m. "Stella", *Pasquale* (FI, NAP); ibid., pr. sanctuarium "La Cattolica", 1.6.1955, *Chiarugi & al.* (FI); ibid., vs. Pazzano, *Pasquale* (NAP), 6.1877, *Arcangeli* (RO), et 16.6.1877, *Biondi* (FI); ibid., in m. Consolino, 14.6.1877, *Arcangeli* in Baenitz, Herb. Eur. (BM, COI, FI, G-Bu, GB, Gr, JE, K, M, MANCH, PI, PR, PRC, W, W-Hal, WU, Z), et 30.5.1921, *Lacaita* 40 (B, BM, FI, PI); pr. Grotteria, ad castrum, *Pedicino* (RO); Gerace, *Berger* (G-DC, LAU), *Tenore* (NAP), *Thomas* (K, LE, MPU), 3.1882, *Gandoger* (PRC), 5.1898, *Rigo* 304 (B, FI, G-Bu, GE, Gr, LD, NAP, P, W, W-Hal, WU) et in Dörfler, Herb. Norm. n. 4139 (B, E, G,

G-Bu, GB, GE, Gr, JE, LAU, LD, LE, M, MANCH, MPU, PR, SARA, W, Z), et 20.6.1907, *Rigo* (FI, GE, JE, LE, W); *ibid.*, loco "Grottaglia", 26.5.1877, *Huter & al.* 147 (E, FI, G, G-Bu, JE, K, LAU, M, MANCH, MPU, NAP, P, PRC, TO, W, W-Hal, WU); *ibid.*, in arce, *Greuter* 8934 in Exs. Genav. n. 78 (AAU, AD, BM, BR, BRNU, BSD, C, CL, CANB, DUKE, FI, G, GB, Gr, GZU, H, KRA, LD, LE, LISE, LJU, M, MW, NO, NSC, NSW, OKL, OSC, OULU, PAL, QFA, RSA, SOM, SPN, TUR, UBC, UC, US, W, WTU).

Libya. Cyrenaica: in jugo supra Tocra, 8.4.1958, *Guichard* 162 (BM); pr. Tolmeitha, "Uadi Bu Msceifa", 23.4.1933, *Pampanini* 8644 (FI); in valle Uadi el-Cuf, 21.4.1938, *Maire & Weiller* 900 (MPU); *ibid.*, ad pontem, 18.5.1958, *Park* 485 (K); *ibid.*, inter "Gasr Beni Gdam" et "Sidi Abd el-Uahed", 6.4.1933, *Pampanini* 8642 (FI), et 11.4.1933, *Pampanini* 8643 (FI); pr. Messa, "Uadi Lai-diebi", 8.5.1934, *Pampanini & Pichi-Sermolli* 8648 (BM, FI, L); pr. el-Beida (= Beda Littoria), "Uadi Messaf-Saf Ain Legmeilia", 22.4.1934, *Pampanini & Pichi-Sermolli* 8645 (FI); *ibid.*, "Uadi Scisu", 7.5.1934, *Pampanini & Pichi-Sermolli* 8647 (FI, HUI); *ibid.*, "Uadi Msuria", 10.5.1934, *Pampanini & Pichi-Sermolli* 8649 (FI, G, K, W) et 8651 (FI, G, K); inter el-Beida et Cirene, "Uadi Uardama", 6.1919, *Maugini* (FI), et 6.4.1939, *Sandwith* 2420 & *Simpson* 39379 (K); pr. Cirene, "Uadi Belgadir", 26.4.1934, *Pampanini & Pichi-Sermolli* 8646 (FI); *ibid.*, "Uadi Bu Nabeh", 15.5.1934, *Pampanini & Pichi-Sermolli* 8650 (FI); in fauc. inter Cirene et Apollonia, 12.4.1939, *Sandwith* 2589 (K); pr. Derna, in valle Uadi Derna, 16.4.1922, *Cavara* (NAP).

Loca excludenda

Loca italica praeter calabrica ab auctoribus indicata (Lecce, Basilicata) maxime dubia ergo delenda. Specimen *Balansa* 271 e Lydiâ, sub nomine *Chamaepeuces gnaphaloidis* distributum, *Ptilostemonem Chamaepeucen* sistit. Specimen athoum a Nyman olim erronee sub *Chamaepeuce gnaphaloidi* citatum quoque ad *P. Chamaepeucen* pertinet.

- 6b. *Ptilostemon gnaphaloides* subsp. *pseudofruticosus* (Pamp.) Greuter in Candollea 24: 48. 1969 $\equiv$ *Cirsium Chamaepeuce* f. *pseudo-fruticosum* Pamp. in Bull. Soc. Bot. Ital. 1921: 48. 1921. Syntypi:** "Orph. n. 262 et Sart. in Herb. florent. et in Herb. Levier", *Lectotypus* (Greuter 1969): "Chamaepeuce fruticosa DC., in Palamidi prope Naupliam Peloponnesi, Fl. Apr. Majo, alt. 800', 15./27. Apr. 1849", *Orphanides*, Flora graeca exsiccata n. 262 (FI; isotypi: Ath, BM, C, COI, E, G, G-Boiss, G-Bu, GB, JE, K, L, LAU, LD, MPU, PAL, PRC, TL, W, WU, Z, ZT).
- *Chamaepeuce fruticosa* vel *Cirsium fruticosum* auct. quoad pl. Graeciae (m. Athone excluso) et Cretae (non *Cnicus fruticosus* Desf.).
 - *Serratula Chamaepeuce* sensu Fraas, Syn. Pl. Fl. Class.: 210. 1845, partim, quoad pl. m. Parnassi; et sensu Bertol., Fl. Ital. 9: 40. 1853, partim, quoad specimen Zuccarinii (non L.).
 - *Chamaepeuce mutica* sensu Maire & Petitmengin in Mater. Etude Fl. Géogr. Bot. Orient 4: 128. 1908, et Halácsy in Magyar Bot. Lapok 11: 163. 1911,

partim, quoad specimina (NCY, non vidi) e Corinthiâ et Laconiâ; et sensu Quézel in Vegetatio 12: tab. 4 (nec 6!). 1964 (non DC.).

- *Chamaepeuce Alpini* var. *camptolepis* sensu Rech. fil. in Akad. Wiss. Wien Math.-Naturwiss. Kl. Denkschr. 105/1: 653, partim, quoad pl. Chalcidices tantum (non Boiss.).

Fig. 10f, p. 34 (phyllum involucri); fig. 15c, p. 44 (apices setarum pappi); fig. 22c, p. 58 (fructus).

Involucrum basi truncatum vel saepius rotundatum, 18-25 mm longum. *Phylla* media involucri in appendicem erecto-patulam graciliter spinoso-subulatam distincte elongatam (4-)5-8 mm longam excurrentia. *Flosculi* rite albi, rarius rosei vel purpurei. *Pappi* setae rite 2-3-fariae, apice circumcirca scabridae. *Fructus* (4.5-) 5.2-6.2 mm longus, (3-)3.2-4 mm crassus.

Habitat in fissuris rupium calcarearum (perraro silicearum) praeruptarum, interdum et in clivis rupestribus dumulosis, a mari ad 750 m altitudinis. Floret mensibus Majo et Junio.

Area

Disjunctim in regionibus mari finitimis Graeciae: sporadice in Graeciâ mediâ (Aetoloacarnania, Phocis); unico in loco Euboeae boreo-occidentalis; passim per Peloponnesum orientalem et australem; in faucibus sphacioticis Cretae; in parte austro-occidentali insulae Ikaria maris aegaei orientalis; et in apice meridionali peninsulae Sithonia Chalcidices. Vide fig. 31, p. 118-119.

Specimina visa

Graecia: s. coll. (L, M), *Berger* (K, M, P) et *Zuccarini* (W).

Graecia media (= Sterea Ellas). **Aetoloacarnania:** in m. Varasova (= Chalkis), *Grimburg* 212 (GB, W), et 8.6.1893, *Halácsy* (B, G, G-Bu, Gr, K, LD, PR, PRC, SARA, W, W-Hal, WU). **Phocis:** pr. fl. ad or. pagi Amphissa, 29.5.1964, *Runemark & al.* 21226 (LD); pr. Delphi, 5.1967, *Lippert* (M) et *Pfadenhauer* (Gr), et 25.5.1968, *Stamatiadou* 3017 (Goul); ibid., ad fontem Castalium, 22.4.1911, *Vierhapper* (WU), 25.5.1969, *Bresinsky* (M), et 10.7.1971, *Greuter* 9329 (G, Goul, Gr, LD, M, W).

Euboea. Istiea: in dit. pagi Paleochora, 29.6.1958, *Rechinger* 19416 (G, M, W).

Peloponnesus. Corinthia: ad arcem Akrokorinthos, 1.6.1963, *Snogerup* 20343 (LD), et 4.5.1964, *Greuter* 6386 (G, Gr). **Piraeis:** ad pontem Diaboli pr. Trizin, 6.5.1964, *Greuter* 6417 (G, Gr, W). **Argolis:** Mikine (= Mycenae), ad rudera, 5.1959, *Poelt* (M); ibid., in fauc., 14.7.1971, *Greuter* 9414 (G, Goul, Gr); pr. Nafplio, s. coll. (M, W); ibid., ad arcem Palamidi, *Heldreich* (B, GE), *Sartori* (FI, G-Boiss, M), *Zuccarini* (G-DC, K, M), 27.4.1849, *Orphanides* 262 (Ath, BM, C, COI, E, FI, G, G-Boiss, G-Bu, GB, JE, K, L, LAU, LD, MPU, PAL, PRC, TL, W, WU, Z, ZT), 23.5.1870, *Orphanides* (Ath, W-Hal), 6.1870, *Heldreich* (G), 17.4.1911, *Hayek* (GB) et *Vierhapper & Watzl* (WU), 19.5.1964, *Runemark*

mark & al. 21953 (LD), et 28.5.1969, *Bresinsky* (M). **Arcadia:** pr. Leonidio, 17.5.1964, *Rechinger* 25124 (Gr, W). **Laconia:** "Passavas", 5.1955, *Goulimis* (Goul); pr. Molai, loco "Paliopirgos", 18.5.1970, *Stamatiadou* 8954 (Goul); in dit. opp. Areopolis, in valle ad occ. pagi Mirsini, 20.5.1964, *Runemark & al.* 22030 (LD).

Creta: a. 1932, *Atchley* (K). **Sphakia:** 6.1932, *Guiol* (BM); in fauc. Domata, 5.6.1962, *Greuter* 4671 (Gr, Z), et 16.7.1971, *Greuter* 9427 (Goul, Gr); in fauc. pr. Aradena, 22.9.1966, *Greuter* 7571 (Gr); pr. Chora Sphakion, 14.5.1914, *Gandoger* 5628 (FI, K); ibid., in fauc. "Kavi", 12.5.1962, *Runemark & al.* 17025 (LD), et 7.10.1966, *Greuter* 7672 (G, Gr, LD, W).

Sporades austr. (= ins. aegaeae or.). Ins. **Ikaria:** ad sept. sinûs Ajos Nikolaos, 21.4.1958, *Runemark & Snogerup* 6203 (LD); ad occ. pagi Plaja, 17.6.1958, *Runemark & Snogerup* 11392 (LD), et 14.7.1958, *Runemark & Snogerup* 12567 (LD); ad sept. pagi Plaja, 18.6.1958, *Runemark & Snogerup* 11490 (LD); ad occ. pagi Petropouli, 25.4.1958, *Runemark & Snogerup* 7044 (LD); ad or. loci "Messaria", 24.4.1958, *Runemark & Snogerup* 6831 (LD); in lat. occ. m. "Pera-nora", 21.6.1960, *Runemark & Nordenstam* 16411 (LD).

Macedonia austr. Chalkidiki: in penins. Sithonia (= Longos), pr. Kouphos, 17.6.1930, *Mattfeld* 5364 (W); ibid., in lat. mer. sinûs Kouphos, 17.6.1972, *Greuter* 10491 (E, G, Goul, Gr, LD, M, Rech).

Loca excludenda

In graphide recentissimâ areae hujus subspeciei (Greuter 1971: fig. 2) lapsu duo loca falsa utique delenda inserui (in peninsulâ Cassandrâ Chalcidices et in Achaiâ).

E. Ptilostemon sect. **Leptophyllon** Greuter, sect. nova. **Holotypus:** *Ptilostemon leptophyllus* (Pau & Font Quer) Greuter
— *Lamyra* auct. partim (non *Cirsium* subg. *Lamyra* Cass.).

Suffrutex (vel frutex?). *Surculi* plus minusve elongati, infra densiuscule supra densissime foliati, post annum lignescentes et aut apice procrecentes aut surculos novellos laterales et caulem capituligerum terminalem edentes. *Folia* sicca sub-persistentia, lobis exclusis anguste linearia margine revoluta, lobis e spinis rite geminis (rarius singulis ternisve) palmatim dispositis basi breviter triangulari-parenchymaticis constantibus, quarum proximalis robustior sursum vergens, distales si adsunt minores deflexae; nervi laterales praeter spinigeros omnino obsoleti. *Synflorescentia* subcorymbosa, pedunculis apice recurvis capitulis ideo nutantibus. *Phylla* involucri margine praeter papillas glabra haud araneosa, dorso infra glabra supra crispule pubescentia demum saepe glabrata, appendice intus ad ortum eximie gibbosâ. *Flosculi* marginales haud fructiferi, pappo plumoso parum reducto ei florum centralium subsimili. *Pappi* setae apicem versus circumcirca dense penicillatim plumulosae vel barbellatae. *Corollae* limbus in floribus exterioribus inaequaliter, in centralibus subaequaliter fissus, laciniis valde patentibus. Appendices

antherarum in tertiâ vel dimidiâ parte apicali vittatae, vittâ prominulâ nectar secernente cito angustatâ infra omnino obsoletâ.

7. **Ptilostemon leptophyllus** (Pau & Font Quer) Greuter, comb. nova $\equiv$ *Chamaepeuce leptophylla* Pau & Font Quer in Font Quer, sched. impr. Iter Marocc. a. 1927, n. 691 [10.3.1928, sec. Cavanillesia 1: 47. 1928] $\equiv$ *Cirsium leptophyllum* (Pau & Font Quer) Font Quer in Index Seminum Horti Bot. Mus. Barcinon. Sci. Nat. 1928: 15, 20.11.1928 $\equiv$ *Lamyra leptophylla* (Pau & Font Quer) Soják in Novit. Bot. Delect. Seminum Horti Bot. Univ. Carol. Prag. 1962: 47. 1962. **Typus**: "Chamaepeuce leptophylla Pau et F. Q., sp. nov. Hab. in declivibus montis Iguermalez, versus Tizzi Iffri (Atlante rhiphaeo), 1500 m. alt., solo schistoso; 24. junii", Font Quer, Iter maroccanum 1927, n. 691. **Lectotypus**: idem (G; isotypi: BM, FI, Gr, LAU, MA, MPU, RO).

Fig. 7c, p. 28 (lobus folii); fig. 10g-h, p. 34 (phylla involucri); fig. 15d, p. 44 (apices setarum pappi); fig. 18d-e, p. 49 (limbi corollarum explanati); fig. 19c, p. 50 (filamentum); fig. 20e, p. 52 (appendices et caudae antherarum); fig. 21f, p. 56 (apices stylorum).

Folia surculorum plerumque 10-15 cm longa, lobis exclusis c. 2 mm lata, in parte inferiore utrinque lobis 4-5 remotis ornata; a medio vel parum ultra integerrima eleganter flexuoso-curvata apice tenuiter spinuloso-acuminata, basi sessilia; eximie discoloria nam subtus candida tomento compacto crasso, supra glaberrima vel ad costam tantum araneoso-floccosa, viridia. *Caules* ineunte aestate evoluti, 40-60 cm alti, graciles, laxius densiusve araneoso-canescens ad costas rite glabrescentes, infra dense supra laxe foliati; folia caulina iis surculorum conformia sed media et superiora diminuta, lobis utrinque 2-3 dein in ramealibus 0-1, quorum proximales ad insertionem folii siti stipulas aemulant. *Synflorescentia* laxissima irregulariter subcorymbosa, ramis elongatis apice incrassatis et recurvatis, capitulis in quoque caule rite 2-4. *Involucrum* e basi umbilicatâ late hemisphaericum dein patelliformi-expansum, parce pubescens vel glabrescens. *Phyllorum* exteriorum et mediorum pars basalis triangulari-ovata ad 2-2.5 mm lata, infra pallida supra ubi ad lucem patet subito atropurpurea; appendix intus eburnea extus saepius virens, patula crasse subulata spinescens recta vel subflexuosa, in phyllis mediis aut vix elongata 3-6 mm longa aut evidenter elongata ad 18 mm longa; phylla interiora linearia, sub apice spinuloso-acuminato subito extus flexa. *Setae* receptaculi candidae, 6-8 mm longae. *Flosculi* e collectore albo-rosei, sicci albidii. *Pappus* 13-15 mm longus, setis 3-4-fariis mediocriter (ad c. 2 mm) plumosis (in flosculis marginalibus 2-fariis, brevius plumosis). *Corolla* 15-18 mm longa; tubus 7-8 mm longus; limbus 8-10 mm longus, basi distincte ampliatus, inde tubulosus, per $\frac{2}{5}$ c. longitudinis subaequaliter (in flosculis centralibus) vel inaequaliter (in flosculis exterioribus, differentiâ fissurarum 0.5-0.8 mm) 5-fidus, laciniis basi 0.8-1.1 mm latis. *Staminum* filamenta post anthesin 3.5-5 mm longa, a medio vel parum infra dense longiuscule sublanato-pilosa; tubus antherarum per 1-2.5 mm e corollâ exsertus, 8-10.5 mm longus, 1-1.2 mm crassus, caudis 1.6-2.4 mm longis, appendicibus 2.2-3 mm longis acutiusculis vel api-

culatis. Apex *styli* 1.4-1.6 mm longus; lobi stigmatiferi lineari-spatulati apice rotundati, per 0.2-0.5 mm liberi, vix hiantes, lateraliter non vel vix (per 0.2 mm) decurrentes. *Fructus* oblique obovoideus crassus, 3.8-4.2 mm longus, 3-3.3 mm crassus, brunneo-griseolus, vittis 5 atrioribus notatus; discus apicalis diametro 1.4-1.6 mm, margine obsoleto.

Habitat in clivis apricis saxosis vel rupestribus et in silvis raris *Pini halepensis*, solo schistoso vel margaceo, inter 600 et 1500 m supra maris aequor. Floret mensibus Junio et Julio.

Area

Regnum marocanum, in parte australi Atlantis rifani endemicus. Vide fig. 35, p. 140.

Specimina visa

Regnum marocanum. Atlas rifanus: in dit. Beni-Zeroual, pr. Zrharin in lat. sept. m. Jebel Outka, 20.6.1928, *Maire* (MPU); in lat. m. Jebel Oursâne (= Igoumalez), vs. Tizi Ifri, 24.6.1927, *Font Quer* 691 (BM, FI, G, Gr, LAU, MA, MPU, RO); pr. Taïnest, 1.6.1929, *Jahandiez* 368 (BM, E, FI, G, MA, MPU, P, Z); pr. Meknassa Foukania, inter Taza et Bou-Kellal, 4.1917, *Ducellier* (MPU).

F. *Ptilostemon* sect. *Echinocephale* Greuter, sect. nova. Holotypus: *Ptilostemon echinocephalus* (Willd.) Greuter

- *Chamaepeuce* sect. *Platyraphium* auct. partim (non *Platyraphium* Cass.).
- *Lamyra* vel *Cirsium* sect. *Lamyra* auct. partim (non *Cirsium* subg. *Lamyra* Cass.).

Suffrutex. *Surculi* abbreviati, densissime foliati, post annum lignescentes et aut apice procrecentes aut surculos novellos laterales et caulem capituligerum terminalem edentes. *Folia* sicca persistentia, lobis exclusis anguste linearia margine revoluta, lobis inaequaliter bifidis laciniâ proximali indivisâ lineari patenti apice in spinam contractâ, distali (si evoluta) minore deflexâ e basi triangulari subulato-spinosâ, integra vel in latere distali vel utrinque spinulam proferente; nervi laterales praeter spinigeros omnino obsoleti. *Synflorescentia* corymbosa. *Phylla* involucri praeter papillas marginales glabra vel dorso praesertim secus marginem crispule pubescentia et araneosa. *Flosculi* exteriores haud fructiferi, pappo in extimis valde reducto setis paucis non plumosis singulatim delabentibus, in sequentibus intermedio setis partim ad medium plumulosis basi leviter cohaerentibus. *Pappi* normalis plumosi setae saltem validiores apicem versus laxè irregulariter circumcirca (rarius subbifariam) barbellatae inde scabrae, dein in verticem nudum laevem acicularem desinentes. *Corollae* limbus ad vel paulo ultra

medium fissus. Appendices *antherarum* in tertiâ vel dimidiâ parte apicali vittatae, vittâ prominulâ nectar secernente cito angustatâ infra omnino obsoletâ.

8. **Ptilostemon echinocephalus** (Willd.) Greuter in Boissiera 13: 146. 1967 $\equiv$ *Cnicus echinocephalus* Willd. in L., Sp. Pl. ed. 5, 3: 1685. 1803 $\equiv$ *Serratula echinocephala* ["*echinocephalus*"] (Willd.) Poiret in Lam., Encycl. Méth. Bot. 6: 561. 1805 $\equiv$ *Cirsium echinocephalum* (Willd.) Fischer in Cat. Jard. Gorenki 1812: 35. 1812 $\equiv$ *Carduus echinocephalus* (Willd.) Steudel, Nomencl. Bot. 1: 152. 1821 $\equiv$ *Lamyra angustifolia* Cass. in Dict. Sci. Nat. 25: 221. 1822, nom. illeg. $\equiv$ *Chamaepeuce echinocephala* (Willd.) DC., Prodr. 6: 660. 1838 $\equiv$ *Lamyra echinocephala* (Willd.) Tamamšjan in Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR 16: 470. 1954. **Typus**: "in saxosis Tauriae (v.s.) De Boeber". **Holotypus**: "Habitat in saxosis, et floret Julio et seq: Specimina lecta pone Achmetschet die 22 Jul: 1793", Boeber in herb. Willdenow n. 14950/1 (B-Willd).
- = *Cirsium wachtangia* Voronov in Izv. Kavkazsk. Mus. (Bull. Mus. Caucase) 11: 20. 1917 $\equiv$ *Chamaepeuce wachtangia* (Voronov) Grossg., Fl. Kavk. 4: 190. 1934. **Syntypi**: "Sobrano v 80-yh godah prošlago veka bliz Boržoma M. N. Smirnovym i ležalo v gerbarii Kavkazskago Muzeja pod imenem C. echinocephalum ... Sobrano V. L. Kozlovskim dlja izdanija v 'Herbarium Florae Caucasicae' ". **Lectotypus**: "Chamaepeuce Wachtangia G. Woron. nom. nov., Georgia. In detritu lapidoso secus Tshornaja Retshka prope Borzhom (Cartalinia super. S.S.-K.)", 25.5.1916, Kozlovskij in Voronov, Herbarium florum caucasicae Fasc. XII, n. 600 (Z; isotypi: K, MW).
- *Cnicus spinosissimus* Hablitzl, Fis. Opis. Tavr. Obl.: 158. 1785, nom. nud. (non L. 1753) [fide Marsch. Bieb., Fl. Taur.-Cauc. 2: 281. 1808; specimina non vidi].
- *Carduus tauricus* Boeber in Georgi, Geogr.-Phys. Nat. Beschr. Russ. Reiches 3: 1224. 1800, nom. nud. [fide Tamamšjan in Vulf, Fl. Kryma 3/3: 259. 1969; specimina non vidi].
- *Carduus pulcher* Pallas in E. D. Clarke, Travels 1: 739. 1810, nom. nud. [fide speciminibus in herb. Pallas, BM].

Fig. 7b, p. 28 (lobus folii); fig. 10i, p. 34 (phyllum involucri); fig. 16a, p. 45 (apices setarum pappi).

Folia surculorum ambitu anguste lanceolata, ad 15(-20) cm longa, lobis exclusis 1.5-3(-4) mm lata, lobis numerosis sed dissitis quarum lacinia proximalis 10-20 mm longa; apice breviter rarius longe (ad 5-6 cm) integerrima linearia dein spinoso-acuminata, basi sessilia; eximie discoloria nam subtus candida tomento compacto crasso, supra initio parce floccosa cito omnino glabrata, viridia vel glaucovirentia; nervi spinigeri supra prominuli, subtus tomento occultati. *Caules* ineunte aestate evoluti, 10-50 cm alti, validiusculi, dense albo-tomentosi, conferte foliati; folia caulina iis surculorum conformia, superiora parum diminuta. *Synflorescentia* conferta corymbiformis, foliis caulinis superioribus cincta, capitulis (1-)2-5(-7). *Involucrum* e basi rotundatâ vel truncatâ ovoideum dein campanulatum, 20-30 mm

longum, glabrum vel parce pubescens et araneosum. *Phyllorum* exteriorum et mediorum pars basalis infra pallescens supra virens, lanceolata, 2-3 mm lata; appendix virens vel purpurascens, patula vel erecto-patula subulata tri- tetraquetra gracilis vel valida spinosa recta, in phyllis mediis plus minusve elongata (6-)8-16 (-20) mm longa; phylla interiora anguste linearia, apice vivide roseo-purpurea longe tenuiter spinuloso-acutata. *Setae* receptaculi candidae, 8-12 mm longae. *Flosculi* laete roseo-purpurei. *Pappus* (16-)19-25 mm longus, setis 2-3-fariis longiuscule (ad c. 3 mm) plumosis (in flosculis marginalibus setae 1-2-fariae, bifariam et sub apice circumcirca scabridae, dein nudae laeves). *Corolla* (22-)25-31 mm longa; tubus 12-17 mm longus; limbus (10-)12-15 mm longus, basi distincte ampliatus inde plus minus ventricosus, ad medium vel paulo ultra inaequaliter 5-fidus (differentiâ fissurarum 0.5-1.5 mm), laciniis basi 0.7-0.8 mm latis. *Staminum* filamenta post anthesin 5-6.6 mm longa, supra medium dense longe sublanatopilosa; tubus antherarum per 1-2.5 mm e corollâ exsertus, 11-13 mm longus, 1.2-1.4 mm crassus, caudis 1.6-2.4 mm longis, appendicibus 3.4-4.5 mm longis acutis vel indistincte apiculatis. Apex *styli* 2-3.1 mm longus; lobi stigmatiferi lineari-spatulati apice rotundati, in flosculis marginalibus reducti per 0.3 mm liberi hiantes haud decurrentes, in centralibus per 0.5-1 mm liberi, dein arcuato-patentes, lateraliter non vel valde (interdum per 0.8 mm) decurrentes. *Fructus* valde variabilis, oblique obovoideus vel subpyriformis vel fere turbinatus, 4.1-5.8 mm longus, 2.7-3.8 mm crassus, brunneus vel griseolus raro eburneus, saepe stramineo-marmoratus et vittis 5 atrioribus notatus; discus apicalis diametro 1.2-1.8 mm, margine minimo vel indistincto.

Habitat in collibus apricis siccis et in clivis saepe praeruptis rupestribus, lapidosis, glareosis vel argillosis, solo calcareo vel schistoso-margaceo, a mari ad regionem montanam mediam. Floret a Junio vel Julio ad Octobrem mensem.

Area

Tauria meridionalis; Caucasus ad litora Ponti Euxini, in parte boreali-centrali et in distr. Tbilisi Georgiae; Paphlagonia occidentalis Anatoliae. In montosis. Vide fig. 33.

Specimina visa

Cultus in hortis Rossiae nonnullis ineunte saeculo XIX.

Rossia. Ukrainskaja SSR. Tauria (= penins. Krym): s. coll. (G-Boiss, MW, TO, W, W-Hal), *Beaupré* (G-DC, MPU), *Gremjačenskago* (MW), *Hacquet* (C, G-DC), *Léveillé* (FI), *Marschall von Bieberstein* (W), *Pallas* (BM), *Steven* (G-DC, LE, MPU, RO), et 6.10.1860, *Čistjakov* (MW); Tauria mer., *Brunner* (M) et *Wittmann* 312 (BM); pr. "Partenit", 21.8.1935, *Oksijuk* (B); pr. Sevastopol', a. 1855, *Saint-Supéry* (G-Boiss, K, P), et 15.8.1943, *Zoz* (KW); pr. Mangub Kale (= Mangoup) in dit. Bahčisaraj, 9.8.1898, *Dusouchet* (MPU), 18.8.1922, *Dzevanovskij* (TBI), et 25.8.1925, *Zedelmejer* (TBI); ad fl. Belbek, a. 1865, *Bertol'di* (MW); pr. Simferopol' (= Ak-Metšet), 12.7.1793, *Boeber* (B-Wild), et 16.6.1886, *Zeleneckij* (G, W); ad fl. Salgir, *Pallas* (BM); in m. Čatir Dag, 29.7.1951, *Krilova & Dervis*

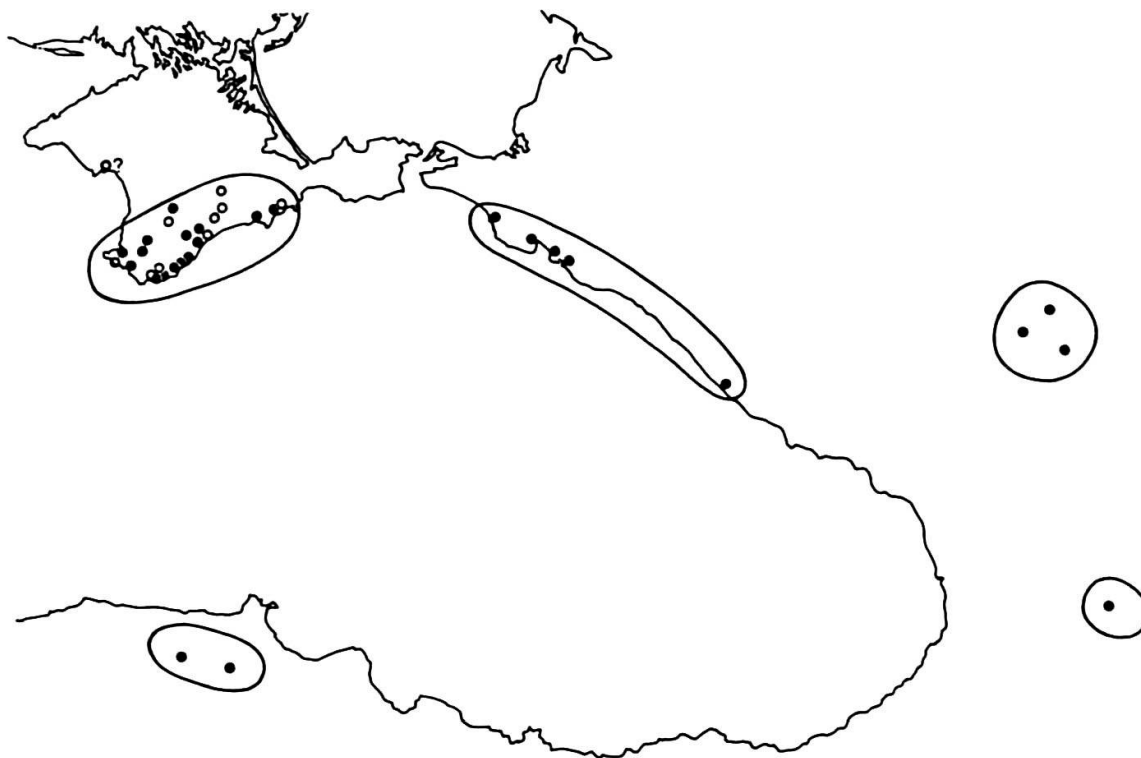


Fig. 33. — Distributio geographica *P. echinocephali*, secundum specimina herbaria visa (orbiculi nigri) et indicia literaturae floristicae (circuli).

(E); in m. Demerdži Jaila, 27.7.1950, *Molotova* (SOM); pr. Balaklava, 1.8.1897, *Andreev* (K), et 13.10.1933, *Voronina 108* (MW); pr. Simeiz, 19.11.1887, *Sommier* (FI), et 9.8.1956, *Kurčenko & Svedčikova* (MW); pr. Alupka, a. 1874, *Rehmann 485* (G-Boiss); pr. Jalta, 8.1898, *Dem'janenko* in Herb. Fl. Ross. n. 1369 (C, G, MW, PRC, TBI, WU), 19.8.1910, *Van'kov* (B, G-Bu, Gr, PR, W), 7.1911, *Van'kov* (PR), 8.1911, *Van'kov* (E, FI, G, Goul, K, L, MA, PI, PR, SOM, W), 8.1912, *Van'kov* in Petrak, *Cirsioth. Univ.* n. 97 (B, BM, C, E, FI, G, Gr, JE, K, LAU, LD, LISU, MA, PR, W, Z), et 8.1917, *Van'kov* (G); ibid., pr. "Polikur", 16.7.1901, *Gol'de* (SOM); pr. Massandra, *Kaufman* (MW); pr. Nikita, 15.9.1919, *Vasil'ev* (Z), 19.8.1930, *Skottsberg* (GB), et 6.8.1964, *Chater 2* (BM); ibid., pr. "Mart'jan", 26.6.1931, *Vasil'ev 71* (MW); pr. Gurzuf, 8.8.1927, *Oksijuk* (BAS, G, JE, W), et 18.8.1961, *Höpflinger* (G); pr. Alušta, 3.8.1908, *Širaeuskij* (G-Bu); pr. Sudak, 8.1902, *Horák* (PRC); ibid., in m. "Pertschem", 12.8.1896, *Callier 136* (B, FI, Gr, JE, K, PR, SARA, W, W-Hal); ibid., in m. "Sokoll", 12.8.1896, *Callier 136* (B, E, FI, G, G-Bu, GB, JE, LD, MA, MANCH, P, PI, PR, PRC, Rech, RO, WU, Z) et in Dörfler, *Herb. Norm.* n. 3217 (B, BAS, BM, COI, E, G, G-Bu, GB, GE, Gr, JE, LD, M, MANCH, MPU, P, PR, SARA, W, WU, Z); in m. Kara Dag pr. Planerskoe, 29.7.1928, *Syrejščikov 668* (MW), et 4.8.1929, *Syrejščikov 1009* (MW).

Caucasus: s. coll. (COI, Z), Mus. Acad. Petrop. (C, M), *Fischer* (BM, FI-Webb, G-DC, L, LD, P, P-JU), *Hohenacker* (G), *Steven?* (G-Boiss, MPU, PRC, W), *Steven* (FI-Webb, G, PRC) et *Tschermak* (W). **Krasnodarskij kraj:** distr. Černoje

More, 10.1842, *Petruševskij* 157 (MW); pr. Anapa, 4.8.1916, *Voronov* 900 (K); ibid., loco "Sukko", 17.8.1916, *Voronov*, Herb. Fl. Cauc. n. 599 (E, MW, Z); pr. Novorossijsk, 17.6.1890, *Lipskij* (TBI), et 14.7.1891, *Lipskij* (G, LE); ad Kabardinka pr. Gelendžik, 5.8.1962, *Lagašvili & Gagnidze* (TBI); pr. Gelendžik, a. 1896, *Radde* 191 (G), et 14.8.1936, *Černjakovska* 2 (W); ad Dagomys pr. Soči, 5.8.1906, *Miller* (MW), et 18.9.1927, *Steup* (HUJ, TBI). **Stavropol'skij kraj:** "Stanitza" pr. Kislovodsk, 10.8.1829, *Meyer* 566 (LE); ad fl. Podkumok pr. "Kamna", a. 1879, *Akinfiev* (LE); pr. Pjatigorsk, s. coll. (W), *Hohenacker* (LD, LE, M, MW, W, W-Hal), *Hohenacker* in U. i. a. 1842 (BM, E, FI, FI-Webb, G, G-Boiss, JE, L, LE, M, P, RO, W), et *Meyer* (G-Boiss). **Kabardino-Balkarskaja ASSR:** ad fl. Pensejskogo Malka, a. 1913, *Palibin & Vorobev* (TBI). **Gruzinskaja SSR:** Georgia caucasica, *Wilmsen* (G); pr. Boržomi, *Smirnov* (W), a. 1881, *Brotherus* (BM), 13.7.1892, *Medvedev* (TBI), 3.8.1898, s. coll. (TBI), et 25.9.1927, *Kapeller* (TBI); ibid., ad fl. "Černaja rečka", 12.7.1914, *Kozlovskij* (TBI), 25.5.1916, *Kozlovskij* in *Voronov*, Herb. Fl. Cauc. n. 600 (K, MW, Z), 12.7.1916, *Kozlovskij* (K), et 15.7.1917, *Kozlovskij* (TBI).

Anatolia. Paphlagonia. Prov. **Sinop:** ab opp. Boyabat 10 km sept. vs., 7.9.1954, *Davis & Polunin* 25026 (BM, E, K). Prov. **Kastamonu:** inter Taşkoprü et Gökçeğaç, 24.7.1962, *Davis & al.* 38060 (E).

Loca excludenda

Propter commutationem schedularum adest e "Parnasso" in herb. Zuccarinii (M) et e "m. Sarial" et "Swant", unde *Hohenacker Serratulam radiatam* distribuit (W-Hal).

G. Ptilostemon sect. **Candollea** Greuter, sect. nova. **Holotypus:** *Ptilostemon hispanicus* (Lam.) Greuter
— *Lamyra* vel *Chamaepeuce* sect. *Lamyra* auct. partim (non *Cirsium* subg. *Lamyra* Cass.).

Suffrutex. *Surculi* novelli e caudice subterraneo orientes, valde elongati, infra laxius supra densius foliati, per annos plures (interdum 10 vel ultra) procrecentes dein caulem capituligerum terminalem edentes et deperientes (mutili interdum surculos laterales proferentes). *Folia* sicca persistentia surculos operientia (sed ea surculorum novellorum teneriora cito decomposita), sinuato-lobata, nervis praeter spinigeros omnibus vel fere obsoletis, spinigeris modo *Platyrhaphiorum* regulariter dispositis (sed in quoque lobo non ultra 5). *Synflorescentia* corymbosa. *Phylla* involucri dorso compacte albo-tomentosa vel densius laxiusve crispule farinoso-puberula, interiora margine rite papillosa dorso parcius puberula, nunquam araneosa. *Flosculi* exteriores haud fructiferi, pappo in extimis valde reducto setis minus numerosis non plumosis basi leviter tantum cohaerentibus, in sequentibus intermedio setis partim ad medium plumulosis. *Pappi* normalis plumosi setae conspicue inaequales, nam nonnullae interiores distincte validiores et longiores; pars apicalis laxe irregulariter circumcirca (rarius subbifariam) barbellata vel sca-

brida, in setis validioribus rite in verticem nudum laevem acicularem desinens. Appendices *antherarum* in tertiâ parte apicali vittatae, vittâ prominulâ nectar secernente cito angustatâ infra omnino obsoletâ.

9. **Ptilostemon hispanicus** (Lam.) Greuter in Boissiera 13: 146. 1967 $\equiv$ *Carduus hispanicus* Lam., Encycl. Méth. Bot. 1: 701. 1785 $\equiv$ *Lamyra undulata* Cass. in Dict. Sci. Nat. 25: 220. 1822, nom. illeg. $\equiv$ *Chamaepeuce hispanica* (Lam.) DC., Prodr. 6: 658. 1838 $\equiv$ *Lamyra hispanica* (Lam.) Webb, Iter Hisp.: 34. 1838 $\equiv$ *Cnicus hispanicus* (Lam.) Ball in J. Linn. Soc. Bot. 16: 523. 1878 $\equiv$ *Cirsium hispanicum* (Lam.) Pau in Mem. Real Soc. Esp. Hist. Nat. 12: 348. 1924 (excl. specimine). **Typus**: "Croît en Espagne... Un bel exemplaire dans l'Herbier de M. de Jussieu". **Holotypus**: sine schedâ originali, herb. de Jussieu n. 8143 (P-JU).

Fig. 1c, p. 12 (plantulae); fig. 2c, p. 17 (structura schematica plantae); fig. 7d, p. 28 (lobus folii); fig. 10k, p. 34 (phyllum involucris); fig. 16b, p. 45 (apices setarum pappi).

Bipedalis vel ultra metralis. *Folia* surculorum spinis exclusis 3-12 cm longa et 1-3.5 cm lata, latiuscule lanceolata, dissite sinuato-lobata vel leviter sinuata, lobis parum productis angulato-subrotundatis, spinis saepe validissimis latitudinem folii subaequantibus in quoque lobo 2-4(-5) subpalmatim dispositis; apice triangulari-acuta longe spinosa, basi sessilia semiamplexicaulia; eximie discoloria nam subtus candida tomento compacto laevi crasso, supra ad costam et ad nervos tenuiter sed persistenter albo-tomentosa, caeterum glaberrima atroviridia; nervi spinigeri validi supra parum subtus valde prominentes (caeteri fere omnino obsoleti). *Caules* ineunte aestate evoluti, 20-60 cm alti, validiusculi, dense compacte albo-tomentosi, infra densius supra laxius foliati; folia caulina iis surculorum subconformia, sed superiora aliquanto diminuta ambitu ovato-lanceolata, basi late rotundatâ, ramealia saepe bracteiformia. *Synflorescentia* conferta rite corymbosa, capitulis (1-)3-5(-12). *Involucrum* e basi rotundatâ vel truncatâ campanulatum, 20-30 mm longum, tomentosum vel farinoso-puberulum. *Phyllorum* exteriorum et mediorum pars basalis virens apice purpureo-suffusa, ovato-triangularis 2.5-3.5 mm lata, nervo mediano valido percursa; appendix intus albescens vel purpurascens extus dilute purpureo-suffusa, patula crasse subulata tri- tetraquetra valide spinosa recta vel sensim eleganter recurvata, in phyllis mediis longissima (15-) 20-35 mm longa; phylla interiora anguste linearia, supra laete roseo-purpurea sub apice tenuiter spinuloso-subulato saepe extus flexa. *Setae* receptaculi candidae, 8-12(-16) mm longae. *Flosculi* roseo-purpurei. *Pappus* 16-25 mm longus, setis 3-4-fariis mediocriter (ad 2-2.5 mm) plumosis (in flosculis marginalibus setae 1-2-fariae, bifariam et sub apice saepe circumcirca scabridae dein nudae laeves). *Corolla* 22-32 mm longa; tubus 11-17 mm longus; limbus 11-16 mm longus, basi ampliatus inde tubulosus, per $\frac{3}{8}$ longitudinis vel usque ad medium inaequaliter 5-fidus (differentiâ fissurarum 0.5-2 mm), laciniis basi 0.8-1.2 mm latis. *Staminum* filamenta post anthesin 6.2-7.4 mm longa, supra medium densiuscule longiuscule pilosa; tubus antherarum per 0.5-1.5 mm e corollâ exsertus, 12.5-

16 mm longus, 1-1.3 mm crassus, caudis 3.5-4.8 mm longis, appendicibus 3-4.5 mm longis acutis vel apiculatis. Apex *styli* 2.2-3.3 mm longus; lobi stigmatiferi lineares vel lineari-spatulati apice rotundati, per 0.2-0.5 mm liberi, vix hiantes, lateraliter valde (per 0.8-2 mm) decurrentes. *Fructus* crasse oblique obovoideus, 4-5.4 mm longus, 3.1-3.9 mm crassus, brunneus vel griseolus, saepe stramineo-marmoratus et vittis 5 atrioribus notatus; discus apicalis diametro 1.4-1.8 mm, margine indistincto.

Habitat in clivis apricis siccis saepe asperis, dumulosis vel nudis, rupestribus, lapidosis, schistosis, glareosis vel etiam margaceis, interdum in rarioribus pinetorum, solo plerumque calcareo, a 500 ad 2200 m supra maris aequor. Floret a fine Junii ad Augustum mensem.

Area

Endemicus in montibus Hispaniae australis: vulgatior in prov. Cadiz, Málaga, Granada et Jaén, rarus in prov. Almería et ad oras meridionales prov. Sevilla et Córdoba Baeticae; boreo-orientem versus prov. Albacete Murciae attingit. Vide fig. 34.

Specimina visa

Hispania: *Haenseler* (LE), et a. 1851, *Blanco 157* (FI-Webb); "Cerro del Baño", 8.1831, s. coll. (MA).

Baetica (= Andalucía): *Bourgeau* (JE). **Cadiz:** "Peñon de la Tapa Ahala" (?), s. coll. (G); in m. Sierra de los Gazules, s. coll. (G); pr. Grazalema, 17.7.1890, *Reverchon 224* (G, LE, WU); ibid., in m. Sierra del Pinar, 15.11.1970, *Valdés 879* (Sev). **Sevilla:** in m. Sierra del Tablón inter Algámitas et Pruna, 9.6.1970, *Galiano & Valdés 554* (Sev); ibid., in jugo "Puerto de la Sierra del Tablón", 26.9.1970, *Cabezado & al. 851* (Sev); in colle "Peñon" pr. Algámitas, 9.6.1970, *Galiano & Valdés 477* (Sev). **Málaga:** pr. Ronda, *Raben* (C); ibid., loco "El Hacho", 20.6.1851, *Ball 638a* (E); ibid., loco "Castijo Blanco", 10.7.1849, *Bourgeau 263* (BM, FI-Webb, G, K, LE, MANCH, MPU, P, PR, Z); ibid., loco Pantano de Montejaque, 2.3.1971, *Dominguez* (fructûs); in mont. Serranía de Ronda, 8.8.1889, *Reverchon 224* (BAS, BM, G, GB, GE, JE, K, MA, MANCH, MPU, PAL, PR, TO, W, W-Hal, WU); pr. Yunquera, 25.6.1910, *Saint-Lager* (G, K, PR, W); ibid., vs. m. Sierra Blanquilla, 10.7.1930, *Vicioso* (MA); secus viam inter Ronda et San Pedro Alcántara, 13.1.1955, *Brinton-Lee 266* (BM); in mont. supra Benahavís, Marbella et Mijas, *Clemente* (MA); in m. Sierra de Mijas, 19.7.1888, *Reverchon 82* (C), et 22.7.1888, *Reverchon 224* (E, G, G-Bu, JE, K, LAU, LD, MANCH, P, PRC, W, W-Hal); secus viam inter Cuevas del Becerro et Campillos, 28.5.1969, *Merxmüller & Lippert* (M); in m. Sierra del Valle supra fl. Rio de Guadalahorce, 10.6.1964, *Sandwith 6327* (K); pr. Valle de Abdalagís, loco "Caudera", 10.6.1964, *Montserrat 208* (Jaca); inter Villanueva del Rosario et Málaga, 27.6.1919, s. coll. (MA); in jugo Puerto de los Alazores supra Alfarnate vs. Loja, 27.5.1936, *Reese* (Bas); in mont. inter Vélez Málaga et Alhama, 8.1825, *Webb* (FI-Webb); ibid., inter Viñuela et Ventas de Zafarraya,

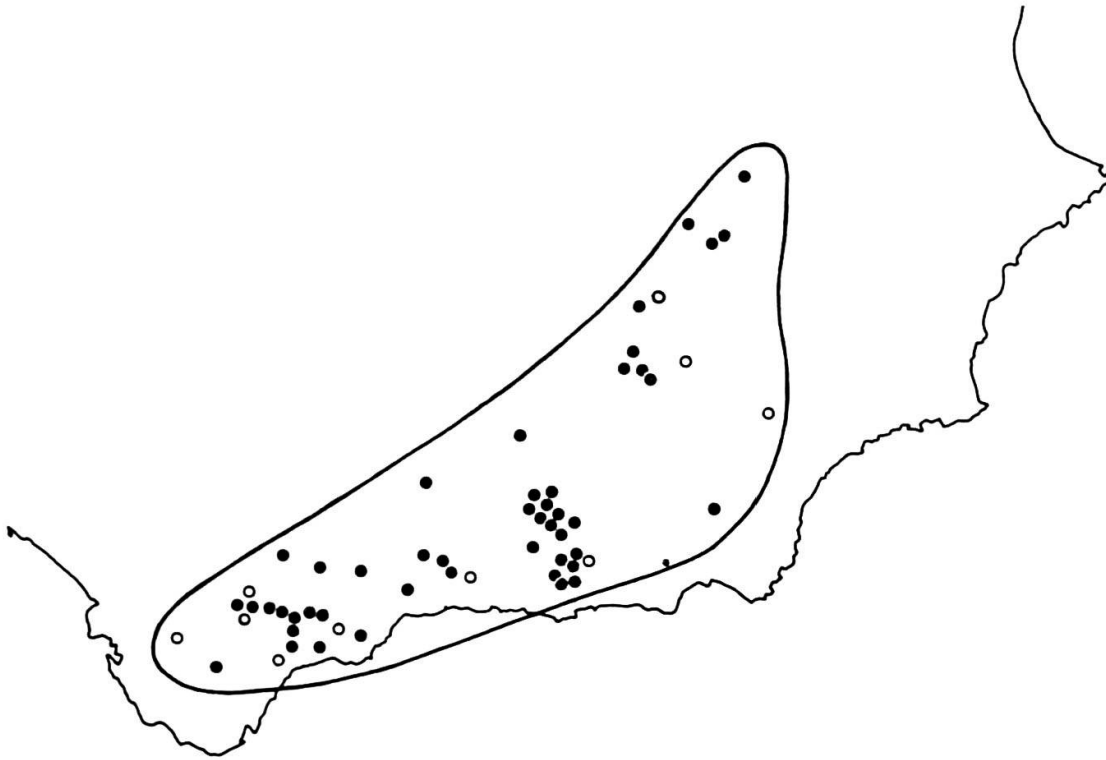


Fig. 34. — Distributio geographica *P. hispanici*, secundum specimina herbaria visa (orbiculi nigri) et indicia literaturae floristicae (circuli).

15.7.1971, *Dittrich 1280* (G, Gr); in mont. dit. Ajarquía, 5.8.1935, *Laza* in Fl. Iber. Sel. n. 286 (B, HUI, K, LAU, MA); pr. Alcaucín ad rad. m. Sierra Tejada, 9.7.1910, *Saint-Lager* (G). Córdoba: in m. Sierra de la Horconera pr. Priego de Córdoba, 6.1960, *Borja* (Sev). Granada: 8.1837, *Boissier* (C, E, FI-Webb, G, G-Bu, G-DC, K, L, LAU, LE, LISU, M, MPU, NAP, PI, RO, TO, W); in lat. mer. m. Sierra Arana secus viam inter Guadix et Granada, 30.8.1951, *Retz 31146* in Soc. Franç. Ech. Pl. Vasc. n. 1773 (K); in m. Sierra de la Yedra (= Sierra de Alfacar), *Clemente* (MA), et 22.6.1953, *Reynders 3509* (L); in mont. Sierra Nevada, s. coll. (MA); pr. urbem Granada, *Willkomm 162* (G, Gr, K, L, W), 7.1844, *Willkomm* (W), 8.1844, *Willkomm* (BM), 7.1853, *Alioth* (G), 8.1861, *Campo* (FI), 7.1864, *Campo* (K), et a. 1876, *Hackel* (FI, MPU, W-Hal, WU); ibid., loco "C. Gordo" vel "Sierra del Moro", 19.7.1883, *Nilsson 1507* (BM, C, LD); ibid., in arce Alhambra (= Silla del Moro), *Funk* (W-Hal), 22.7.1844, *Willkomm 162* (COI), a. 1848, *Funk* (BM, COI, Gr, JE, W), 7.1849, *Reuter* (G), 13.4.1852, *Lange* (C), 18.7.1873, *Winkler* (FI, W), 23.7.1873, *Winkler* (G-Bu, JE, LE), et 12.7.1876, *Winkler* (M); ibid., secus fl. Darro, *Clemente* (MA), et 26.7.1876, *Hackel* (W); in lat. bor.-occ. mont. Sierra Nevada, in valle fl. Genil, 8.1848, s. coll. (K), 4.7.1926, *Jahandiez 269* (E, Z) et *Lacaita 269* (BM); ibid., pr. Güéjar Sierra, 8.1913, *Beltrán* (MA); ibid., ad lacunas "la Trincherá", 28.8.1844, *Willkomm 162* (COI); ibid., pr. Güéjar Sierra et ad mon. San Gerónimo, 3.8.1879, *Huter & al. 309* (BM, E, FI, G, G-Bu, GB, Gr, K, LE, MANCH, MPU, P, PAL, PR, PRC, TO, W, WU); ibid., pr. mon. San Gerónimo,

1.8.1844, *Willkomm* 162 (FI-Webb, K), 20.8.1851, *Bourgeau* 1229a (COI, E, G), 12.9.1877, *Leresche* (G-Bu, LAU), et 8.1891, *Porta & Rigo* 475 (B, BM, G, GB, Gr, JE, K, LD, M, MANCH, MPU, NAP, PI, PR, PRC, W, W-Hal, WU); ibid., loco Purche, 25.7.1852, *Campo* in Bourgeau, Pl. Grenade n. 62 (B, BM, C, E, FI-Webb, G, K, L, MANCH, W), 7.1857, *Campo* (FI), et 8.1857, *Campo* (FI, G-Bu, JE, MANCH, PR, TL, W-Hal, Z); ibid., in jugo Dornajo, 22.7.1891, *Lomax* (GE); pr. Padul, loco "Barranco de Pogueira", *Clemente* (MA); in lat. mer. mont. Sierra Nevada, supra Capileira, 8.8.1924, *Ginzberger* (WU); ibid., ad mer. pagi Pampaneira, 5.10.1952, *Gausson* 7500 (TL); ibid., supra Soportújar pr. domum forestalem, 22.8.1928, *Villar* (MA); pr. Lanjarón, 31.10.1966, *Kaae* (C); in lat. sept. mont. Sierra Contraviesa (= Las Alpujarras), supra Órgiva, 6.1902, *Pau* (MA); ibid., sub jugo Puerto Camacho, 27.9.1970, *Hainard* (G, Gr). **Almería:** c. Senés, loco "Casa Gallina", 7.1853, *Sáinz* (MA). **Jaén:** pr. "Cabrilla en el reyno de Jaén" [sed "al pie de Sierra nevada" sec. *Anales Ci. Nat.* 5: 284. 1802], a. 1799, *Lagasca* (MA); in colle "Cerro de San Vicente", a. 1849, *Blanco* 450 (BM, E, FI-Webb, G) et 500 (MPU); in m. "Sierra" c. Campillo de Arenas, 19.7.1848, *Funk* 113 (G); in mont. Sierra de Cazorla, locis "La Yedra, Las Cabañas, Cañada de las Fuentes", 1.7.1948, *Heywood & David* 493 (BM); ibid., loco "Cuerda de las Moras", 21.7.1951, *Heywood* 1470 (BM); ibid., loco "Fuente de la Yedra" supra domum forestalem, 3.8.1951, *Heywood* 1899 (BM); ibid., pr. Nava de San Pedro, 1.8.1951, *Heywood* 1821 (BM), et inde vs. deversorium, 18.8.1969, *Lippert* 9895 (M); ibid., in angustis fl. Rio Guadalentin ("Valentina"), 7.1904, *Reverchon* 1367 (BAS, G); pr. Beas de Segura, 14.6.1954, *Galiano* (Sev); pr. Segura, 8.1851, *Blanco* 157 (G).

Murcia: herb. Salle (MPU). **Albacete:** pr. Riópar, 27.7.1850, *Bourgeau* 730 (E, FI, FI-Webb, G, K, MA, MANCH, MPU, P, TL, W); in fauc. fl. Mundo infra Riópar, 19.4.1967, *Montserrat* 128 (Jaca); pr. Vianos ad mer. opp. Alcaraz et pr. Balazote, 6.8.1962, *Merxmüller & Wiedmann* 494 (M).

Loca excludenda

Adest schedis falsis verisimiliter commutatis instructus in C ("e Lusitania", *Raben*) et in LE ("Cnicus afer, e mont. Vesuvio", herb. Mertens). Specimen marocanum a Pau olim ad speciem nostram refertum ad *Ptilostemonem rhiphaeum* var. *tetauensem* pertinet.

H. *Ptilostemon* sect. *Fontqueria* Greuter, sect. nova. Holotypus: *Ptilostemon rhiphaeus* (Pau & Font Quer) Greuter

— *Lamyra* auct. partim (non *Cirsium* subg. *Lamyra* Cass.).

Plantae perennes hemicryptophyticae vel basi suffrutescentes. *Surculi* e surculis anni praeteriti plus minusve elatis orientes, abbreviati vel subelongati, infra densiuscule, supra densissime rosulati foliati, per annos nonnullos procrecentes vel jam anno altero caulem capituligerum terminalem et saepe surculos novellos laterales edentes. *Folia* sicca persistentia, sinuato-lobata, nervis praeter spinigeros

omnes vel fere obsoletis, spinigeris modo *Platyrrhaphiorum* regulariter dispositis (sed in quoque lobo non ultra 5). *Synflorescentia* spiciformis. *Phylla* involucri margine infra papillosa, supra interdum antrorse ciliato-scabrida, dorso glaberrima vel in subulâ tantum laxe subaraneoso-floccosa. *Flosculi* marginales haud fructiferi, pappo plumoso parum reducto ei florum centralium subsimili. *Pappi* setae saltem validiores in parte apicali circumcirca densiuscule plumulosae, barbellatae vel scabridae. Appendices *antherarum* totam per longitudinem aequaliter vittatae, vittâ prominulâ nectar secernente.

- 10. *Ptilostemon abylenis* (Maire) Greuter, comb. nova** $\equiv$ *Cirsium Casabonae* subsp. *abylenis* Maire in Bull. Soc. Hist. Nat. Afrique N. 22: 299, 15.11.1931 $\equiv$ *Cirsium rhiphaeum* subsp. *abylenis* (Maire) Font Quer in Index Seminum Horti Bot. Mus. Barcinon. Sci. Nat. 1931: 15, 31.12.1931 $\equiv$ *Chamaepeuce abylenis* (Maire) Pau & Font Quer in Font Quer, sched. impr. Iter Marocc. a. 1930, n. 692 [apr. 1932, sec. Cavanillesia 5: 63. 1932] $\equiv$ *Lamyra abylenis* (Maire) Soják in Novit. Bot. Delect. Seminum Horti Bot. Univ. Carol. Prag. 1962: 47. 1962. **Syntypi:** "Massif calcaire du Mont aux Singes (Abyla) au dessus de Ceuta, 450-800 m: Djebel Moussa (Font-Quer, mai 1930); Djebel Fahies (Font-Quer et Maire, juin 1930)". **Lectotypus:** "*Cirsium Casabonae* (L.) D.C. ssp., In rupestribus calcareis Abylae, loco dicto Fahies, 350-500 m, flores vivide purpurei, die 28 junii", Maire, Iter maroccanum XX, 1930 (MPU).

Fig. 11a, p. 35 (phyllum involucri); fig. 16d, p. 45 (apices setarum pappi).

Folia rosularum magnopere coriacea, ambitu lanceolata, dissite sinuato-lobata, spinis spinulisque validis flavo-brunneis in quoque lobo 2-3(-5) lacinias late triangulares palmatim dispositas terminantibus; apice triangularia in spinam excurrentia, basi longe angustata imo vaginato-ampliata; eximie discoloria nam subtus candida tomento compacto crasso, supra ad nervos crispule floccoso-pubescentia caeterum glaberrima glaucovirentia; nervi spinigeri validi, utrinque sed subtus magis prominentes (nervi laterales inter lobos siti marginem non attingentes saepe observantur). *Caules* ineunte aestate evoluti, 40 cm et ultra alti, validi, tenuiter araneoso-cinerei ad costas saepe glabrescentes, infra dense supra sparsius foliati; folia caulina rosularibus subconformia sed breviora sessilia, media et superiora basi latâ rotundatâ semiamplexicaulia. *Synflorescentia* spiciformis, ad medium caulis attinens, capitulis 8-16 praeter terminale in axillis foliorum subsessilibus plerumque solitariis rarius binis aggregatis. *Involucrum* e basi rotundatâ vel truncatâ fere hemisphaericum, 16-20 mm longum, subaraneoso-floccosum. *Phylla* involucri regulariter imbricata, media quam interiora breviora; phyllorum exteriorum et mediorum pars basalis infra pallida inde purpurascens, margine interdum parce papillosa vel ciliolato-scabrida, lanceolata, ad 1.5-2 mm lata; appendix extus crispule subaraneosa, virens, plus minusve erecto-patula gracilis (basi minus quam 1 mm crassa) subulata triquetra spinosa recta, in phyllis mediis vix elongata, 4-7 mm longa; phylla interiora late linearia, basi straminea apice atropurpurea, margine dense antrorse ciliolato-scabrida caeterum glabra, recta, breviter acuminata. *Setae* receptaculi candidae, 9-10 mm longae. *Flosculi* atropurpurei. *Pappus*

12-15 mm longus, setis 2-3-fariis (in flosculis marginalibus 1-2-fariis) breviter (ad c. 1.5 mm) plumosis, apice circumcirca densius laxiusve barbellatis. *Corolla* 17-19 mm longa; tubus 8-10 mm longus; limbus 9-10 mm longus, basi paulo ampliatus inde tubulosus, per c. $\frac{2}{5}$ longitudinis inaequaliter 5-fidus (differentiâ fissurarum 0.5-0.8 mm), laciniis basi 0.7-0.9 mm latis. *Staminum* filamenta post anthesin 4.5-5.5 mm longa, a medio vel paulo infra laxiuscule mediocriter pilosa; tubus antherarum per 1.4-2.2 mm e corollâ exsertus, 8.5-9.5 mm longus, 0.8-1 mm crassus, caudis 2.4-2.8 mm longis, appendicibus 1.8-2.2 mm longis obtusiusculis vel breviter apiculatis. Apex *stylis* 1.6-1.9 mm longus; lobi stigmatiferi lineari-spatulati apice rotundati, per 0.3-0.4 mm liberi vix hiantes, lateraliter saepe usque ad medium apicem decurrentes. *Fructus* oblique obovoideus, 4.8-5.5 mm longus, 3-3.8 mm crassus, atropurpurascens plus minusve brunneo-marmoratus; discus apicalis diametro 1.4-1.6 mm, margine minimo sed distincto.

Habitat in clivis lapidosis, in rarioribus dumetorum sempervirentium, solo calcareo, inter 300 et 800 m supra maris aequor. Floret mensibus Junio et Julio.

Area

Endemicus in montosis Abylae prope urbem Ceuta Regni marocani septentrionalis. Vide fig. 35.

Specimina visa

Regnum marocanum: in dit. urbis Ceuta, m. Jebel Moussa (= Abyla), 28.6.1930, *Font Quer* 692 (BM, G, LAU, MPU, Z); ibid., in m. Jebel el Fahies, 28.6.1930, *Maire* (MPU); ibid., secus bivium pagi Beni Younnec, 11.7.1971, *Dittrich* 1262 (G, Gr).

- 11. *Ptilostemon rhiphaeus*** (Pau & Font Quer) Greuter, comb. nova $\equiv$ *Chamaepeuce rhiphaea* Pau & Font Quer in Font Quer, sched. impr. Iter Marocc. a. 1927, n. 690 [10.3.1928, sec. Cavanillesia 1: 47. 1928] $\equiv$ *Cirsium Casabonae* var. *rhiphaeum* (Pau & Font Quer) Font Quer in Cavanillesia 1: 79. 10.4.1928 $\equiv$ *Cirsium Casabonae* subsp. *rhiphaeum* (Pau & Font Quer) Maire in Bull. Soc. Hist. Nat. Afrique N. 20: 187. 1929 $\equiv$ *Cirsium rhiphaeum* (Pau & Font Quer) Font Quer in Index Seminum Horti Bot. Mus. Barcinon. Sci. Nat. 1930: 15. 1930 $\equiv$ *Cirsium Casabonae* var. *eu-rifeum* Maire in Bull. Soc. Hist. Nat. Afrique N. 22: 299. 1931, nom. illeg. $\equiv$ *Lamyra rhiphaea* ["*rhiphaea*"] (Pau & Font Quer) Soják in Novit. Bot. Delect. Seminum Horti Bot. Univ. Carol. Prag. 1962: 47. 1962. **Typus:** "Chamaepeuce rhiphaea Pau et F. Q., sp. nov., Hab. in quercetis c. Bu-Meziat (Atlante rhiphaeo), 1700 m. alt. solo siliceo, 29. junii", *Font Quer*, Iter maroccanum 1927, n. 690. *Lectotypus:* idem (G; isotypi: BM, LAU, MPU).

- *Cirsium Casabonae* vel *Chamaepeuce Casabonae* auct. quoad pl. Kabyliae et Atlantis rifani (non *Carduus Casabonae* L.).
- *Cirsium Casabonae* subsp. *trispinosum* sensu Maire quoad pl. Africae (non s.str.).
- *Chamaepeuce sidi-guinii* [“Sidi-Guini”] sensu Sennen in sched. impr. Pl. Espagne n. 9429, c. 1935 (non *Cirsium sidi-guinii* Pau & Font Quer).

Fig. 2b, p. 17 (structura schematica plantae); fig. 7e, p. 28 (lobus folii); fig. 11b, p. 35, et 12a, p. 36 (phylla involucri); fig. 16d, p. 45 (apices setarum pappi); tab. II a-b (grana pollinis).

Folia rosularum ambitu anguste lanceolata, dissite sinuato-lobata, spinis spinulisque validis flavo-brunneis in quoque lobo 2-3(-5) lacinias late triangulares palmatim dispositas terminantibus; apice triangularia in spinam excurrentia, basi longe angustata imo vaginato-ampliata; eximie discoloria nam subtus candida tomento compacto crasso, supra ad nervos crispule floccoso-pubescentia caeterum glaberrima viridia vel glaucescentia; nervi spinigeri validi utrinque sed subtus magis prominentes (nervi laterales inter lobos siti marginem non attingentes saepe observantur). *Caules* ineunte aestate evoluti, (30-)50-70 cm (et ultra?) alti, validiusculi, tenuiter araneoso-cinerei ad costas saepe glabrescentes, sparsius densiusve foliati; folia caulina rosularibus subconformia sed sessilia, inferiora interdum oblique inserta brevissime subdecurrentia, media et superiora aliquanto diminuta basi latâ saepe rotundatâ horizontaliter inserta. *Synflorescentia* spiciformis vel racemosa ad tertiam partem superiorem, rarius ad medium caulis attinens; capitula (2-)5-10(-15), praeter terminale in axillis foliorum plerumque solitaria rarius bina, subsessilia vel breviter (raro nonnulla usque ad 5 cm) pedunculata. *Involucrum* e basi rotundatâ vel truncatâ anguste vel late campanulatum, 15-25 mm longum, glabrum. *Phylla* involucri praeter papillas marginales glabra, media interiora aequantia vel saepius superantia; phyllorum exteriorum et mediorum pars basalis pallide virens, marginem et apicem versus saepe purpurea, ovato-lanceolata, ad 2.5-3.5 (-4) mm lata; appendix virens saepe purpureo-suffusa, patula vel erecto-patula subulata triquetra spinosa recta, in phyllis mediis validiuscula (basi ultra 1 mm crassa) evidenter elongata, 12-16(-22) mm longa; phylla interiora linearia, straminea apice saepe atropurpurea, margine papillosa antice interdum parce scabrida, recta, apice spinuloso-acuminata. *Setae* receptaculi candidae, 9-13 mm longae. *Flosculi* laete purpurei vel rosei interdum albidii. *Pappus* 15-19(-20) mm longus, setis 2-3-fariis mediocriter (ad 1.5-2 mm) plumosis, apice circumcirca densius laxiusve plumulosis vel barbellatis (in flosculis marginalibus setae 1-2-fariae, breviter plumosae, apice circumcirca vel subbifariam laxè scabridae). *Corolla* 17-25 mm longa; tubus 7-11(-12) mm longus; limbus 10-13(-14) mm longus, basi ampliatus inde tubulosus, per tertiam partem vel per $\frac{3}{8}$ longitudinis inaequaliter 5-fidus (differentiâ fissurarum 0.2-1.2 mm), laciniis basi 0.6-0.9 mm latis. *Staminum* filamenta post anthesin 5.8-6.6 mm longa, a medio vel paulo supra infrave dense vel laxius mediocriter pilosa; tubus antherarum per 1-2.2 mm e corollâ exsertus, 9.5-13.5 mm longus, 0.9-1.1 mm crassus, caudis 1.6-3.5 mm longis, appendicibus 2.2-3 mm longis indistincte apiculatis. *Apex styli* 1.8-2.8 mm longus; lobi stigmatiferi lineares vel lineari-spatulati apice rotundati, per 0.3-0.6 mm liberi vix vel paulo hiantes, lateraliter vix vel valde (interdum per 1 mm) decurrentes. *Fructus* oblique obovoideus, 3.8-4.5 mm longus, 3-3.5 mm crassus, brunneus vel atropurpurascens,

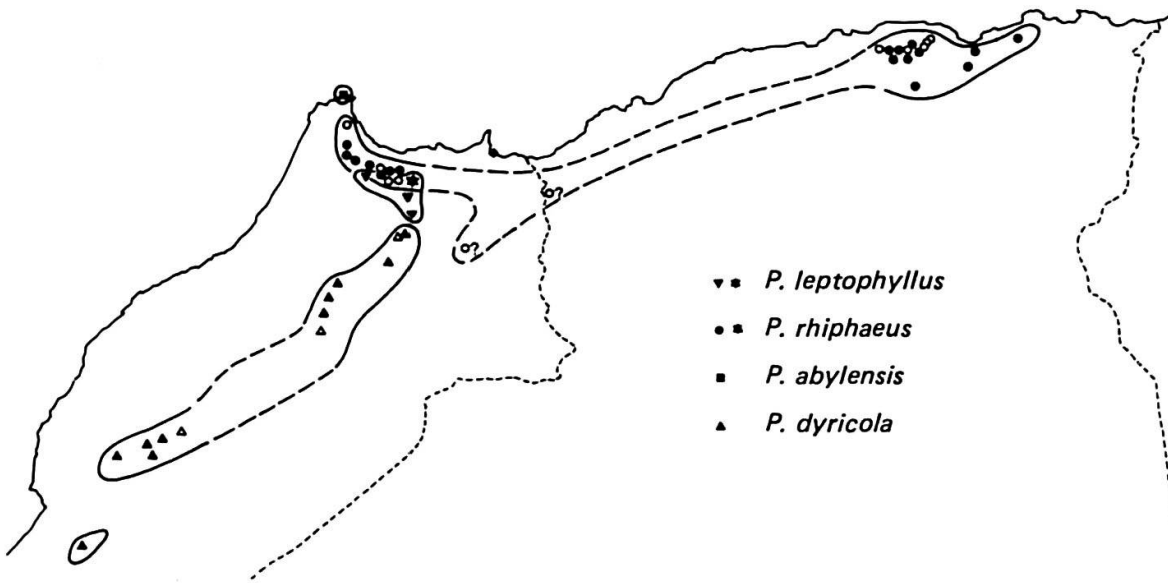


Fig. 35. — Distributio geographica specierum *P.* sect. *Leptophylli* et *Fontqueriae*, secundum specimina herbaria visa (signa expleta) et indicia literaturae floristicae (signa circumscripta).

plus minusve fusco- vel stramineo-lineolatus vel -marmoratus; discus apicalis diametro 1.4-1.6 mm, margine minimo vel indistincto.

Habitat in rarioribus silvarum *Quercus Suberis*, *Tozae* et *pubescentis*, *Pini nigrae*, *Cedri*... et in dumosis aridis, solo plerumque calcareo, rarius siliceo, schistoso, margaceo vel arenoso, inter 200 et 1800 m supra maris aequor. Floret a fine mensis Junii ad initium Augusti.

Area

In montibus Africae borealis mare spectantibus: in Kabylia Algeriae et in Atlante rifano Regni marocani vulgatio; indicatur perraro et in regionibus interjectis, sed specimina non vidi. Vide fig. 35.

Specimina visa

Algeria. Kabylia: a. 1864, *Letourneux* (K); in m. Jebel Marouf pr. El Milia, 14.7.1861, *Cosson* (BM, C, G, P); in m. Jebel Babor, 20.6.1880, *Cosson* (P), 7.1896, *Reverchon 212* (B, BM, E, G, GB, JE, LD, LE, M, MANCH, P, PRC, TL, WU, Z, ZT), 7.1897, *Reverchon 212* (G), et 7.1898, *Reverchon 212* (MANCH, W); in m. Jebel Megriss, 7.1898, *Reverchon 212* (G, P, WU); in m. Jebel Dreat supra Mansoura, 7.1874, *Letourneux* (MPU); in mont. Jurjura, *Battandier* (MPU); ibid., pr. Tirourda, 8.1884, *Pomel* (MPU); ibid., in jugo pr. Tirourda, 8.7.1858, *Debeaux* (P); ibid., pr. Aïn-el-Hammam (= Michelet), *Battandier* (MPU), et 12.7.1909, *Saint-Lager* (G, W); ibid., in m. Lalla Khedidja, 6.1887, *Battandier* (PAL), et in ejus lat. mer. ad fontem Tala Rana, 30.6.1879, *Duhamel* (G), 6.1887, *Battandier* (MPU), et 7.1889,

Battandier (COI, MPU, Z); *ibid.*, in dit. Beni Bou-Addou, 6.1854, *Cosson* (MPU); *ibid.*, in m. Jebel Haizer (= Tamgout), 3.7.1854, *Cosson* (MPU), et 6.1885, *Battandier* (MPU); *ibid.*, pr. Borj Boghni, 27.6.1854, *Cosson* (W).

Regnum marocanum. Atlas rifanus: pr. Tizi-Ifri, 24.6.1926, *Maire* (MPU); in colle Bou-Meziat, 29.6.1927, *Font Quer* 690 (BM, G, LAU, MPU); ad stationem (= azib) Ketama, 21.6.1934, *Sennen & Mauricio* in *Sennen*, Pl. Espagne n. 9429 (G, MPU); in valle rivi Oued el Amezas infra "Bab Amezas", 17.6.1928, *Maire* (MPU); in dit. Beni Ersine, in lat. boreo-or. m. Jebel Tasiat inter Bab Taza et Ketama, 8.7.1971, *Dittrich* 1235 (G, Gr); pr. domum forestalem Talassemiane in dit. pagi Bab Taza, 6.7.1971, *Dittrich* 1179 (G, Gr); c. Chechaouene (= Xauen), 24.6.1928, *Font Quer* 414 (BM, G, LAU, MA, MPU, Z); ad sept. urbis Chechaouene supra lacum artificialem fl. Oued Laou, 7.7.1971, *Dittrich* 1209 (G, Gr).

11β. *Ptilostemon rhiphaeus* var. *tetauensis* (Font Quer) Greuter, comb. nova ≡ *Cirsium rhiphaeum* var. *tetauense* ["*tetauensis*"] Font Quer in Index Seminum Horti Bot. Mus. Barcinon. Sci. Nat. 1930: 15. 1930 ≡ *Cirsium Casabonae* var. *tetauense* (Font Quer) Maire in Bull. Soc. Hist. Nat. Afrique N. 22: 299. 1931 ≡ *Chamaepeuce rhiphaea* ["*rhiphae*"] var. *tetauensis* (Font Quer) Font Quer in sched. impr. Iter Marocc. a. 1930, n. 691 [apr. 1932, sec. Cavanillesia 5: 63. 1932]. **Typus:** "In Monte Gorgues, supra Tetauen (Imp. Maroc)". **Lectotypus:** "Chamaepeuce rhiphae Pau et F. Q., ap. F. Q., Iter maroc., 1927, n° 690. var. *tetauensis* F. Q., ut *Cirsio*, Ind. sem. H. Mus. Barc., 1930, p. 15., Hab. in saxosis calc. montis Gorgues (Beni Hosmar), ad 700 m. alt.; 29. junii. Cotypus", *Font Quer*, Iter maroccanum 1930, n. 691 (G; isotypi: BM, LAU, MPU, Z).

- *Cirsium hispanicum* sensu Pau in Mem. Real Soc. Esp. Hist. Nat. 12: 348. 1924 (non *Carduus hispanicus* Lam.).
- *Chamaepeuce Casabonae* sensu Pitard, Expl. Sci. Maroc. Bot.: 61. 1913 (non *Carduus Casabonae* L.).

Differt a *Ptilostemone rhiphaeo* "normali", cui caeterum simillimus, floribus saturatius purpureis et subulis phyllorum involucri parce sed distincte subaraneoso-floccosis.

Habitat in clivis apricis dumulosis lapidosis, solo calcareo, inter 250 et 900 m supra maris aequor. Floret mensibus Junio et Julio.

Area

Endemicus in ditione urbis Tetouan Regni marocani septentrionalis.

Specimina visa

Regnum marocanum: in dit. urbis Tetouan, in valle "Tissa", 8.4.1911, *Pitard* 1125 (G, P); *ibid.*, in dit. Beni Hozmar, ad castrum "Gorgues", 29.6.1930, *Font Quer* 691 (BM, G, LAU, MPU, Z) et *Maire* (MPU); *ibid.*, in lat. boreo-or. m. Jebel Ajnane supra urbem, 10.7.1971, *Dittrich* 1239 (G, Gr).

12. *Ptilostemon dyricola* (Maire) Greuter, comb. et stat nov. $\equiv$ *Cirsium Casabonae* subsp. *dyricola* ["*dyricolum*"] Maire in Bull. Soc. Hist. Nat. Afrique N. 22: 299. 1931. **Typus**: "in Quercetis Ilicis Atlantis Majoris, solo calcareo nec non siliceo, ad alt. 1100-2200 m, julio florens (Maire, 1921-1926)". **Lectotypus**: "Chamaepeuce Casabonae (L.) D.C., M. Grand Atlas, basse vallée d'Ourika, broussailles, schistes et grès, 1000 m, fl. purpurin foncé, 8.7.1921", Maire (MPU).
 — *Cnicus Casabonae* vel *Cirsium Casabonae* auct. quoad pl. Atlantis medii et majoris (non *Carduus Casabonae* L.).

Fig. 11c, p. 35 (phyllum involucris); fig. 17a, p. 46 (apices setarum pappi); fig. 18f et h, p. 49 (limbus corollae explanatus et apex lobi corollini); fig. 19d, p. 50 (filamentum); fig. 20f, p. 52 (appendices et caudae antherarum).

Folia rosularum anguste lanceolata, sinuata lobulis dissitis parum productis angulato-subrotundatis, spinis spinisque validis flavescentibus in quoque lobo 2-4(-5) palmatim dispositis; apice triangularia in spinam excurrentia, basi longe angustata imo vaginato-ampliata; eximie discoloria nam subtus candida tomento compacto crasso, supra ad nervos saepe diutius araneoso-puberula caeterum citissime glabrata viridia vel glauco-virentia; nervi spinigeri subtus valde supra parum prominentes (nervi laterales inter lobos siti marginem non attingentes rite observantur). *Caules* ineunte aestate evoluti, (40-)60-100 cm (et ultra?) alti, validi, tenuiter araneosi ad costas rite glabrescentes, regulariter laxiuscule foliati; folia caulina rosularibus subconformia, sed praeter infima sessilia, media et superiora basi latâ saepe rotundatâ semiamplexicaulia. *Synflorescentia* spiciformis elongata, saepe ad tertiam partem inferiorem caulis attinens, capitulis rite ultra 20 (ad 60 numeravi), praeter terminale in axillis foliorum aut solitariis tunc semper sessilibus, aut 2-4-nis aggregatis tunc uno alterove breviter (ad 3 vel ad summum 5 cm) pedunculato. *Involucrum* e basi rotundatâ vel truncatâ ovoideum dein campanulatum, 16-22 mm longum, glabrum. *Phylla* involucris praeter papillas marginales glabra, regulariter imbricata, media quam interiora breviora; phyllorum exteriorum et mediorum pars basalis straminea vel pallide virens, apice saepe purpurea, ovato-lanceolata, ad 1.5-2.5(-3) mm lata; appendix virens vel purpurascens, erecto-patula gracilis (basi ad summum 1 mm crassa) subulata triquetra spinulosa recta, in phyllis mediis vix elongata, (1-)3-9 mm longa; phylla interiora linearia, straminea, margine papillosa antice interdum parce scabrida, recta, apice spinuloso-acutata. *Setae* receptaculi candidae, 7-11 mm longae. *Flosculi* purpurei vel rosei. *Pappus* 15-17 mm longus, setis 2-3-fariis mediocriter (ad 1.5-2 mm) plumosis, apice circumcirca scabridis (in floribus marginalibus setae 1-2-fariae subbrevis plumosae). *Corolla* 19-23 mm longa; tubus 8-11 mm longus; limbus 10-12 mm longus, basi modice ampliatus inde tubulosus, ad summum per tertiam partem longitudinis inaequaliter 5-fidus (differentiâ fissurarum 0.4-0.9 mm), laciniis basi 0.6-0.9 mm latis. *Staminum* filamenta 5-6 mm longa, paulo supra medium densiuscule mediocriter pilosa; tubus antherarum per 0.5-1.5(-3) mm e corollâ exsertus, 9-12 mm longus, 0.8-1.1 mm crassus, caudis 2.4-3.2 mm longis, appendicibus 2.2-2.8 mm longis, acutiusculis vel apiculatis. Apex *styli* 2-2.5 mm longus; lobi stigmatiferi lineares apice rotundati, per 0.2-0.5 mm liberi, vix hiantes, lateraliter per 0.5-0.8 mm decurrentes. *Fructus* oblique obovoideus, 3.4-3.8 mm

longus, (2.2-)2.6-2.8 mm crassus, purpurascenti-brunneus plus minusve stramineo-marmoratus; discus apicalis diametro 1.2-1.5 mm, margine minimo vel indistincto.

Habitat in silvis raris *Oleae*, *Quercus Ilicis* et *Suberis*, *Cedri*..., et praesertim in caeduis, solo saepius calcareo, sed etiam schistoso, basaltico, arenaceo, plerumque inter 1000 et 2000 m supra maris aequor. Floret a mense Junio ad Augustum.

Area

Endemicus in Regno marocano, ubi montes regionum interiorum a Jebel Tazzeke per Atlantem medium et majorem usque ad Jebel Lekst Antiatlantidis incolit. Vide fig. 35.

Specimina visa

Regnum marocanum. Atlas medius: ad iugum "Tizi-n-Ouria", 21.6.1936, *Maire* (MPU); in mont. supra opp. Taza, 28.5.1932, *Reese* (Bas); in dit. Beni Zeggout, supra Asif Tafferte vs. domum forestalem Tafferte, 2.7.1971, *Dittrich 1144* (G, Gr); in valle Toumliline pr. Azrou, 17.5.1921, *Jahandiez 357* (MPU); pr. domum forestalem Aïn Kahla ad austro-or. opp. Aïn Leuh, 20.7.1924, *Jahandiez 832b* (G), 23.7.1968, *Elsley 63* (Sev), et a. 1968-1969, *Deag 82* (Sev); in fauc. "Amengous" pr. Bekrit, 5.7.1924, *Jahandiez 779* (BM). **Atlas major:** "Talate Nizirane", 28.7.1955, *Newbould 36* (BM); in parte inf. vallis Ourika, 8.7.1921, *Maire* (MPU); in jugo Tizi n'Tarharat ("Tacherat") supra Arremd, 6.1872, *Rein & Fritsch 305* (K); in valle fl. Asif n'Irhirhain ("Reraia") pr. Asni, 4.6.1926, *Lindberg 3582* (B, LD); in mont. ad austro-occ. urbis Marrakech (= Maroc), a. 1873, *Ibrahim* (K). **Antiatlas:** in m. Jebel Lekst (= Kest), 8.4.1935, *Maire & Wilczek* (MPU), et 17.6.1939, *Maire & Weiller* (MPU).

- J. Ptilostemon sect. Polyacantha** Greuter, sect. nova. **Holotypus:** *Ptilostemon Casabonae* (L.) Greuter
- *Lamyra* vel *Chamaepeuce* sect. *Lamyra* vel *Cirsium* sect. *Lamyra* auct. partim (non *Cirsium* subg. *Lamyra* Cass.).
 - *Cirsium* subg. *Lamyra* sensu Rouy in Rev. Bot. Syst. Géogr. Bot. 2: 28. 1904 (non Cass.).

Planta perennis chamaephytica fere semper monocarpica. *Axis* unicus (raro, verisimiliter in plantis mutilis tantum, furcatus vel surculum lateralem edens), subelongatus vel abbreviatus, infra interdum densiuscule, supra densissime rosulatum foliatus, per annos plures (plerumque 4-5) procrescens dein caulem capituligerum terminalem proferens et deperiens. *Folia* sicca persistentia, lanceolata, vix sinuata, margine revoluta et fasciculos spinarum digitatim dispositarum nervis lateralibus validis insidentes gerentia, parenchymate inter spinas cujusque fasci-

culi nullo vel subnullo; spina proximalis cujusque fasciculi maxima, sursum vergens, saepe e facie superiore nec e margine ipso folii abiens; sequens, tertia et si adsunt quarta et quinta gradatim minores et magis deflexae; si spinae quatuor bene evolutae adsunt, et rite sed non semper antequam quinta formatur, spinula intercalaris inter primam et secundam, interdum et inter secundam et tertiam apparet: spinulae hae e plano normali ramificationis rite aversae. *Synflorescentia* spiciformis. *Phylla* involucri margine saepe papillosa et ciliolata, dorso glabra vel in appendice tantum parce subaraneoso-floccosa. *Flosculi* marginales fructiferi, pappo haud reducto. *Pappi* plumosi setae apice tenues, bifariam, in summo vertice fere fasciculatim plumulosae vel barbellatae (interdum pilus unus alterve e faciebus setae oriens observatur). Appendices *antherarum* totam per longitudinem aequaliter vittatae, vittâ prominulâ nectar secernente. *Grana pollinis* tuberculis obtusiusculis parum prominentibus (majoribus 1-2 μ m altis) obsita.

- 13. *Ptilostemon Casabonae* (L.) Greuter in Boissiera 13: 146. 1967** $\equiv$ *Carduus Casabonae* L., Sp. Pl.: 823. 1753 $\equiv$ *Cirsium trispinosum* Moench, Meth.: 556. 1794, nom. illeg. $\equiv$ *Cnicus Casabonae* (L.) Roth in Ann. Bot. (Usteri) 8: 9. 1794 $\equiv$ *Carduus elegans* Salisb., Prodr.: 185. 1796, nom. illeg. $\equiv$ *Cirsium Casabonae* (L.) DC. in Lam., Fl. Fr. ed. 3, 4: 121. 1805 $\equiv$ *Lamyra triacantha* Cass. in Dict. Sci. Nat. 25: 220. 1822, nom. illeg. $\equiv$ *Chamaepeuce Casabonae* (L.) DC., Prodr. 6: 658. 1838 $\equiv$ *Cirsium Casabonae* subsp. *trispinosum* Maire in Bull. Soc. Hist. Nat. Afrique N. 20: 187. 1929 (excl. speciminibus), nom. illeg. $\equiv$ *Lamyra Casabonae* (L.) Soják in Novit. Bot. Delect. Seminum Horti Bot. Univ. Carol. Prag. 1962: 46. 1962. **Typus** non indicatur [descriptio princeps contra exemplum Horti Cliffortiani leviter mutata, nam pro "foliis lanceolato linearibus" legitur "foliis lanceolatis sessilibus"; ergo descriptio prior (cujus specimen originale in herbario Cliffortiano deest) vix pro typo habenda]. **Lectotypus**: "11. casabonae", herb. Linné n. 966.28 (LINN, folia).
- = *Carduus polyacanthus* Lam., Fl. Fr. 2: 20. 1779 $\equiv$ *Chamaepeuce polyacantha* (Lam.) St-Lager in Ann. Soc. Bot. Lyon 7: 144. 1880. **Typus**: "croît en Provence dans les îles d'Hières". **Lectotypus**: "Carduus seu polyacantha vulgaris I. R. h., Polyacantha Casabonae Acarnae similis J. B., Aux Iles de Levant", herb. de Jussieu n. 8142 partim, excl. schedis aliis et foliis 3 ad *Ptilostemonem hispanicum* pertinentibus (P-JU).
- = *Chamaepeuce macrostachya* Trautv. in Bull. Cl. Phys.-Math. Acad. Imp. Sci. Saint-Pétersbourg 16: 326. 1858, et in Mélanges Biol. Bull. Cl. Phys.-Math. Acad. Imp. Sci. Saint-Pétersbourg 2: 625. 1858 (excl. loco) $\equiv$ *Cirsium macrostachyum* (Trautv.) Boiss., Fl. Or. 3: 550. 1875 $\equiv$ *Lamyra macrostachya* (Trautv.) Tamamšjan in Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR 16: 475. 1954, pro synonymo. **Typus**: "Prope Ach-Ssu prov. Schirwan leg. Medic. Lagowski". **Holotypus**: "Chamaepeuce macrostachya Trautv., Schemacha, — Ach-Ssu. Leg. Dr. Lagowski" (LE; segmenta unius ejusdem plantae chartis 2 affixa).

Fig. 1b, p. 12 (plantulae); fig. 2d, p. 17 (structura schematica plantae); fig. 5, p. 26 (lobus folii); fig. 11d, p. 35 (phyllum involucri); fig. 17b, p. 46 (apex

setae pappi); fig. 21g, p. 56 (apices stylorum); fig. 22d, p. 58 (fructus); tab. II f, (grana pollinis).

Folia rosulae sempervirentia, spinis exclusis ad 20(-30) cm longa et ad 20 (-30) mm lata, anguste lanceolata, integra vel vix sinuata, margine revoluta et dissite fasciculato-spinosa, spinis flavidis parum inaequalibus, gracilibus sed vulnerantibus, in quoque fasciculo 2-4(-7); apice triangulari-acuminata in spinam excurrentia, basi longe angustata imo vaginato-ampliata; eximie discoloria nam subtus candida tomento compacto crasso laevi (in sicco saepe rubescenti), supra ad costam interdum parce araneosa caeterum glaberrima atrovirentia; nervi fasciculigeri supra prominuli subtus saepe tomento occultati, marginem versus incrascati (inter quos nervi debiliores non fasciculigeri marginem non attingentes saepe observantur). *Caulis* sero in vere vel ineunte aestate evolutus, (30-)50-150 cm altus (sed plantae ultra metrales herbariis eheu impropriae in naturâ tantum observantur), validissimus, glaber vel inter costas tenuiter canescens, densius laxiusve foliatus; folia caulina anguste vel late lanceolata, rosularibus subconformia sed gradatim minora, basi rotundatâ sessilia, praecipue inferiora saepe oblique inserta tunc brevissime decurrentia. *Synflorescentia* spiciformis saepe elongata, capitulis interdum ultra 100 in axillis foliorum dimidii caulis superioris aggregatis subsessilibus (in plantis macrioribus capitula pauca in axillis foliorum superiorum solitaria). *Involucrum* e basi truncatâ vel umbilicatâ cylindraceo-campanulatum, 16-24 mm longum, glabrum vel parce subaraneoso-floccosum. *Phyllorum* exteriorum et mediorum pars basalis nitida, pallida vel superne purpurascens, lanceolata, 2-3.5 mm lata; appendix rite virens, erecto-patula gracilis subulata triquetra spinosa recta, in phyllis mediis longissima 10-25 mm longa, spinâ flavidâ vulneranti; phylla interiora lineari-lanceolata, infra straminea antice pallide virentia saepe purpurascentia, margine eleganter ciliolata vel fere plumosa, apice spinuloso-acuminata. *Setae* receptaculi candidae, 8-10 mm longae. *Flosculi* purpurei. *Pappus* 13-18 mm longus, setis 2-3-fariis mediocriter (ad c. 2.5 mm) plumosis. *Corolla* 18-22 mm longa; tubus 10-12 mm longus; limbus 8-10 mm longus, basi modice ampliatus inde tubulosus, per tertiam c. partem longitudinis inaequaliter 5-fidus (differentiâ fissurarum 0.4-0.8 mm), laciniis basi 0.4-0.8 mm latis. *Staminum* filamenta 3-4.5 mm longa, jam sub medio laxiuscule vel parce mediocriter pilosa; tubus antherarum per 0.5-1.5 mm e corollâ exsertus, 6.5-8.5 mm longus, 0.6-0.7 mm crassus, caudis 1.8-2.8 mm longis, appendicibus 1.6-2 mm longis apiculatis. *Apex styli* 1.2-1.7 mm longus; lobi stigmatiferi lineari-spatulati apice rotundati, per (0.2-)0.4-0.6 mm liberi, hiantes demum recurvati, lateraliter saepe per 0.5 mm decurrentes. *Fructus* oblique obovoideus, 3-3.8 mm longus, 2.1-2.6 mm crassus, brunneus vel griseo-brunneus vel atropurpureus, saepissime stramineo-marmoratus vel flavido-lineolatus; areola abscissionis parva, saepe fere punctiformis; discus apicalis diametro 1.1-1.3 mm, margine indistincto.

Habitat in clivis petrosis apricis sterilibus vel in rupestribus dumulosis regionis silvaticae, in rarioribus silvarum, in glareosis ad margines viarum, solo (an semper?) siliceo, a mari ad 1200 m altitudinis. Floret a mense Majo ad Augustum.

Area

In insulis Ile du Levant Stoechadum et Ilva Etruriae, in Corsicâ et Sardiniâ. Vide fig. 36.

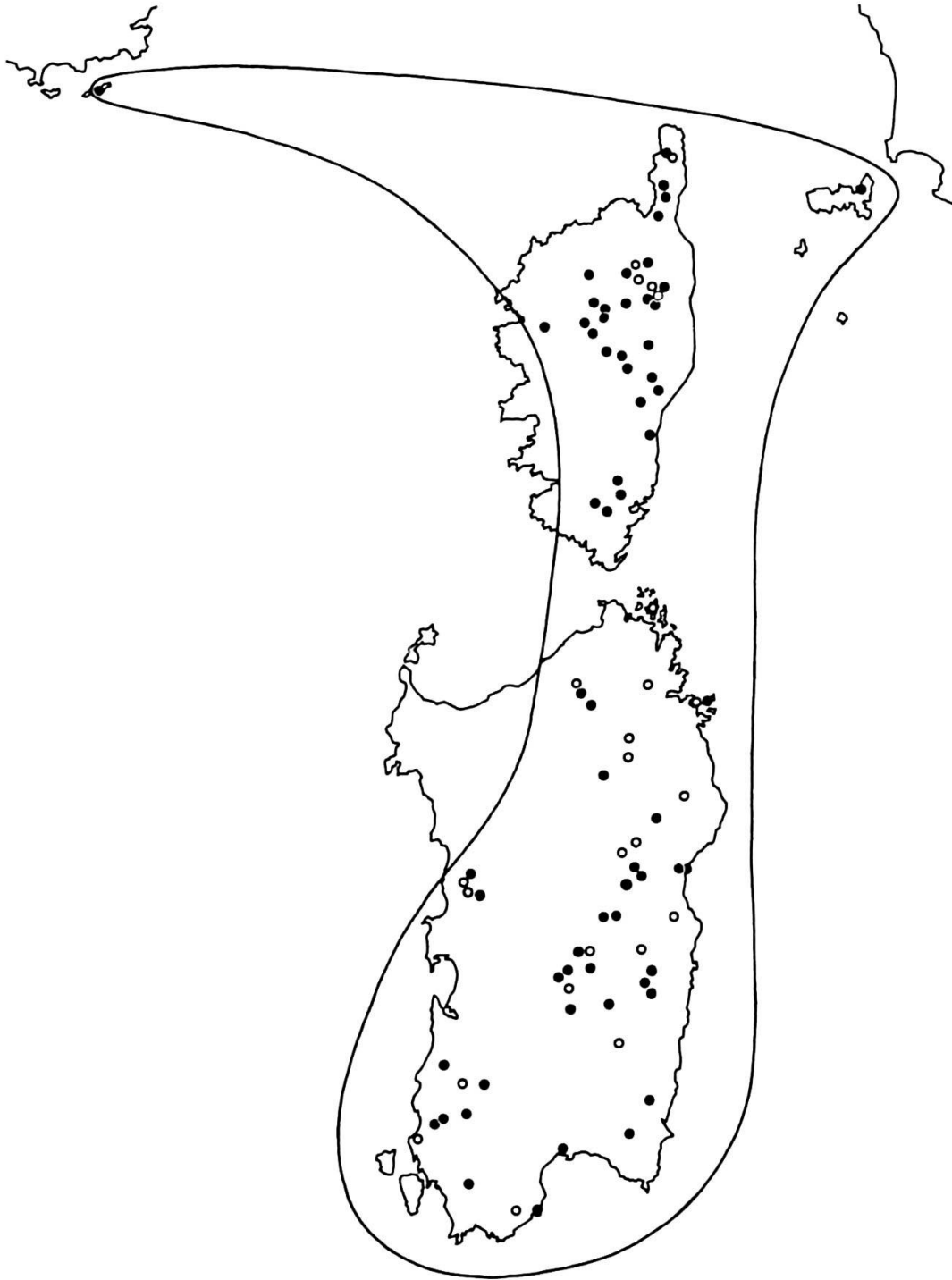


Fig. 36. – Distributio geographica *P. Casabonae*, secundum specimina herbaria visa (orbiculi nigri), indicia literaturae floristicae et observationes meas in situ (circuli).

Specimina visa

Cultus per saeculos XVIII et XIX in hortis botanicis Europae: secundum specimina saltem Berolini, Erlangae, Francofurti, Heidelbergae, Herrenhusii, Jenae, Londini in h. kewensi, Lugduni Batavorum, Lutetiae, Monachii, Mosquae, Panormi, Petropoli, Pisis, Taurini, Telone Martii, nec non in h. experimentalis "Casa Bianca" in promont. Argentaro.

Inquilinus ut videtur in Bethuriâ pr. pagum Queluz inter Olyssiponem et Sintram situm, ubi anno 1847 detectus fuit et unde specimina sequentia vidi: "Estremadura", 7.1847, *Welwitsch* (K), a. 1848, *Welwitsch* 251 (G, LE, MANCH), et a. 1848-1850, *Welwitsch* 1071 (LE, MANCH); pr. Queluz, 3.1847, *Welwitsch* (K, LISU), 7.1847, *Welwitsch* (COI), 7.1873, *Cunha* (LISU), 6.1881, *Daveau* (COI, G, LISU, MPU, P, ZT), et 7.1887, *Oliveira David* in Fl. Lusit. n. 996 (BM, COI, LISU); ibid., in silvâ "Mata de Queluz", 31.5.1957, *Teles & Bento Rainha* 471 (LD).

Galloprovincia: *Altford* (M), *Auzende* (G) et *Loiseleur* (LE, fructûs). **Var:** in insulis Hyères (= Stoechades), s. coll. (MPU), *Chavannes* (G-DC), *Jordan* (C, E, G), *Requien* (G-DC), *Robert* (LE, PRC), a. 1823, *Petit* (L), a. 1835, *Maire* (G, LD), 6.1837, s. coll. (LD), et a. 1846, *Barran* (E); in Stoechade orientali Ile du Levant, s. coll. (MPU, P-JU), *Auzende* (MPU), *Maille* (MPU), *Maire* (P), *Petit* (LE), 2.7.1862, *Chambeiron* (G, G-Bu), 27.6.1863, *Shuttleworth* (K, PAL), 9.1872, *Olivier* (PI), 24.6.1890, *Legré* (MPU), 13.7.1904, *Verguin* (G, GE), 8.6.1906, *Albert* (TL), et 7.1936, *Desplantes* (FI); ibid., in parte occ., 4.1787, *Schmiedel* (M); ibid., in colle Titan et ad fretum Grottes, 1.7.1862, *Chambeiron* (G); ibid., inter poenitentiarium et locum "les Arbousiers", 9.6.1948, *Palézieux* (G).

Etruria. Ins. *Ilva* (= Elba): *Meneghini* (PI); loco "Val del Frasso", 8.1839, *Savi* (FI, PI); in colle Volterraio, *Savi* (PI).

Corsica: s. coll. (LAU, LE, MPU, PRC), *Charpentier* (LAU), *Requien* (TO), *Salzmann* (LE, PR), *Thomas* (FI-Webb, G, LAU, MPU); in penins. Cap Corse, 15.6.1841, *Bernard* (P); in jugo Col-de-Sainte-Lucie inter Pino et Luri, *Spencer* (W), et 7.7.1906, *Burnat & al.* (G-Bu) et *Saint-Yves* (LAU); pr. Olmeta di Capocorso, 1.7.1835, *Bubani* 190 (MPU); pr. Mandriale, *Salis-Marschlins* (ZT, scheda), et 6.1841, *Bernard* 94 (G); inter Mandriale et jugum Bocca Razza, 16.7.1910, *Briquet & al.* (G-Bu); inter Barbaggio et jugum Col de Teghime supra Bastia, 3.7.1880, *Levier* (FI, G); inter Casamazza (= Pont du Golo) et Ponte Leccia, *Thomas* (LE); pr. Ponte Leccia, 22.4.1964, *Hansen* (C); inter Asco et casam pastorem "Rogia", 25.7.1906, *Burnat & al.* (G-Bu); in valle fl. Fium Alto, *Thomas* (G-DC); inter Porta et Orezza, 7.1828, *Salis-Marschlins* (ZT); pr. Orezza, 5.7.1905, *Gysperger* (Gr); ad Piedicroce pr. Orezza, 3.7.1913, *Briquet & Lascaud* (G-Bu); in lat. or. jugi Col de San Pietro supra Orezza, 4.7.1913, *Briquet & Lascaud* (G-Bu); in valle rivi Ellerato inter Omessa et Tralonca, 14.7.1906, *Burnat & al.* (G-Bu); in valle sup. fl. Golo infra Calacuccia, 16.7.1900, *Burnat & al.* 58 (G-Bu, GE); ibid., in fauc. Scala di Santa Regina, *Soleirol* 2590 (FI-Webb), et 17.4.1908, *Hess* (ZT); in m. Forca supra Corte, 30.7.1867, *Mabille* (WU); inter Corte et Aleria, 26.7.1901, *Soulié* (MPU); in valle Restonica supra Corte, 14.7.1878, *Burnouf* (LISU), 11.7.1880, *Levier* (FI), 20.7.1900, *Burnat & al.* 206 (G-Bu), 16.4.1911, *Thellung* (Z), et 19.7.1954, *Retz* 34428 in Soc. Franç. Ech. Pl. Vasc. n. 2674 (LAU); in parte superiore ejusdem vallis, 7.1910, *Cousturier*

(Mars), et 6.6.1914, *Ronniger* (W); in mont. c. Evisa, 12.7.1885, *Reverchon* 262 (E, G, GB, K, MANCH, PAL, PR, TO, W) et in Magnier, Fl. Sel. Exs. n. 1729 (E, G, G-Bu, JE, LD, LISU, MA, MANCH, MPU, P, PAL, W, W-Hal); in m. Rotondo, 2.8.1907, *Martelli* (FI); in valle rivi Manganello silvae Cervello pr. Vivario, 18.7.1906, *Burnat & al.* (G-Bu); in jugo Col di Sorba, 7.6.1912, *Spencer* (GB); infra Ghisoni, 9.7.1903, *Jaccard* (LAU); in parte inferiore fauc. Défilé d'Inzecca supra Ghisonaccia, 18.4.1926, *Ruppert* (M); pr. Ghisonaccia, 22.5.1901, *Bicknell & Pollini* (GE); secus rivum Abatesco, 4.1829, *Salis-Marschlins* (ZT, scheda); pr. Solenzara ad pontem, 28.7.1933, *Aellen* 1429 (B, Bas, GB, K, LAU, LD, LE, MA, PR, TL); in lat. or. m. Punta del Diamante supra Carabona, 9.7.1911, *Briquet & Lascaud* (G-Bu); in silvâ Ospedale, 7.1919, *Cousturier* (BM, Mars); in mont. Cagna, 17.7.1849, *Kralik* (G, TL), et 30.7.1880, *Reverchon* 262 (E, G, G-Bu, K, LAU, MANCH, MPU, PRC, TL, W-Hal, WU); ibid., loco "Bétalzza", 14.8.1896, *Stéfani* (TL), 10.6.1899, *Stéfani* (ZT), et 25.6.1912, *Stéfani* (G-Bu); ibid., pr. "Cheralba", 8.1912, *Stéfani* (MA, NAP, PR, W) et in Petrak, Cirsioth. Univ. n. 80 (C, E, G, Gr, JE, K, LAU, LD, LE, LISU, MA, PR, W, Z); ibid., in lat. occ. jugi Fontanella, 6.1917, *Cousturier* (G); ibid., inter Burrivoli et casam pastorem Cagna, 5.7.1911, *Briquet & Lascaud* (G-Bu).

Sardinia: s. coll. (TO, W), *Bonjean* (FI-Webb), *Cansella* 328 (FI), *Göttlich* (W), *Moris* (FI, SASSA, TO) et *Thomas* (G, G-Bu, LAU, M, W); pr. Tempio, 6.1895, *Nicotra* (FI); in m. Limbara, 4.7.1882, *Reverchon* 220 (TO), 5.7.1882, *Reverchon* 220 (Z), 14.7.1882, *Reverchon* 220 (B, E, FI, G, GB, JE, K, LAU, MANCH, MPU, PAL, PR, PRC, TL, TO, W-Hal, ZT) et in Soc. Helv. (FI, G, G-Bu, GB, LAU, LD, PRC, TO, W, W-Hal, ZT) et in Baenitz, Herb. Eur. (G, G-Bu, Gr, K, L, MANCH, PRC, RO, SARA, TO, W, W-Hal), et 16.7.1887, *Fiori* (FI, MANCH, W); ibid., inter "Filaschedda" et "Punta di Anghilasa", 24.6.1907, s. coll. (SASSA); ibid., in lat. boreo-occ., a. 1895, *Nicotra* (B, RO, SASSA), et 25.9.1970, *Greuter* 8785 (G, Gr); ibid., ad bivium deversorii Vallicciola, 28.5.1958, *Greuter* 1277 (Gr); ibid., secus viam ad deversorium Vallicciola ducentem, 25.9.1970, *Greuter* 8783 in Exs. Genav. n. 77 (AAU, AD, BM, BR, BRNU, BSD, C, CL, CANB, DUKE, FI, G, GB, Gr, GZU, H, KRA, LD, LE, LISE, LJU, M, Mars, MW, NO, NSC, NSW, OKL, OSC, OULU, PAL, QFA, RSA, SOM, SPN, TUR, UBC, UC, US, W, WTU); ins. Tavolara, *Moris* (TO), et 27.5.1885, *Major* 330 (G, LE); ibid., pr. antrum "Pietro Tamponi", 27.5.1885, *Major* 330 (FI, G-Bu, LD); ibid., vs. locum "la Piana", 22.3.1953, *Desole* (SASSA); ibid., vs. locum "Pteride", 23.6.1959, *Desole* (SASSA); ibid., in parte sup., 26.4.1953, *Desole* (SASSA); ibid., in lat. occ., 25.8.1953, *Desole* (SASSA); in m. Lerno, loco "Rodè", 1.6.1907, s. coll. (SASSA); in m. "Piccino" supra Lula, 6.1899, *Martelli* (FI); in m. Bardia supra Dorgali, 19.5.1895, *Martelli* (FI, GE); pr. Cala Gonone, 12.6.1932, *Schmid* (Z); pr. Oliena, locis "S'Ata" et "Bedda", 25.7.1894, *Martelli* (FI), et vs. m. "Punta Maccione", 17.6.1908, s. coll. (SASSA); in oropedio pr. Orgosolo, a. 1956, *Filigheddu* (FI); in jugo Arcu Correboi ad or. mont. Gennargentu, 27.9.1970, *Greuter* 8824 (Gr); in valle rivi Aratu inter Fonni et Desulo, 26.9.1970, *Greuter* 8804 (G, Gr); inter Baunei et Dorgali secus viam, 11.8.1971, *Greuter* (obs.); inter casam viariam Pira de Ormi et pagum Villanova Strisaili, 27.9.1970, *Greuter* (obs.); ad sept. pagi Lanusei, 27.9.1970, *Greuter* 8825 (G, Gr); in valle Taquisara pr. Gairo, 27.5.1879, *Biondi* (FI); pr. Ulassai, 1.8.1894, *Martelli* (FI, TL); in m. Santa Vittoria supra Esterzili, 7.1898, *Martelli* (FI); pr. Isili, a. 1882, *Siemoni* (FI); pr. Laconi, loco "S'Azza

de Ziu Chiccu", 18.5.1894, *Martelli* (FI); *ibid.*, loco "Funtana Maore", 26.6.1864, *Moris* (TO), et 6.1864, *Masala 710* (CAG); in valle fl. Flumendosa inter Gadoni et Seulo, 11.8.1971, *Greuter 9733* (Gr); pr. Belvì, loco "Pizzu'e Pranu", 22.5.1894, *Martelli* (FI); pr. Scano Montiferro, a. 1882, *Siemoni* (FI, scheda); pr. Santu Lussurgiu, c. fontem "Pala Ruvin", 25.5.1913, *Terracciano* (SASSA); ad Ingurtosu pr. Guspini, 4.1966, *Merxmüller & Oberwinkler* (M); pr. Villacidro, 9.1912, *Taricco 31* (SASSA); ad Grotta San Giovanni pr. Domusnovas, 8.4.1894, *Martelli* (FI); in mont. Marganai supra Domusnovas et Iglesias, 5.1858, *Allis* (TO); pr. Iglesias, s. coll. (K, PRC), et 6.1859, *Gennari* (FI, GB, TO); ad Monteponi pr. Iglesias, 9.5.1906, *Herzog* (ZT); in regione Sulcis, *Moris* (FI-Webb, SASSA, TO); pr. Pula, *Thomas* (G, W, ZT); pr. Cagliari, *Thomas* (G); in m. Sette Fratelli, *Thomas* (K), et 5.1889, *Macchiati* (RO); in m. Narba supra San Vito, 20.4.1872, *Sommier* (FI).

Loca excludenda

Indicatur ex Africâ boreali ab auctoribus plurimis propter confusionem cum *Ptilostemone dyricolâ* et *riphaeo* (quos vide). Specimen typicum *Chamaepeuces macrostachyae*, ut Tamamšjan (1954) optime monet, schedâ falsâ praeditus est et certe non e Caucaso provenit. Idem dicam de specimine Gittardii a me non viso, e Peloponneso a Chaubardio (in Bory & Chaub., *Nouv. Fl. Pélop.*: 56. 1838) citato: auctores recentiores "*Carduum Casabonae* sensu Chaubard" ad *Ptilostemonem afrum* referunt, sed descriptio Chaubardiana cum specie nostra bene quadrat, et meo sensu scheda Gittardii potius quam determinatio Chaubardii falsa est. Domina Renzoni-Cela (1964) loca nonnulla falsa areae speciei nostrae denuo addit, nam specimen glabrum (!) *Cirsii flavispinae* Boiss. in prov. Miranda Hispaniae borealis a Boissiero, Leresche et Levier lectum incaute pro *Ptilostemone Casabonae* habet, et stulte affirmat Barbey eandem speciem ex insulis Baleariis citasse (ubi a nemine adhuc indicabatur), dein dubitanter licet plantam cultam montis Argentarii areae naturali speciei adjungit. In herbario MPU exstat specimen *Ptilostemonis Casabonae* schedâ falsâ (commutatâ) "Province de Jaën, a. 1851, Blanco" instructum.

II. *Ptilostemon* subg. *Lamyra* (Cass.) Greuter, comb. nova $\equiv$ *Cirsium* subg. *Lamyra* Cass. in Bull. Sci. Soc. Philom. Paris 1818: 168. 1818 $\equiv$ *Lamyra* (Cass.) Cass. in Dict. Sci. Nat. 25: 218. 1822 $\equiv$ *Cirsium* Less., Gen. Cynaroceph. Spec. Arctot.: 9. 1832 (non Miller 1754), nom. illeg. $\equiv$ *Chamaepeuce* sect. *Lamyra* (Cass.) DC., Prodr. 6: 658. 1838 $\equiv$ *Cirsium* sect. *Lamyra* (Cass.) Griseb., Spicil. Fl. Rumel. 2: 254. 1846 $\equiv$ *Cnicus* sect. *Lamyra* (Cass.) Bentham & Hooker fil., Gen. Pl. 2: 469. 1873. **Holotypus: *Carduus stellatus* L. (i.e. *Ptilostemon stellatus* (L.) Greuter).**

Planta annua autumnio germinans, hieme rosulam foliorum basalium cito evanidorum formans, vere caulem capituligerum terminalem edens et deperiens. *Folia* supra pilis brevibus rigidis conicis subantrorsis uniseriatim 3-5-cellularibus asperula,

lacinulis vel appendiculis lateralibus remotis molliter spinuloso-aristulatis saepe sub marginem inflexis et tomento fere occultatis praedita (caulina superiora saepe integerrima), nervis praeter costam obsoletis, caulina ad basin utrinque valide spinosa. *Synflorescentia* spicata vel paniculiformis. *Phylla* involucri margine praeter papillas glabra, dorso apicem versus parce crispule floccoso-pubescentia saepe glabrescentia, appendice intus ad ortum eximie gibbosâ. *Flosculi* marginales fructiferi, sed pappo saepe plus minusve reducto interdum e setis paucis non plumosis singulatim delabentibus constituto praediti, tubo corollae nunquam extus curvato, tubo antherarum recto. *Pappi* normalis plumosi setae apice tenues pilis subito brevioribus bifariam barbellatae dein scabridae (interdum pili vel denticuli nonnulli e faciebus setae orientes observantur). Limbus *corollae* a tubo paene distinctus, basi non ampliatus (supra basin gradatim paululum dilatatus). *Staminum* filamenta supra medium pilis raris brevibus, crassitiem filamenti ipsius longitudine vix superantibus obsita; appendices antherarum vittae carentes. *Grana pollinis* tuberculis obtusiusculis parum prominentibus (majoribus 1-2 μm altis) obsita. Apex *styli* brevis (0.6-1 mm longus), aegre delimitatus, papillis infra vix elongatis annulum non formantibus. *Fructus* a latere evidenter compressus, diametro majore quam minore sesquilingiore; diameter disci apicalis tertiam vel quartam partem diametri majoris fructûs aequans. Numerus somaticus *chromosomatum* 24.

14. **Ptilostemon stellatus** (L.) Greuter in Boissiera 13: 146. 1967 $\equiv$ *Carduus stellatus* L., Sp. Pl.: 823. 1753 $\equiv$ *Cirsium stellatum* (L.) All., Fl. Pedem. 1: 153. 1785 $\equiv$ *Cnicus stellatus* (L.) Roth in Ann. Bot. (Usteri) 8: 9. 1794 $\equiv$ *Lamyra stipulacea* Cass. in Dict. Sci. Nat. 25: 222. 1822, nom. illeg. $\equiv$ *Chamaepeuce stellata* (L.) DC., Prodr. 6: 658. 1838 $\equiv$ *Lamyra stellata* (L.) Soják in Novit. Bot. Delect. Seminum Horti Bot. Univ. Carol. Prag. 1962: 46. 1962. **Typus** non indicatur. Specimen in herb. Linnaei (LINN) sub n. 966.29 adservatum prob. post a. 1753 acceptum. *Lectotypus*: descriptio princeps, "Carduus spinis ramosis lateralibus, foliis integris subtus tomentosis" Royen, Fl. Leyd. Prodr.: 133. 1740. "*Typotypus*": "Carduus foliis integris subtus tomentosis, spinis lateralibus integris & ramosis. Roy. prodr. 133. Carduus stellatus, leucoji lutei foliis. Dodart. act. 4. p. 26. t. 26", herb. Royen (L).
- = *Cnicus stellatus* var. *tenuifolius* N. Terracc. in Annuario Reale Ist. Bot. Roma 4: 164. 1891 $\equiv$ *Cirsium stellatum* f. *tenuifolium* (N. Terracc.) Fiori in Fiori & Paol., Fl. Anal. Ital. 3: 362. 1904. **Typus**: "Castrovillari... a M. Sassone". *Holotypus*: "Cnicus stellatus var. tenuifolius, Castrovillari, a M. Sassone, Jun. 1885", N. Terracciano (RO).
- = *Cnicus stellatus* var. *foliosus* N. Terracc. in Annuario Reale Ist. Bot. Roma 4: 165. 1891 $\equiv$ *Cirsium stellatum* f. *foliosum* (N. Terracc.) Fiori in Fiori & Paol., Fl. Anal. Ital. 3: 362. 1904. **Typus**: "Castrovillari... a S. Angelo". *Holotypus*: "Cnicus stellatus b. [tenuifolius corr.] foliosus Nobis, Castrovillari; a S. Angelo, Jul. 1886", N. Terracciano (RO; isotypus [sub nom. var. tenuifolii]: FI).

Fig. 1d, p. 12 (plantulae); fig. 3d, p. 20 (structura schematica plantae); fig. 8b-c, p. 29 (folium basale et caulinum); fig. 11e, p. 35 (phyllum involucris); fig. 13d,

p. 39 (flos longitudinaliter sectus); fig. 17c, p. 46 (apices setarum pappi); fig. 18g, p. 49 (limbus corollae explanatus); fig. 19e, p. 50 (filamentum); fig. 20g, p. 52 (appendices et caudae antherarum); fig. 21h, p. 56 (apices stylorum); fig. 22e, p. 58 (fructus); tab. II g (grana pollinis).

Folia rosulae florendi tempore decomposita, in plantis uberioribus ad 10 cm longa et ad 15 mm lata sed saepe multo minora, spatulata, margine plana praeter lobulos paucos remotos spinulas molles 0.5-3 mm longas aemulantes integra; apice obtusa vel subacuta breviter molliterque apiculata, basi longe angustata imo vaginato-ampliata; discoloria nam subtus alba tomento compacto crassiusculo, supra tenuiter araneosa saepe glabrescentia viridia. *Caulis* sero in vere vel ineunte aestate evolutus, (5-)10-50(-70) cm altus, gracilis, laxe tenuiter araneosotomentellus serius saepe glabrescens, aequaliter densius laxiusve foliatus; folia caulina infima basalibus subconformia, sed lobulis minimis saepe inflexis spinulas antrorsas aemulantibus; media et superiora plerumque 3-10 cm longa et 2-10 mm lata, non diminuta sed saepius gradatim aucta, anguste lanceolata vel lineari-lanceolata, margine rite revoluta haud raro integerrima, in facie superiore praesertim apicem versus valde aspera; apice validiuscule spinuloso-acuminata, basi angustata sessilia utrinque stipulis instar spinis singulis vel geminis inaequalibus (perraro 3-4-nis digitatis) parenchymate basali omnino carentibus stellatim patentibus apicem caulis versus gradatim majoribus summis 12-30 mm longis armata; folia plurima in axillâ nisi ramum vel capitulum saltem fasciculum foliorum gerentia. *Synflorescentia* in plantis macrioribus spicata (interdum ad capitulum terminale reducta), in uberioribus dives ramosa paniculiformis, capitulis interdum ultra 30, quorum lateralia saepius sessilia a foliis fulcrata. *Involucrum* e basi rotundatâ initio turbinatum vel cylindricum dein campanulatum, 15-22 mm longum, parce floccosum vel subglabrum. *Phyllorum* exteriorum et mediorum pars basalis pallida, anguste triangulari-lanceolata, 1.5-2.5 mm lata; appendix virens, erectopatula validiuscula subulata triquetra spinosa recta, in phyllis mediis longissima 10-30 mm longa, spinâ flavidâ vulneranti; phylla interiora lineari-lanceolata, straminea vel apice dilute purpurascentia, recta, praeter marginem infra papillosum antice antrorse scabridum glabra, apice longe spinuloso-subulata. *Setae* receptaculi candidae, 7-12 mm longae. *Flosculi* dilute roseo-purpurei. *Pappus* (10-)12-15 mm longus, setis 3-4-fariis mediocriter (ad 2-2.5 mm) plumosis (in flosculo marginali uno alterove interdum setae unifariae, bifariam scabridae vel barbellatae). *Corolla* 12-18 mm longa; tubus 6-10 mm longus; limbus 6-8 mm longus, per tertiam partem vel per $\frac{3}{8}$ longitudinis subinaequaliter 5-fidus (differentiâ fissurarum 0.2-0.5 mm), laciniis basi 0.3-0.4 mm latis. *Staminum* filamenta post anthesin 2.8-3.2 mm longa; tubus antherarum e corollâ non vel vix exsertus, 6-7.5 mm longus, 0.5 mm crassus, caudis 1.5-2.5 mm longis, appendicibus 1.8-2.4 mm longis obtusiusculis indistincte apiculatis. *Lobi stigmatiferi* lineares apice rotundati, per 0.2-0.4 mm liberi, conspicue hiantes, inde lateraliter per 0.4-0.6 mm decurrentes, oram areae papilliferae attingentes et secum deferentes. *Fructus* oblique compresse subpyriformis, 4-4.8 mm longus, diametro majore 3-4 mm, minore 2-2.5 mm, griseus vel brunnescens irregulariter zonatim stramineo-marmoratus; areola abscissionis suborbicularis minima fere punctiformis; discus apicalis diametro 0.9-1.1 mm, margine minimo vel indistincto.



Fig. 37. – Distributio geographica *P. stellati* in Italiâ et Dalmatiâ, secundum specimina herbaria visa (orbiculi nigri) et indicia literaturae floristicae (circuli).



Fig. 38. — Distributio geographica *P. stellati* in peninsulâ balcanicâ et in insulâ Cretâ, secundum specimina herbaria visa (orbiculi nigri) et indicia literaturae floristicae (circuli).

Habitat in collibus et montosis apricis siccis sterilibus petrosis vel rupestribus, in graminosis secus vias et agros, in dumulosis et herbidis, solo vario (plerumque calcareo, sed etiam granitico, vulcanico, margaceo ...), a mari ad 1300 m altitudinis. Floret a Majo ad Julium mensem.

Area

In Sicilia sept. et in provinciis Calabria, Basilicata et ad oras meridionales Campaniae Italiae australis; in insulâ Vis Dalmatiae; in Albaniâ meridionali; in insulis Ioniis, Aetoloacarnaniâ Graeciae mediae, in Peloponneso medio et occidentali et in districto Ajos Vasilios Cretae centralis. Vide fig. 37 et 38.

Specimina visa

Cultus per saeculos XVIII et XIX in hortis botanicis Europae plurimis, et nominatim Argentorati, Berolini, Bonnae, Darmestadii, Dresdae, Erlangae, Florentiae, Francofurti, Genavae, Gottingae, Heidelbergae, Jenae, Lugduni Batavorum, Lutetiae, Monachii, Monspelii, Nancoei, Neapoli, Petropoli, Pisis, Taurini et Vindobonae, unde specimina exstant.

Subspontaneus forsan (vel tantum cultus?) olim in Galliâ australi circa Nicaeam maritimam, ubi indicabatur ab Allionio et unde specimina vidi a *Ph. Thomas* distributa (FI-Webb, W).

Italia: "Niella", herb. Colla (TO); in m. "Lando", 7.1898, *Zodda* (MPU).

Sicilia: *Gussone* (G-DC), *Ragnewal* (W) et *Sibthorp* (W); in m. San Giuliano pr. Trapani, 6.1844, *Leresche* (W); in mont. Nebrodes (= Valdemone), *Parlatore* (G), *Todaro* (FI, LE), et 5.1880, s. coll. (PAL); in mont. Madonie, s. coll. (PAL), *Parlatore* (E, FI, G, TO), et 7.1824, *Gussone* (NAP); ibid., in colle "Cuozzo di Suovareddi", *Gussone* (NAP), vel "Cozzo de Suerenti", 7.1817, *Presl* (PRC); ibid., pr. Collesano ("Gulisano"), 5.1860, *Citarda* (JE); ibid., pr. Isnello, 15.6.1855, *Huet du Pavillon* (BM, COI, FI, G, G-Bu, LE, M, MANCH, MPU, TO, W, ZT), 28.7.1874, *Strobl* (BM, G-Bu, Gr, JE, K, MANCH, W, Z), a. 1905, *Ross 550* (B, E, FI, G, G-Bu, GB, GE, L, LAU, LD, LE, M, PR, PRC, WU, Z), et 30.9.1970, *Greuter 8862* in Exs. Genav. n. 79 (AAU, AD, BM, BR, BRNU, BSD, C, CL, CANB, DUKE, FI, G, GB, Gr, GZU, H, KRA, LD, LE, LISE, LJU, M, MW, NO, NSC, NSW, OKL, OSC, OULU, PAL, QFA, RSA, SOM, SPN, TUR, UBC, UC, US, W, WTU); ibid., in m. Pizzo Antenna, 6.1906, *Albo* (GB); ibid., in m. Scalone, a. 1825, *Gussone* (NAP), et 20.6.1840, *Heldreich* (Ath, FI, FI-Webb, G, K, MANCH, MPU, P, W); ibid., pr. Polizzi Generosa, *Parlatore* (FI-Webb, G, K, PI), *Lojacono 388* (FI, PI), 7.7.1880, *Lojacono 389* (BM, FI, G, G-Bu, LD, MANCH, PR, PRC, W, W-Hal, WU), et 7.1891, *Lojacono* (GE); pr. Polizzi Generosa et Taormina, a. 1844, *Leresche* (G, G-Bu, L, LAU, ZT); pr. Santa Agata di Militello, loco "Scavo", 6.1883, *Lojacono* (FI); pr. Militello Rosmarino, *Gussone* (NAP) et *Todaro 625* (BM, COI, FI, G-Bu, JE, K, LD, LE, MANCH, MPU, MS, PAL, PI, RO, TL, TO); pr. Linguaglossa, 21.5.1877, *Cesati* (RO); inter Linguaglossa et Randazzo, 12.6.1965, *Brummitt & al. 5050* (K); ad Taormina (= Tauromenium), s. coll. (C, PAL), a. 1773,

Necker de Saussure (G), 20.6.1841, *Gussone* (NAP), 26.5.1844, *Gussone* (NAP), 23.5.1845, s. coll. (K), 22.5.1878, *Sardagna* (WU), 5.1883, *Lacaita* (FI), 26.4.1895, *Spencer* (FI), 4.5.1898, *Rigo* (NAP), et 21.11.1926, *Guyot* (BAS); ibid., in theatro graeco, 21.5.1878, *Heidenreich-Tilsit* (W-Hal), 11.4.1882, *Richter* (W-Hal), et 3.6.1890, *Sommier & Levier* (B, FI, RO); ibid., ad arcem, 26.5.1925, *Reese* (Bas); ad Castel Mola supra Taormina, 13.5.1933, *Bornmüller* (Z), et 28.5.1964, *Brummitt* 4598 (K); ad Castel Mola et in m. "Ziretto", 5.1933, *Bornmüller* 415 (B); in promont. pr. Sant'Alessio, 28.4.1956, *Arena & al.* (MS), 5.5.1956, *Arena & al.* (MS), et 25.5.1956, *Arena & al.* (FI, MS); ibid. et pr. Ali, a. 1857, *Sequenza* (MS); pr. Mandanici, *Scuderi* (L), a. 1856, *Sequenza* (FI, MS), et 4.6.1882, *Borzi* (G); in m. *Scuderi*, *Borzi* (MS); in promont. pr. Scaletta Zanclea, 12.5.1905, *Zodda* in Fl. Ital. Exs. n. 497 (BM, E, FI, G-Bu, GE, K, LAU, LE, PI, RO, TO, WU, Z, ZT); pr. Messina, 7.1882, *Nicotra* (M).

Calabria: "c. Gerace, Corigliano et Castrovillari", 6.1877, *Huter & al.* 363 (E, FI, G-Bu, LAU, MANCH, MPU, PRC, W, WU, Z); Calabria mer., locis diversis (Lazzaro, Saline, Bova, Gerace; schedae variant), a. 1907, *Rigo* (G, GE, Gr, PR, W); pr. Reggio Calabria, s. coll. (PAL, W), et 19.4.1882, *Macchiati* 76 (PAL); ibid., loco "Costa di San Francesco", 6.1882, *Macchiati* 50 (PAL); supra Reggio Calabria vs. Valanidi, 25.6.1827, *Gussone* (NAP); pr. Lazzaro, 17.5.1898, *Rigo* 305 (B, BAS, BM, G-Bu, JE, LD, MA, MANCH, MPU, NAP, PRC, Rech, W, W-Hal, WU); inter Saline et Molaro, 2.10.1970, *Greuter* 8907 (G, Gr, W); ad Caredia pr. Melito di Porto Salvo, 22.4.1965, *Merxmüller & Wiedmann* (M); pr. Bova, 9.1903, *Pasquale* (NAP); pr. Palizzi, 6.6.1877, *Arcangeli* (FI, PI); ad promont. Spartivento, 19.5.1900, *Mazza & Micheletti* (TO); pr. Gerace, 26.6.1877, *Huter & al.* 363 (GB), 7.1882, *Gandoger* (PRC), et 3.10.1970, *Greuter* 8930 (G, Gr, W); pr. Mammola, *Pasquale* (NAP); in arce supra Roccella Ionica, 4.10.1970, *Greuter* 8942 (G, Gr, LD, W); pr. Stilo, 4.10.1970, *Greuter* 8945 (G, Gr); ibid., in m. Consolino, 14.6.1877, *Arcangeli* (FI); pr. Vibo Valentia (= Monteleone), 11.5.1877, *Arcangeli* (FI); in promont. Punta di Staletti, 1.6.1955, s. coll. (RO) et *Chiarugi & al.* (FI); c. Catanzaro, 14.6.1883, *Fiori* (FI); ibid., secus viam vs. sanctuarium "Portella", 9.6.1895, *Micheletti* (TO); pr. Nicastro, 12.6.1899, *Fiori* (FI); pr. Cosenza, 13.6.1893, *Saint-Lager* (G), et 20.8.1910, *Grande* (NAP); ibid., c. arcem, 18.5.1950, *Corradi* (FI); supra San Donato di Ninea, loco "Acqua di Perciacucco" vocato, 5.10.1970, *Greuter* 8962 (G, Gr); supra Acquaformosa, 22.7.1902, *Longo* (RO); pr. Morano Calabro, 27.6.1891, *Saint-Lager* (G); pr. Castrovillari, 7.1885, *Terracciano* (FI, RO); ibid., loco "Sant'Angelo", 7.1886, *Terracciano* (FI, RO); ibid., in m. Monzone (= Sassone), 6.1885, *Terracciano* (RO); pr. Francavilla Marittima, 22.7.1917, *Guadagno* (PI).

Basilicata (= Lucania): *Tenore* 617 (FI); pr. Terranova di Pollino, in m. "Balsamano", 20.7.1935, *Gavioli* (FI), et 6.1939, *Gavioli* in Pl. Ital. Exs. n. 8 (COI, HUJ, W); ibid., in lat. m. "Calvario", 27.7.1935, *Gavioli* (FI); infra Noepoli ad fl. Sarmento, 20.7.1935, *Gavioli* (FI); pr. Episcopia, 6.1907, *Cavara* (GB); pr. Lagonegro, 23.6.1891, *Saint-Lager* (BM, C, G, L), 3.6.1899, *Fiori* (FI), et 26.6.1917, *Guadagno* (PI); supra Pignola in lat. m. Arioso, loco "Petrale", 10.7.1907, *Gavioli* (FI), 22.7.1927, *Gavioli* (FI, TO), et 21.7.1939, *Gavioli* (RO); ibid., in m. "San Bernardo", 6.7.1924, *Gavioli* (GB, PR), 5.7.1925, *Gavioli* in Petrak, Cirsioth. Univ. n. 191 (BM, C, E, FI, G, Gr, LAU, LD, MA, PR, W, Z), et 12.7.1940, *Gavioli* (W); ibid., loco "Poggi di Pignola", 16.6.1940, *Gavioli* (FI); pr. Potenza, in m. "Ciceniello", 7.1925, *Gavioli* (PR).

Campania: pr. Sapri, 6.6.1899, *Fiori* (FI); pr. Casalbuono, 20.6.1891, *Saint-Lager* (G); ibid., loco "Tempo Ospedale", 8.6.1954, *Agostini* (FI); pr. Buonabitacolo, in valle rivi Peglio, 25.6.1955, *Agostini* (FI); pr. Sessa Cilento, s. coll. (RO).

Jugoslavia. Dalmatia: ins. Vis (= Lissa), s. coll. (PRC), et 19.5.1905, *Briquet & Cavillier* (G-Bu); ibid., pr. Komiža (= Comissa), s. coll. (PR), *Portenschlag* (W), 20.5.1843, s. coll. (K), 6.1870, *Pichler* (G, JE, K, MANCH, PRC, W, WU), 6.1872, *Pichler* (G, G-Bu, JE, K, LAU, MANCH, PRC, W, W-Hal, WU), 19.5.1905, *Kindt* 280 (WU), 21.5.1909, *Schneider* (W), 21.5.1911, *Ginzberger & Teyber* (WU), et 24.6.1959, *Mayer* (LJU).

Albania: distr. Sarandë, pr. Borsh secus viam vs. Vlorë (= Valona), 4.6.1933, *Alston & Sandwith* 1400 (BM).

Graecia. Insulae Ioniae. Ins. **Kerkira** (= Corfù); pr. "Pirji", 26.5.1891, *Bicknell* (BM, G-Bu, K, MPU); pr. Gastouri, 7.1894, *Formánek* (PR); pr. Benitse, 4.6.1891, *Bicknell* (GE); pr. Garouna, 29.6.1879, *Letourneux* (G-Boiss). Ins. **Lefkas** (= Santa Maura): inter pagos Sivros et Ajios Ilias, 27.5.1971, *Stamatiadou* 12391 (Goul). Ins. **Kephallinia:** in distr. Sami (= Pirji), 29.8.1867, *Heldreich* (FI); inter Argostoli et mon. Ajios Jerasimos, 17.5.1926, *Bornmüller* 927 (B, BM, G, JE, LD, PR, W, Z). Ins. **Zakynthos** (= Zante): *Mazziari* 49 (W); in m. Skopos, 30.4.1926, *Bornmüller* 926 (B, Z).

Graecia media (= Sterea Ellas). **Aetoloacarnania:** pr. Varnakas supra Mitikas, 11.7.1906, *Maire & Petitmengin* 324 (W-Hal).

Peloponnesus (= Morea): *Bory* (P) et *Chaubard* (G). **Achaia:** in m. Panachaiko, supra urbem Patre, 6.1949, *Goulimis* (Goul); ibid., supra Kastritsi, 29.5.1926, *Bornmüller* 925 (B); pr. Kalavrita, in m. "Kastro", 23.6.1926, *Bornmüller* 924 (B, BM, G, JE, LD, PR, W, Z); inter Kalavrita et mon. Mega Spileo, 6.1893, *Grimburg* 211 (W); ibid., pr. stationem viae ferreae ad pagum Kerpini pertinentem, 6.7.1896, *Saint-Lager* (G); pr. Zachlorou, 8.7.1896, *Saint-Lager* (G); pr. mon. Mega Spileo, 16.6.1893, *Halácsy* (G, W, W-Hal, WU), et 7.6.1965, *Phitos* 4299 (M); pr. Valimi supra Akrata, 6.1957, *Goulimis* (Goul). **Corinthia:** pr. Trikala in lat. m. Killini, 3.7.1848, *Heldreich* (BM, C, G, G-Boiss, LE, P, ZT), 24.6.1851, *Orphanides* 263 (Ath, BM, C, COI, E, FI, G, G-Bu, GB, JE, K, L, LD, LE, MANCH, MPU, P, PAL, PRC, TL, W, W-Hal, WU, Z, ZT), 3.8.1871, *Heldreich* (BM, FI, G-Bu, MANCH), 23.6.1887, *Heldreich* (B, E, GE, MANCH, W-Hal), et 7.1930, *Guiol* 1364 (BM). **Arcadia:** c. Tripolis, 4.1842, *Boissier* (G-Boiss); in lat. laevo vallis fl. Erimanthos, inter Vasilaki et Livadaki, 12.7.1971, *Greuter* 9345 (Goul); pr. Livadaki, 12.7.1971, *Greuter* 9346 (Goul, Gr). **Messenia:** ad rad. m. Ithomi, 10.6.1846, *Sartori* (FI, NAP, W); in m. Taijetos, 6.1876, *Pichler* (BM, FI, G, G-Boiss, K, LE, W, W-Hal, WU); ad rad. m. Taijetos, pr. Verga (= Selitsa), 28.5.1894, *Heldreich* (G-Bu, W-Hal); ibid., pr. Kardamili ("Scardamoula"), a. 1829, *Despréaux* (G). **Laconia:** penins. Mani [pr. Itilos ("Viti-los"), Areopolis (= Tsimova, "Chimova") et Jithio (= Marathonisi)], *Bory* (FI-Webb); ibid., in promont. Tenaro, loco "Porto Kalion", 10.6.1958, *Rechinger* 20133 (M, W).

Creta. Ajios Vasilios: supra Spili, 16.6.1904, *Dörfler* 638 (WU); in lat. m. Kedros supra Palea Kria Vrisi, 2.11.1966, *Greuter* 7861 (E, G, Goul, Gr, K, LD, M, W); pr. Orne, 1.6.1904, *Dörfler* 382 (WU); inter Ajia-Galini et Melambes, 18.5.1904, *Dörfler* 1005 (GB, Rech, WU).

Loca excludenda

Adest schedis falsis, verisimiliter commutatis, in FI ("Abruzzi", *Pasquale*) et in NAP ("Venafro", *Gussone?*). In Z specimen adservatur "In insulis melitensibus. Dr. Helfer" inscriptum; species nostra autem a nemine in ins. Melitâ indicatur: J. W. Helfer anno 1833 Siciliam et Melitam peragravit, planta igitur certe sicula. Indicatur a Boissier (Voy. Bot. Midi Esp. 2: 36. 1839) in provinciâ malacitanâ Hispaniae, ubi a Haenseler inventus fuisset; specimen deest, et species Hispaniae certe aliena. Rechinger (Beih. Bot. Centralbl. sect. B, 54: 637. 1936) specimen in m. Elikona Boeotiae lectum commemorat, sed amissum videtur, et lapsus calami ex ipso auctore non excludendus: ergo locus dubius manet.

Plantae hybridae

A x B. Ptilostemon sect. x Pterium Greuter, formula nova
 – *Ptilostemon* sect. *Pterocaulos* x *P.* sect. *Platyrrhaphium*

- 1 x 2. Ptilostemon x Grandei** (Petrak) Greuter, comb. nova $\equiv$ *Cirsium* x *Grandeii* Petrak in Österr. Bot. Z. 64: 455. 1914. **Typus:** "Italia australis: Monti di San Donato di Ninea verso l'Acqua di Perciacunno, in saxosis calcareis, alt. c. 1000 m s. m., rarissime inter parentes. 23. August 1913 leg. C. Lacaita... Originale... im Herbarium des Herrn C. Lacaita". **Holotypus:** "Chamaepeuce Grandei mihi hybr. nov. inter *C. nivea* DC. x *C. stricta* DC. Paucissimae inter parentes hoc unico loco. Monti di San Donato di Ninea verso l'Acqua di Perciacunno in sax. calc. c. 1000 m inter parentes", 23.8.1912, *Lacaita* 362 (BM; isotypus: PR, datâ erroneâ 23.8.1913).
 – *Cirsium niveum* x *strictum* Petrak in Österr. Bot. Z. 64: 455. 1914.
 – *Ptilostemon niveus* x *P. strictus*

Planta perennis hemicryptophytica. *Surculi* autumnis e caudice vel rhizomate subterraneo crasso pluricipiti vel obliquo elongato orientes, abbreviati, fasciculato-foliosi foliis cito decompositis. *Folia* basalia ambitu, divisione, nervatione iis *P. nivei* similia, sed lobis sublatis minus profunde divisis, spinis spinulisque 3-5(-6); eximie discoloria nam subtus candida tomento denso, supra cito glabrescentia atrovirentia. *Caules* capituligeri aestate evoluti, 30-50 cm alti; folia caulina lobis latiusculis plerumque 2-3-spinosis, basi sessilia brevissime indistincte decurrentia. *Synflorescentia* in apice caulium densius laxiusve racemoso-corymbosa, capitulis (1-)2-6. *Involucrum* e basi umbilicatâ campanulatum, 28-32 mm longum, parce araneosum. *Phylla* involucri iis *P. stricti* subsimilia sed margine interdum utrinque 1-2-spinulosa et parce araneosa; pars basalis in mediis 2.5-3.5 mm lata; appendices subuliformes sed parum divaricatae ad ortum intus parum incrassatae vix gibbosae. *Pappus* in flosculis marginalibus non conspicue reductus, 18-20 mm longus, setis longiuscule (ad c. 3 mm) plumosis in parte apicali primum subbifariam plumulosis inde irregulariter laxiuscule circumcirca barbellatis vel scabridis dein saepe in verticem brevem nudum sublaevem desinentibus. *Corolla*

24-27 mm longa; tubus 10-12 mm longus; limbus 14-15 mm longus, basi parum ampliatus inde gradatim levissime subinconspicue dilatatus fere tubulosus, per $\frac{2}{5}$ c. longitudinis inaequaliter 5-fidus (differentiâ fissurarum 1.5-1.7 mm), laciniis basi 0.6-0.8 mm latis apice non apiculatis. *Staminum* filamenta post anthesin 6.5-7 mm longa, jam paulo infra medium laxe mediocriter pilosa; tubus antherarum per 2-2.5 mm e corollâ exsertus, 12.5-14 mm longus, 0.8-0.9 mm crassus, caudis 2.8-4 mm longis, appendicibus 2.5-3 mm longis acutis vel apiculatis, per totam longitudinem aequaliter vittatis vittâ ut videtur nectariferâ. *Grana pollinis* omnia abortiva, irregularia et inaequalia, nunquam formam et dimensionem normalem attingentia. Apex *styli* 2.4-2.6 mm longus; lobi stigmatiferi lineari-spatulati apice rotundati, per c. 0.5 mm liberi, demum arcuato-patentes, lateraliter per c. 0.6 mm decurrentes. *Fructûs* nonnulli bene formati videntur (an reverâ fertiles?), crasse oblique pyriformes, 4.7-4.8 mm longi, 3.3-3.4 mm crassi, pallide griseo-brunnei atro-marmorati.

Repertus inter parentes rarissime, in lapidosis calcareis ad fines silvae *Alni cordatae* et alluvionis petroso-glareosae rivi cujusdam, ad 1000 m c. supra maris aequor. Floret mense Augusto.

Specimina visa

Italia. Calabria: in mont. supra San Donato di Ninea, loco "Acqua di Perciacucco" vocato, 23.8.1912, *Lacaita* 362 (BM, PR), et 5.10.1970, *Greuter* 8966 (G, Gr, W).

B x C. *Ptilostemon* sect. x *Plinia* Greuter, formula nova

- *Ptilostemon* sect. *Platyrrhaphium* x *P.* sect. *Cassinia*
- *Lamyra* vel *Cirsium* sect. *Lamyra* auct. partim (non *Cirsium* subg. *Lamyra* Cass.).

3b x 4b. *Ptilostemon* x *tauricola* (Boiss. & Hausskn.) Greuter, comb. nova $\equiv$ *Cirsium tauricola* ["*tauriculum*"] Boiss. & Hausskn. in Boiss., Fl. Or. 3: 551. 1875 $\equiv$ *Lamyra tauricola* (Boiss. & Hausskn.) Soják in Novit. Bot. Delect. Seminum Horti Bot. Univ. Carol. Prag. 1962: 46. 1962. **Typus:** "in Cataoniae ditione Marasch in valle fluvii Djihan (Haussk.!)". **Holotypus:** "Chamaepeuce tauricola sp. n., In valle flum. Dschihan inter Kawkirt & Allischer Dagħ reg. Marasch, 16.8.65", *Haussknecht* 1287 (G-Boiss; isotypus: G-Boiss).

- *Ptilostemon* *afer* subsp. *eburneus* x *P. diacantha* subsp. *turcicus*

Partes basales ignotae. *Folia* caulina ab iis *P. afri* vix diversa. *Synflorescentia* laxa corymbosa, capitulis 4-7 longiuscule pedunculatis. *Involucrum* formâ et magnitudine eo *P. afri* simile, quocum et *phylla* involucri formâ et dispositione congruunt, sed indumentum crispule araneoso-floccosum plane intermedium. *Flosculi* rosei (carnei e descriptione originali). *Pappus* c. 22 mm longus, setis 3-4-fariis

longiuscule (ad 3-3.5 mm) plumosis, apice circumcirca densiuscule scabridis papillis conicis non inflatis (in flosculis marginalibus setae 2-3-fariae subbrevius plumosae, parte apicali longiore papillis densis crasse conicis obsitâ). *Corolla* 23-24 mm longa; tubus 9-10 mm longus; limbus 14-15 mm longus, basi aliquanto ampliatus inde tubulosus, inaequaliter 5-fidus (differentiâ fissurarum 0.4-1.2 mm), lobis basi 0.6-0.7 mm latis, apice obtusiusculis subtumidis sed non luteis nec conspicue hyalino-apiculatis. *Staminum* filamenta post anthesin 6-7.5 mm longa, paulo supra medium densiuscule breviter pilosa; tubus antherarum per c. 2 mm e corollâ exsertus, 13.5-14.5 mm longus, 0.9-1 mm crassus, caudis 3.4-4.2 mm longis, appendicibus 3-3.2 mm longis acuminatis vel subapiculatis, totam per longitudinem aequaliter vittatis vittâ ut videtur nectariferâ. *Grana pollinis* omnia abortiva, irregularia et inaequalia, nunquam formam et dimensionem normalem attingentia. Apex *styli* 2-2.7 mm longus; lobi stigmatiferi lineari-spatulati apice rotundati, per c. 0.5 mm liberi demum arcuato-patentes, lateraliter per 0.2-0.4 mm decurrentes. *Fructûs* desiderantur.

Repertus ut videtur inter parentes, verisimiliter in clivis saxosis apricis, altitudine c. 1200 m. Floret aestate.

Specimina visa

Anatolia. Amanus. Prov. **Maras**: in m. Ahır dağ, 15.8.1865, *Haussknecht* (JE); in valle fl. Ceyhan inter m. Kavkirt et m. Engizek dağ (= Alişer dağ), 16.8.1865, *Haussknecht* 1287 (G-Boiss).

B x D. Ptilostemon sect. x **Platon** Greuter, formula nova
– *Ptilostemon* sect. *Platyrrhaphium* x *P.* sect. *Ptilostemon*

3a x 5. Ptilostemon x parisiensis Greuter, hybr. nova. **Holotypus**: “Serratula Chamaepeuce, hort. paris”, herb. Faculté de médecine (MPU).
= *Cirsium Chamaepeuce* var. *syriacum* Pamp. in Bull. Soc. Bot. Ital. 1921: 48. 1921. **Typus**: “Syria (Labillardière) [Herb. Webb]”. **Holotypus**: sine schedâ originali [in eâdem chartâ plantae syriacae Billardieri consociatus, schedulâ inscripta: “Serratula Chamaepeuce L. C’est un Cnicus. Billardière”] (FI-Webb).
– *Ptilostemon afer* subsp. *afer* x *P. Chamaepeuce* (an var. *camptolepis*?).

Tab. VII (specimen holotypicum).

Planta certe perennis, ut videtur suffruticosa, laxè irregulariter ramosa, parum lignescens. *Folia* surculorum 4-9 cm longa, c. 4 mm lata, sessilia anguste lineari-lanceolata saepe fere plana, margine integra partim inermia, partim parce remote spinulosa spinulis singulatim dispositis obliquis rectis 1-4 mm longis, apice spinuloso-acuminata; eximie discoloria nam subtus candida tomento compacto crasso, supra ad costam parce floccosa caeterum glabra glaucovirentia; nervi praeter costam

omnino obsoleti. *Caules* capituligeri 15-30 cm alti, dense albo-tomentosi; folia caulina iis surculorum similia, sed breviora et margine magis revoluta. *Synflorescentia* conferte corymbosa vel subracemosa, capitulis 2-6. *Involucrum* a basi truncatâ late campanulatum, crispule subaraneoso-floccosum. *Phylla* involucri quam in *P. Chamaepeuce* minus numerosa, laxiuscule imbricata; exteriorum et mediorum pars basalis lanceolata c. 2 mm lata, appendix subuliformis ad ortum extus curvata inde recta triquetra validiuscule spinosa erecto-patula, ad ortum intus subtumida, in phyllis mediis 4-8 mm longa. *Setae* receptaculi candidae, 9-11 mm longae. *Pappus* 14-16 mm longus, setis 3-4-fariis mediocriter (ad c. 2 mm) plumosis, apice laxe subbifariam vel irregulariter circumcirca barbellatis vel scabridis (in flosculis marginalibus setae 1-2-fariae singulatim delabentes, brevius — ad c. 1.5 mm — plumosae). *Corolla* c. 20 mm longa; tubus c. 9 mm longus; limbus c. 11 mm longus, basi aliquanto ampliatus inde tubulosus, per c. $\frac{2}{5}$ longitudinis inaequaliter 5-fidus (differentiâ fissurarum 1-1.5 mm), lobis basi 0.6-0.8 mm latis apice non apiculatis. *Staminum* filamenta post anthesin 3.5-5.5 mm longa, jam infra medium laxe vel parce mediocriter pilosa; tubus antherarum non vel usque ad 1.5 mm e corollâ exsertus, 10-11.5 mm longus, 0.7-0.8 mm crassus, caudis 2-4 mm longis, appendicibus 1.8-2.2 mm longis distincte apiculatis, totam per longitudinem aequaliter vittatis vittâ ut videtur nectariferâ. *Grana pollinis* omnia (vel fere?) abortiva, irregularia et inaequalia, formam et dimensionem normalem non attingentia. Apex *styli* 2-2.2 mm longus; lobi stigmatiferi apice rotundati, per 0.3-0.5 mm liberi vix hiantes, lateraliter non vel per 0.2 mm decurrentes. *Fructus* abortivi.

Repertus in hortis botanicis (Lutetiae et forsân alibi) ineunte saeculo XIX, dum parentes simul colebantur, sponte ut videtur ortus.

Specimina visa

Cultus: sine schedâ (FI-Webb); verisimiliter in h. hauniensi, herb. Liebmann (C); in h. parisiensi, herb. Faculté de médecine (MPU).

Locus excludendus

Indicatur e "Syria" a Pampanini, ubi *Ptilostemon afer* non crescit; specimen certe cultum errore plantae syriacae Billardieri consociatum.

C x D. Ptilostemon sect. x Cassion Greuter, formula nova
— *Ptilostemon* sect. *Cassinia* x *P.* sect. *Ptilostemon*

4b x 5γ. Ptilostemon x Pabotii Greuter, hybr. nova. **Holotypus:** "Chamaepeuce mutica (Cass.) DC. v. polycephala (DC) Halacs, hybride avec *C. diacantha*? pourrait bien être *Ch. fruticosa* DC! vallée de Karadourane (au pied du Mt. Cassius) non loin de la mer? 20.7.55", *Pabot* (G; isotypus: Mout).

- *Chamaepeuce* × *Alpini/diacantha* Mouterde, Fl. Liban Syrie (Polycop.): 96. 1965.
- *Ptilostemon diacantha* subsp. *turcicus* × *P. Chamaepeuce* var. *camptolepis*

Tab. VIII (specimen holotypicum).

Suffrutex. *Surculi* parum elongati, post annum lignescentes, autumnno ut videntur evoluti, vere aut caulem capituligerum terminalem edentes aut vix procrescentes, florendi tempore foliis fere omnibus emortuis obsiti. *Folia* surculorum sicca subpersistentia, nervis praeter costam omnino obsoletis, saepe flexuoso-curvata, anguste linearia, marginibus rectis revolutis, ad 8 cm longa, 2-6 mm lata; basi sessilia, apice subulato-attenuata spinulosa, margine partim integerrima inermia, partim spinulis stramineis dissitis 0.5-2 mm longis subantrorsis praedita; eximie discoloria nam subtile candida tomento compacto crasso, supra ad costam tantum floccosa dein omnino glabrata, glaucovirentia. *Caules* ineunte aestate evoluti, ultra 50 cm alti, graciles, albo-tomentosi, densiuscule foliati; folia caulina iis surculorum omnino conformia, basi non dilatata, gradatim diminuta, ramealia fere bracteiformia lineari-subulata. *Synflorescentia* laxè irregulariter corymbosa, ramis interdum iterum ramosis. *Involucrum* campanulatum, floccoso-pubescent vel fere tomentosum, 15-17 mm longum. *Phyllorum* exteriorum et mediorum pars basalis anguste triangulari-lanceolata, non distincte plurinervia, 1.5-2 mm lata; appendix subuliformis recta tri- vel tetraquetra spinescens, patula vel erecto-patula, ad ortum intus valde spongioso-tumida, in phyllis mediis vix elongata 4-8 mm longa; phylla interiora recta, teneriora, linearia, apice acuminato-aristata saepe extus flexa. *Pappus* c. 15 mm longus, setis 3-4-fariis mediocriter (ad c. 2.5 mm) plumosis, apicem versus circumcirca densius laxiusve barbellatis vel scabridis (in floribus marginalibus setae plerumque bifariae singulatim delabentes, infra bifariam barbellatae vel scabrae, supra circumcirca scabridae papillis crebris conicis non vesiculosis). *Corolla* texturâ tenui, c. 18 mm longa; tubus c. 7 mm longus; limbus c. 11 mm longus, basi leviter, supra basin gradatim ampliatus inde tubulosus, usque fere ad medium inaequaliter 5-fidus (differentiâ fissurarum 1-1.5 mm), laciniis basi c. 0.8 mm latis. *Staminum* filamenta post anthesin 4-5 mm longa, paulo supra medium dense longiuscule sublanato-pilosa; tubus antherarum paulo e corollâ exsertus, c. 10 mm longus et 0.9 mm crassus, caudis c. 2.5 mm longis, appendicibus c. 2.2 mm longis breviter apiculatis, totam per longitudinem aequaliter vittatis. *Grana pollinis* omnia abortiva, parva et irregulariter conformata. Apex *styli* 2-2.5 mm longus; lobi stigmatiferi lineares apice rotundati, per 0.3-0.5 mm liberi, parum hiantes, lateraliter non vel breviter tantum decurrentes. *Fructus* abortivi.

Repertus inter parentes, unico adhuc in loco. Floret aestate.

Specimina visa

Syria litoralis: pr. fines Turciae, in valle Karadourane ad occ. pagi Kessab, 20.7.1955, *Pabot* (G) et *Pabot 1081* (Mout).

Species excludendae

Lamyra? *pinnatifida* Cass. in Dict. Sci. Nat. 25: 221. 1822, nom. illeg. $\equiv$ *Chamaepeuce horrida* (Lag.) DC., Prodr. 6: 660. 1838 ($\equiv$ "*Cistus*" *horridum* Lag., *Cirsium horridum* (Lag.) Lag. non (MB.) Fischer, *Cirsium baeticum* Sprengel): est ***Cynara baetica*** (Sprengel) Pau (= *Cynara alba* Boiss. ex DC.).

Chamaepeuce cynaroides (Lam.) DC., Prodr. 6: 659. 1838 $\equiv$ *Lamyra cynaroides* (Lam.) Soják in Novit. Bot. Delect. Seminum Horti Bot. Univ. Carol. Prag. 1962: 46. 1962 ($\equiv$ *Carduus cynaroides* Lam.): est ***Lamyropsis cynaroides*** (Lam.) Dittrich

Chamaepeuce firma (C. Presl) DC., Prodr. 6: 659. 1838 $\equiv$ *Lamyra firma* (C. Presl) Soják in Novit. Bot. Delect. Seminum Horti Bot. Univ. Carol. Prag. 1962: 46. 1962 ($\equiv$ *Cnicus firmus* C. Presl): est ***Notobasis syriaca*** (L.) Cass.

Chamaepeuce macracantha Schrenk ["*macrantha*" auct.] in Bull. Sci. Acad. Imp. Sci. Saint-Petersbourg 10: 354. 1842: est ***Lamyropsis macracantha*** (Schrenk) Dittrich

Chamaepeuce sinuata Trautv. in Trudy Imp. S.-Peterburgsk. Bot. Sada 2: 477. 1873: est ***Lamyropsis sinuata*** (Trautv.) Dittrich

Chamaepeuce Lobelii (Ten.) Porta & Rigo in sched. autogr. It. II Ital. n. 379, c. 1875 (excl. specimine ad *Notobasin syriacam* pertinente): est ***Cirsium Lobelii*** Ten.

Chamaepeuce microcephala (Moris) Lojac., Fl. Sic. 2/1: 159. 1902 $\equiv$ *Lamyra microcephala* (Moris) Soják in Novit. Bot. Delect. Seminum Horti Bot. Univ. Carol. Prag. 1962: 47. 1962 ($\equiv$ *Cirsium microcephalum* Moris): est ***Lamyropsis microcephala*** (Moris) Dittrich & Greuter

Chamaepeuce sidi-guinii ["*Sidi-Guini*"] (Pau & Font Quer) Sennen in sched. impr. Pl. Espagne n. 9429, c. 1935 (excl. specimine ad *Ptilostemonem rhiphaeum* pertinente): est ***Cirsium sidi-guinii*** Pau & Font Quer