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Material of type character in the Münch-Bellinghausen collection in the Moravian Museum, Brno (BRNM). 4. Anton Rochel

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SUTORÝ K. 2004: Material of type character in the Münch-Bellinghausen collection in the Moravian Museum, Brno (BRNM). 4. Anton Rochel. *Acta Musei Moraviae, Scientiae biologicae* (Brno) **89:** 203–227. – Rochel's specimens of type character deposited in BRNM are listed. Three of them are vouchers of not previously published names (in schedis), 16 are vouchers to "*nomina nuda*" published mostly in his "Catalogus", a relatively unknown list of specimens he distributed, and 18 are validly or invalidly published names in his work "Plantae Banatus rariores". Two names are not validly published but they were cited in the protologue of other Rochel names. Two names erroneously joint with Rochel are discussed (*Centaurea austriaca, Galium ochroleucum*). Remarks on his exsiccate series *Plantae Pannonicae Exsiccatae* and *Plantae Banatus Exsiccatae* are made.

Key words. Moravian Museum, Department of Botany, Münch-Bellinghausen collection, Anton Rochel, exsiccate series

Introduction

The Münch-Bellinghausen collection contains a number of original specimens collected by various botanists in the first four decades of the nineteenth century (SUTORÝ 1986). The contribution presented here is the fourth in a series, following evaluation of the specimens by W. Besser (SUTORÝ & BUZUNOVA 2000), F. P. A. Waldstein and P. Kitaibel (SUTORÝ 2000) and D. H. Hoppe (SUTORÝ 2003).

Anton Rochel (*18.6.1770 – †12.3.1847)

Austrian botanist and surgeon active in the territory of today's Austria, Moravia, Slovakia and Hungary, with his material dispersed in many herbaria. According to STAFLEU & COVAN (1983), it lies in BR, E, GJO, H, JE, M, W and WU. (Abbreviations after Holmgren´s Index Herbariorum.) His main herbarium was destroyed in DR during World War II. The Anton Rochel material was checked only in Budapest (BP).

In almost all cases, the labels are handwritten on blue paper, only exceptionally are they replaced by a Konstantin Münch-Bellinghausen (KMB) note. These are of three types:

- The first type belongs to the exsiccate series *Plantae Pannonicae Exsiccatae*. Specimens bear small labels (7–8×4.5 cm) with numbering (see SUTORÝ 1986). They were collected in the years previous to 1810(?). The highest number reaches 400 (*Waldsteinia geoides*) according to citations in SCHULTES (1814). They were not numbered in order of date of

collection, for example, No 367 (*Saxifraga aizoon*) was collected in 1807 and the lower number 253 (*Carex ampulacea*) was collected three years later, 1810.

- The second type belongs to the exsiccate series *Plantae Banatus Exsiccatae*, specimens with larger labels (11×6.5 cm), without numbers. Nevertheless, this series was probably numbered too but the numbers were written on paper and not on labels. Numbers are given in ROCHEL (1828). The plants of this series were collected later, probably after 1815(?).
- The third type of specimen bears a small or narrow strip of blue paper, without numbering and often without proper collection data (see SUTORÝ 1986).

Rochel published his names in two works (ROCHEL 1813, 1828). The first of them is the very rare "*Catalogus plantarum (ab 1813) in usum botanophilorum exsiccatarum*". It contains 8 non-paginated pages listing 1089 alphabetically-ordered names of plants distributed by him; 51 names are designated "*Nobis*" but lack description. All of them have to be considered as "*nomina nuda*". Because of the rarity of this work all the names are cited below with their pagination (see also Figs 2–9). The 14 specimens present in our collection (BRNM) are printed in **bold**.

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Gnaphalium leontopodium b. *laxiflorum*
Gnaphalium mutabile a. *vulgare*
Gnaphalium mutabile b. *alpestre*
Gnaphalium mutabile c. *decipiens*
Hieracium polyphyllum b. *dendatum*
Hieracium umbellatum* b. *carpaticum
Hieracium umbellatum c. *pilosum*
Hieracium umbellatum* d. *pilosissimum
Hieracium villosum b. *valdepilosum*
Inula bifrons* b. *pubescens
Inula britannica* b. *depauperata
Juncus bulbosus* b. *pallidus
Juniperus communis b. *nana*
Leontodon taraxacum* b. *glaberrimum

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Melilotus gigantean
Papaver luridum
Phalangium ramosum b. *simplex*
Phleum pratense b. *villosum*
Plantago lanceolata b. *altissima*

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Selinum austriacum b. *angustatum*

p a g e 8
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Stellaria nemorum b. *latifolium*
Veronica austriaca b. *tenuifolia*
Viola mutabilis a. *minor*
Viola mutabilis b. *intermedia*
Viola mutabilis c. *major*
Viola odorata b. *alba*

I reproduce below the copy of this publication (Figs 1–9) from the library of the Botanical Department of Budapest Natural History Museum (Sign. Kny 4331). It is

questionable whether the date given in the title can be identified with the date of publication. It is listed in the Hungarian botanical bibliography by Gombocz (1939) with a question mark, but is omitted in Pritzel (1872) and in Stafleu & Covan (1983). The date of publication is likely to be 1813, because Schultes (1814) (completed according to the foreword on 13.4.1813) cites (1: 366) Rochel´s specimen of *Myosotis ramosissima* that should be issued in his exsiccate series in the next edition. This specimen is not in "Catalogus". Had it been published later than 1813 it is probable that it would have been placed there.

The second, and more important work by Rochel is "*Plantae Banatus rariores*", in which most of his names were published, validly or invalidly, 14 from our collection. Seven names from our collections were, as far I know, not published; they are mentioned below as "*in schedis*". Other authors published 6 of Rochel´s names from our collection.

Rochel described, on variously-named specimens from his exsiccate series, apart from *Aira dactyloides* (based on *Aira glauca*), *Bupleurum diversifolium* (based on *Bupleurum baldense* b. *banaticum*), *Fraxinus ornus* b. *diversifolia* (based on *Fraxinus rotundifolia*), *Thesium elegans* (based on *Osyris alba)* and *Veronica latifolia* b. *heterophylla* (based on *Veronica dentata* b. *diversifolia*), further taxa not present in our collection e.g. *Achillea magna* b. *alpina* (based on *Achillea magna flore rubro*) and *Ferula ferulago* b. *commutata* (based on *Ferula nodiflora*).

Two names, *Centaurea austriaca* and *Galium ochroleucum*, were erroneously associated with Rochel:

***Centaurea austriaca* Willd.,** *Sp. Pl.* **3:** 2283, 1800; *Ö. Fl. 2 p. 447* = Schultes (1814): Oesterreichische Flora, ed. 2, vol. 2: 547 (s*ic recte!*)

[= *Centaurea phrygia* L.]

Text of the label:

Centaurea austriaca Ö. Fl. 2 p. 447
Huc fonte Centaurea uniflora auct.
In sylvaticia in ... ex alpe Nedjeb (nex non in
alpibus altioribus) Banatus. 23 Ag. 1815

Acquired: 1 specimen (*Plantae Banatus Exciccatae*).

Note: Rochel (1828) cites his exsiccate under the name "*C. austriaca* Willd." He did not intend to describe it as a new species but the unfortunate way in which the exsiccate is given in the book "*C. austriaca. Rchl. coll. pl. ban. exsicc. n. 40*" gives the impression that the "*Rchl.*" should be connected with the name in front of it, but it is mentioned to begin the following name in the exsiccate series in the same way as in other cases in this book. Schultes (1814) on page 547 (sic! – not 447 as given on Rochel's label) gives no author's name, but he obviously means Willdenow as well and cites "*Rochel h. v. 254*" (= herbarium vivum 254) in the second place, while the first citation is "*Besser Fl. g. 2, 207*". This is erroneously considered a new name e.g. in Index Kewensis as *Centaurea austriaca* Rochel, Pl. Banat. Rar.76, t.36 f. 5, 1828 in synonymis *C. austriacae* Willd.

nom. illeg. (Cf. Art. 34.1.a, c). It is obvious that Rochel distributed this plant in two different series (Nos. 40 and 254).

Galium ochroleucum **Kit. ex Schult.,** *Oester. Fl.* 1814, ed. 2, 1: 305, nom. illeg. non WOLF. ex SCHWEIGG. & KOERT., *Fl. Erlang.* 36, 1811
[= *Galium flavescens* BORBÁS]

Text of the label:

Galium ochroleucum
Ö. Th. I. p. 503 (recte 305)
In rupibus circa monasterium Bahzias ad Danubius Banatus.
14. Jn. 1815

Acquired: 1815, 1 specimen (*Plantae Banatus Exsiccatae*).

Note: ROCHEL (Pl. Banat. Rar. 45, 1828) gives "*Galium ochroleucum* Kitb." and cites his own exsiccate. It shares its case with *Centaurea austriaca.* In our collection it is written without "*Nobis*" or "*Rchl*", as he was wont to do with new names. SCHULTES (1814), cited on the Rochel label, also attributes the authorship of this name to Kitaibel. Rochel's name *Galium ochroleucum* Rochel, *Pl. Banat. Rar.* is cited erroneously in Index Kewensis, without further information! It is not mentioned as a new name.

List of specimens

Achillea compacta **b.** ***radiata*** **Rochel,** *Pl. Ban. Rar.* 72, 1828; in synonymis *Achilleae compactae* Willd., nom. inval.

Text of the label:

Achillea compacta b. radiata Rochel
in rupibus apricis inter Berhzahzka et Svinica
Banatus
20. Jl. 1815

Acquired: 2 specimens (*Plantae Banatus Exsiccatae*).

Note: ROCHEL (1828) cites his exsiccate "*Rchl. coll. pl. ban. exsicc. n. 2*" in the synonymy of *Achillea compacta* Willd. He cites the locality of our specimen "*…ad pedes montium Bersaska inter et Swinitza, aeque ad Plawišovicza obvia*….". The specimen was originally distributed with the Rochel name *Achillea compacta* b. *radiata.* Later (ROCHEL 1828) he no longer accepts this infraspecific name and identifies this taxon with *Achillea compacta* Willd. According to ICBN (Cf. Art. 34.1.a, c) it cannot be considered valid.

Aira dactyloides **Rochel,** *Pl. Ban. Rar.* 32, 1828, nom. illeg.
[= *Koeleria glauca* (Schrader) DC.]

Text of the label:

Aira glauca Schrad.
Germ. 1. p. 256
Arenosa, in Agro Romanorum
Banatus. 4. Jn. 1815

Acquired: 1 specimen (*Plantae Banatus Exsiccatae*).

Note: ROCHEL (1828) cites his exsiccate "*Aira glauca Schrad. Col. pl. banat. exsicc. 9*" and gives the locality "*clivis arenosis Bielo Berdo, praecipue in ambitu fontis Fontina-Fetje*".

***Artemisia lednicensis* Rochel ex Sprengel,** *Pugillus* **2:** 77, 1815; *Artemisia campestris* b*. lednicensis* Rochel *Cat. Plant.* 2, 1813, nomen nudum.

Text of the label:

30. Artemisia lednicensis
In ruderatis et rupibus arcis Lednnicz et
Lövenstein Com Trent
floret Ag. in Ocb.

Acquired: 2 specimens + fragment (*Plantae Pannonicae Exsiccatae*).

Duplicates: BP 172861 + specimen in Kiteibel herbarium.

Note: Sprengel (1815) gives only "Rochel" after the name, and the description of locality: "*Habitat ad radices montium carpathicorum*".

Remarks: These days, this taxon is mainly evaluated at the subspecies level. None of the names used was published to ICBN standards. This has already been noted by WAGENITZ (1987). The oldest appearance of this name in an infraspecific range is probably in SCHULTES (1814, 2: 482) but it lacks description. The most often cited name *A. campestris* subsp. *lednicensis* (Rochel) Lemke et Rothm. (ROTHMALER 1963) has no citation of basionyme. According to HOLUB (1984) we cannot consider as valid the combination in JÁVORKA (1925). The name is without designated taxonomic level. The combination *A. campestris* subsp. *lednicensis* (Rochel ex Sprengel, 1815 p. sp.) Soó 1970, is not valid because of insufficient citation of basionyme (the title and pagination are not present, see ICBN 33.3). At the variety level the name *A. campestris* var. *lednicensis* (Rochel) Kerner is valid.

***Bupleurum diversifolium* Rochel,** *Pl. Ban. Rar.* 68, 1828; *Bupleurum baldense* b. *banaticum* Rochel, in schedis

[= name in universal current use]

Text of the label:

Bupleurum baldense b. banaticum R.
V. Rg. E Banatu

Acquired: 1822,1 specimen (not from exsiccate series).

Duplicates: BP 567545 sub *B. diversifolium*.

Note: The name of the exsiccate is cited (inaccurately) in the protologue of the name *B. diversifolium* Rochel "*B. baldense. Baumg. Fide speciminis ab auctore communicati."* In the note he explains that he changed the name because of the existence of the older name (*B. diversifolium Link*. *Adn. nomen "heterophyllum" iconis in diversifolium mutavius ab plantam Linkeanam*). Table no. 28 was drawn up earlier and still contains the already-abandoned name *B. heterophyllum* in its text.

***Centaurea montana* var. *bicolor* Rochel,** *Cat. Plant.* 3,1813, nomen nudum

Text of the label:

253. Centaurea Montana var bicolor
In monte Malenicza, com. Trent.
(Rachis repens, stolonifera valde expansa.) 14.Sp. 1807

Acquired: 1 specimen (*Plantae Pannonicae Exsiccatae*).

***Cerastium grandiflorum* b.(var.) *banaticum* Rochel,** *Pl. Banat. Rar.* 33, t.2, f. 6, 1828

[= *Cerastium banaticum* (Rochel) Heuff.]

Text of the label:

Cerastium grandiflorum b. banaticum R.
Culta
E Banatu

Acquired: 1822, 1 specimen (not from exsiccate series).

Note: Rochel cites his "*Rchl. Collect. Plant. Banat. Exsiccat n. 42*" from the *locality* "*.... in saxosis et scopulis regionis V-ae et VI-ae in montibus Sarko et Muraru.*"

***Chaerophyllum sylvestre* b. *hybridum* Rochel,** *Cat. Plant.* 3,1813, nomen nudum

Text of the label:

Chaerophylum sylvestre b. hybridum Nob.
In dumetis versus Hradek Com. Lipt.

Acquired: 2 specimens (not from exsiccate series).

***Chrysanthemum variabile* d. *maximum* Rochel,** *Cat. Plant.* 3, 1813, nomen nudum

Text of the label:

Chrysanthemum variabile d. maximum Nob.
Chr. (maximum)Tratt.
Cultum

Acquired: 2 specimens (not from exsiccate series).

***Chrysanthemum variabile* f. *carpaticum* Rochel,** *Cat. Plant.* 3, 1813, nomen nudum

Text of the label:

Chrysanthemum variabile f. carpaticum
Detro Alt Hradek Com. Lipt.

Acquired: 1 specimen + fragment (not from exsiccate series).

***Chrysanthemum variabile* g. *lanceolatum* Rochel,** *Cat. Plant.* 3, 1813, nomen nudum

Text of the label:

Chrysanthemum variabile g. lanceolatum Nob.
(Pyrethrum latifol.) Wild.
Cultum

Acquired: 1 specimen + rosette of leaves (not from exsiccate series).

***Cnicus arvensis* b. *sonchifolius* Rochel,** in schedis

Text of the label:

Cnicus arvensis (Bess.) b. sonchifolius Nob.
Serratula (auct.) Segetes et Arva Hung.
Cum monstrosis etc.

Acquired: 1814, 1 specimen + fragment (not from exsiccate series).

***Crataegus versicolor* Rochel,** *Pl. Banat. Rar. praef.* II, 2 (nonp.) 1828, in synonymis *Crataegi nigri* W. et K., nomen inval.

Text of the label:

Crataegus versicolor Rochel
in insulis Danubii circa Földvár.
Com. Albensi Hung. 12. Mj. 1815

Acquired: 1 specimen (*Plantae Banatus Exsiccatae*).

Note: ROCHEL (1828) in "*Index Specierum*..." in the introduction to the book (designated II.), on the second, non paginated, leaf cites his "*C. versicolor Rchl*." in brackets after the name *C. nigra* W.K. He obviously changed his opinion after distributing the plants.

Draba lasiocarpa **Rochel,** *Cat. Plant.* 4, 1813, nomen nudum; ROCHEL ex DC., *Regni veg. Syst. Nat.* **2:** 334, 1825, in synonymis *D. aizoon*, nom. inval.
[= *Draba aizoon* Wahlenb.]

Text of the label:

Draba lasiocarpa Nob.
Rup. calc. in ped. arcis Temetvén. C. Nitr. 1813
In cliv. arenosis circa Werehvar Com. Pesth 1808

Acquired: Designation of the specimen in our collection is problematical.

Duplicates: BP 72185, 215048.

Note: Typus preserved in PRC (CHRTEK 1978). The name D. lasiocarpa should be validly published in "Rochel Sched. Pl. Hung. Exsicc. 1810". I have not found this source so far.

Euphorbia hybrida **Rochel,** *Cat. Plant.* 4, 1813; nomen nudum, *Pl. Banat. Rar.* 43, 1828, in synonymis *Euphorbiae pilosae* L., nom. inval. (ICBN Art. 34.1.a, c)

Text of the label:

Euphorbia hybrida Nob.
huc... E. pilosa aut. germ.
In salsis ad vias Drutvag [?]
Com. Nitr.

Acquired: 1 specimen (not from exsiccate series).

Note: Omitted in Index Kewensis. The name is given in the description of five morphological aberrations under "*e. Capsulis laevibus glabris*". It is given as third among synonymies after *E. procera* Gmel. and *E. villosa* W. Kit. Rochel writes at the end of the paragraph "*Plantam hanc* /E. pilosa L./, *cujus lac adeo mite, ut recens a pecoribus lubenter devoretur, aeque in comitatu nitriensi copiosam lege, et nominee E. hybridae olim distribui.*"

Euphorbia salicifolia **b.** ***angustata*** **Rochel,** *Pl. Banat. Rar.* 43, 1828
[= *Euphorbia salicifolia* HOST]

Text of the label:

Euphorbia salicifolia b. angustata Rochel
Graminosa in Sylva Volovica prope Pancsova Banatus
29 Mj 1815

Acquired: 1 specimen (*Plantae Banatus Exsiccatae*).

Note: ROCHEL (1828) cites this specimen in "*Rchl. coll. plant. banat. excicat. n. 60*". The locality is identical with that published in the protologue "*Locis graminosis luxuriosis, rarior in sylva Wojlowicza prope Pancsowa*".

***Fraxinus ornus b. diversifolia* Rochel,** *Pl. Banat. Rar.* 44, 1828
[=*Fraxinus ornus* L.]

Text of the label:

Fraxinus rotundifolia
O. Fl. 1. p. 81
Sylvae Banaticae Meridio-
nales simples. 5. Ag. 1815

Acquired: 1 specimen with fruits + leaf (*Plantae Banatus Exsiccatae*).

Note: ROCHEL (1828), when publishing the name *Fraxinus ornus* b. *diversifolia*, mentioned in the protologue his exsiccate "*F. rotundifolia Rchl. Col. pl. banat. exsicc. 63*". He mentioned *Fraxinus rotundifolia* Lam. = *F. ornus*. His exsiccate of this name must be considered as syntype for the name *Fraxinus ornus* b. *diversifolia* Rochel.

***Glechoma hederacea* ß (var.) *rigida* Rochel ex Schult.,** *Oesterr. Fl.* **2:** 133, 1814; ROCHEL, *Pl. Banat. Rar.* 27, 1828, nomen nudum; *Glechoma rigida* (Rochel) Kerner, *Oesterr. Bot. Z.* **24:** 215, 1874.
[= *Glechoma hirsuta* W. et K.; *Glechoma hederacea* subsp. *hirsuta* (W. et K.) Gams (?)]

Text of the label:

93. Glechoma hederacea
var. rigida /Corollae tubo calycem aequante/
Sylvatica in monte Strassov Com Trent: Floret
Majo, Jn. 13. Jn. 1803

Acquired: 1803, 1 specimen + fragment (*Plantae Pannicae Exsiccatae*).

Note: SCHULTES (1814) classifies this Rochel taxon under *G. hederacea* and he recognises *G. hirsuta* W. et K. as an independent taxon. Our plant, *G. hirsuta* resembling in its long narrow calyx teeth, but with its short corollas, is near to *G. hederacea*. It is questionable whether it belongs within the synonymy of *G. hirsuta.*

***Hieracium umbellatum* b. *carpaticum* Rochel,** *Cat. Plant.* 5, 1813, nomen nudum

Text of the label:

Hieracium umbellatum b. carpaticum Nob.
Rup. granitos. vetus Strecsno
C. Trenz.

Acquired: 2 specimens (not from exsiccate series).

***Hieracium umbellatum* c. *pilosissimum* Rochel,** *Cat. Plant.* 5, 1813, nomen nudum

Text of the label:

Hieracium umbellatum b. pilosissimum Nob.
Cultum

Acquired: 1 specimen divided into two parts (not from exsiccate series).

***Inula britannica* b. *depauperata* Rochel,** *Cat. Plant.* 5, 1813, nomen nudum

Text of the label:

Inula britannica b. depauperata Nob.
In arvis steril. apricis
C. Trentc.

Acquired: 1 specimen (not from exsiccate series).

***Inula bifrons* b. *pubescens* Rochel,** *Cat. Plant.* 5, 1813, nomen nudum

Text of the label:

Inula bifrons b. pubescens Nob.
Culta

Acquired: 1 specimen + 2 leaves (not from exsiccate series).

***Juncus bulbosus* b. *pallidus* Rochel,** *Cat. Plant.* 5, 1813, nomen nudum

Text of the label:

Juncus bulbosus b. pallidus Nob.
In gram. ...circa Rakovecz
C. Nitr.

Acquired: 1 specimen (not from exsiccate series).

***Laserpitium pruthenicum* b.(var.) *glabratum* Rochel ex Sprengel in Roemer et Schult.,** *Syst. Veg.* **6:** 623, 1820; ROCHEL, *Pl. Banat. Rar.* 66, t. 27, f 54, 1828
[=*Laserpitium pruthenicum* L.]

Text of the label:

Laserpitium pruthenicum b. glabratum Rochel
In pratis ad rivum Sebeš Banatus
16. Ag. 1813

Acquired: 1813, 1 specimen (*Plantae Banatus exsiccatae*).

Duplicates: BP 127328.

Note: In the protologue to his exsiccate collection, Rochel cites "*Rchl. Coll. Pl. Ban. exsicc. N. 78*" from the locality "*…in betuletis graminosis II-ae regionis Karansebes inter et Ruen*.".

***Leontodon taraxacon glaberrimum* Rochel,** *Cat. Plant.* 5, 1813, nomen nudum

Text of the label KMB:

Von Rochel am See Ruckova (Račková?)
im Liptauer...

Acquired: 2 specimens (without original label)

Duplicates: BP 1617155, 1617371.

Note: Rochel changed his opinion after distributing this plant. According to him (Rochel 1828: 7), it is synonymous with "*L. nigricans Kitbl*."

***Lilium bulbiferum* d. *incanum* Rochel,** in schedis

Text of the label KMB:

1814 von Rochel cultiviert

Acquired: 1 specimen (without original label).

***Luzula albida* b. *cuprina* Rochel,** *Cat. Plant.* 6, 1813, nomen nudum; Rochel ex Steud. *Nom. ed. 2*, **2:** 79, 1841, nom. inval.

[= *Luzula luzuloides* subsp. *cuprina* (Rochel ex Aschers. et Graebner) Chrtek et Křísa]

Text of the label:

Luzula albida b. cuprina Nob.
(Juncus nemoralis) Host gram.
Ex alpe Kralovahora. C. Lipt.

Acquired: 1 specimen (not from exsiccate series).

Note: Steudel (1841) gives this combination without closer citations "*Luzula albida cuprina Rochel*". The position of this taxon and its connection to the name *Luzula rubella* Hoppe ex Spenner, 1825 is also discussed by Oberdorfer (1992).

***Melilotus carulea* b. *connata* Rochel,** in schedis

Text of the label:

Melilotus carulea b. connata Nob.
M. (connata) aut. Culta

Acquired: 1 specimen (not from exsiccate series).

***Melissa pulegium* Rochel,** *Pl. Banat. Rar.* 62, t. 22, f. 48, 1828

(= *Micromeria pulegium* (Rochel) Bentham Lab. Gen. Sp. 382, 1834.

Text of the label:

Melissa pulegium Rochel.
In rupibus ad thermis Herculis, Topletz, et
aquaducti in valle Mehadia Banatus. 28. Jl. 1815.

Acquired: 1 specimen (*Plantae Banatus Exsiccatae*)

Duplicates: BP 552122.

Note: *Melissa pulegium* Griseb., *Spicil. Fl. Rumel.* **2:** 125, 1844, nom. illeg. non ROCHEL (1828) = *Mentha pulegium* L., 1753.

Rochel cities his "*Rchl. coll. pl. ban. exsicc. n. 81*" and the locality "*...pone pagum Toplecz, circa Aquaeductum et in fertilissima valle Cserna circa thermas Mehadienses*". Bentham cities "*Melissa pulegium Rochel.! Del. Pl. Rar. Banat. 62. T. 22, fig. 8*" "*Hab. in Banatu ad rupes thermarum Herculis Rochel! in agro Fluminense Host. (h. s. sp. comm. a cl. Schultz.)*".

***Phyteuma orbiculare* b. *pauciflorum* Rochel,** *Pl. Banat. Rar.* 27, 1828, nomen nudum

Text of the label:

Phyteuma orbiculare b. pauciflorum Rochel
in omnibus alpibus Banatu 22. Ag /1/819

Acquired: 1 specimen (*Plantae Banatus exsiccatae*).

***Ranunculus alpestris* b. var. *crenatus* (Waldst. et Kit.) Rochel,** *Pl. Banat. Rar.* 7, 1828

[=*Ranunculus crenatus* Waldst. et Kit.]

Text of the label:

Ranunculus crenatus
Ranunculus alpestris b. crenatus R.
VI. Reg. E Banatu

KMB: ROCHEL 1822.

Acquired: 1 specimen (not from exsiccate series).

Duplicates: There is one specimen in BP from the Sadler collection with the label overwritten "*Ranunculus crenatus, v Rochel, Banata*".

Note: Rochel gives as basionyme "*R. crenatus* W.K.". Rochel's name is valid at the variety level.

***Ranunculus alpinus* Rochel,** *Cat. Plant.* 7, 1813, nomen nudum

Text of the label:

Ranunculus alpinus, Nob.
Rup. calc. altior. Hung.
huc copia...:...R. montanus, nivalis, Gouani,
Velhartii et al.

Acquired: 2 specimens (not from exsiccate series).

***Saxifraga annua* var. *alpestris* Rochel,** *Cat. Plant.* 7, 1813, nomen nudum; ROCHEL *Pl. Banat. Rar.* 7, 1828, nomen nudum

Text of the label:

149. Saxifraga annua var. alpestris
(S. petraea Auct.)Willd
in ascensu Ohniscze com Lipt. 15. Sept. 1808

Acquired: 1 specimen (*Plantae Pannonicae Exsiccatae*).

Note: ROCHEL (1828) also cites in brackets "*S. petraea quorumd*."

***Saxifraga hypnoides* b. *glabra* Rochel,** *Cat. Plant.* 7, 1813, nomen nudum

Text of the label:

Saxifraga hypnoides b. glabra Nob.
Rarissima in m. Chocs inter Pinum pumilionem, C.
Lipt.

Acquired: 4 specimens (not from exsiccate series).

***Saxifraga stellaris* b. *hispidula* Rochel,** *Pl. Banat. Rar.* 34, t. 3, f. 8, 1828
[=*Saxifraga stellaris* L.]

Text of the label:

Saxifraga stellaris b. hispidula. Rochel.
Ad fontes in alpestribus Sarko. 22. Ag. 1819

Acquired: 2 specimens (*Plantae Banatus exsiccatae*).

Note: Rochel cities his "*Rchl. coll. plant. banat. exsiccat. N. 106*" and gives the locality "*Occupat copiosissima loca scaturginosa V-ae et VI-ae regionis fere omnium alpium banaticarum*". R?V?RUȚ (1956) gives this taxon of Rochel's as *S. stellaris f. hispidula* from the Retezat mountains.

Scleranthus neglectus **Rochel ex Baumg.,** *Enum. Stirp. Transs.* **3:** 345 sub omisis,1816; ROCHEL *Pl. Banat. Rar.* 35 t. 3,f. 10, 1828
(= *S. perennis* L.(

Text of the label:

Scleranthus neglectus. Rochel.
In cacumine alpis Muraru Banatus 1. Sp. 1815

Acquired: 1 specimen (*Plantae Banatus exsiccatae*).

Duplicates: BP 4 specimens 104499, 104412, 104411, 104433.

Note: BAUMGARTEN (1816) "*Adnot. Specimina bina a celebr. Rochelio ad me nuperrime missa ad unquem meis quidem congruent, nostram vero esse veram distinctam speciem, tantisper in ambiguum ero, dum haec cultura quadam factam nullam mutationem subeat*". ROCHEL (1828) gives his "*Rchl. coll. plant. banat. exsiccat. N. 110*" from the locality "*Habitat in VI-ta regione unice in summo vertice cacuminis altalpini Muraru*…".

Thesium elegans **Rochel,** *Pl. Banat. Rar.* 36, tab. 4, 1828
[=*Comandra elegans* (Rochel) Reichenb.f.]

Text of the label:

Osyris alba Linn. Sp.Pl. Willd.
Com. IV. p. II. p. 719
Planta hermaphrodita g dra rarius, H dra monogyna
pericarpium est nux non bacca a genere Thesii
planta nostra plane non differt
in Agro Romano Banat. H. Jn. 1815

Acquired: 1 specimen (*Plantae Banatus Exsiccatae*).

Note: Rochel cites in the protologue of *Thesium elegans* his specimen "*Osyris alba. Rchl. collect plant. banat. exsicc. n. 85. ibidem nota: …..*" and the exact text from the label.

Veronica latifolia **b. *heterophylla* Rochel,** *Pl. Ban. Rar.* 58, 1828; *Veronica dentata* b. *diversifolia* Rochel, in schedis
[= *V. austriaca* L.]

Text of the label:

Veronica dentata b. diversifolia Rochel
Ad marginos vinearum in Monti bud ceteo Budam in
dicto Sauwinkel. 8. Mai 1815

Acquired: 1 specimen (*Plantae Banatus exsiccatae*).

Note: Plants distributed under the name *V. dentata* b. *diversifolia* were published under the name *V. latifolia* b. *heterophylla* Rochel. Rochel's exsiccate "*Coll. pl. ban. exicc. n. 138*" is cited in the protologue together with the name *V. dentata* b. *diversifolia*.

Acknowledgements

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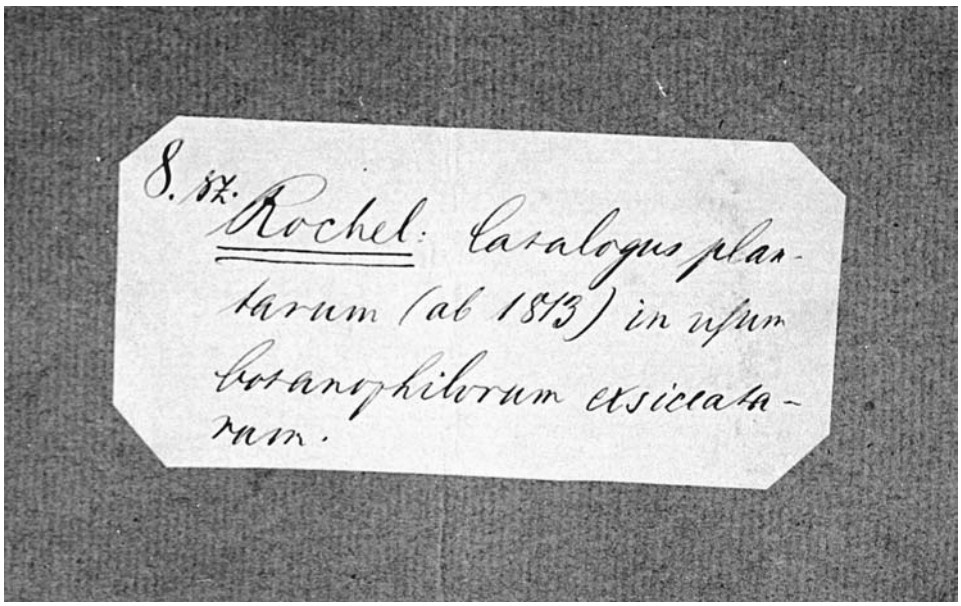
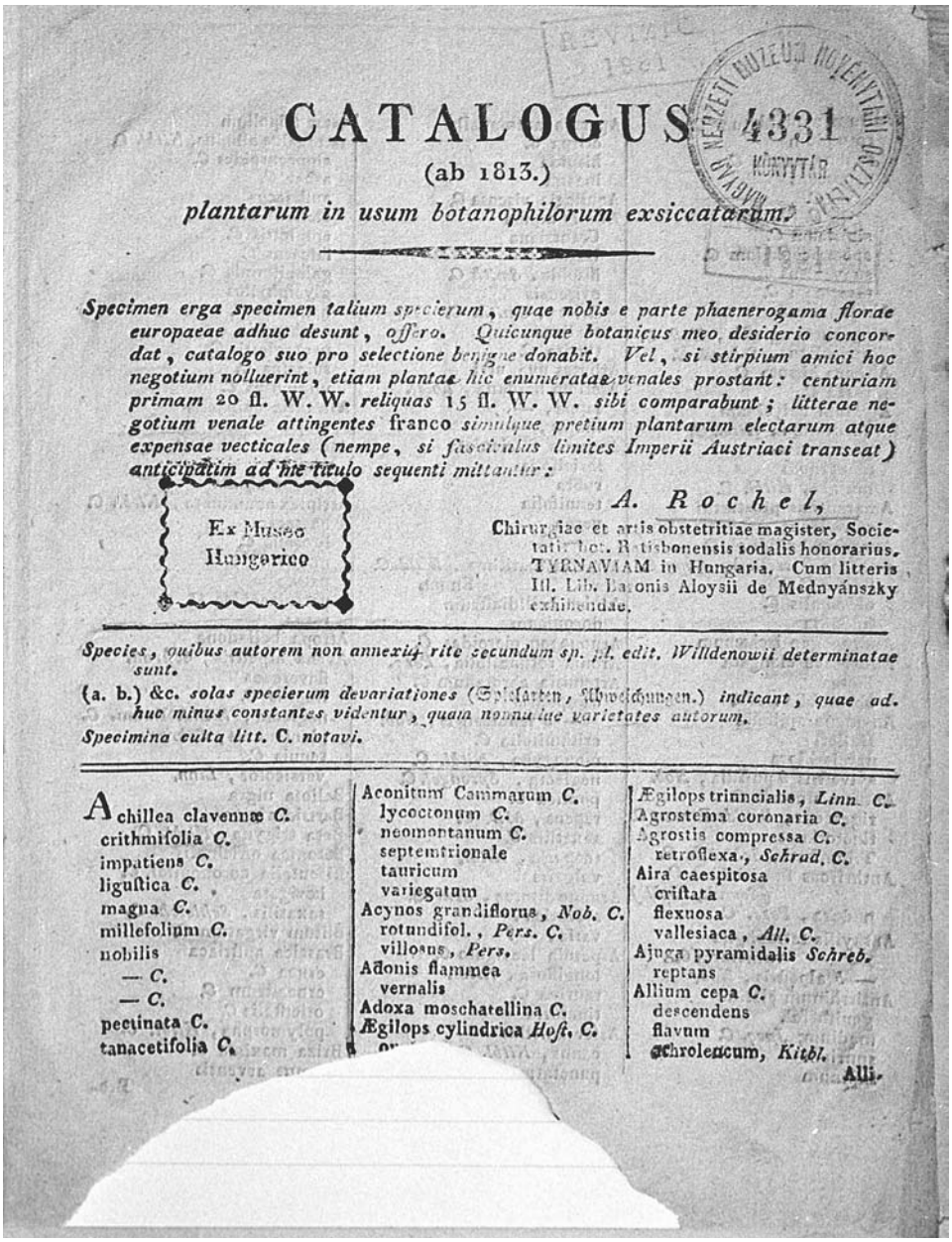


Fig. 1. Cover of the copy of Rochel's "*Catalogus*" preserved in the library of the Botanical Department of Budapest Natural History Museum (Sign. Kny 4331).



CATALOGUS 4331

(ab 1813.)

plantarum in usum botanophilorum exsiccatarum.

Specimen erga specimen talium specierum, quae nobis e parte phaenerogama florae europaeae adhuc desunt, offero. Quicunque botanicus meo desiderio concordat, catalogo suo pro selectione benigne donabit. Vel, si stirpium amici hoc negotium nolluerint, etiam plantae hic enumeratae venales prostant: centuriam primam 20 fl. W. W. reliquas 15 fl. W. W. sibi comparabunt; litterae negotium venale attingentes franco simulque pretium plantarum electarum atque expensae vecticales (nempe, si fasciculus limites Imperii Austriaci transeat) anticipatim ad hic titulo sequenti mittantur:

Ex Museo Hungarico

A. Rochel,

Chirurgiae et artis obstetritiae magister, Societatis bot. Ratisbonensis sodalis honorarius. TYRNAVIAM in Hungaria. Cum litteris Ill. Lib. Baronis Aloysii de Mednyánszky exhibendae.

Species, quibus autorem non annexui, rite secundum sp. pl. edit. Willdenowii determinatae sunt.

(a. b.) &c. *solas specierum devariationes (Spielarten, Abweichungen.) indicant, quae adhuc minus constantes videntur, quam nonnullae varietates autorum.*

Specimina culta litt. C. notavi.

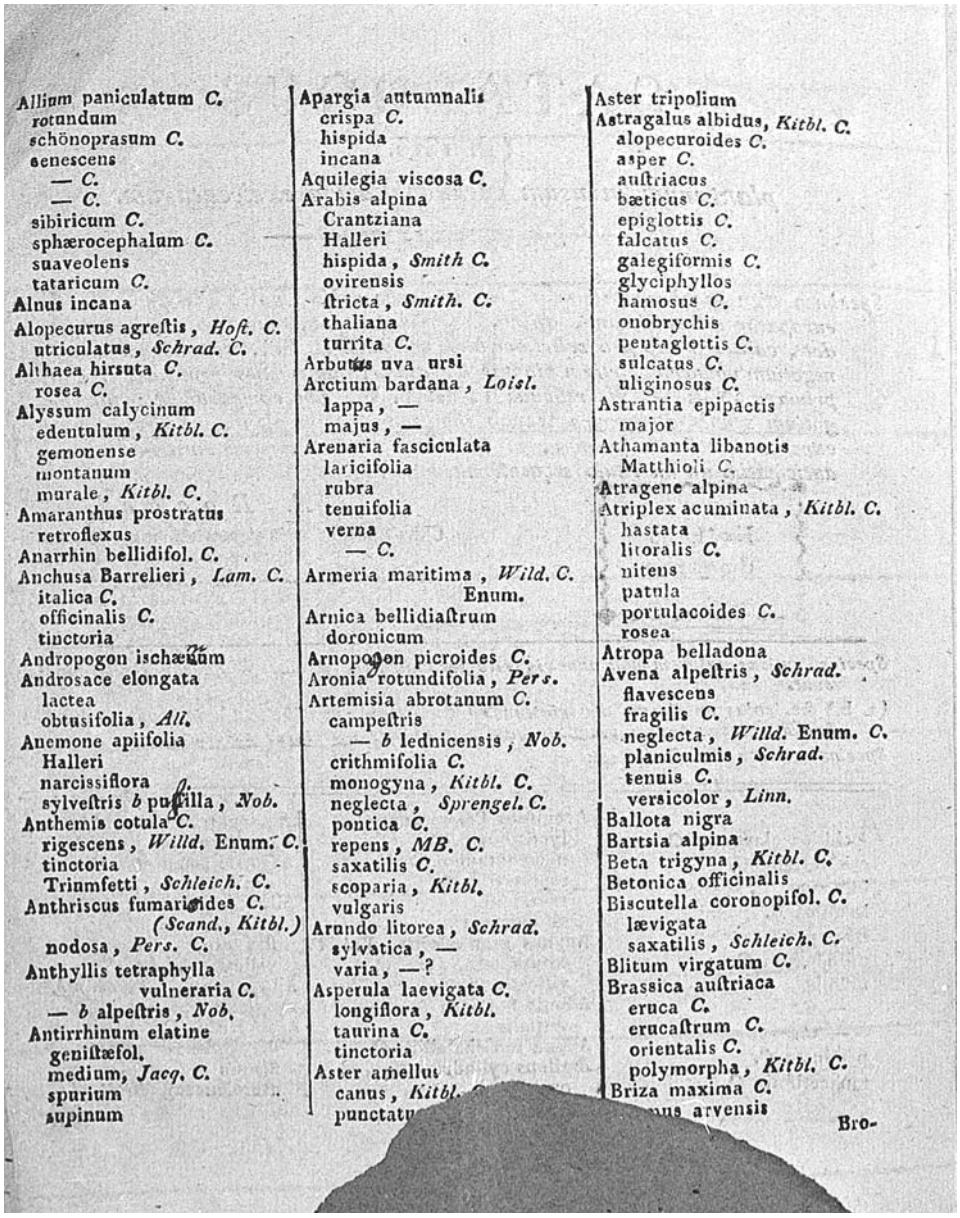
Achillea clavennæ *C.*
crithmifolia *C.*
impatiens *C.*
ligustica *C.*
magna *C.*
millefolium *C.*
nobilis
— *C.*
— *C.*
pectinata *C.*
tanacetifolia *C.*

Aconitum Cammarum *C.*
lycoctonum *C.*
neomontanum *C.*
septemtrionale
tauricum
variegatum
Acynos grandiflorus, *Nob. C.*
rotundifol., *Pers. C.*
villosus, *Pers.*
Adonis flammea
vernalis
Adoxa moschatellina *C.*
Ægilops cylindrica *Host. C.*
[illegible]

Ægilops triuncialis, *Linn. C.*
Agrostema coronaria *C.*
Agrostis compressa *C.*
retroflexa, *Schrad. C.*
Aira caespitosa
cristata
flexuosa
vallesiaca, *All. C.*
Ajuga pyramidalis *Schreb.*
reptans
Allium cepa *C.*
descendens
flavum
schrolencum, *Kitbl.*
Alli-

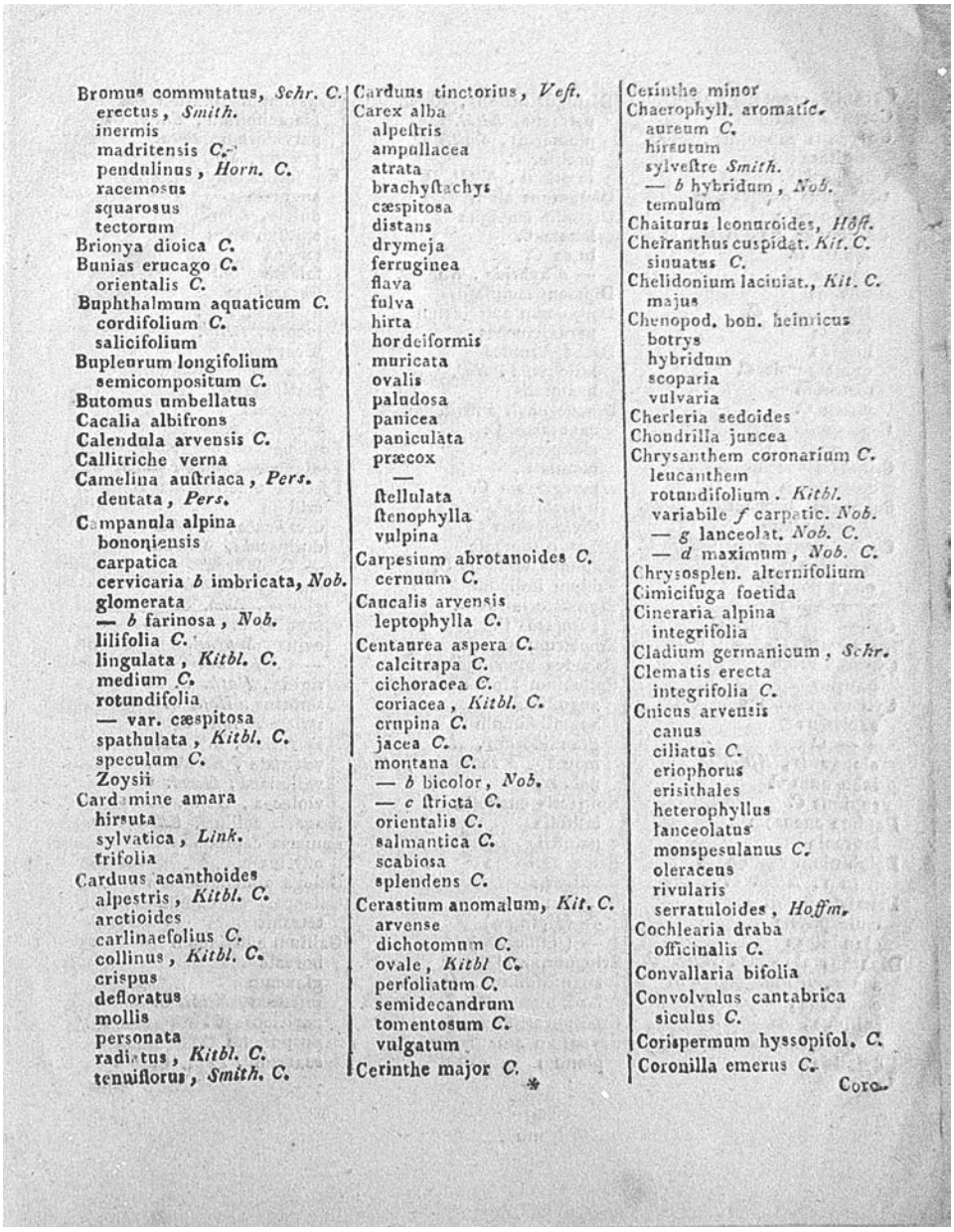
MAGYAR NEMZETI MÚZEUM KÖNYVTÁR

Fig. 2. Facsimile of the title page (or page 1) of Rochel's "*Catalogus*".



Allium paniculatum C.
rotundum
schönoprasum C.
senescens
— C.
— C.
sibiricum C.
sphærocephalum C.
suaveolens
tataricum C.
Alnus incana
Alopecurus agreſtis, Hoſt. C.
utriculatus, Schrad. C.
Althaea hirsuta C.
rosea C.
Alyssum calycinum
edentulum, Kitbl. C.
gemonense
montanum
murale, Kitbl. C.
Amaranthus prostratus
retroflexus
Anarrhin bellidifol. C.
Anchusa Barrelieri, Lam. C.
italica C.
officinalis C.
tinctoria
Andropogon ischæmum
Androsace elongata
lactea
obtusifolia, All.
Anemone apiifolia
Halleri
narcissiflora
sylveſtris b pumilla, Nob.
Anthemis cotula C.
rigescens, Willd. Enum. C.
tinctoria
Trinmfetti, Schleich. C.
Anthriscus fumariioides C.
(Scand., Kitbl.)
nodosa, Pers. C.
Anthyllis tetraphylla
vulneraria C.
— b alpeſtris, Nob.
Antirrhinum elatine
geniſtæfol.
medium, Jacq. C.
spurium
supinum
Apargia autumnalis
crispa C.
hispida
incana
Aquilegia viscosa C.
Arabis alpina
Crantziana
Halleri
hispida, Smith C.
ovirensis
ſtricta, Smith. C.
thaliana
turrita C.
Arbutus uva ursi
Arctium bardana, Loisl.
lappa, —
majus, —
Arenaria fasciculata
laricifolia
rubra
tenuifolia
verna
— C.
Armeria maritima, Wild. C.
Enum.
Arnica bellidiaſtrum
doronicum
Arnopogon picroides C.
Aronia rotundifolia, Pers.
Artemisia abrotanum C.
campeſtris
— b lednicensis, Nob.
crithmifolia C.
monogyna, Kitbl. C.
neglecta, Sprengel. C.
pontica C.
repens, MB. C.
saxatilis C.
scoparia, Kitbl.
vulgaris
Arundo litorea, Schrad.
sylvatica, —
varia, —?
Asperula laevigata C.
longiflora, Kitbl.
taurina C.
tinctoria
Aster amellus
canus, Kitbl.
punctatu
Aster tripolium
Astragalus albidus, Kitbl. C.
alopecuroides C.
asper C.
auſtriacus
bæticus C.
epiglottis C.
falcatus C.
galegiformis C.
glyciphyllos
hamosus C.
onobrychis
pentaglottis C.
sulcatus C.
uliginosus C.
Astrantia epipactis
major
Athamanta libanotis
Matthioli C.
Atragene alpina
Atriplex acuminata, Kitbl. C.
hastata
litoralis C.
nitens
patula
portulacoides C.
rosea
Atropa belladona
Avena alpeſtris, Schrad.
flavescens
fragilis C.
neglecta, Willd. Enum. C.
planiculmis, Schrad.
tenuis C.
versicolor, Linn.
Ballota nigra
Bartsia alpina
Beta trigyna, Kitbl. C.
Betonica officinalis
Biscutella coronopifol. C.
lævigata
saxatilis, Schleich. C.
Blitum virgatum C.
Brassica auſtriaca
eruca C.
erucaſtrum C.
orientalis C.
polymorpha, Kitbl. C.
Briza maxima C.
arvensis
Bro-

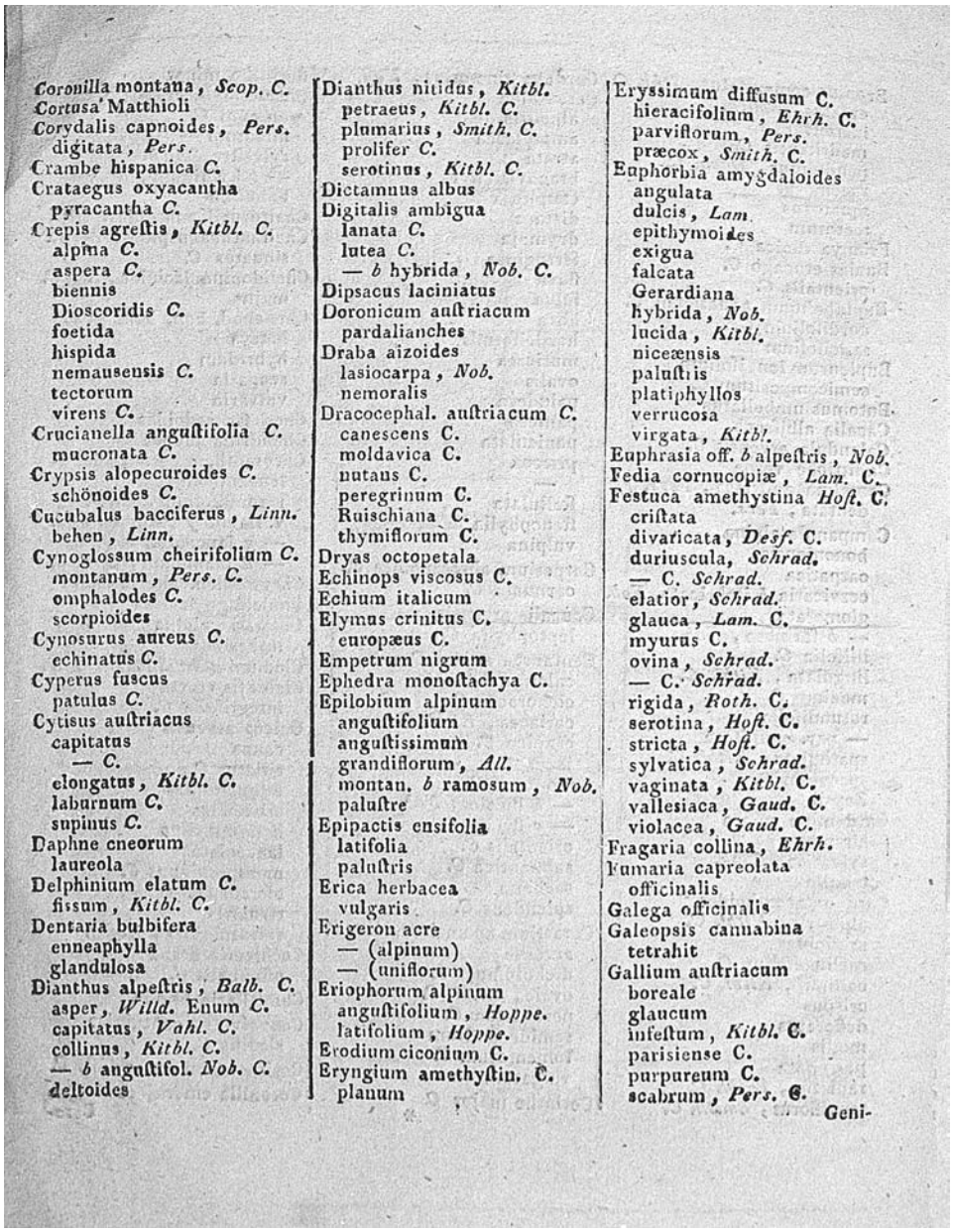
Fig. 3. Facsimile of the page 2 of Rochel's "*Catalogus*".



Bromus commutatus, *Schr. C.*
erectus, *Smith.*
inermis
madritensis *C.*
pendulinus, *Horn. C.*
racemosus
squarosus
tectorum
Brionya dioica *C.*
Bunias erucago *C.*
orientalis *C.*
Buphthalmum aquaticum *C.*
cordifolium *C.*
salicifolium
Buplenrum longifolium
semicompositum *C.*
Butomus umbellatus
Cacalia albifrons
Calendula arvensis *C.*
Callitriche verna
Camelina auſtriaca, *Pers.*
dentata, *Pers.*
Campanula alpina
bononiensis
carpatica
cervicaria *b* imbricata, *Nob.*
glomerata
— *b* farinosa, *Nob.*
lilifolia *C.*
lingulata, *Kitbl. C.*
medium *C.*
rotundifolia
— var. cæspitosa
spathulata, *Kitbl. C.*
speculum *C.*
Zoysii
Cardamine amara
hirsuta
sylvatica, *Link.*
trifolia
Carduus acanthoides
alpestris, *Kitbl. C.*
arctioides
carlinaefolius *C.*
collinus, *Kitbl. C.*
crispus
defloratus
mollis
personata
radiatus, *Kitbl. C.*
tenuiflorus, *Smith. C.*
Carduus tinctorius, *Veſt.*
Carex alba
alpeſtris
ampullacea
atrata
brachyſtachys
cæspitosa
distans
drymeja
ferruginea
flava
fulva
hirta
hordeiformis
muricata
ovalis
paludosa
panicea
paniculata
præcox
—
ſtellulata
ſtenophylla
vulpina
Carpesium abrotanoides *C.*
cernuum *C.*
Caucalis arvensis
leptophylla *C.*
Centaurea aspera *C.*
calcitrapa *C.*
cichoracea *C.*
coriacea, *Kitbl. C.*
crupina *C.*
jacea *C.*
montana *C.*
— *b* bicolor, *Nob.*
— *c* ſtricta *C.*
orientalis *C.*
salmantica *C.*
scabiosa
splendens *C.*
Cerastium anomalum, *Kit. C.*
arvense
dichotomum *C.*
ovale, *Kitbl C.*
perfoliatum *C.*
semidecandrum
tomentosum *C.*
vulgatum
Cerinthe major *C.*
Cerinthe minor
Chaerophyll. aromatic.
aureum *C.*
hirsutum
sylveſtre *Smith.*
— *b* hybridum, *Nob.*
temulum
Chaiturus leonuroides, *Hoſt.*
Cheiranthus cuspidat. *Kit. C.*
sinuatus *C.*
Chelidonium laciniat., *Kit. C.*
majus
Chenopod. bon. heinricus
botrys
hybridum
scoparia
vulvaria
Cherleria sedoides
Chondrilla juncea
Chrysanthem coronarium *C.*
leucanthem
rotundifolium. *Kitbl.*
variabile *f* carpatic. *Nob.*
— *g* lanceolat. *Nob. C.*
— *d* maximum, *Nob. C.*
Chrysosplen. alternifolium
Cimicifuga foetida
Cineraria alpina
integrifolia
Cladium germanicum, *Schr.*
Clematis erecta
integrifolia *C.*
Cnicus arvensis
canus
ciliatus *C.*
eriophorus
erisithales
heterophyllus
lanceolatus
monspesulanus *C.*
oleraceus
rivularis
serratuloides, *Hoffm.*
Cochlearia draba
officinalis *C.*
Convallaria bifolia
Convolvulus cantabrica
siculus *C.*
Corispermum hyssopifol. *C.*
Coronilla emerus *C.*

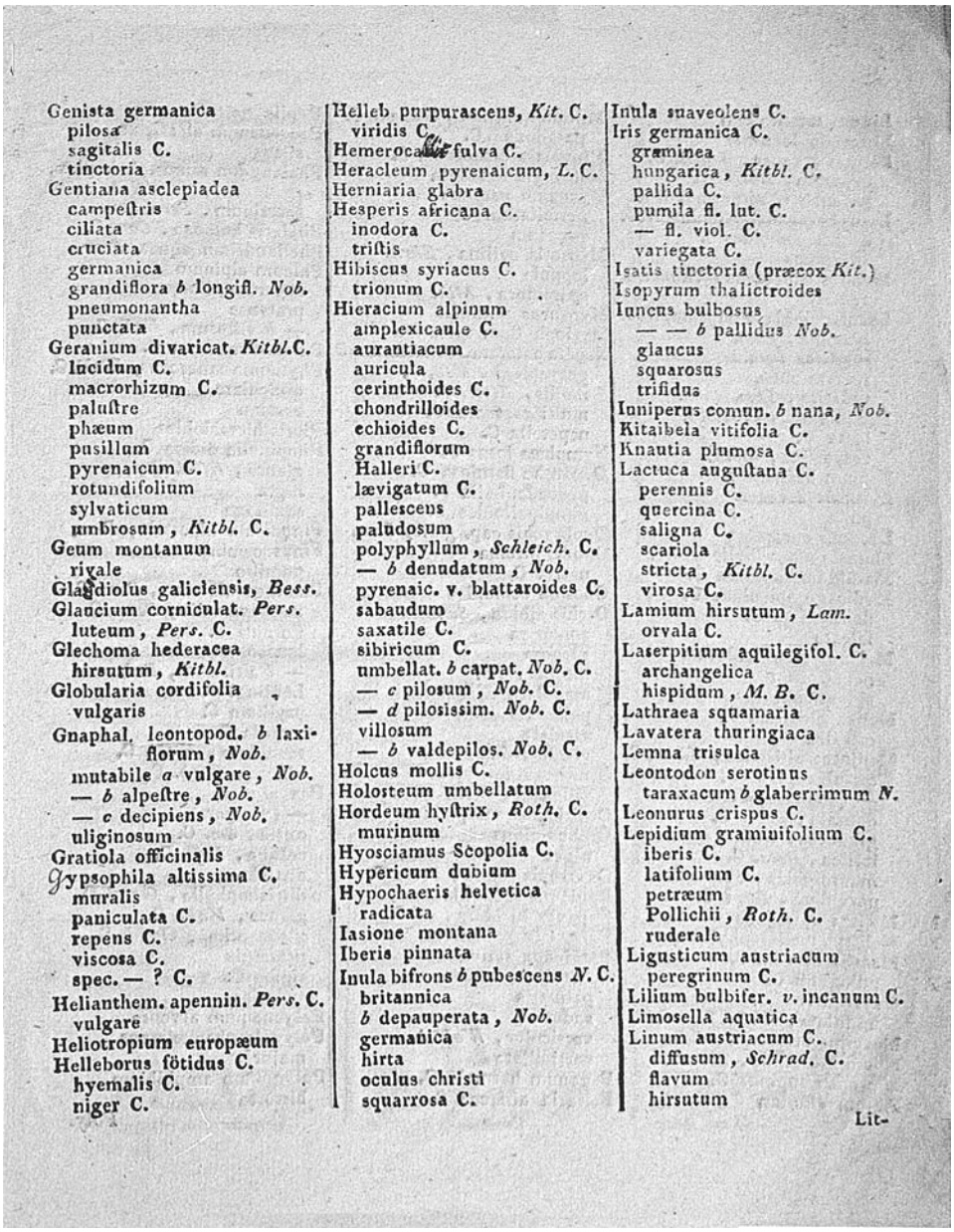
Coro-

Fig. 4. Facsimile of the page 3 of Rochel's "*Catalogus*".



Coronilla montana, *Scop. C.*
Cortusa Matthioli
Corydalis capnoides, *Pers.*
digitata, *Pers.*
Crambe hispanica *C.*
Crataegus oxyacantha
pyracantha *C.*
Crepis agreſtis, *Kitbl. C.*
alpina *C.*
aspera *C.*
biennis
Dioscoridis *C.*
foetida
hispida
nemausensis *C.*
tectorum
virens *C.*
Crucianella anguſtifolia *C.*
mucronata *C.*
Crypsis alopecuroides *C.*
schönoides *C.*
Cucubalus bacciferus, *Linn.*
behen, *Linn.*
Cynoglossum cheirifolium *C.*
montanum, *Pers. C.*
omphalodes *C.*
scorpioides
Cynosurus aureus *C.*
echinatus *C.*
Cyperus fuscus
patulus *C.*
Cytisus auſtriacus
capitatus
— *C.*
elongatus, *Kitbl. C.*
laburnum *C.*
supinus *C.*
Daphne cneorum
laureola
Delphinium elatum *C.*
fissum, *Kitbl. C.*
Dentaria bulbifera
enneaphylla
glandulosa
Dianthus alpeſtris, *Balb. C.*
asper, *Willd.* Enum *C.*
capitatus, *Vahl. C.*
collinus, *Kitbl. C.*
— *b* anguſtifol. *Nob. C.*
deltoides
Dianthus nitidus, *Kitbl.*
petraeus, *Kitbl. C.*
plumarius, *Smith. C.*
prolifer *C.*
serotinus, *Kitbl. C.*
Dictamnus albus
Digitalis ambigua
lanata *C.*
lutea *C.*
— *b* hybrida, *Nob. C.*
Dipsacus laciniatus
Doronicum auſtriacum
pardalianches
Draba aizoides
lasiocarpa, *Nob.*
nemoralis
Dracocephal. auſtriacum *C.*
canescens C.
moldavica C.
nutans C.
peregrinum C.
Ruischiana C.
thymiflorum C.
Dryas octopetala
Echinops viscosus C.
Echium italicum
Elymus crinitus C.
europæus C.
Empetrum nigrum
Ephedra monoſtachya C.
Epilobium alpinum
anguſtifolium
anguſtissimum
grandiflorum, *All.*
montan. *b* ramosum, *Nob.*
paluſtre
Epipactis ensifolia
latifolia
paluſtris
Erica herbacea
vulgaris
Erigeron acre
— (alpinum)
— (uniflorum)
Eriophorum alpinum
anguſtifolium, *Hoppe.*
latifolium, *Hoppe.*
Erodium ciconium C.
Eryngium amethyſtin. C.
planum
Eryssimum diffusum C.
hieracifolium, *Ehrh.* C.
parviflorum, *Pers.*
præcox, *Smith.* C.
Euphorbia amygdaloides
angulata
dulcis, *Lam.*
epithymoides
exigua
falcata
Gerardiana
hybrida, *Nob.*
lucida, *Kitbl.*
niceænsis
paluſtris
platiphyllos
verrucosa
virgata, *Kitbl.*
Euphrasia off. *b* alpeſtris, *Nob.*
Fedia cornucopiæ, *Lam.* C.
Festuca amethystina *Hoſt.* C.
criſtata
divaricata, *Desf.* C.
duriuscula, *Schrad.*
— C. *Schrad.*
elatior, *Schrad.*
glauca, *Lam.* C.
myurus C.
ovina, *Schrad.*
— C. *Schrad.*
rigida, *Roth.* C.
serotina, *Hoſt.* C.
stricta, *Hoſt.* C.
sylvatica, *Schrad.*
vaginata, *Kitbl.* C.
vallesiaca, *Gaud.* C.
violacea, *Gaud.* C.
Fragaria collina, *Ehrh.*
Fumaria capreolata
officinalis
Galega officinalis
Galeopsis cannabina
tetrahit
Gallium auſtriacum
boreale
glaucum
infeſtum, *Kitbl.* C.
parisiense C.
purpureum C.
scabrum, *Pers.* C.
Geni-

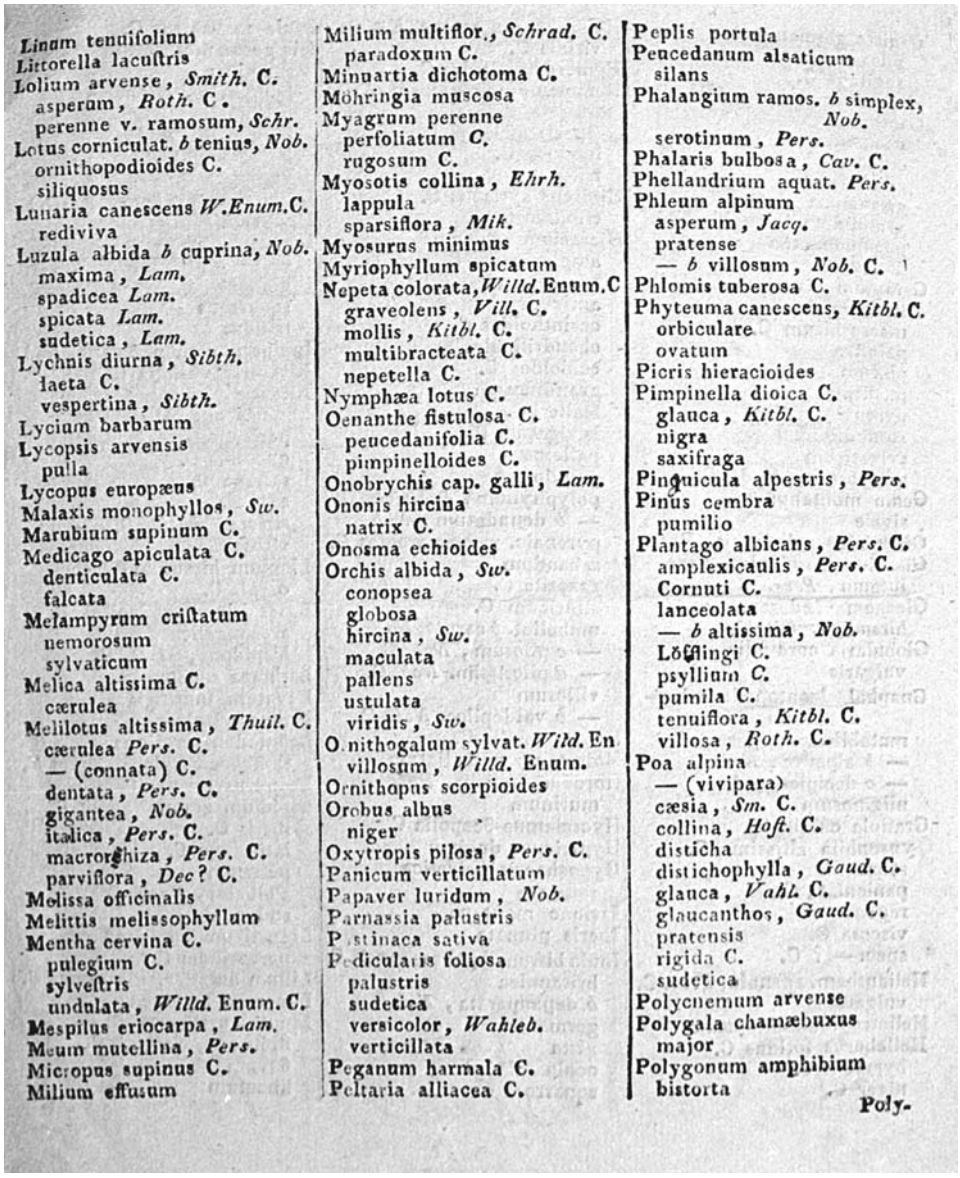
Fig. 5. Facsimile of the page 4 of Rochel's "*Catalogus*".



Genista germanica
pilosa
sagitalis C.
tinctoria
Gentiana asclepiadea
campestris
ciliata
cruciata
germanica
grandiflora *b* longifl. *Nob.*
pneumonantha
punctata
Geranium divaricat. *Kitbl.*C.
lucidum C.
macrorhizum C.
palustre
phæum
pusillum
pyrenaicum C.
rotundifolium
sylvaticum
umbrosum, *Kitbl.* C.
Geum montanum
rivale
Gladiolus galicíensis, *Bess.*
Glaucium corniculat. *Pers.*
luteum, *Pers.* C.
Glechoma hederacea
hirsutum, *Kitbl.*
Globularia cordifolia
vulgaris
Gnaphal. leontopod. *b* laxiflorum, *Nob.*
mutabile *a* vulgare, *Nob.*
— *b* alpestre, *Nob.*
— *c* decipiens, *Nob.*
uliginosum
Gratiola officinalis
Gypsophila altissima C.
muralis
paniculata C.
repens C.
viscosa C.
spec. — ? C.
Helianthem. apennin. *Pers.* C.
vulgare
Heliotropium europæum
Helleborus fötidus C.
hyemalis C.
niger C.
Helleb purpurascens, *Kit.* C.
viridis C.
Hemerocallis fulva C.
Heracleum pyrenaicum, *L.* C.
Herniaria glabra
Hesperis africana C.
inodora C.
tristis
Hibiscus syriacus C.
trionum C.
Hieracium alpinum
amplexicaule C.
aurantiacum
auricula
cerinthoides C.
chondrilloides
echioides C.
grandiflorum
Halleri C.
lævigatum C.
pallescens
paludosum
polyphyllum, *Schleich.* C.
— *b* denudatum, *Nob.*
pyrenaic. v. blattaroides C.
sabaudum
saxatile C.
sibiricum C.
umbellat. *b* carpat. *Nob.* C.
— *c* pilosum, *Nob.* C.
— *d* pilosissim. *Nob.* C.
villosum
— *b* valdepilos. *Nob.* C.
Holcus mollis C.
Holosteum umbellatum
Hordeum hystrix, *Roth.* C.
murinum
Hyosciamus Scopolia C.
Hypericum dubium
Hypochaeris helvetica
radicata
Iasione montana
Iberis pinnata
Inula bifrons *b* pubescens *N.* C.
britannica
b depauperata, *Nob.*
germanica
hirta
oculus christi
squarrosa C.
Inula suaveolens C.
Iris germanica C.
graminea
hungarica, *Kitbl.* C.
pallida C.
pumila fl. lut. C.
— fl. viol. C.
variegata C.
Isatis tinctoria (præcox *Kit.*)
Isopyrum thalictroides
Juncus bulbosus
— — *b* pallidus *Nob.*
glaucus
squarosus
trifidus
Juniperus comun. *b* nana, *Nob.*
Kitaibela vitifolia C.
Knautia plumosa C.
Lactuca augustana C.
perennis C.
quercina C.
saligna C.
scariola
stricta, *Kitbl.* C.
virosa C.
Lamium hirsutum, *Lam.*
orvala C.
Laserpitium aquilegifol. C.
archangelica
hispidum, *M. B.* C.
Lathraea squamaria
Lavatera thuringiaca
Lemna trisulca
Leontodon serotinus
taraxacum *b* glaberrimum *N.*
Leonurus crispus C.
Lepidium graminifolium C.
iberis C.
latifolium C.
petræum
Pollichii, *Roth.* C.
ruderale
Ligusticum austriacum
peregrinum C.
Lilium bulbifer. *v.* incanum C.
Limosella aquatica
Linum austriacum C.
diffusum, *Schrad.* C.
flavum
hirsutum

Lit-

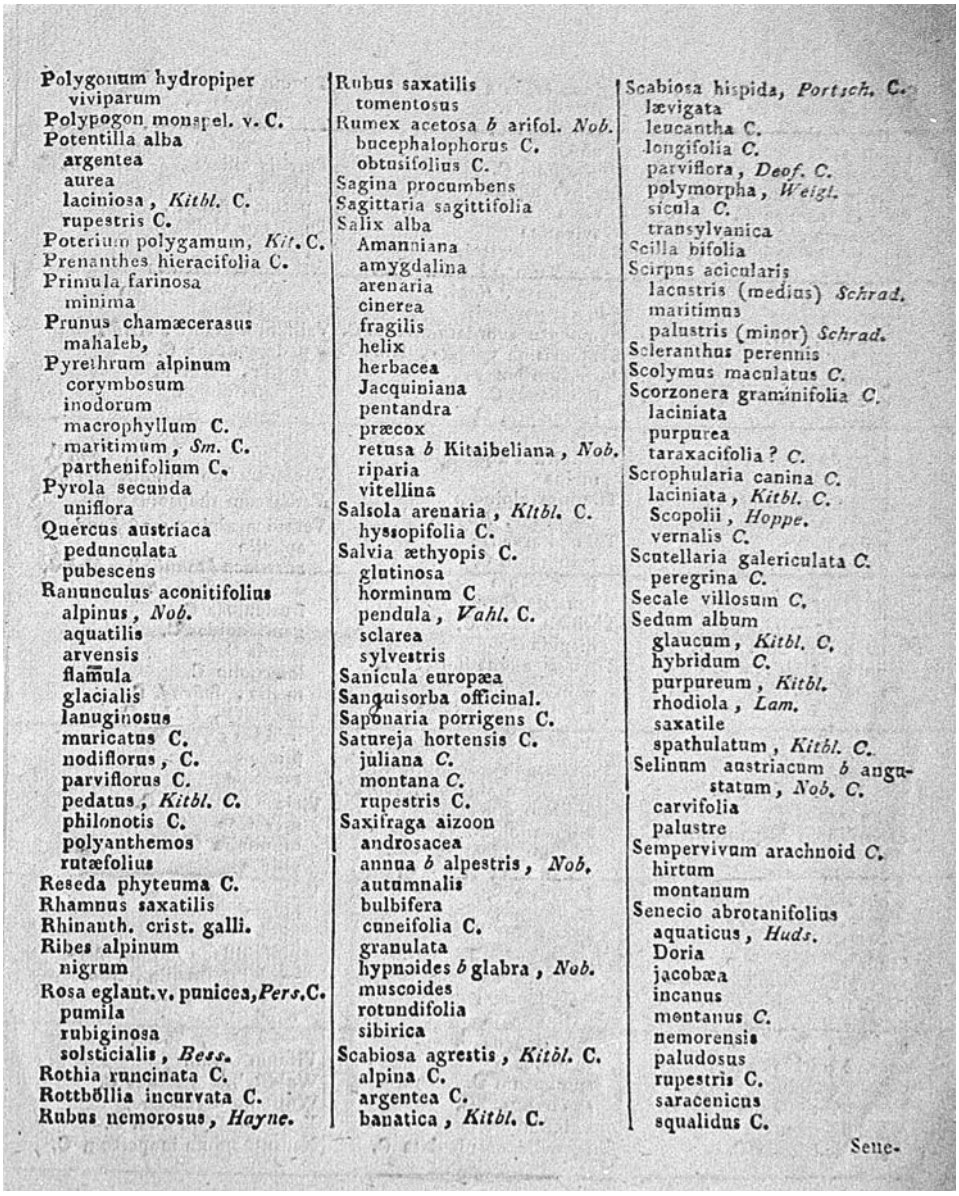
Fig. 6. Facsimile of the page 5 of Rochel's "*Catalogus*".



Linum tenuifolium
Littorella lacuſtris
Lolium arvense, *Smith.* C.
asperum, *Roth.* C.
perenne v. ramosum, *Schr.*
Lotus corniculat. *b* tenius, *Nob.*
ornithopodioides C.
siliquosus
Lunaria canescens *W.Enum.*C.
rediviva
Luzula albida *b* cuprina, *Nob.*
maxima, *Lam.*
spadicea *Lam.*
spicata *Lam.*
sudetica, *Lam.*
Lychnis diurna, *Sibth.*
laeta C.
vespertina, *Sibth.*
Lycium barbarum
Lycopsis arvensis
pulla
Lycopus europæus
Malaxis monophyllos, *Sw.*
Marubium supinum C.
Medicago apiculata C.
denticulata C.
falcata
Melampyrum criſtatum
nemorosum
sylvaticum
Melica altissima C.
cærulea
Melilotus altissima, *Thuil.* C.
cærulea *Pers.* C.
— (connata) C.
dentata, *Pers.* C.
gigantea, *Nob.*
italica, *Pers.* C.
macrorhiza, *Pers.* C.
parviflora, *Dec?* C.
Melissa officinalis
Melittis melissophyllum
Mentha cervina C.
pulegium C.
sylveſtris
undulata, *Willd.* Enum. C.
Mespilus eriocarpa, *Lam.*
Meum mutellina, *Pers.*
Micropus supinus C.
Milium effusum
Milium multiflor., *Schrad.* C.
paradoxum C.
Minuartia dichotoma C.
Möhringia muscosa
Myagrum perenne
perfoliatum C.
rugosum C.
Myosotis collina, *Ehrh.*
lappula
sparsiflora, *Mik.*
Myosurus minimus
Myriophyllum spicatum
Nepeta colorata, *Willd.* Enum. C
graveolens, *Vill.* C.
mollis, *Kitbl.* C.
multibracteata C.
nepetella C.
Nymphæa lotus C.
Oenanthe fistulosa C.
peucedanifolia C.
pimpinelloides C.
Onobrychis cap. galli, *Lam.*
Ononis hircina
natrix C.
Onosma echioides
Orchis albida, *Sw.*
conopsea
globosa
hircina, *Sw.*
maculata
pallens
ustulata
viridis, *Sw.*
Ornithogalum sylvat. *Wild.* En
villosum, *Willd.* Enum.
Ornithopus scorpioides
Orobus albus
niger
Oxytropis pilosa, *Pers.* C.
Panicum verticillatum
Papaver luridum, *Nob.*
Parnassia palustris
Pastinaca sativa
Pedicularis foliosa
palustris
sudetica
versicolor, *Wahleb.*
verticillata
Peganum harmala C.
Peltaria alliacea C.
Peplis portula
Peucedanum alsaticum
silans
Phalangium ramos. *b* simplex, *Nob.*
serotinum, *Pers.*
Phalaris bulbosa, *Cav.* C.
Phellandrium aquat. *Pers.*
Phleum alpinum
asperum, *Jacq.*
pratense
— *b* villosum, *Nob.* C.
Phlomis tuberosa C.
Phyteuma canescens, *Kitbl.* C.
orbiculare
ovatum
Picris hieracioides
Pimpinella dioica C.
glauca, *Kitbl.* C.
nigra
saxifraga
Pinguicula alpestris, *Pers.*
Pinus cembra
pumilio
Plantago albicans, *Pers.* C.
amplexicaulis, *Pers.* C.
Cornuti C.
lanceolata
— *b* altissima, *Nob.*
Löflingi C.
psyllium C.
pumila C.
tenuiflora, *Kitbl.* C.
villosa, *Roth.* C.
Poa alpina
— (vivipara)
cæsia, *Sm.* C.
collina, *Hoft.* C.
disticha
distichophylla, *Gaud.* C.
glauca, *Vahl.* C.
glaucanthos, *Gaud.* C.
pratensis
rigida C.
sudetica
Polycnemum arvense
Polygala chamæbuxus
major
Polygonum amphibium
bistorta

Poly-

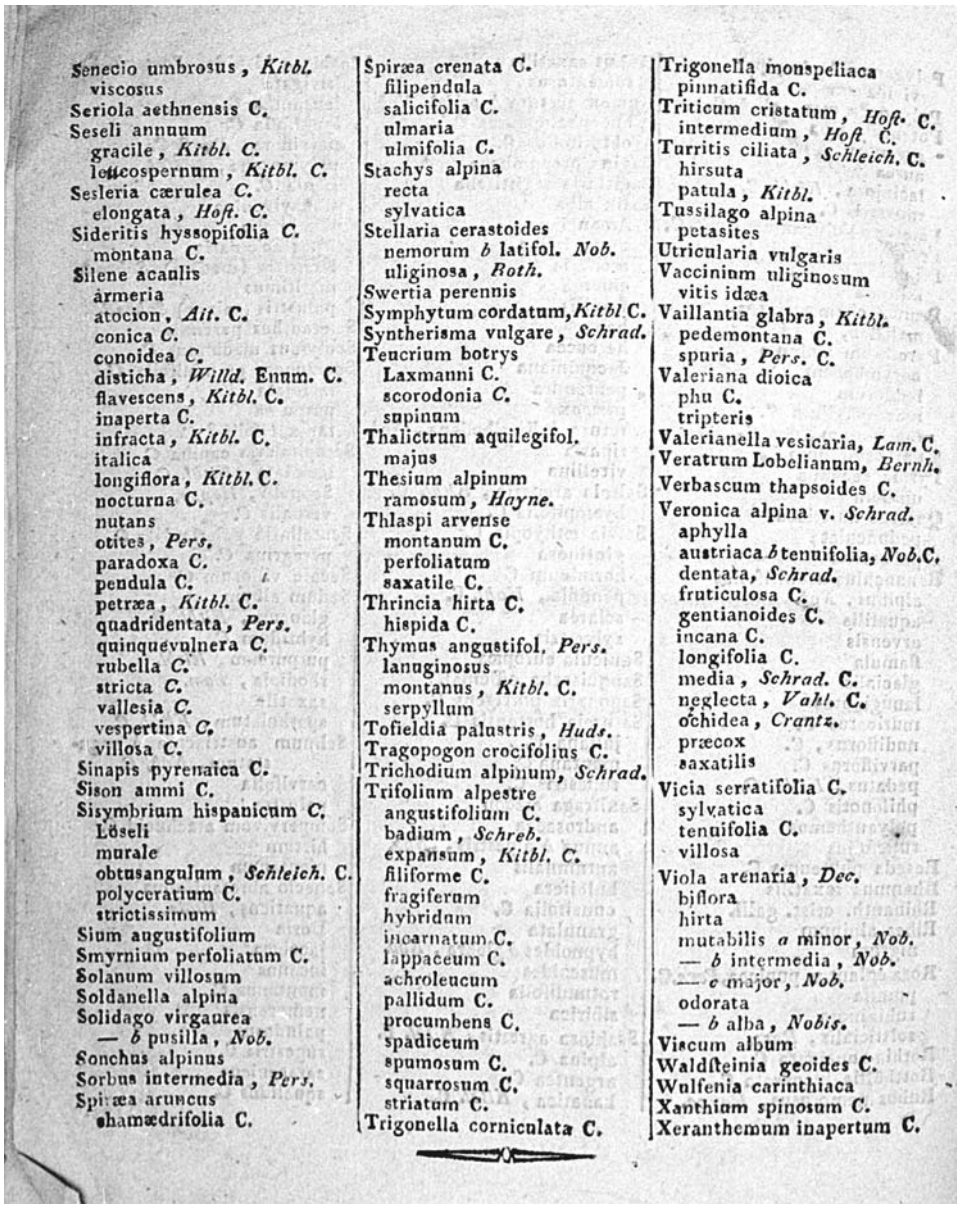
Fig. 7. Facsimile of the page 6 of Rochel's "*Catalogus*".



Polygonum hydropiper
viviparum
Polypogon monspel. v. C.
Potentilla alba
argentea
aurea
laciniosa, *Kitbl.* C.
rupestris C.
Poterium polygamum, *Kit.* C.
Prenanthes hieracifolia C.
Primula farinosa
minima
Prunus chamæcerasus
mahaleb,
Pyrethrum alpinum
corymbosum
inodorum
macrophyllum C.
maritimum, *Sm.* C.
parthenifolium C.
Pyrola secunda
uniflora
Quercus austriaca
pedunculata
pubescens
Ranunculus aconitifolius
alpinus, *Nob.*
aquatilis
arvensis
flammula
glacialis
lanuginosus
muricatus C.
nodiflorus, C.
parviflorus C.
pedatus, *Kitbl.* C.
philonotis C.
polyanthemos
rutæfolius
Reseda phyteuma C.
Rhamnus saxatilis
Rhinanth. crist. galli.
Ribes alpinum
nigrum
Rosa eglant. v. punicea, *Pers.* C.
pumila
rubiginosa
solsticialis, *Bess.*
Rothia runcinata C.
Rottböllia incurvata C.
Rubus nemorosus, *Hayne.*
Rubus saxatilis
tomentosus
Rumex acetosa *b* arifol. *Nob.*
bucephalophorus C.
obtusifolius C.
Sagina procumbens
Sagittaria sagittifolia
Salix alba
Amanniana
amygdalina
arenaria
cinerea
fragilis
helix
herbacea
Jacquiniana
pentandra
præcox
retusa *b* Kitaibeliana, *Nob.*
riparia
vitellina
Salsola arenaria, *Kitbl.* C.
hyssopifolia C.
Salvia æthyopis C.
glutinosa
horminum C
pendula, *Vahl.* C.
sclarea
sylvestris
Sanicula europæa
Sanguisorba officinal.
Saponaria porrigens C.
Satureja hortensis C.
juliana C.
montana C.
rupestris C.
Saxifraga aizoon
androsacea
annua *b* alpestris, *Nob.*
autumnalis
bulbifera
cuneifolia C.
granulata
hypnoides *b* glabra, *Nob.*
muscoides
rotundifolia
sibirica
Scabiosa agrestis, *Kitbl.* C.
alpina C.
argentea C.
banatica, *Kitbl.* C.
Scabiosa hispida, *Portsch.* C.
lævigata
leucantha C.
longifolia C.
parviflora, *Deof.* C.
polymorpha, *Weigl.*
sicula C.
transylvanica
Scilla bifolia
Scirpus acicularis
lacustris (medius) *Schrad.*
maritimus
palustris (minor) *Schrad.*
Scleranthus perennis
Scolymus maculatus C.
Scorzonera graminifolia C.
laciniata
purpurea
taraxacifolia? C.
Scrophularia canina C.
laciniata, *Kitbl.* C.
Scopolii, *Hoppe.*
vernalis C.
Scutellaria galericulata C.
peregrina C.
Secale villosum C.
Sedum album
glaucum, *Kitbl.* C.
hybridum C.
purpureum, *Kitbl.*
rhodiola, *Lam.*
saxatile
spathulatum, *Kitbl.* C.
Selinum austriacum *b* angustatum, *Nob.* C.
carvifolia
palustre
Sempervivum arachnoid C.
hirtum
montanum
Senecio abrotanifolius
aquaticus, *Huds.*
Doria
jacobæa
incanus
montanus C.
nemorensis
paludosus
rupestris C.
saracenicus
squalidus C.

Sene-

Fig. 8. Facsimile of the page 7 of Rochel's "*Catalogus*".



Senecio umbrosus, *Kitbl.*
viscosus
Seriola aethnensis C.
Seseli annuum
gracile, *Kitbl.* C.
leucospernum, *Kitbl.* C.
Sesleria cærulea C.
elongata, *Hoft.* C.
Sideritis hyssopifolia C.
montana C.
Silene acaulis
armeria
atocion, *Ait.* C.
conica C.
conoidea C.
disticha, *Willd.* Enum. C.
flavescens, *Kitbl.* C.
inaperta C.
infracta, *Kitbl.* C.
italica
longiflora, *Kitbl.* C.
nocturna C.
nutans
otites, *Pers.*
paradoxa C.
pendula C.
petræa, *Kitbl.* C.
quadridentata, *Pers.*
quinquevulnera C.
rubella C.
stricta C.
vallesia C.
vespertina C.
villosa C.
Sinapis pyrenaica C.
Sison ammi C.
Sisymbrium hispanicum C.
Löseli
murale
obtusangulum, *Schleich.* C.
polyceratium C.
strictissimum
Sium augustifolium
Smyrnium perfoliatum C.
Solanum villosum
Soldanella alpina
Solidago virgaurea
— *b* pusilla, *Nob.*
Sonchus alpinus
Sorbus intermedia, *Pers.*
Spiræa aruncus
chamædrifolia C.
Spiræa crenata C.
filipendula
salicifolia C.
ulmaria
ulmifolia C.
Stachys alpina
recta
sylvatica
Stellaria cerastoides
nemorum *b* latifol. *Nob.*
uliginosa, *Roth.*
Swertia perennis
Symphytum cordatum, *Kitbl* C.
Syntherisma vulgare, *Schrad.*
Teucrium botrys
Laxmanni C.
scorodonia C.
supinum
Thalictrum aquilegifol.
majus
Thesium alpinum
ramosum, *Hayne.*
Thlaspi arvense
montanum C.
perfoliatum
saxatile C.
Thrincia hirta C.
hispida C.
Thymus angustifol. *Pers.*
lanuginosus
montanus, *Kitbl.* C.
serpyllum
Tofieldia palustris, *Huds.*
Tragopogon crocifolius C.
Trichodium alpinum, *Schrad.*
Trifolium alpestre
angustifolium C.
badium, *Schreb.*
expansum, *Kitbl.* C.
filiforme C.
fragiferum
hybridum
incarnatum C.
lappaceum C.
achroleucum
pallidum C.
procumbens C.
spadiceum
spumosum C.
squarrosum C.
striatum C.
Trigonella corniculata C.
Trigonella monspeliaca
pinnatifida C.
Triticum cristatum, *Hoft.* C.
intermedium, *Hoft* C.
Turritis ciliata, *Schleich.* C.
hirsuta
patula, *Kitbl.*
Tussilago alpina
petasites
Utricularia vulgaris
Vaccinium uliginosum
vitis idæa
Vaillantia glabra, *Kitbl.*
pedemontana C.
spuria, *Pers.* C.
Valeriana dioica
phu C.
tripteris
Valerianella vesicaria, *Lam.* C.
Veratrum Lobelianum, *Bernh.*
Verbascum thapsoides C.
Veronica alpina v. *Schrad.*
aphylla
austriaca *b* tenuifolia, *Nob.* C.
dentata, *Schrad.*
fruticulosa C.
gentianoides C.
incana C.
longifolia C.
media, *Schrad.* C.
neglecta, *Vahl.* C.
ochidea, *Crantz.*
præcox
saxatilis
Vicia serratifolia C.
sylvatica
tenuifolia C.
villosa
Viola arenaria, *Dec.*
biflora
hirta
mutabilis *a* minor, *Nob.*
— *b* intermedia, *Nob.*
— *c* major, *Nob.*
odorata
— *b* alba, *Nobis.*
Viscum album
Waldsteinia geoides C.
Wulfenia carinthiaca
Xanthium spinosum C.
Xeranthemum inapertum C.

Fig. 9. Facsimile of the page 8 of Rochel's "*Catalogus*".