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# ITER HISPANIENSE

OR A SYNOPSIS OF

# PLANTS COLLECTED

IN THE SOUTHERN

PROVINCES OF SPAIN AND IN PORTUGAL,

WITH GEOGRAPHICAL REMARKS,  
AND OBSERVATIONS ON RARE AND UNDESCRIBED SPECIES,

BY

**Philip Barker Webb.**

Ἑσπερίδων — —  
— ὀλιβιόδωρος — ζάθεα  
Χθών. — (EURIP., *Hippol.*)

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—  
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TO

**SIR WILLIAM JACKSON HOOKER,**

KNIGHT OF THE ROYAL HANOVERIAN ORDER

LL. D. F. R. A. AND L. S.

MEMBER OF THE IMP. ACAD. NAT. CUR. ETC. ETC. ETC.

HONORARY MEMBER OF THE ROYAL IRISH ACADEMY,

OF THE ROYAL MEDICAL AND CHIRURGICAL SOC. OF LONDON,  
ETC. ETC.

REGIUS PROFESSOR

OF BOTANY IN THE UNIVERSITY OF GLASGOW.

THIS LITTLE TRACT

IS DEVOTEDLY INSCRIBED

BY THE AUTHOR.



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## PREFACE.

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Ten years have elapsed since, embarking from Belem at the mouth of the Tagus for the island of Madeira, I took leave of the Spanish peninsula. During two years, from the spring of 1826 to the 6th of May 1828, I had examined more or less the whole of that fertile region, which extends along the shores of the Mediterranean from the foot of the Pyrenees to the mouth of the Guadalquivir; the neighbouring coast of Africa from the mountains around Tetuan to the south of Cape Spartel; and the greater part of Portugal, from Braga in the north to the chains of Cintra and Arrabida in the south. Two years afterwards on my return from the Canaries, in company with M. Berthelot, I again saw Gibraltar and its environs, whence we sailed to the low islet of Alboran, beyond the mid channel of the Mediterranean betwixt Spain and Barbary. From thence, the wind not permitting us to make Melilla, we left behind us, not without regret, the lofty mountains of the province of El Rif in Morocco, and cast anchor amongst the three islands now called the Zapharines. From these we finally touched at Oran and Algiers, disturbed at that time both by their recent conquest, and the political dissensions of the conquerors, and altogether unfitted for our peaceful pursuits.

Such was the course of a journey too short if mea-

sured by the space explored, and too quickly accomplished, if regard be had to the interest attached to the localities. Turned always towards the south, I did not stop till I reached Madeira and the Canaries, hastily collecting on the way such objects as the season offered. Much therefore is left undone in these rich fields of Flora, in which, notwithstanding the gleanings of learned men from Clusius to Bory de Saint-Vincent, the labourers have been too few for the abundance of the harvest. Since then M. Rambur a zealous zoologist and author of a Fauna of Andalusia has brought with him from the same country a valuable collection of plants a part of which owing to his kindness, and that of M. Decaisne, I have been enabled to examine. M. Edmond Boissier of Genève last of all in 1837 has carefully explored the whole kingdom of Grenada, and the botanical world will in a short time profit by the results of his interesting investigations, concerning which a short notice has already appeared in the *Bibliothèque universelle* of Geneva, and the *compositæ* in the *Prodromus* of Professor de Candolle. As soon as I received these works I changed the names which I had previously given to many of the species therein described.

Other pursuits and various accessory causes have retarded the study of my Spanish herbarium, and it was only towards the end of 1837 that I began to select from it the species which appeared altogether undescribed, and such as seemed to need further illustration. The drawings and plates of many of these are already finished, but as this is a work of much outlay both of money and time, I have followed the example of many

esteemed authors and anticipated its publication by a prodromus or synopsis of its contents. This has been the origin, and intention of this little tract; in executing it, I have added thereto a list of such species as though long known in other regions were unlooked for denizens of the Spanish soil, and others concerning which it seemed desirable to have confirmed accounts, or precise localities. I have passed over most of those species which are common every where the borders of the Mediterranean, and many more which the imperfect nature of the specimens rendered it difficult to decide upon, nor have I named Portuguese plants, when already cited by Brotero, except for some special purpose either of elucidating rarer species, or of recording new stations. This little catalogue thus composed will perhaps be not altogether unuseful as tending to illustrate the vegetable geography of the northern hemisphere. On this account I have frequently insisted in the notes on the affinities, which have been rarely attended to, of the distribution of species at the two extremities of the Mediterranean under the same latitude, and this not in herbs and annuals which travel easily, but in permanent or arborescent species, and in mountain vegetation. The Canarian Flora first drew my attention to this subject. Our knowledge likewise of the vegetation of southern Europe, which has been the object of too many isolated labours, is obstructed by a mass of puzzling synonyms. As far as time and circumstances would permit, I have striven to clear away some of this accumulation of Augean rubbish, and where I shall be found to have erred, the cause of error will have doubt-

less proceeded rather from the wish to unite the same forms, than from any desire to create new names.

Let us hope that this, and similar works may at length awaken the Spanish botanists from that ὕπνον λήθαργου βαθύν, in which they have too long indulged. It is to them alone that we must look for a complete catalogue of the richest and most varied Flora of Europe, for as Pliny truly says, after Italy the garden of the world, « exceptis Indiæ fabulosis, proximè quidem duxerim Hispaniam, quæcumque ambitur mari. »

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# A SYNOPSIS OF PLANTS COLLECTED

IN THE SOUTHERN

PROVINCES OF SPAIN AND IN PORTUGAL.

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## ALGÆ <sup>(1)</sup>.

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### *SPHÆROCOCCUS (GIGARTINA) GADITANUS*. Montag. in Herb. Webb.

*S.* fronde cartilagineâ, filiformi, dichotomâ, aculeis simplicibus, brevissimis, subsecundis, utrinque acuminatis obsitâ.

**HAB.** In sinu Gaditano.

Obs. Our species is very nearly allied to *Sphærococcus armatus* of Agardh, published in the *Flora oder Botanische Zeitung*, 1827, pag. 645, if I may judge from the very brief diagnosis supplied by that celebrated algologist. As I propose giving a figure and detailed description of this as well as of the following species in the iconography of Mauritanian and Spanish plants preparing by Mr. Webb, it will suffice to mention here that the aculei simple in our plant are described as bifurcated in that of M. Agardh. I must however confess that I have observed two or three cases of bifurcation in our plant, but it is to be remembered that in the *S. armatus* Ag. this character is essential and not exceptional as in our plant. M. Agardh compares his plant to *Sphærococcus compressus*, from which he says it differs by its being rose coloured and not olivaceous. Our plant is of a dark purple colour approaching through desiccation to black, and has nothing whatever in common with *S. compressus* Ag. I doubted at first whether it might not belong to one of the many forms of *S. confervoides* Ag. but its internal structure, as I shall hereafter show, is entirely distinct and very peculiar.

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(1) For the following description of two interesting species of Algæ I am indebted to my excellent friend Dr. Montagne.

**DELESSERIA INTERRUPTA.** Ag. (*Spec. Alg.* 1. pag. 179.)

D. fronde (membranaceâ, tenuissimâ), interruptè costatâ, lineari, dichotomâ, apice furcatâ, rotundatâ.

**HAB.** Ad Gades, ubi primus omnium invenit illustris canonicus Cabrera, eamque cum Agardhio communicavit. In eodem loco legit P. B. Webb.

**Obs.** It is much to be regretted that Mr. Webb's herbarium contains only a single specimen of this rare and beautiful plant, and that too without the fructification which is still unknown. It is easily distinguished from all others of its tribe by the midrib of the frond interrupted at intervals, and as a very distinct species fully merits the honour of a figure.

C. MONTAGNE.

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**MONOCOTYLEDONEÆ.**


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**COIX LACRYMA.** Linn.

**HAB.** Circâ *Coin* et *Laurin* spontaneam legit Hanseler.

**PHLEUM PRATENSE**  $\beta$  **NODOSUM.** Trin.

**HAB.** In summis jugis Alpium Eliberitanarum, *La Sierra Nevada*.

**HOLCUS CÆSPITOSUS.** Boiss.

H. radice fibrosâ, culmo ramoso, decumbente; paniculâ ovatâ laxâ; flösculo utroque aristato, aristis recurvatis calycem excedentibus.

*Holcus cæspitosus* Boiss. *Notice sur l'Ab. Pinsapo*, pag. 12.

**HAB.** In jugis excelsis montium Eliberitanorum, hodiè *de la Sierra Nevada*, ad radices summi montis *El Picacho de la Veleta*.

**ANTHOXANTHUM OVATUM.** La Gasc.

**HAB.** In montibus Bæticæ, *La Sierra de Agua*.

**MACROCHLOA ARENARIA.** Kunth.

**HAB.** Ad lacum Valentinum Hispaniæ Tarraconensis, in montibus *Sierra de Agua*, *Sierra Tejada*, et alibi in Bæticâ, necnon ad promontorium Barbaricum Lusitaniæ.

**STIPA PENNATA.** Linn.

**HAB.** In rupibus montis *Sierra Tejada*.



STIPA PARVIFLORA. Desf.

HAB. In agro Tarraconensi.

SPOROBOLUS PUNGENS. Kunth.

HAB. In montibus siccis, circà Gades et in montium jugis *de la Sierra Nevada*.

CHÆTURUS FASCICOLATUS. Link.

HAB. In pinetis circà oppidum *Chiclana*.

ARUNDO MAURITANICA. Desf.

HAB. Ad promontorium Charidemum et alibi in Bæticâ.

AMPELODESMOS TENAX. Link.

HAB. In montosis propè *Hospitalet* in Gothalauniâ.

PHRAGMITES COMMUNIS? Trin.

HAB. Circà Malacam urbem in arenosis.

ECHINARIA CAPITATA. Desf.

HAB. In agro Tarraconensi et in montibus Bæticæ *Las Alpujarras*.

AIRA CAPILLARIS. Linn.

HAB. Circà thermas Malacitanas *de Carratraca*.

ARRHENATHERUM PALLENS. Link.

HAB. In montosis apricis circà Malacam, legi etiam in monte Arabigâ propè Cenobrigam in Lusitaniâ.

POA LITTORALIS. Gouan.

HAB. In collibus arenosis circà lacum Albuferam Hispaniæ Tarraconensis.

POA BULBOSA. Linn.

HAB. In montibus circà *Alcalá de los Gazules*, et alibi in Bæticâ.

MELICA NUTANS. Linn.

HAB. In montosis Bæticæ *las Alpujarras*, et in collibus Malacitanis.

KOELERIA PHLEOIDES. Pers.

HAB. Circà Malacam.

SCHISMUS MARGINATUS. Pal. de Beauv.

HAB. Circà Malacam.

**DACTYLIS GLOMERATA.** Var. **MICROSTACHYS.**

**HAB.** In vertice montium Eliberitanorum, *la Sierra Nevada.*

**CYNOSURUS ELEGANS.** Desf.

**HAB.** Circà Gades.

**FESTUCA DIVARICATA.** Desf.

**HAB.** In Bæticiæ collibus vulgaris.

**FESTUCA ALOPECURUS.** Schousb.

**HAB.** Propè Olisiponem in arenosis Transtaganis.

**FESTUCA DURIUSCULA.** Var. **CURVULA.** Kunth.

**HAB.** Propè verticem montium Eliberitanorum *la Sierra Nevada* ad basin montis *el Picacho de la Veleta.*

**FESTUCA POA.** Kunth.

**HAB.** In arenosis trans Tagum, non longè ab Olisipone.

**FESTUCA UNIOLOIDES.** Kunth.

**HAB.** In montibus siccis circà Malacam.

**FESTUCA INTERRUPTA.** Desf.

*Festuca Fenas La Gasc.*

**HAB.** In montosis circà Tarraconem.

**TRITICUM CÆSPITOSUM.** DC.

**HAB.** In collibus aridis Bæticiæ vulgarè, etiam in montibus Eliberitanis *la Sierra Nevada.*

**TRisetum LOEFLINGIANUM.** Pal. de Beauv.

**HAB.** Circà Malacam.

**ELYMUS CAPUT MEDUSÆ.** Linn.

**HAB.** Circà Malacam.

**LEPTURUS SUBULATUS.** Kunth.

**HAB.** In arenosis Bæticiæ, et circà lacum Albuferam agri Tarraconensis.

**IMPERATA ARUNDINACEA.** Cyr.

**HAB.** A Dertosâ oppido per totam Bæticiam.

**CAREX AGASTACHYS.** Ehrh.

**HAB.** Circà Eliberim.

**CAREX BILIGULARIS?** DC.

HAB. Circà Tarraconem.

**CAREX BINERVIS.** Smith.

HAB. Circà Olisiponem in paludibus Transtaganis.

**CAREX DISTANS.** Linn.

HAB. A Barcinone ad Malacam.

**CAREX EXTENSA.** Good.

HAB. Circà Malacam.

**CAREX GLAUCA.** Scop.

HAB. In monte Arabrigà.

**CAREX GYNOBASIS.** Vill.HAB. In montosis circà *Alcalá de los Gazules*.**CAREX HISPIDA.** Schrank.*C. echinata* Desf.

HAB. In agro Saguntino.

**CAREX RIPARIA.** Curt.

HAB. Circà Tarraconem.

**CAREX VULPINA.** Linn.

HAB. Circà Tarraconem, Eliberim, et alibi in Beticâ.

**CAREX FURVA.**

*C. humilis*, cæspitosa, glaberrima, radice fibrosâ ; spicis 3 sessilibus, in capitulum 3-lobum aggregatis, omnibus androgynis, basi imâ masculis ; squamis ellipticis, acutiusculis, muticis ; utriculis squamâ longioribus, plano-convexis, ovato-oblongis, utrinquè striatis, ad angulos lævissimis ; stigmatibus 2.

HAB. In jugis montium Eliberitanorum ad cacumen alterum  
*el Picacho de la Veleta*.

Obs. This species is very distinct from all its congeners. Its size, the number and the colour of its spikes, which are united, and the disposition of the sexes, bring it near to *C. Vahlîi* Schk. and to *C. parviflora* C. A. Meyer, both of which however are distinguished from it by their trifid styles and other changes of conformation. *C. nigra* All. differs from it likewise by the number of its styles, and by its four or five spikes, of which one or two of the inferior are bracteated, and slightly pedicellated, whilst the upper is for the most part entirely male. Nor can it be compared to any of the 2-styled species unless it be to *C. microstyla* Gay. (in Gaud. Fl. Helv. 4, pag. 37, tab. 1.) or to *C. foetida* All. but both of these are immediately recognized by their many-spiked capitules, and by their very different habit and loftier stature. *C. microstyla* recedes from it moreover by its pale greenish capitule, bracteated at the base, and by its utri-

cules being shorter than the scale, smooth, somewhat scabrous at the edges, whilst *C. foetida* is easily distinguishable by its male flowers being situated not at the base but at the summit of the spikelets! and by having the points of its utricules bidentated.

**CLADIUM GERMANICUM.** Schrad.

**HAB.** In aquis circà Sancti-Caroli oppidum in Hispanià Tarraconensi.

**SCIRPUS MARITIMUS.** Linn. Var. **MONOSTACHYA.**

**HAB.** Circà Malacam, et ad lacum Albuferam Hispaniæ Tarraconensis.

**CYPERUS LONGUS.** Linn.

**HAB.** In paludosis agri Saguntini.

**CYPERUS BADIUS.** Desf.

**HAB.** Circà oppidulum Sancti - Rocci propè Calpen promontorium, et alibi in Bæticâ.

**CYPERUS PALLESCENS.** Desf.

**HAB.** In Bæticæ locis inundatis.

**CYPERUS JUNCIFORMIS.** Desf.

**HAB.** In aquis ad Charidemum promontorium, et alibi in Bæticâ, et in Hispanià Tarraconensi vulgaris.

**CYPERUS OLIVARIS.** Targ.

**HAB.** Circà Malacam, Hispalim, et alibi in Bæticâ.

**CYPERUS ERAGROSTIS.** Vahl.

**HAB.** Propè Malacam ad vicum *Churiana*.

**ISOLEPIS HOLOSCHOENUS.** Roem. et Schult.

β. Romana.

γ. Australis.

**HAB.** α Circà thermas oppiduli Carratraca, β in arenosis agri Saguntini, γ ad ripas fluminis *Guadathorse* propè Malacam.

**JUNCUS GLAUCUS.** Linn.

**HAB.** In pratis altioribus Alpium Eliberitanarum, *la Sierra Nevada*.

**JUNCUS ECHINULOIDES.** Brot.

**HAB.** Circà Malacam in fossis.

**MERENDERA BULBOCODIUM.** Ram.

HAB. In pinetis Gaditanis, et in Alpibus Eliberitanis de la Sierra Nevada.

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**SCILLA MONOPHYLLA.** Link. (in *Schrad. journ.* 1779, pag. 319).

*S. pumila* Brot.

HAB. Cum Scillâ Italicâ Linn. in collibus circâ Alcalá de los Gazules. In Algarbiâ (Broussonet in herb. Desfont.). Legi etiam circâ Olisiponem.

**FRITILLARIA PYRENAICA.** Linn.

*F. Meleagris* Brot? *F. Lusitanica* Wikst?

HAB. In montosis circâ Alcalá de los Gazules in Bæticâ. Legi etiam in regione Transtaganâ circâ Olisiponem.

**ASPARAGUS APHYLLUS.** Linn.

HAB. Plurimæ hujus speciei varietates, quarum una forsân A. horridus Linn. cum A. albo in multis Bæticæ collibus occurrunt.

**SMILAX MAURITANICA.** Desf.

HAB. Per omnem Bæticam cum *S. asperâ* vulgaris.

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**LAPIEDRA MARTINEZII.** La Gasc.

HAB. In rupestribus, propè Abderam oppidum in Bæticâ.

**NARCISSUS VIRIDIFLORUS.** Schousb.

HAB. In arenosis maritimis oppidi *Algesiras*.

**NARCISSUS JUNCIFOLIUS.** La Gasc.

*N. foliis filiformibus, rigidis, acutis, convolutis, scapo gracili, subbifloro, brevioribus; petalis ovato-lanceolatis, mucronulatis.*

*N. juncifolius alter* Clus. *Rar. Stirp. Hisp.* pag. 250.

*C. Bauh. Pin. pag. 51. Magnol. Bot. Monsp. pag. 182.*

*N. juncifolius minor* Clus. *Hist. vol. 1. pag. 159.*

*N. juncifolius* La Gasc. *Gen. et Sp. pag. 13. Req. in Lois. Nouv. Not. pag. 14 et Fl. Gall. ed. 2. pag. 237.*

**HAB.** Legi mense martio in rupestribus montis *Montserrat*, in Hispaniâ Tarraconensi; habui etiam è provinciâ Gallicâ montibus saxosis. Inter Hispalim et Gades invenit Clusius, in Beticâ La Gasca.

**NARCISSUS JONQUILLA.** Linn.

*N. foliis angustis, carnosis, angulosis, obtusiusculis, scapo 2-6-floro longioribus; petalis lanceolatis acutis.*

*N. juncifolius prior Clus. Rar. Stirp. Hisp. pag. 250.*

*N. juncifolius 2 Clus. Hist. vol. 1. pag. 159.*

*N. Jonquilla Linn. (excluso syn. Clusii Narcisso juncifolio minore).*

**HAB.** Mense februario florentem in rupestribus herbidis propè oppidulum *El Pedroso* inveni, ad latus meridionale montis Mariani, ubi Anam fluvium et Emeritam Augustam à planitie Hispalensi dirimit. Legit Clusius in pratis montosis, non procul Toletò et circâ *Guadalupe*.

**Obs.** These two species, confounded by Linnæus, probably from his not having seen wild specimens, were well defined, and rightly distinguished by Clusius. His figures somewhat uncouth give nevertheless a good general idea of the differences between them. But the relative length of the leaves and the scape is overlooked, though it appears to me that this character is sufficiently constant and remarkable in the native specimens. The jonquil had not been met with in its wild state since the time of the Flemish botanist, from whose bulbs imported into the gardens of the low countries all those cultivated in Europe have since sprung. It appears to be entirely a Spanish plant confined to the grassy slopes on either side of the long line of the Sierra Morena, it is possible however that it may be found hereafter on the chain of Atlas. The *N. juncifolius* grows in the hotter and drier region around the Mediterranean gulph, though likewise still unnoted on its African shores. It was first registered in the Flora of Provence by Magnol under the original name of Clusius adopted by G. Bauhin, but since the time of Linnæus had been considered as the wild type of the garden jonquil, till their difference attracted the attention of two botanists who both as if of common accord gave it the same name, but the name as given by la Gasca is anterior by eleven years to that of Requier.

**LEUCOIUM AUTUMNALE.** Linn.

**HAB.** In arenosis præsertim maritimis Beticâ; legi propè Carteiam et ad promontorium Junonis.

**LEUCOIUM TRICHOPHYLLUM.** Schousb. Rchb. Pl. Crit. viii. p. 703. Ic. opt.

**HAB.** In arenosis Beticâ vulgare. Legi propè Gades, et circâ Olisiponem in arenis auriferis trans Tagum flumen.

**Obs.** This plant differs by its two-leaved spathe, its larger blos-

soms, and other particularities, as well as by its time of flowering from the preceding. The former flowers abundantly in october and november immediately after the first autumnal rains. I have even found it in flower before the rains in the middle of August in the Zapharine Islands on the African coast, whereas the *Leucoium tri-chophyllum* does not blossom till later. Brotero (Flor. Lus., vol. 4, pag. 552) is disposed to consider the two plants as varieties, but I am inclined to the opinion of my late excellent friend Sir Peter Schousboe that it is necessary to distinguish them specifically.

### LAPIEDRA MARTINEZII. La Gasc.

HAB. In rupestribus propè Abderam urbem in Bæticiâ.

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### CROCUS SEROTINUS. Salisb.

HAB. In pinetis Gaditanis, et in Alpibus Eliberitanis de la Sierra Nevada.

### IXIA BULBOCODIUM. Linn.

HAB. In montosis circà Alcalá de los Gazules.

### IXIA PURPURASCENS. Ten.

HAB. In montosis herbidis Bæticiæ circà Malacam.

### IRIS JUNCEA. Desf.

*I. Lusitanica. Ker.*

HAB. Circà Tarraconem, et in collibus Cintranis Lusitaniæ.

### IRIS ALATA. Lamck.

*I. bulbosa latifolia* 1. *Clus. Rar. Plant. Hisp. pag. 274.*

*I. scorpioides Desf.*

HAB. Per omnem Bæticiam vulgaris.

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### ORCHIS SIMIA. Lamck.

*O. tephrosanthos Vill.*

β *undulatifolia.*

*O. longicruris Link.*

*O. undulatifolia Biv.*

HAB. α In montosis circà Alcalá de los Gazules, in monte Arabrigâ, et alibi in Bæticiâ et Lusitaniâ. β Circà Malacam.

ORCHIS SACCATA. Ten.

HAB. In arenosis Gaditanis.

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## DICOTYLEDONEÆ.

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JUNIPERUS VULGARIS. Linn.

β alpina.

HAB. Propè Cardonem et in montibus Bæticiæ *de la Sierra Tejeda*, ubi frutex depressa baccis magnis. β In summo Lusitaniæ monte Juresso.

JUNIPERUS MACROCARPA. Sibth.

HAB. In pinetis oppido Foro Luciferi proximis, et in Gaditanis mare versus propè *Barrosa*.

JUNIPERUS SABINA. Linn.

HAB. In montibus Eliberitanis.

PINUS LARICIO. Lamck.

HAB. In monte *Monserrat* montibusque *Barcinonensibus* circumjectis, halepensi intermixta, quâcum tamen nunquàm in maritimis devehitur.

PINUS BRUTIA. Ten?

HAB. In pinetis Gaditanis.

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## QUERCUS DECIDUÆ (1).

QUERCUS ROBUR. Linn.

α pedunculata.

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(1) To make the list of oaks as useful as possible and to give a general idea of their distribution around the western termination of the Mediterranean I have united here my Spanish and Mauritanian catalogues, and traced as far I was able their expansion in other directions. I regret that the loss by shipwreck of my collection made in Portugal in the autumn of 1827 renders this part less interesting than I could have wished.



β sessiliflora.

γ pubescens.

HAB. In Hispaniâ Tarraconensi, et in Lusitaniâ frequens, ubi in montibus Cynthiæ sive *de Cintra* varietatem pedunculis insigniter elongatis adnotavi.

QUERCUS TOZA. Bosc.

*Q. pubescens* Brot. *Fl. Lus. vol. 2. pag. 31. non Willd.*

HAB. Arbor excelsa in alpibus Eliberitanis *de la Sierra Nevada*, in monte *Sierra Tejada*, et alibi in Bæticâ. In montosis ad flumen Durium, ad promontorium Magnum, et in totâ Lusitaniâ frequens.

Obs. The geographical expansion of this species is much wider than is generally supposed. I gathered it not only in Spain plentifully but likewise in the woods around the Bosphorus and in the valley of Domouz Dereh on the Black sea. It will doubtless be met with in other intermediate points between these widely separated stations.

### SUBDECIDUÆ.

QUERCUS HUMILIS. Lamck.

*Robur V. Clus. Rar. Plant. Hisp. pag. 24. Robur VII. vol. 1. pag. 19. Lobel. Ic. vol. 2. pag. 157.*

*Quercus fruticosa* Brot. *Fl. Lus. vol. 2. pag. 31.*

*Quercus prasina* Bosc.

HAB. Non longè à freto Herculeo ad septentrionem viculi *Los Barrios*, et ad occasum oppiduli Sancti-Rocci, ubi sylvis *Quercus Lusitanicæ* proceris planities alta atque inculta supereminet. In campis aridis Lusitaniæ mediæ et meridionalis communis. In tractu aspero et ventoso sub vertice montis Magni seu *Djibbel Kibir* Tingitanorum.

Obs. This is altogether a southwestern species. I believe the neighbourhood of Gibraltar to be its easternmost station. It entirely covers the arid tracts where it appears, reaching a height of from 6 inches to 5 feet, though I have seen at times bushes which had attained 12 or more. I have compared it with the plant described by Bosc, and find it to be identic with his *Quercus prasina*.

QUERCUS LUSITANICA. Lamck.

*Q. foliis ovatis, aut ovato-lanceolatis, coriaceis, lucidis, subtus pallidis, junioribus tomentosis, margine undulato-serratis, dentibus acutis, aut crenatis, basi rotundatis, aut cordatis; cupulæ sessilibus*

squamis adpressis, lanatis, subciliatis; glande conicâ, aut cylindraceo-elongatâ.

- β Bætica foliis majoribus, subplanis, margine obtusè crenatis, fructu maximo.  
 γ Salzmänniana foliis crenatis, basi attenuatis, castaneæ-formibus, junioribus amentisque masculis densè floccoso-lanatis, lanâ deciduâ.

*Robur III et IV. Clus. Rar. Stirp. Hisp. pag. 22 et 23.*

*Robur IV et V. Clus. Hist. vol. 1. pag. 18 et 19. Lob.*

*Ic. pag. 158 et 159.*

*Quercus Lusitanica Lamck encyc. tom. 1. pag. 712.*

*Quercus faginea Lamck encyc. tom. 1. pag. 718.*

*Quercus Valentina Cav. Ic. vol. 2. pag. 25. tab. 129.*

*Quercus australis Link.*

*Quercus hybrida Brot. Fl. Lus. vol. 2. pag. 31.*

*Quercus infectoria Oliv. voy. Atlas. tab. 14 et 15 !*

*Quercus Turneri Willd. enum. vol. 2. pag. 975.*

*Quercus Canariensis Willd. l. c!*

**HAB.** Per provincias Tarraconensem et Bætiam, in totâ Lusitaniâ meridionali et in agro Tingitano vulgatissima. β In sylvis inter Carteiam et Asindonem, et in luco opaco circâ oppidulum Sancti-Rocci. γ Ad latus occidentale et boreale montis *Djibbel Kibir* propè Tingidem.

**Obs.** It has been the fate of this remarkable tree to have been overlooked for more than 200 years after the time of Clusius, and then to have been almost simultaneously rediscovered, and described under a multitude of names by various authors. This too is the more singular as regarding a tree which produces an object of primary importance, namely the gallnuts of commerce. Clusius indeed remarks « galli autem extremis ramulis nascuntur, iis quæ in officinis venales reperiuntur, perquam similes; » and in fact when compared with the quercus infectoria, both as originally collected by Olivier, and as found by Labillardière in Syria, and by myself and Mr. Parolini in Phrygia, the Spanish plant turns out to be identical with the levant species, whose product is so universally employed. This oak begins to appear both in the eastern and western portion of the old world between the 41 and 42 degrees of northern latitude. It does not seem to pass the Pyrenees in the west, and in the east I found it to the north of Constantinople in the valley of Domoûz Derèh which opens on the Black sea. How much further northwards it mounts in this direction I am unable to say. It descends as far south as Syria, but how far it follows in the west the chain of Mount Atlas cannot be yet ascertained. It is not indigenous in the Canaries, but as well as the chestnut has been introduced by the Spanish colonists.

Like all its congeners this species is exceedingly variable, yet its variations may be followed from the eggshaped subspinous leaves

figured by Cavanilles, to the crenated heartshaped form which I have described as the variety  $\beta$ . This and the variety  $\gamma$ . I long considered as distinct species, the cup however the least changeable organ of this polymorphous genus, and its scales, are similar in all the varieties. On the arid hills of Valencia and Grenada it assumes the form described by Cavanilles, its more normal appearance is that figured by Olivier, whilst in the fertile valleys of Andalusia and at the base the Djibbel Kibir it becomes the  $\beta$  and  $\gamma$  of this catalogue.

### QUERCUS HISPANICA. Lamck.

*Q. cortice suberoso; ramis subfastigiatis; foliis subperennantibus, lanceolatis, acutis, argutè serrato-dentatis, aut crenatis, crenulis mucronatis, coriaceis, saturatè viridibus, subtus glauco-tomentosis; cupulis turbinatis, subsessilibus, squamis echinatis, subcrinitis, patulis.*

*Quercus Hispanica Lamck Encycl. vol. 1. pag. 716.*

*excl. var.  $\gamma$ . Brot. vol. 2. pag. 34.*

*Lucombe oak Hort. Angll.*

*Quercus crenata Lamck l. c. pag. 717.*

*Quercus pseudo-Suber Desf. Fl. Atl. vol. 2. pag. 348.*

*Santi viagg. pag. 156. tab. 4. Spreng. Antiq. Bot. pag. 16. tab. 1.*

*Quercus ægilopifolia Pers. Syn. vol. 2. pag. 570.*

*Quercus Exoniensis Loddig. catal.*

*Quercus Lucombeana Sweet Hort. Brit. pag. 466.*

**HAB.** In Hispaniâ. (*Lamck*). In Lusitaniæ provinciâ Algarbiâ circa Monchique. (*Brot*).

Obs. I did not myself meet with this species, but I have thought it right to insert it here in order to give as above its very intricate and little known synonymy. As Desfontaines describes his plant with deciduous leaves, and Santi his as an evergreen, the learned Reichenbach with reasonable doubts is inclined to consider them as distinct, (*Fl. exc. vol. 1. pag. 177*) but this difference depends as in *Q. Lusitanica*, *Q. humilis* and other subperennant species, on the greater or less rigour of the climate. Its leaves, its stiffer fastigiate habit, the turbinate form of its cup, and the much shorter bristles of its scales, together with its suberosity, sufficiently distinguish it from *Q. Cerris*, which like itself has been parcelled out into a multitude of supposed species. I have compared the authentic specimens of Desfontaines with samples cut from the original Lucombe or Exeter oak, and find them identic. The seedlings raised from the parent tree vary considerably, and as it bears fruit very young we may expect to meet with many garden varieties. In fact the leaves of this genus afford characters of form only on a large and general scale, and the quantity and even the quality of their down is a very minor consideration. The most stable characters are those taken from the shape and scales of the cup, and its relative size as to the acorn: yet these sometimes vary, for nothing is so unchangeable in nature as to be

entirely subservient to precise definition. The leaves of this species approach nearer to *Q. Libani* Oliv. (voy. tab. 32) which is the *Q. castaneæfolia* C. A. Meyer (Pl. Cauc., pag. 44) than to *Q. Cerris*, they are however always glabrous in *Q. Libani*, and its large depressed fruit, and the wide rhomboidal scales of the cup retroflexed at the point, are exceedingly distinct, and remarkable. *Q. Hispanica* seems to be found here and there in the warmer parts of the mediterranean region. The Lucombe oak is said to have come from the Levant.

## ILICES.

### QUERCUS SUBER. Linn.

HAB. In Hispaniâ meridionali ubiquè.

### QUERCUS ILEX. Linn.

HAB. Per Hispaniarum provincias australes vulgaris.

### QUERCUS BALLOTA. Desf.

β *rotundifolia* Lamck.

HAB. In Hispaniâ Tarraconensi et per omnem Bæticam vulgaris. In Lusitaniâ, et inter Vettones ad Lanciam Transcudanam ubi copiosissima. In Mauritaniâ propè verticem montium Tetuanensium *Djibbel Dersâ* 4-pedalem floridam legi; occurrit etiam circà Salam Ballotarum ilicetum ingens *Mamára* seu *Mehedia* dictum. Fructus Mauris etiam *Belio* ut et Hispanis *Bellotas*.

Obs. Clusius confounded this species with the *Ilex*, though the figure of his *Ilex major* (Rar. Pl. Hisp.) evidently belongs to *Ballota*. Lamarck first mentioned a variety of this plant with entire roundish leaves, such as it occurs frequently, under the name of *Q. rotundifolia*. Desfontaines described the species accurately, and the name he gave it is far preferable to that of Lamarck, which refers to a peculiar form of the plant, to which alone it should remain attached. The *Ballota* begins to appear mixed with the other holm oaks between the 41 and 42 degree of north latitude, and continues to increase till in the south it is by far the most common species. It seems to make its appearance in Greece in the same latitude, and is perhaps the tree called *Etymodrys* and *Hemeris* by Theophrastus (1), but its eastern station seems to need further investigation for it is not impossible that the *Hemeris* of Theophrastus may belong to the varieties of *Q. Robur* mentioned as eatable by professor Tenore (Syll., pag. 469).

The distinctions between the *Ilex* and *Ballota* are frequently little apparent in isolated specimens, but I observed that the peasants distinguished the trees accurately at a distance, which I was for a

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(1) Ἦσιον τὴν τὰς γλυκείας βαλάνους φέρουσαν οἱ μὲν ἡμερῖδα καλοῦντες οἷδ' ἐτυμόδρον. Theoph., lib 3, cap. 9.

long time unable to do. The leaves of *Ballota* have always a tendency to assume a round rather than an elliptic form, toothed and entire leaves are mingled on the same branch, and the down with which they are clothed is much thicker and of a different quality, the branches are stiffer, and the fruit besides being sweet is very long and cylindrical. It is of a much less hardy nature than the *Hex* which becomes a large forest tree when cultivated in England, whilst a *Ballota* which I preserved for near 20 years in a warm exposure had scarcely reached 6 feet during that time.

## COCCIFERÆ.

### QUERCUS COCCIFERA. Linn.

Q. foliis ovatis, undulatis, echinato-dentatis, basi rotundatis; cupulâ subsessili, pedunculo crasso, squamis spinulosis, spinis laxis, apice subulatis, recurvis; glande elongatâ cylindraceâ.

HAB. In provinciâ Beticâ, et præsertim Tarraconensi vulgaris.

### QUERCUS PSEUDO-COCCIFERA.

Q. foliis elongato-ovatis, planiusculis, nervosissimis, margine spinosis, spinis sursùm spectantibus, basi cordatis; cupulâ breviter pedunculatâ, pedunculo crasso, squamis adpressis, margine undulato-revolutis, nervo dorsali eminente, apice incurvis; glande breviusculâ, conicâ.

Q. *pseudo-coccifera* Desf. *Fl. Atl. pag. 349. Labill. Dec. 5. tab. 6. fig. 2. fructus, excl. fig. 1.*

HAB. In montosis Beticâ, in Lusitaniâ circâ Olisiponem, Cintram, *Caldas da Rainha*, et alibi. In monte *Tingidis Djibbel Kibir*.

### QUERCUS CALLIPRINOS.

Q. foliis ellipticis, planiusculis, margine spinulosis, spinis ascendentibus; cupulâ breviter pedunculatâ, pedunculo crasso, clavulato, squamis elongatis, laxis, planis, apice subincurvis, ultrâ glandem brevem, globosulam, porrectis.

Q. *pseudo-coccifera* Labill. *Dec. 5. pag. 9. tab. 6. fig. 1. excl. fig. 2. et synonym. Desf.*

HAB. In montibus *Djibbel Dersâ Tetuanensium*.

Obs. The samples which I refer on account of the form of their leaves, though with some doubt, to the Syrian plant of Labillardière, were collected in the mountains of Tetuan. Their leaves are downy on both sides, but the fruit is in a very imperfect state. The description of the *Calliprinos*, which is very distinct from the African species described by Desfontaines under the somewhat barbarously compounded name of *pseudococcifera*, has been framed from the

only specimen of the species which exists in the herbarium of Labillardière, and which served him for the drawing and description in his fifth decad.

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**BUXUS BALEARICA.** Lamck.

HAB. Inter Malacam et oppidulum *Torre de la Mar*.

**ARISTOLOCHIA BÆTICA.** Willd.

HAB. In agro Tarraconensi, in ruderibus Italicae, et alibi in Bætica vulgaris.

**ARISTOLOCHIA GLAUCA.** Willd.

HAB. In monte Calpe.

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**DAPHNE THYMELEA.** Linn.

HAB. Circà *Falcete* in Hispaniâ Tarraconensi.

**PASSERINA ARGENTATA.** Lamck.

HAB. Circà Malacam et Saguntum.

**PASSERINA TINCTORIA.** Pourr.

HAB. In collibus agri Tarraconensis et circà Cardonem.

**PASSERINA CANESCENS.** Schousb.

HAB. In Bætica circà Abderam, ad fretum Herculeum, et non longè à Calpe monte et Divi Rocci oppidulo.

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**POLYGONUM SERRULATUM.** La Gasc.

HAB. Ad rivulos circà Malacam.

**RUMEX SCUTATUS.** Linn.

HAB. Circà Malacam.

**RUMEX TINGITANUS.** Linn.

HAB. Circà Gades (*Herb. Cabrerae*).

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**CERATOSPERMUM PAPPOSUM.** Pers.

HAB. In montosis inter *Eliberim* et *Portum Magnum*.

ANABASIS TAMARISCIFOLIA. Cav.

HAB. Inter Eliberim et Portum Magnum.

SUEDA SETIGERA. Moq.

HAB. Ad Portum Magnum.

SUEDA MARITIMA. Moq.

HAB. Ad littora Malacitana.

SUEDA FRUTICOSA. Forsk.

HAB. Ad ostia Iberi.

SALSOLA KALI. Linn.

*S. rosacea. Cav. non Linn.*

HAB. Ad basin montium Eliberitanorum.

SALSOLA ARTICULATA. Forsk.

HAB. Circa Portum Magnum, et ad Charidemum promontorium.

SALSOLA OPPOSITIFOLIA. Desf.

HAB. Ad basin montium Eliberitanorum.

SALSOLA BREVIFOLIA. Desf.

HAB. Inter Eliberim et Portum Magnum, ad promontorium Charidemum, circa *et Marquesado (Hænseler)* et propè Gades (*Herb. Cabrerae*).

SALSOLA GENISTOIDES. Poir.

HAB. In montibus inter Eliberim et Portum Magnum.

ALTERNANTHERA ACHYRANTHA. R. Br.

HAB. Gadibus.

PLANTAGO ARGENTEA. Ram.

HAB. In summâ Alpe *de la Sierra Nevada*.

PLANTAGO SUBULATA. Linn.

HAB. In Alpibus editioribus *de la Sierra Nevada*.

PLANTAGO BELLARDI. All.

HAB. Circa Barcinonem.

## ARMERIA SPLENDENS.

*S. splendens* La Gasc. et Rodr. An. Cienc. Nat. vol. 3.  
pag. 274.

HAB. In rupibus excelsis Alpium Eliberitanarum de la Sierra Nevada. Armeriæ Alpinae forsân varietas.

## ARMERIA PLANTAGINEA. Willd.

*Statice plantaginea* All. Poir. it. vol. 2. pag. 173.

*Statice scorzoneraefolia* Link in Schrad. Journ. 1800.  
pag. 146.

*Statice pseudo-armeria* Brot. Fl. Lus. vol. 1. pag. 488.

*Statice Cephalotes* Schousb. Jaggt. Marok. pag. 60.

HAB. Ad Promontorium Magnum.

## ARMERIA FASCICULATA.

*Statice fasciculata* Vent. Hort. Cels. tab. 38.

*Statice Cephalotes* Link. in Schrad. Journ. pag. 60. non Willd.

*Statice pinifolia* Brot. Fl. Lus. vol. 1. pag. 486.

HAB. Ad littora freti Herculei, circa Gades, et in arenâ maris propè oppidulum *Ericeira*, in Lusitaniâ.

## STATICE AURICULÆFOLIA. Vahl.

HAB. Ad Charidemum promontorium.

## STATICE GLOBULARIÆFOLIA. Desf.

HAB. Ad ostia Iberi cum *Statice Limonio* Linn.

## ANAGALLIS LINIFOLIA. Linn.

HAB. In montibus Saguntinis.

## ANAGALLIS MONELLI. Linn.

HAB. Circâ Gades.

## ANAGALLIS COLLINA. Schousb.

HAB. In Lusitaniæ collibus demissioribus circa *Cintra*.

## ANAGALLIS CRASSIFOLIA. Thore.

HAB. In arenâ maris ad ostia Durii.



## LAVANDULA DENTATA. Linn.

HAB. In monte Jovis propè Dianium, et in rupestribus Malacitanis.

## LAVANDULA PINNATIFIDA. Linn.

HAB. Circà Malacam et inter oppidula *Moita* et *Palmella*, in Lusitaniâ.

LAVANDULA SPICA. DC.  $\beta$  lanigera.

HAB. In jugis Eliberitanis, et in plurimis Bæticæ montibus apricis.

Obs. This variety is remarkable for its broad leaves, thickly beset with white downy wool, but it does not otherwise differ from the true Spica.

## MENTHA SYLVESTRIS. Linn. var. mollissima.

HAB. Circà Eliberim et in monte *Sierra Tejada*.

## MENTHA ROTUNDIFOLIA. Linn.

HAB. In montibus Arundæ propè *el desierto de las Nieves*, ad thermas *Carratraca*, et alibi in Bæticâ.

## MENTHA AQUATICA. Linn.

HAB. In aquosis Bæticæ propè *Torre de la mar*.

SALVIA OFFICINALIS. Linn. var. tenuior Desf. (*Cat. ed. 3. pag. 94.*)

*Sauge de Catalogne Desf. Herb.*

HAB. In montibus siccis circà *Barcinonem*, in monte sancto *Tarraconensium*, et alibi in provinciâ ceteriore.

## SALVIA LAVANDULÆFOLIA. Vahl.

$\delta$  *Lagascana* foliis lanceolatis, angustis, nervosis, basi in petiolum attenuatis, utrinquè albidis, tomentosis, calycibus glabrescentibus.

$\beta$  *latifolia* caule lignoso rigido, foliis latis, ovatis, longè petiolatis, utrinquè lanato-tomentosis, candidissimis, calycibus subglutinosi.

HAB.  $\alpha$  In multis Bæticæ collibus apricis.  $\beta$  In montibus *Sierra Tejada* et *Sierra Nevada*.

Obs. Though these two varieties are considerably different in appearance, yet no distinction can be observed in their inflorescence. In a section therefore so variable I have no hesitation in uniting them. These plants seem to pass into *S. officinalis* through the variety *tenuior* of Desfontaines, and will possibly with several others

constitute hereafter a single specific group, the centre of which will be the common sage. According to Mr. Bentham the *S. Hispanorum* of Professor La Gasca is synonymous with this species, but I believe that the narrow leaved variety was more particularly comprehended by this term, as was the case probably with the *S. lavandulæfolia* of Vahl himself.

**SALVIA TINGITANA.** Ettl. g.

**HAB.** Circà Gades.

**SALVIA ARGENTEA.** Linn.

**HAB.** In montosis circà Malacam.

**SALVIA COMMUTATA.** Benth ?

**HAB.** Non procul Arundà loco dicto *Desierto de las Nieves*.

Obs. My specimens are too far advanced to be noted with certitude, they resemble the *S. odorata* cultivated.

**SALVIA VIRIDIS.** Linn.

**HAB.** In montibus *Sierra de Agua, Sierra de Alfacar (Rambur)*, et alibi in Bæticiâ calidiore.

**NEPETA CATARIA.** Linn.

**HAB.** Circà thermas oppidi *Alhama*.

**NEPETA NEPETELLA.** Linn.

**HAB.** In montibus *las Alpujarras, Sierra de Gador*, et alibi in Bæticiâ.

**NEPETA MULTIBRACTEATA.** Desf.

**HAB.** In regione mediâ montis *Sierra Nevada*.

**NEPETA ROSEA.** Salzm.

**HAB.** In regione calidâ montis *Sierra Nevada*.

**NEPETA TUBEROSA.** Linn.

**HAB.** Circà Malacam, *Eliberim*, et in rupibus promontorii *Calpes*.

**NEPETA ACEROSA.**

*N. caule glabrescente, erecto, ramoso, stricto, 4-sulcato; foliis ovatis, cordatis, irregulariter crenatis; racemo ramoso, elongato, caudato; bracteis plurimis, lanceolatis, aut linearibus, nervosis, molliter ciliatis, in mucronem attenuatis, calyces subæquantibus; calycibus costato-nervosis, dentibus elongatis, ciliatis, acutissimis; corollæ tubo calyce longiore.*

*N. tuberosa Desf. Fl. Atl. vol. 2. pag. 10. exll. synn.*

**HAB.** In Hispaniâ meridionali (*Brouss.*). In agris Algeriensi et Tunetano (*Desf.*).

Obs. This species is certainly very distinct from *N. rosea* Salzm. and *N. tuberosa* Linn. its greatest affinity is with *N. multibracteata* Desf. I am however inclined with Desfontaines himself to consider it as distinct. It differs from that species in its general habit, in its long thin spike, in the form of its bracteæ, and in the sharp pointed and almost pungent teeth of its calyx. In the plant collected by Desfontaines the verticillastres are brought together, into a long cylindrical spike, whilst in that of Broussonet, which does not appear to differ otherwise, they are very remote. Its bracteæ, which are not scarious, but have the consistence of leaves, vary as to coloration.

**THYMUS ANGUSTIFOLIUS. Pers.**

*T. cæspititius Hoffm. et Link.*

*T. serpylloides Bory.*

β pubescens.

*T. diffusus Salzm.*

HAB. In monte Arabrigâ, in monte *Sierra Nevada*, et alibi in Hispaniâ meridionali. β In aridis Bæticæ (*Rambur*).

**THYMUS TOMENTOSUS. Willd.**

HAB. In montosis circâ thermas oppiduli Carratraca, in monte Arabrigâ, et alibi in Bæticâ et Lusitaniâ.

**THYMUS CEPHALOTUS. Linn.**

HAB. In collibus Lucentinis et alibi in Bæticâ.

**THYMUS CAPITATUS. Linn.**

HAB. Frequens in sterilibus Bæticæ.

**THYMUS VILLOSUS. Linn.**

HAB. In montibus promontorii Lunæ.

**THYMUS HERBA BARONA. Lois.**

HAB. In monte Jovis propè Dianium.

**THYMUS ALPINUS. Linn.**

HAB. In altioribus montis *Sierra Tejada*.

**SATUREJA MONTANA. Linn.**

β *obovata* *La Gasc.* vulgò Tomillo real.

*Calamintha Hispanica frutescens marifolio Tourn.*  
*Inst. vol. 1. pag. 194.*

*S. cuneifolia Ten. Fl. Nap. tab. 151. fig. 2.*

HAB. α In collibus Saguntinis et in totâ provinciâ Tarraconensi, necnon in Bæticâ inter Montium juga *de la Sierra Nevada*. β Circâ Malacam, in promontorio Charidemo, propè Abderam, Lucentum, et in totâ provinciâ Bæticâ calidiore.

Obs. The variety  $\beta$  is so remarkable, that could any constant characters be found, it might be considered as a species. Cultivated it preserves a great part of its distinct appearance.

**MICROMERIA NERVOSA.** Benth.

HAB. Propè Malacàm , *Alcala de los Gazules* , et alibi in Bætica.

**MICROMERIA GRÆCA.** Benth.

HAB. Circà thermas oppiduli *Carratraca*.

**CLEONIA LUSITANICA.** Linn.

HAB. In collibus siccis Bæticae.

**SIDERITIS SCORDIOIDES.** Linn.

$\beta$  *Boissieri* , foliis villosis , albidis , inferioribus subspathulato-linearibus , parcè denticulatis , superioribus integris , linearibus , verticillastris in spicam ovatam aggregatis.

*S. glacialis* Boiss. *Notice sur l'Ab. Pinsapo.* pag. 12.

HAB. In montibus Bæticae , *Sierra Tejada* et *Sierra Nevada*.

Obs. This plant, though so different in appearance from many of the varieties of *S. scordioides*, approaches so near to *S. Alpina* and *Pyrenaica*, that it is impossible to separate them ; it is indeed just such a variation of these reduced forms of the species as one might expect to meet with on hotter and more arid mountains. As it is found far lower down on the *Tejada* chain, the epithet *glacialis* is scarcely appropriate , and as it merits distinction, it cannot be better signalized than by the name of the author who first called it into notice.

**SIDERITIS MONTANA.** Linn.

HAB. In umbrosis humidis circà Malacàm.

**SIDERITIS LEUCANTHA.** Cav.

HAB. In rupibus circà Malacàm , *Carthaginem novam* ( *Gaudi-chaud* ). In saxosis maritimis agri *Lucentini* , et alibi in Bætica. Variat foliis canis et virescentibus.

**SIDERITIS INCANA.** Cav.

*S. virgata* Desf.

*S. sericea* Pers.

HAB. Circà Malacàm. Variat foliis calycibusque tomentosis aut sericeo-candidissimis , spicà virgatà , quadrangulari , angulis acutis. Lavandulam Spicam assimilare rectè refert *Benthamus*.

**SIDERITIS FOETENS. La Gasc.**

**HAB.** In rupestribus circà Abderam, et in promontorio Charidemo. Descriptio Lagascana optima.

**BALLOTA HIRSUTA. Benth.**

**HAB.** In ruderibus Sagunti, et in rupibus montis Jovis propè Dianium.

**Obs.** The limb of the calyx is considerably more dilated than in the common form of *Ballota Hispanica*, but I doubt whether it should be held as a good species.

**PHLOMIS CRINITA. Cav.**

**HAB.** In montibus *Sierra Tejada, Sierra Nevada et las Alpujarras.*

**TEUCRIUM CHAMÆDRYS. Linn.**

*T. regium Schreb.*

β *myrtifolium* foliis subtùs albido-tomentosis.

*T. myrtifolium Poir.*

γ *angustifolium* foliis angustis margine revolutis.

**HAB.** γ In collibus Bæticis vulgaris.

**Obs.** From original specimens in the herbarium of Desfontaines it is evident that the *Teucrium myrtifolium Poir.* differs merely as a hoary variety from *T. Chamædrys*. This is evidently its nearest affinity and not *T. Marum*. It is likewise very distinct from *T. brevifolium Willd.* The Spanish plant evidently approaches that of *Poiret*, and is probably its wild type.

**TEUCRIUM BUXIFOLIUM. Schreb.**

**HAB.** In collibus siccis vulgaris.

**TEUCRIUM POLIUM. Linn.**

**HAB.** Per ambas provincias Tarraconensem et Bæticam, innumeræ hujus speciei varietates reperiuntur.

**TEUCRIUM CUNEIFOLIUM. Sibth. et Smith?**

**HAB.** In monte *Sierra Tejada.*

**TEUCRIUM PSEUDO-CHAMÆPITHYS. Linn.**

**HAB.** In Bæticâ vulgaris.

**TEUCRIUM SCORDIODES. Schreb.**

**HAB.** Circà Malacam.

**TEUCRIUM SPINOSUM. Linn.**

**HAB.** Copiosè in campis inter Abderam et Eliberim.

## OROBANCHE FOETIDA. Desf.

HAB. In leguminosarum præsertim ononidum arenæ maritimæ radicibus in Bæticâ calidiore.

## PHELYPÆA LUTEA. Desf.

HAB. In insulâ Divi Ferdinandi propè Gades.

## PEDICULARIS SYLVATICA. Linn.

*P. Lusitanica Hoffm. et Link Fl. Port. tab. 61.*

*P. sylvatica var. major. Brot. Fl. Lus. vol. 1. pag. 188.*

HAB. In montosis promontorii Magni Lusitaniæ.

## PEDICULARIS CÆSPITOSA.

R. caule à basi florifero; calyce subintegro, aut dentato dentibus parvis; corollæ labio superiore breviter rostrato, rostro truncato utrinquè mutico.

HAB. In pratis Alpinis ad fontes frigidos vallis Divi Johannis (*Barranco de San Juan*), ad basin summi montis Eliberitani et *Picacho de la Veleta*.

Obs. This species approaches the preceding, but appears to be very sufficiently distinct by its calyx and untoothed corolla. Whilst the most Alpine varieties that I have examined of *P. sylvatica* have a small tooth on each side of the upper lip of the corolla beneath the point of the rostrum which is always wanting in the present species.

## TRIXAGO LATIFOLIA. Reichb.

HAB. Propè Olisiponem in pinetis trans Tagum.

## ODONTITES RUBRA. Pers.

HAB. In arvis lutosus veteris regum Arabum paradisi *Soto de Roma* in planitie Eliberitanâ.

## ODONTITES VISCOSA. Lamck.

HAB. In montosis siccis Bæticæ.

## ODONTITES LONGIFLORA.

*Euphrasia longiflora Vahl.*

HAB. In regione mediâ montium Bæticorum *Sierra Tejada* et *Sierra Nevada*.

## EUPHRASIA OFFICINALIS. Linn.

HAB. In editioribus montis *Sierra Nevada*.

## SCROFULARIA TRIFOLIATA. Linn.

HAB. Circà thermas oppiduli *Carratraca*.

## SCROFULARIA BETONICÆFOLIA. Linn.?

HAB. In montosis Arundæ *al desierto de las Nieves*.

## SCROFULARIA SAMBUCIFOLIA. Linn.

*S. mellifera Vahl.*

HAB. In Bæticà circà Gades, et ad fretum Herculeum propè oppidulum Sancti Rocci (*Rambur*).

## SCROFULARIA RAMOSISSIMA. Lois.

*S. frutescens Brot.*

HAB. In Lusitanià propè Cetobrigam, et in Bæticà circà Gades.

## SCROFULARIA AQUATICA. Linn.

HAB. In aquosis propè Saguntum.

## DIGITALIS PURPUREA. Linn.

$\alpha$  minor foliis albidis pubescentibus caule paucifloro.

$\beta$  tomentosa caule elato foliis latè ovato-lanceolatis subtùs albo-tomentosis.

*D. tomentosa Hoffm. et Link Fl. Port. vol. 1. pag. 221. tab. 29.*

*D. purpurea tomentosa Brot. Phys. Lus. vol. 2. pag. 159. tab. 149.*

HAB.  $\alpha$  In montium jugis *de la Sierra Nevada*.  $\beta$  In montibus promontorii Magni Lusitaniæ.

## DIGITALIS OBSCURA. Linn.

HAB. Per totam Hispaniam australem ab oppido Dertosà et Iberi ripis ad Bæticæ ulterioris montes. In nosocomiis pro *D. purpureo* usus est *D. Professor de Bahi* duplicatis dosibus, potestas enim eadem sed vis debilior.

DIGITALIS LACINIATA. Lindl. (*Bot. Reg. tab. 1201.*)

HAB. In rupibus montis Caprai circà thermas oppiduli *Carratraca*, et in montibus Arundæ, loco dicto *Desierto de las Nieves*.

## ANTIRRHINUM HISPANICUM. Chav.

HAB. In nuris vetustis palatii regum Maurorum *el Alhambra*;

## LINARIA VILLOSA. DC.

$\beta$  oppositiflora caule ascendente, foliis ovatis parciùs villosis.

*L. oppositiflora Poir!*

HAB.  $\alpha$  In monte Calpe,  $\beta$  in rupibus circà Malacam.

## LINARIA ORIGANIFOLIA. DC.

$\gamma$  crassifolia Chav.

HAB. In montibus circà Tarraconem, et in rupestribus montis *Sierra Nevada*, et alibi in Bæticiâ.  $\gamma$  In muris oppidi *Cesenna* in Lusitaniâ.

## LINARIA HIRTA. Mœnch.

HAB. Inter segetes agri Saguntini, et propè Malacam.

## LINARIA TRIPHYLLA. Mill.

HAB. In agro Tarraconensi.

## LINARIA TRIORNITHOPHORA. Willd.

HAB. In sylvis ad basin montis Juressi in Lusitaniâ.

## LINARIA LATIFOLIA. Desf.

HAB. In arvis Bæticiæ vulgaris.

## LINARIA VERSICOLOR. Mœnch.

HAB. In montosis Bæticiæ.

## LINARIA MICRANTHA. Spreng.

HAB. In agro Tarraconensi.

## LINARIA BROUSSONETII. Chav.

HAB. In collibus *de Alcantara* et alibi circà Olisiponem.

## LINARIA PEDUNCULATA. Spreng.

HAB. In arenâ maris propè Olisiponem et circà Malacam.

## LINARIA RETICULATA. Desf.

*L. Clementei Hænseler Ensayo para analisis de las Aguas de Carratraca!*

HAB. In montibus circà thermas oppiduli Carratracæ.

## LINARIA TRISTIS. Mill.

HAB. In rupestribus montis Arabrigæ.

## LINARIA GLAUCA var. multicaulis. Chav.

HAB. Ad muros et saxa in Lusitaniâ mediâ.



LINARIA SPARTEA. Hoffm. et Link.

HAB. In Hispaniâ meridionali vulgaris.

LINARIA BIPARTITA. Willd.

HAB. Circâ Gades.

LINARIA ALPINA. DC.

HAB. In montibus *Sierra Tejeda* et *Sierra Nevada*.

LINARIA SUPINA. Desf.

β Pyrenaica.

HAB. In Hispaniâ Tarraconensi. β In montibus Eliberitanis la  
*Sierra Nevada*.

LINARIA SAXATILIS. Hoffm. et Link.

HAB. Circâ Cetrobigam. In monte *Sierra de Alfacar* (*Rambur*).

LINARIA MARGINATA. Desf.

HAB. Circâ Malacam (*Rambur*).

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DATURA FEROX. Linn.

HAB. Circâ Abderam, Portum Magnum, et ad Promontorium  
Charidemum.

ATROPA FRUTESCENS. Linn.

HAB. Circâ Malacam, et ad oppidum *Velez Malaga*.

PHYSALIS SOMNIFERA. Linn.

HAB. In Bæticâ maritimâ vulgaris.

MANDRAGORA OFFICINARUM. Linn.

HAB. Circâ Gades, et in totâ Bæticâ vulgaris.

TRIGUERA AMBROSIACA. Cav.

HAB. Circâ Malacam, in campis Hispalensibus, et ad rudera  
Italicæ copiosa.

SOLANUM SODOMÆUM. Linn.

HAB. Ad littora Valentina et in totâ Bæticâ maritimâ.

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ECHIUM ALBICANS. La Gasc. et Rodrig.

HAB. In regione mediâ montis *Sierra Nevada*.

MYOSOTIS SPARSIFLORA. Mik.

HAB. In vineis oppiduli *Colares* circâ *Olisiponem*.

---

CHLORA SESSILIFOLIA. Desv.

HAB. In arenâ maris ad ostia fluminis Iberi.

ETYTHRÆA CENTAURIUM. Pers.

HAB. Per totam Bæticam ubi formâ summoperè variabili ludit.

ERITHRÆA LINARIÆFOLIA. Pers.

β pauciflora *Schmid Linnæa. vol. 7. 1832. fig. 7 et 9.*  
 γ cymosa floribus in cymam regularem digestis, tubo corollæ elongato.

HAB. α Ad ostia Iberi, ad littora arenosa lacûs Valentini, et in plurimis Bæticæ locis arenosis. β In monte *Sierra Tejada*. γ In collibus *Saguntinis*.

GENTIANA ACAULIS. Linn. β alpina.

HAB. In summis Alpibus Eliberitanis *de la Sierra Nevada*.

GENTIANA PNEUMONANTHE. Linn. var. *Boryana*.

*Gentiana Boryi Boiss. Not. sur l'Ab. Pinsapo. pag. 12.*

HAB. In pratis uliginosis vallis Divi Johannis, seu *Barranco de San Juan*, ad radices summæ Alpis Eliberitanæ *el Picacho de la Veleta*.

Obs. This is a dwarf cespitose variety of *G. Pneumonante*. The flower and fruit differ in no way from the original species. An approach to this form is often found in marshy and boggy places in other parts of Europe, and I have specimens exactly like it gathered by Dr. Montagne between *S. Sebastian* and *Passages*.

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CYNANCHUM ACUTUM. Linn.

HAB. Ad *Mænobam*, et in montibus *las Alpujarras*.

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STAPELIA EUROPEA. Guss. (*Suppl.* 1. pag. 64.)

*S. Gussoneana* Lindl. *Bot. Reg.* tab. 1731.

**HAB.** Ad salinas in campo solibus cocto propè Portum Magnum. Inveni etiam promontorii Charidemi ferè ex adverso in Tribus Insulis, ubi Mauretanium Tingitanam à Cæsariensi, quæ nunc Gallica, Malua annis disterminat. Anno 1826 primus vidi et nomine S. Europææ docti Gussonei animum præsa-giens, in schedis jam tùm signavi; etiam antehàc nasci in Hispaniis stirpem stapelioideam audivisse asserit, sed nondùm vidit La Gasca.

## RHODODENDRON PONTICUM. Linn.

**HAB.** In sylvis umbris montium freto Herculeo impendentium, ad rivulorum alpestrium margines, arbustum opacum, 12-pedale. Legi inter oppida *Algesiras* et *Asindonem*.

**Obs.** This species originally discovered by Tournefort in Pontus, was found likewise by Labillardière in Syria near Seyde. I have not had occasion to compare the Spanish specimens with those of the original locality, but they are certainly identic with the Syrian plant. Thus it appears that under the same latitude the plants of the Eastern extremity of the Mediterranean are reproduced in the west. The cedar of Lebanon reappearing on the mountains of El Rif in Morocco, and the oak of the East which produces the gallnut covering the hills of Spain, are other not less striking examples, whilst the subtropical species which vegetate in Arabia between the 25 th. and 30 th. degrees of north latitude are found again in the Canaries.

## CAMPANULA DICHOTOMA. Linn.

**HAB.** In monte Jovis propè Dianium.

## CAMPANULA ERINOIDES. Linn.

**HAB.** In rupibus montium Lucentinorum Benifelim, in monte Calpe, et alibi in Bætica.

**Obs.** The *C. Loeflingci*, so abundant in Portugal, differs from this species merely by its outspread calyx with toothed laciniaë, I see no distinction in the leaves except that they are hairy. In Brotero's figure (*Phyt. Lus.* tab. 18.) the teeth of the calyx are exaggerated. It remains to be seen whether cultivation would not reduce the two plants to a common type.

## CAMPANULA PATULA. Linn.

HAB. In monte *Sierra Nevada*.

## CAMPANULA MOLLIS. Linn.

HAB. In rupibus montis Calpes, circà oppidulum Carratraca, et in jugis montium *de la Sierra Tejada*.

## JASIONE CORYMBOSA. Poir.

HAB. In monte *Sierra de Agua*.

## JASIONE AMETHYSTINA. La Gasc. et Rodrig. An. Cienc. Nat. vol. 5. n. 15. pag. 271. 1802.

*J. humilis*. Lois. *Not. sur les pl. de Fr.* pag. 42. 1810.

*J. tristis*. Bory. *Ann. Gén.* vol. 3. pag. 10.

HAB. In cacumine *Alpium Eliberitanarum de la Sierra Nevada*.

## JASIONE FOLIOSA. Cav.

HAB. In altioribus montis *Sierra Tejada*.

## SONCHUS SPINOSUS. DC.

HAB. In petrosis aridis circà *Abderam et Portum Magnum*.

## MICRORHYNCHUS NUDICAULIS. Less.

*Prenanthes asplenifolia*. Willd. ex specimine Herb. Fontanesiani.

*Sonchus divaricatus*. Desf.!

*Prenanthes patens*. Wall.!

*Prenanthes dichotoma*. Wall.!

HAB. In rupibus maritimis propè *Lucentum*.

Obs. I can see no difference between the two plants sent from India by Dr Wallich and the Egyptian, Canarian, and Spanish samples, and the species is so variable that I am doubtful whether any permanent varieties can be signalised. The neighbourhood of Alicant is I beleive the northernmost station of this widely extended plant.

## ÆTHEORHIZA BULBOSA. Cass.

HAB. Propè *Olisiponem* in arenâ mobili lactis *Albufeira* in litore *Transtagano*.

## ZOLLIKOFERIA PUMILA. DC.

HAB. In rupe *Peña de Jijona*, et alibi in *Bæticâ*.

**BARBHAUSIA ALBIDA.** Cass.

HAB. In montibus *Sierra Tejada* et *Sierra Nevada*.

**CREPIS OPORINOIDES.** Boiss.

HAB. In summis Alpibus de *la Sierra Nevada*.

**ANDRYALA AGARDHII.** Hæns.

HAB. In summo monte *la Sierra Tejada*.

**ANDRYALA MACROCEPHALA.** Boiss.

HAB. In monte *Sierra de Agua*.

**ANDRYALA RAGUSINA.** Linn.

HAB. In Hispaniâ meridionali cum *A. integrifoliâ*. Linn. vulgaris, sæpè ob siccitatem aphylla, paniculâ, rigidâ, parviflorâ.

**PODOSPERMUM LACINIATUM.** DC.

HAB. In Bæticâ vulgare.

**PODOSPERMUM CALCITRAPIFOLIUM.** DC.

HAB. Cum priore.

**SCORZONERA HISPANICA.** Linn.

HAB. Cum antecedentibus.

**THRINCIA TUBEROSA.** DC.

HAB. In uliginosis propè Gades.

**THRINCIA MAURETANICA.** Spreng.

HAB. Circâ Malacam, in monte *Sierra de Agua*, et propè Olisiponem.

**LEONTODON CRISPUS.** Vill.

β. *Boryanus*.

Parvulus, involuero glabriusculo, aut dorso parcius hispidulo, achæniis muricato-puncticulatis.

*L. Boryi* Boiss. in DC. *Prod. vol. 7. pars 1. pag. 103.*

HAB. In summis Alpibus Eliberitanis de *la Sierra Nevada*.

OBS. This elegant plant cannot be distinguished specifically from its larger prototype. The punctulation of the achænia are perfectly visible when magnified, and the leaflets of the calyx though generally smooth have sometimes the midrib hairy. After this there remains no other difference but the incisions of the leaves, and its pygmy Alpine form.

## CATANANCHE CÆRULEA. Linn.

HAB. In monte *Sierra Nevada*.

## CATANANCHE LUTEA. Linn.

HAB. In Bæticâ circâ Malacam.

## CYANUS MONTANUS.

*Centaurea montana*. Linn.*Centaurea lingulata*. La Gasc.

HAB. In montibus circâ oppidulum Carratraca, et alibi in Bæticâ.

## LEPTERANTHUS LINIFOLIUS.

*Centaurea linifolia*. Vahl.

HAB. Circâ Tarraconem.

## ACROLOPHIUS RAGUSINUS.

*Centaurea Ragusina*. Linn.

HAB. In montibus Lucentinis circâ villam Marchionis, de Beniël.

## ACROCENTRON ORNATUM.

*Centaurea ornata*. Willd.HAB. In monte *Sierra Nevada*.

## ACROCENTRON COLLINUM. Cass.

HAB. In montibus *Alpujarras*.

## ACROCENTRON BOISSIERI.

*Centaurea Boissieri*. DC.HAB. In summo monte *la Sierra Tejada*.

## ACROCENTRON GRANATENSE.

*Centaurea granatensis*. Boiss.HAB. In monte *Sierra Nevada*, et in monte *Sierra de Alfacar*.  
(*Rambur.*)

## CNICUS BENEDICTUS. Linn.

HAB. In collibus regionis mediæ montis *Sierra Nevada*.

## TRIPLOCENTRON APULUM. Cass.

HAB. In pineto *Merita* circâ *Alcoy*, et alibi in Bæticâ.

## TRIPLOCENTRON SULPHUREUM.

*Centaurea sulphurea*. Willd.

HAB. In montosis siccis circà Malacam.

## SERIDIA MICROCEPHALA. Cass.

HAB. Circà Dertosam.

## SERIDIA SPHÆROCEPHALA.

*Centaurea sphærocephala*. Desf.

HAB. Propè Olisiponem in arenis trans Tagum flumen.

## SERIDIA SONCHIFOLIA. Cass.

HAB. In Bæticiâ circà Malacam, et in agro Lucentino.

## SERIDIA ASPERA.

*Centaurea aspera*. Linn.

HAB. In arvis Bæticiæ.

## MICROLONCHUS SALMANTICUS. DC.

HAB. In locis siccis et in arvis Bæticiæ vulgaris.

## CYANOPSIS RADIATISSIMA. Cass.

HAB. Circà Malacam.

## CHRYSEIS CALVA. Cass.

HAB. In agro Lucentino circà villam comitis *de Casas Roxas*,  
ex horto vicino sine dubio erratica.

## CENTROPHYLLUM ARBORESCENS. Hook.

HAB. In monte Calpe, et in rupestribus circà Malacam.

## CARDUNCELLUS MONSPELIENSIS. DC.

HAB. Ad radices montium *de la Sierru Nevada*.

## CARDUNCELLUS CÆRULEUS. DC.

HAB. Circà oppida Malacam, *Ibi*, *Algesiras* et alibi in Bæticiâ.

## CARDUNCELLUS DIANIUS.

C. caule ramoso, elato (3-pedali et ultrâ); foliis inferioribus elongatis, petiolatis, petiolis basi dilatatis, laciniato-pinnatifidis, lobis linearilanceolatis, inciso-dentatis, apiculatis; involucri squamis omnibus lanceolatis, conformibus, ciliatis, inferioribus 5-3-nerviis, superioribus 12-nerviis, summis scariosis; pappo subpaleaceo, colorato.

HAB. In rupestribus altioribus montis Jovis propè Dianium, ubi mense quintili anni 1826 cùm jam defloruit, seminibus diù maturatis, fructiferam detexi.

Obs. This species appears to me to be altogether different from any of the varieties which I have seen of *Carduncellus cœruleus*, and more particularly so from *C. multifidus*, Desf. united to it by Professor de Candolle.

**JURINEA HUMILIS. DC.**

*Jurinea Bocconi. Gay in Endress. Pl. exsicc. Pyren.*

HAB. In montibus *las Alpujarras* et in monte *Sierra Nevada*. Variat foliis et involuero plus minus tomentosis.

**KLASEA CICHORACEA.**

*Carduus cichoraceus. Cyrill.*

*Centaurea mucronata. Desf.*

HAB. In montibus circà *Malacam*.

**KLASEA PINNATIFIDA.**

HAB. In monte *Sierra de Agua*.

**ONOPORDON ACAULE. Linn.**

HAB. In cacumine montis *Sierra Tejeda*.

**LAMYRA HISPANICA.**

*Carduus Hispanicus. Lamck. La Gasc.*

*Lamyra undulata. Cass.*

HAB. In montosis altis inter planitiem pinguem urbis *Velez Malaga*, et thermas oppidi *Alhama*.

**CYNARA ALBA. Boïss.**

*Cynara lamyroides. Nob. Mss.*

C. caule elato, paniculato, multicipite, paniculâ dichotomâ; foliis subtus nervosissimis, inferioribus petiolatis, sinuato-lobatis, superioribus lineari-lanceolatis, spinosis, sessilibus; involucri squamis basi dilatatis, reflexis, apice in spinam elongatam attenuatis.

HAB. Cum priore inter oppida *Velez Malaga* et *Alhama*.

Obs. The leaves of this species resemble those of *Notobasis syriaca*, its involucre that of *Onopordon græcum*, but its merely sinbrillated receptacle places it in the genus *Cynara*, whereas the genus *Lamyra* to which it approaches by the characters of its growth, and the scales of its involucre, has its receptacle garnished with fine silky hairs as long as the flowrets. The scales of its involucre differ only from *Lamyra Hispanica* in having a broader base.

**ECHINOPS STRIGOSUS. Lamck.**

HAB. In Baticâ vulgaris.

**CALENDULA ARVENSIS. Linn.**

β. *sulfruticosa*.



*C. suffruticosa. Vahl.*

HAB. Propè Bârcinonem et Tarraconem, circà Hispalim et in totâ Bæticiâ.  $\beta$  In lapidicinis Olisiponensibus, forma fortuita nec vera varietas.

## CALENDULA STELLATA. Cav.

*C. Ægyptiaca. Desf!**C. marginata. Willd!**C. maritima. Guss!**C. Asterias Fisch. et C. A. Mey!*

HAB. In Bæticiâ vulgaris.

Obs. The Achænia seem to be the only organs which allow us to seize on specific characters in this genus, these too vary, but all the rest are either entirely alike, or still more unstable. Other forms will probably be hereafter united to this species, but I have not had an opportunity of ascertaining their identity.

## CALENDULA INCANA. Willd.

HAB. In rupibus maritimis freti Herculei propè Bælonem et promontorium Junonis.

Obs. This species, like the two preceding, is in certain localities perennant, from 2 to 5 or 4 years. The only difference I can find between it and *C. stellata* consists in its having the outer achænia little or scarcely at all muricated, and its hoary tomentum, which however does not resist cultivation. I gathered at Velez Malaga a form which seems to unite them.

## AMBROSIA MARITIMA. Linn.

HAB. Circà Gades.

## ARTEMISIA VALENTINA. Lamck. et Del.

*A. ramosa. Chr. Smith!**A. Barrelieri. Bess!*

HAB. In siccis incultis Hispaniæ Bæticiæ communis. Legi etiam in Tribus Insulis juxtâ Maluam flumen in Africâ, et circà Portum Magnum Mauretaniæ. Habui quoque à Carthagine Novâ à Cl. Gaudichaud lectam.

## ARTEMISIA HISPANICA. Lamck.

*A. reptans. Chr. Smith!**A. pyromacha. Viv.*

HAB. Per totam Bæticiam calidiorem vulgaris.

Obs. This plant is frequently punctured by an insect and then produces a pellet of down much used for tinder throughout Andalusia. I have specimens which coincide so exactly with the figure and

description of Professor Viviani, that I doubt not of its identity with his *A. pyromacha*.

**ARTEMISIA VARIABILIS.** Ten.

**HAB.** Ad thermas agri Lucentini, et oppidi *Alhama*, necnon in montibus *las Alpujarras*, et alibi in Bæticâ.

**ARTEMISIA GLUTINOSA.** Gay.

**HAB.** Circâ Eliberim, et alibi in Bæticâ.

**ARTEMISIA ABSYNTHIUM.** Linn.

**HAB.** In regione mediâ montis *Sierra Nevada*.

**ARTEMISIA CAMPHORATA.** Vill.

**HAB.** In rupibus excelsis Alpium Eliberitanarum ad basin summi montis *el Picacho de la Veleta*.

**ARTEMISIA CRITHMIFOLIA.** Linn.

**HAB.** In maritimis Bæticis vulgaris.

**ARTEMISIA GRANATENSIS.** Boiss.

*A. basilica.* Nob. in litt.

**HAB.** Ad glaciem et niyes præalti montis *Sierra Nevada*, ubi sub nomine *matricariæ regię* ( Hisp. *Manzanilla real* ) ceber. Apud omnes Bæticos ob potestates ejus medicamentosas pervulgata est herba sicca.

Obs. This plant approaches very nearly to *A. Bocconi* All. *A. eriantha* Ten. and other varieties of *A. spicata* which differ in habit from the normal form. The achæmia however are constantly glabrous which does not appear to be the case with the above plants.

**TANACETUM ANNUM.** Linn.

**HAB.** In Bæticâ vulgare.

**PYRETHRUM GLABRUM.** La Gasc.

**HAB.** In montosis circâ Malacam.

**PYRETHRUM CORYMBOSUM.** Willd.

**HAB.** In rupibus montis Jovis propè Dianium.

**PYRETHRUM RADICANS.** Cav.

**HAB.** In cacumine montis *Sierra Nevada*.

**LEUCANTHEMUM MONTANUM.** DC.

**HAB.** In rupestribus agrorum Lucentini et Malacitani.

**COTULA CORONOPIFOLIA.** Linn.

**HAB.** Circâ Gades ( *Cabrera Herb.* )

## LYONNETIA ABROTANIFOLIA. Less.

HAB. Circà Malacam, et in sinu Gaditano propè portum Sanctæ-Mariæ.

## SANTOLINA CHAMÆCYPARISSIAS. Linn.

HAB. In Hispaniâ Tarraconensi sub formis plurimis copiosissima, et in monte Bæticæ *Sierra Nevada*.

## SAUTOLINA ROSMARINIFOLIA. Mill.

*S. canescens. La Gasc.!*

β. *leptocephala.*

Capitulis attenuatis, ovato-cylindræcis.

HAB. Circà *Alhama* et alibi in Bæticâ, β. in monte *Sierra Tejedâ*, invenit etiam in monte *Sierra Nevada* Cl. Rambur. An *S. elegans* Boiss.?

## ANTHEMIS AUREA. DC.

HAB. In collibus ad promontorium Magnum Lusitaniæ.

Obs. The only modern figure of this plant *Brot. Phyt. Lus. tom. 2, tab. 163*, is exceedingly defective. Professor DC justly remarks its near affinity to *A. nobilis*. It remains however even when cultivated *anacyclous*.

## MARUTA FOETIDA. Cass.

HAB. Circà Eliberim ubi vulgò *Matagata*, et alibi vulgatissima.

## PERIDERÆA. G. N.

*Involucrum* discoideum, imbricatum. *Flosculi* radii ligulati, neutri, disci 5-dentati, superiores steriles. *Receptaculum* conicum, foveolatum, paleaceum, paleis ad basin latis, fusco-marginatis, tubo corollæ æqualibus, persistentibus, superioribus brevibus, scariosis, caducis. *Stylus* disci ramis exappendiculatis. *Achæmium* exalatum, subquadrangulare, glabrum, striatum, calvum, arcolâ terminali indistinctâ. *Herba* littorum maris interni, annua, inodora, glabra, præcox, facie Chamæmeli. *Rami* foliosi, apice monocephali. *Radius* albus, repandus. *Folia* bipinnatifida, lobis incis. *Discus* fructu maturo supernè nudus, basi collari seu περιδεραίω palcarum persistentium cinctus.

## PERIDERÆA FUSCATA.

*Anthemis fuscata. Brot.*

HAB. Per totam Bæticam et Lusitaniam calidiorem frequens.

Obs. This plant certainly approaches very nearly to *Maruta* to which it has been attached by Professor de Candolle. Should it continue to form a part of that genus it will constitute an independent section. Its differences consist in the nature, the caducity of the upper, and the persistence of the lower paleæ of the receptacle, in the achænia which are subtetragone and striated, as in many species of *Chamaemelum*, and not tuberculated and ribbed as in *Maruta*. The terminal areola is nearly obliterated. The involucre is imbricated, and the rays of the corolla not reflexed. I met with a curious monstrosity of this plant in Portugal, in which the inflorescence by prolongation had become umbelliform.

## CLADANTHUS PROLIFERUS. DC.

HAB. In Bæticâ calidiore vulgaris.

## ANACYCLUS TOMENTOSUS. DC.

HAB. In maritimis Bæticæ.

## ANTHEMIS NOBILIS. Linn.

*A. microphylla. Willd.*HAB. In summo monte *Sierra Tejada*. Planta Hispanica ab *A. nobili* Pyrenaico nullo modo differt.

## HOMALOTHECA (1) SUPINA. Cass.

HAB. In Alpibus Eliberitanis, seu *de la Sierra Nevada*.

## HELICHRYSUM ANGUSTIFOLIUM. DC.

HAB. In Bæticâ cum *H. Stœchade*.

## MICROPUS BOMBYCINUS. La Gasc.

HAB. Circâ Malacam cum *M. supino*.

## INULA SQUARROSA. Linn.

HAB. In Lusitaniâ circâ oppidum Cintra.

## SOLIDAGO VIRGAUREA. Linn.

HAB. In altioribus montis *Sierra Tejada* circâ fontem *la Tasilla de Plata*, et in monte *Sierra Nevada*.

(1) Scripserunt Græci ὁμαλός nec ὁμαλός, homalotheca ergo latinè scribenda.

TRIPOLIUM VULGARE. Nees. ab. Esenb.

HAB. In Hispaniâ Tarraconensi in locis salsis circâ oppidum Divi Caroli.

BELLIS SYLVESTRIS. Cyrril.

*Doronicum Bellidiastrum. Clem. Ensayo de la Vid. pag. 293.*

HAB. In Bæticâ cum B. annuâ et perenni vulgaris.

PULICARIA ODORA. Reichb.

*Inula dumetorum. Salzm. exsicc. Ting!*

HAB. In dumetis montis *Sierra de Agua*, et alibi in Bæticâ.

INULA CRITHMOIDES. Linn.

HAB. In totâ Bæticâ maritimâ vulgaris.

JASONIA SICULA. DC.

HAB. Ad rivulos et in umbrosis circâ promontorium Charidemum.

JASONIA GLUTINOSA. DC.

HAB. Circâ Malacam, Eliberim, in monte *Sierra Elwira*, et alibi in Bæticâ.

JASONIA TUBEROSA. DC.

HAB. In demissioribus montis *Sierra Nevada*.

SENECIO LINIFOLIUS. Linn.

HAB. In rupibus maritimis Bæticæ vulgaris.

SENECIO DORIA. Linn.

HAB. Ad basin montis *Sierra Nevada*, circâ oppidum *Tibi*, et ad salinas *Lamalá*.

SENECIO TOUNEFORTII. Lap.

HAB. In monte *Sierra Nevada*.

SENECIO MINUTUS. DC.

HAB. In umbrosis propè Eliberim.

SENECIO ERUCÆFOLIUS. Linn.

HAB. Ad margines agrorum circâ villam regum Maurorum *et Soto de Roma*, et in Lusitaniæ montibus Promontorii Magni.

## SENECIO JACOBÆUS. Linn.

HAB. Ad thermas oppidi *Carratraca*, circa *Malacam*, et alibi in *Bætica*.

## SENECIO VISCOSUS. Linn.

HAB. In humidiusculis regionis mediæ montis *Sierra Nevada*.

## SENECIO SQUALIDUS. Linn.

HAB. In agro *Tarraconensi*, et propè *Olisiponem* in arenis trans *Tagum* flumen.

## SENECIO BOISSIERI. DC.

HAB. In altioribus montis *Sierra Nevada* (*Rambur*).

## CEPHALARIA LEUCANTHA. Schrad.

HAB. In montosis circa thermas oppiduli *Carratraca*.

## SUCCISA SAXATILIS.

*Scabiosa saxatilis*. Cav.

HAB. In rupibus excelsis montis *Jovis* propè *Dianium*.

## ASTEROCEPHALUS COLUMBARIA. Spreng.

HAB. Plurr. varr. per provincias *Bætica*m, et *Tarraconensem*, et in *Lusitaniâ*.

## ASTEROCEPHALUS HOLOSERICEUS. Spreng.

HAB. Inter montes propè *Arundam*, loco dicto *Desierto de las Nieves*, et in editioribus montis *Sierra Tejada*. Legit etiam in monte *Anticariæ* cl. *Rambur*. Præcedentis non nisi varietas insignis.

## ASTEROCEPHALUS STELLATUS. Spreng.

HAB. In locis siccis *Bætica* vulgaris.

## ASTEROCEPHALUS MARITIMUS. Spreng.

HAB. In collibus *Olisiponensibus*.

## SCABIOSA SYLVATICA. Linn.

HAB. In montibus *Lucentinis*.

PTEROCEPHALUS SPATHULATUS. Coult.

*Knautia spathulata. La Gasc.!*

HAB. In rupibus altis montis *Sierra Tejada*, et in monte *Sierra de Alfacar* ex Cl. Rambur.

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FEDIA CORNUCOPIE. DC.

HAB. In Bæticâ vulgaris.

VALERIANELLA PLATYLOBA. Duf.

HAB. Circâ Olisiponem.

VALERIANA TUBEROSA. Linn.

HAB. In monte Arabrigâ, et alibi ad sinistram Tagi ripam propè Olisiponem.

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PUTORIA CALABRICA. Pers.

HAB. In rupibus siccis propè oppidulum *Carratraca*, et ad basin montis *Sierra Nevada*, ubi à Cl. Rambur lecta fuit.

VALANTIA HISPIDA. Linn.

HAB. In Bæticâ vulgaris.

GALIUM PUSILLUM. Linn.

HAB. Ad basin montis *Sierra Nevada*.

GALIUM SACCHARATUM. All.

HAB. In omni Bæticâ copiosa.

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SAMBUCUS NIGRA. Linn.

HAB. In mediâ regione montis *Sierra Nevada*.

LONICERA ETRUSCA. Sant.

HAB. Ad basin montis *Sierra Nevada*, et alibi in Bæticâ.

LONICERA IMPLEXA. Hort. Kew.

HAB. Circâ oppida *Barcinonem*, *Reuss*, et alibi in Hispaniâ *Tarraconensi*.

**LONICERA PERICLYMENUM. Linn.**

**HAB.** Circà oppidum *Velez Malaga*. Tota planta valdè pubes-  
cit, sed à specie septentrionali non aliter diversa est.

**NINTOOA CANESCENS.**

*Lonicera canescens. Schousb.*

**HAB.** In sepibus circà Lucentum, et inter montes *Alpujarras*.

**XYLOSTEUM ARBOREUM.**

*Lonicera arborea. Boiss. Not. sur le Pinsapo. pag. 11.*

**HAB.** In regione media montis *Sierra Nevada*. Habeo etiam ex  
Asià, montis Libani convallibus à celeb. Billardiero olim lec-  
tum.

**Obs.** This seems to be a well characterized species between *X. Ibe-  
ricum* and *X. dumetorum Moench* from the former of which it dif-  
fers by its unconnected fruit, and by its bays which are not fleshcol-  
oured but tawney yellow.

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**VISCUM ALBUM. Linn.**

**HAB.** In ramis olearum circà oppidum *Gaucin*. Fructus matu-  
rus coloratus.

**ARCEUTHOBIUM OXYCEDRI. Bieb.**

**HAB.** In insulis Bætis fluminis propè Luciferi forum.

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**THAPSIA VILLOSA. Linn.**

**HAB.** In Hispaniæ provinciis Bætica et Tarraconensi, copiosa  
in rupibus siccis. Gothalaunis dicitur *Croca*, ejusque succus  
coloratus ad pisces venenandos inservit.

**THAPSIA TENUIFOLIA. La Gasc.**

**HAB.** In montibus Malacitanis.

**KRUBERA LEPTOPHYLLA. Hoffm.**

**HAB.** Circà Malacam (*Rambur*).

**IMPERATORIA OSTRUTHIUM. Linn.**

**HAB.** In locis humidiusculis montis *Sierra Nevada*.

**FOENICULUM VULGARE. DC.**

**HAB.** In montibus Lucentinis, et alibi in Bætica.



ANETHUM SEGETUM. Linn.

HAB. In Bæticae arvis frequens.

MEUM ATHAMANTICUM. Jacq.

HAB. In cacumine montis *Sierra Nevada*.

AMMI MAJUS. Linn.

HAB. Per totam Bætiam.

BUNIUM MAJUS. Gouan.

HAB. In collibus circà oppidum *Cintra* in Lusitaniâ.

PIMPINILLA VILLOSA. Schousb.

*P. bubonoides*. Brot.

HAB. In montibus Malacitanis, et alibi in Bæticiâ, et in totâ Lusitaniâ meridionali.

PIMPINELLA SAXIFRAGA. Linn.

HAB. In monte *Sierra Nevada*.

PIMPINELLA TRAGIUM. Vill.

β depressa.

HAB. In collibus Bæticiis, β in cacumine montis *Sierra Tejada*.

SIUM NODIFLORUM. Linn.

HAB. In aquosis Bæticae vulgaris.

BIFORA TESTICULATA. Reichb.

HAB. In Bæticae arvis frequens.

CAUCALIS DAUCOIDES. Linn.

HAB. In cacumine montis *Penaguila* circà Lucentum, et alibi in provinciis Bæticiâ et Tarraconensi.

ORLAYA MARITIMA. Koch.

HAB. Ad littora Bætica.

ORLAYA PLATYCARPOS. Koch.

HAB. In apricis Malacitanis.

TURGENIA LATIFOLIA. Hoffm.

HAB. In monte *Penaguila* agri Lucentini.

TORILIS NODOSA. Gaert.

HAB. In Bæticiâ vulgaris.

**DAUCUS CAROTA.** Linn.

HAB. Per totam Bæticam.

**DAUCUS MARITIMUS.** Lamck.

*D. parviflorus.* Desf!

HAB. In omni Bæticâ, præsertim in maritimis.

Obs. The *D. parviflorus* Desf. as preserved in his herbarium in no ways differs from the plant of the south of France usually known under the name of *D. maritimus*. It will remain to be observed whether this latter is really a distinct species, and not a mere variety of *Carota*, as I am disposed to believe. Several other species which were collected in Andalusia, are all except the following not determinable with any certainty in the present confused state of the genus.

**DAUCUS CRINITUS.** Desf.

*D. meifolius.* Brot!

HAB. In Lusitaniâ circâ oppidulum Cintra.

**AMMI VISNAGA.** Lamck.

HAB. In Bæticæ arvis vulgare.

**CACHRYS PTEROCHLÆNA.** DC.

HAB. In collibus siccis circâ Malacam, Calpen, et alibi in Bæticâ.

**BUPLEURUM SPECIOSUM.** Linn. fil.

HAB. In rupibus Lucentinis, in monte *Sierra Tejada*, et alibi in Bæticâ.

**BUPLEURUM FRUTICOSUM.** Linn.

HAB. In rupibus maritimis Promontorii Magni in Lusitaniâ.

**BUPLEURUM GIBALTARICUM.** Lamck.

HAB. In monte Calpe.

**BUPLEURUM FRUTICESCENS.** Linn.

HAB. In Hispaniâ Tarraconensi ad thermas *Caldas de Monbuy* dictas non procul Barcinone.

**BUPLEURUM PANICULATUM.** Brot.

HAB. In montibus Promontorii Magni in Lusitaniâ.

Obs. This species is so similar to the foregoing that it may easily be mistaken for it. It is however suffrutescent only at the base, the inflorescence is usually much more paniculated, and the fruit is oval and not oblong.

**BUPLEURUM SEMICOMPOSITUM.** Linn.

HAB. In collibus Beticæ, ubi copiosa circà Malacam, et in montibus *Alpujarras*.

**BUPLEURUM ARISTATUM.** Barth.

HAB. In collibus Malacitanis.

**BUPLEURUM TENUISSIMUM.** Linn.

HAB. In fossis circà Malacam.

**ERYNGIUM DILATATUM.** Lamck.

HAB. In maritimis circà fretum Herculeum, et in arenâ maris propè oppidulum *Ericeira* in Lusitaniâ.

Obs. The Portuguese plant is cespitose and diminutive, but does not appear to differ otherwise from the usual type of the species.

**ERYNGIUM CRETICUM.** Lamck.

*E. glaciale.* Boiss.

HAB. In rupestribus siccis editioribus montis *Sierra Nevada*.

Obs. The fruit and inflorescence of the Spanish plant do not differ in any way from those of the Greek specimens. The capitules, the leaves, and particularly those of the involucrem are more robust, but it appears to me to be impossible to distinguish it as a species.

**SAXIFRAGA LINGULATA.** Bellard.

HAB. In rupibus præruptis montis Jovis propè Dianium.

**SAXIFRAGA STELLARIS.** Linn.

HAB. Ad fontes mucosos vallis Divi Johannis (*Barranco de San Juan*) Alpium Eliberitanarum, quæ nunc mons *Sierra Nevada*.

**SAXIFRAGA CÆSPITOSA.** Linn.

HAB. In valle Divi Johannis Alpium Eliberitanarum.

**SAXIFRAGA HYPNOIDES.** Linn.

HAB. In rupium rimis montis *Sierra Tejada*.

**SAXIFRAGA GLOBULIFERA.** Desf.

HAB. In montibus Arundæ loco dicto *Desierto de las Nieves*, legit Hænselerus in monte *Sierra de Laurin*.

Obs. The Spanish specimens differ in no way from those gathered by Desfontaines on the opposite chain of mount Atlas.

**SEDUM VILLOSUM.** Linn.

HAB. In fissuris rupium montis *Sierra Tejada*.

**SEDUM CÆRULEUM.** Vahl.

HAB. In locis siccis circa *Malacam*.

**CRASSULA MAGNOLII.** DC.

HAB. In rupibus siccis montis *Sierra Tejada*.

**TILLEA MUSCOSA.** Linn.

HAB. In rupibus Bæticiæ, loco non notato.

**CORRIGIOLA LITTORALIS.** Linn.

HAB. Per omnem Bæticiam vulgaris.

**HERNIARIA CINEREA.** DC.

HAB. In provinciis Tarraconensi et Bæticiâ vulgatissima. Virtutes lithontripticas tenere credit vulgus, undè nomen à celeb. Candolleo memoratum, *Quebrantapiedras*.

**HERNIARIA FRUTICOSA.** Linn.

HAB. Circa oppidulum *Onil* agri Lucentini.

**HERNIARIA POLYGONOIDES.** Cavan.

HAB. In rupestribus circa oppidulum *Carratraca*, in montibus circa *Arundam* et alibi in Bæticiâ.

Obs. The stamens of this plant are not united at the base in a ring as represented by Cavanilles, but are exerted from the summit of the cup (*urceolus*) formed by the united folioles of the calyx, and which surrounds the ovarium but is not attached to it. The stigmas are two as Professor de Candolle justly observes and not three as figured by Cavanilles. They are persistent and crown the thin and membranous capsule, which is indehiscent or rather which dehisces partially at the base. A single ovule is suspended from the curved funiculus originating at the base of the capsule. The seed is oval, enlarged below, and pointed at the summit. The hilum and chalaza are contiguous, the embryo campylotropous, and exterior, enclosing a proportionally long farinaceous perisperm. By this disposition of the embryo the radicle forms a boss protruded within the tegument which at first sight might be taken for a raphe.

**HERNIARIA PANICULATA.**

H. caule fruticoso, prostrato, elongato, diffuso; paniculis filiformibus pluriès dichotomis.

HAB. Circa thermas agri Lucentini, et in monte *Sierra de Tela*.

Obs. The structure of the flower and fruit in this species is very similar to that of the foregoing, but its prostrate diffuse growth, and spreading panicles, so different from the above, seem to preclude the possibility of uniting them.

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**LYTHRUM SALICARIA.** Linn. var. *tomentosa*.

HAB. In Lusitaniâ ad rivulos circâ oppidum *Cintra* et in Bæticâ.

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**EPILOBIUM HIRSUTUM.** Linn.

HAB. Ad promontorium *Charidemum*, et ad radices montis *Sierra Nevada*.

**EPILOBIUM PUBESCENS.** Roth.

HAB. In montosis *Lucentinis*.

**EPILOBIUM TETRAGONUM.** Linn.

HAB. Circâ oppidulum *Carratraca*.

**EPILOBIUM ALPINUM.** Linn.

HAB. In rupibus editioribus *Alpium Eliberitanarum* ad radices montis *Picacho de la Veleta*.

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**CUCUMIS COLOCYNTHIS.** Linn.

HAB. Circâ *Abderam*, oppidum *Onil*, et alibi in arenis ustis *Bæticæ* calidioris.

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**PRUNUS AMYGDALINA.**

*P. ramis* albidis, spinescentibus, foliis elongato-lanceolatis, acutis, margine glanduloso-serrulatis; pedunculis solitariis; fructu ovato.

HAB. In rupibus siccis altioribus regionis mediæ montis excelsi *la Sierra Nevada*.

Obs. It will perhaps be necessary to cultivate this plant to ascertain whether it be really distinct from *P. spinosa*. It is so decidedly different in appearance that I have not hesitated to consider it as a species.

**PRUNUS ROSTRATA.** Labill.

HAB. In cacumine montis *Sierra Tejada*.

## CERASUS LUSITANICA. DC.

HAB. Ad rivorum scaturigines zonâ juressi Lusitaniæ montis mediâ, vulgò *Serra de Gerez*, pistaciis atque arbutis admixta. Lusitanicè *Azereiro*.

## POTENTILLA HIRTA. Linn.

HAB. In editioribus montis *Sierra Nevada*.

## POTENTILLA CAULESCENS Linn.

HAB. In monte *Sierra Tejada*.

## POTERIUM ANCISTROIDES. Desf.

HAB. In rupibus montis Jovis propè Dianium. Cum specimenibus Fontesianis optimè quadrat, sed folia duplo minorâ.

## CRATAEGUS MAROCCANA. Pers.

HAB. In Calpe monte.

## CRATAEGUS TANACETIFOLIA. Poir.

HAB. In monte *Sierra Nevada*.

## ULEX NANUS. Smith.

HAB. In altioribus montium Promontorii Magni non procul oppidulo *Cintra*.

## ULEX EUROPAEUS. Linn.

HAB. In collibus circâ Portum Calen, Lusitanis *O Porto*.

Obs. This species is replaced by the following in the south of Portugal, which is probably the plant described by Brotero under the name of *U. Europæus*.

## ULEX AUSTRALIS. Clement.

*U. calycibus glabriusculis, subventricosis, corollæ subæqualibus, foliolo superiore bidentato. Clemente Ensayo de la Vid. pag. 291. (1807.)*

*Ulex provincialis. Lois. Not. pag. 105. tab. 6. fig. 2. (1810).*

HAB. In campis arenosis, et in collibus siccis provinciæ Tarracensis, et per omnem Bætiam, et Lusitaniam meridionalem, copiosissima.

Obs. I cannot see any essential difference between the plant gathered in Provence and the Spanish specimens of *U. australis*, though these latter are much stronger and often considerably larger in all their

parts. We are bound therefore to resuscitate the neglected name of the learned Spaniard Don Simon de Roxas Clemente y Rubio, whose fate it was to write too little, whilst what little he wrote is nearly unknown on this side the Pyrenees. His manuscripts prepared for the press are deposited in the Museum of Natural History of Madrid. Amongst them is a Flora of the Kingdom of Grenada, which would probably have superseded, had it seen the light, much of the detail of this little enumeration.

### ULEX GENISTOIDES. Brot.

*U. ramis glabris, (junioribus villosulis), cylindræcis, striatis; vexillo et carinâ extûs ad margines tomentos; ovario elongato, tomentoso, pluri-ovulato; leguminibus compressiusculis, angustis, villosis, calyce multò longioribus, 4-5-spermis.*

**HAB.** Propè Olisiponem in arenosis ad sinistram Tagi ripam, et in pinetis non longè à fluvio. Abundat circà *Othas Vedras*, et totâ viâ ab oppidulo *Moita* ad Cetobrigam.

### ULEX BOIVINI.

*U. ramis glabris, (junioribus villosissimis), sulcatis, subtetragonis; vexillo et carinâ extûs densè villosis; ovario ovato, brevi, glabro, dorso crinito, 2-3-ovulato; leguminibus ovatis, complanatis, falcatis, nervoso-marginatis, calyce subpersistente vix duplo longioribus, 2-spermis.*

*U. genistoides Salzm. exsicc. Tingit. non. Brot.*

**HAB.** In montosis circà Arundam, legi etiam in Monte Magno seu *Djibbel Kibir* Tingitanorum.

**Obs.** On gathering the *U. genistoides* Brot. in Portugal I immediately perceived that it was not the same plant which I had found in Spain and attributed to that species. My Lisbon tickets bear the following observation «plantæ Hispanicæ (an Genistæ species?) in Turdetaniâ olim lectæ Stauracanthi aphylli nomen incautè in schedis indidi.». The specimens of the same plant which I gathered on the *Djibbel Kibir* in May 1827 were not in fruit, and I owe to M. Boivin, who has paid great attention to the Flora of the Mediterranean, and particularly to that of its African shores, the first information of the difference between the plants of Brotero and Salzmänn, and my Spanish specimens I found identic with the latter. (1) I have much pleasure therefore in attaching to this plant the name of its second discoverer, and the more so as he promises shortly to publish a monographic review of the genera of this section of Leguminosæ. The figure and description of Dr. Lindley (Bot. Reg. tab. 1452) belong to the true *U. genistoides* Brot. raised from Portuguese seeds, but the account of the fruit taken, as Dr. Lindley himself says, from Salzmänn's dried specimens, refers to *U. Boivini*. I am clearly of the opinion of that learned author that the genus *Stauracanthus* should not be retained. It is certain that the *flattened* pods of *U. Boivini*,

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(1) I have some specimens gathered near Algesiras which appear to agree with the plant of Brotero, but they are in too imperfect a state to decide upon with any certainty.

though dispermous are not entirely analogous with those of the typical species of *Ulex* any more than is the longer polyspermous fruit of *U. genistoides*. If however we separate them from *Ulex* we must coin two new genera, for they agree together only in being different from it, but they differ in different ways. Moreover generic sections cannot be so accurately fashioned but that their extremities will vary from the type and lean towards other forms, how numerous soever they may be. As the least therefore of two evils I prefer retaining this little group entire since these two species possess the inflorescence, leaves, branches, and facies of *Ulex*, and differ only in having a fruit somewhat more approaching that of *Genista*. This however is a matter of mere convenience, and I am persuaded that the more minutely we examine natural productions, such is the incessant progression of their changes, the more we shall be induced to separate and distinguish them.

#### GENISTA CANDICANS. Linn.

*Genista Canariensis auctt. quoad patriam Hispaniam, Mauritaniam et Græciam. Bot. Reg. tab. 217. non Linn. Herb. !*

HAB. In montibus Hispaniæ meridionalis frequens.

Obs. This is a very variable species, the southern forms of which approach very nearly to *G. Canariensis*. The principal difference consists in the flower-spikes being leafy which is never the case in that species, the flowers too in *G. Canariensis* are highly fragrant. The utmost limit of the long-spiked southern form of *G. candicans* is found at Madeira, but after a minute examination I cannot seize upon any certain specific differences, though the plant has altogether another air. This species descends southward as far as Teneriffe where it is of rare occurrence, but altogether similar to the plant of the south of Europe.

#### GENISTA PATENS. DC.

*Spartium patens Cav.*

HAB. In monte Sancto Tarraconensium.

#### GENISTA LINIFOLIA. Linn.

HAB. In Calpe monte, in montibus inter Asindonem et fretum Herculeum, et alibi in Bæticâ.

#### GENISTA CINEREA. DC.

HAB. In collibus Bæticis frequens.

#### GENISTA TRIDENTATA. Linn.

HAB. In montosis ad fretum Herculeum, et per omnem Lusitaniam vulgaris.

#### GENISTA SPHEROCARPA. Linn.

HAB. Circa Malacam atque oppida Carratraca, Velez Malaga, et alibi in Bæticâ.



**GENISTA MONOSPERMA. Linn.**

HAB. In arenosis Gaditanis copiosissima.

**GENISTA UMBELLATA. Desf.**

HAB. In collibus Bæticeis ubi vulgò *Bolina*.

**GENISTA HORRIDA. DC.**

HAB. In jugis montium *de las Alpujarras*, in monte *Sierra de Gador*, et in monte *Sierra Nevada*.

**GENISTA HISPANICA. Linn.**

HAB. In Bætice et Lusitaniâ vulgaris.

**GENISTA TRIACANTHA. Brot.**

HAB. In Bætice ex specimine herbarii cl. Hænseler.

**GENISTA SCORPIUS. DC.**

HAB. In montibus aridis Hispaniæ Tarraconensis.

**CYTISUS SPINOSUS. Lamck.**

HAB. Communis in Hispaniâ Tarraconensi.

**CYTISUS LANIGERUS. DC.**

HAB. In asperis provinciæ Bæticeæ.

**CYTISUS TRIFLORUS. L'Herit.**

HAB. In agro Barcinonensi.

**CYTISUS TRIBRACTEOLATUS.**

C. ramis 4-gonis, divaricatis, decumbentibus; foliis 5-foliatis, sessilibus, verticillatim glomeratis, foliolis ovatis, pallidè sericeis; floribus in axiliis foliorum glomeratis, pedicellatis; calyce bilabiato, labio inferiore elongato, angusto, apice 5-dentato; leguminibus...

HAB. In cacumine montis *Picacho de Alcalá de los Gazules*, bidentium morsu assiduo tonsus, et inde forsan solo et rupibus applicata.

**SAROTHAMNUS PATENS.**

*Cytisus patens. Linn.*

S. ramis cylindraccis striatis; foliis 5-foliatis, pedunculatis, foliolis elongato-ovatis, superioribus lanceolatis, subsessilibus; calycis labio inferiore subintegro; carinâ alarum longitudine; stylo subtùs hirsuto, ovario crasso, densè piloso; siliquâ breviusculâ lanatâ.

HAB. In monte Lunæ seu Cynthiæ, hodiè *Serra de Cintra* in Lusitaniâ.

## SAROTHAMNUS BÆTICUS.

S. ramis cylindraceis, striatis; foliis 3-foliatis, foliolisque pedunculatis, obovatis, summis rariùs simplicibus; calycis labio inferiore 5-dentato; carinâ alis breviorè; stylo glabro, ovario elongato piloso; leguminibus.....

HAB. In montosis circâ *Alcalá*, et ex cl. Rambur in pluribus Bæticiæ collibus.

## SOROTHAMNUS VIRGATUS.

S. ramis inferioribus cylindraceis, striatis, cinereis, ramulis angulatis ad folia nodulosis; foliis 3-foliatis, sessilibus, mox deciduis, foliolis linearibus, superioribus simplicibus; calycis labro inferiore 5-dentato, dentibus sæpiùs obsolete; corollâ amplâ; ovario cylindraceo, pilosiusculo, leguminibus.....

HAB. In collibus Bæticiis ex herbariis Ramburiano, et Hæn-seleriano.

Obs. These two latter species are very nearly allied to *S. patens* and to *S. scoparius* *Wimm.* but appear sufficiently distinct from both, though *S. virgatus* may perhaps prove a southern variety of the latter. *S. Bæticus* approaches very near to *S. patens* but is certainly different. It differs likewise from *S. arborens* (*spartum arboreum* *Desf.*) by the shape of its calyx, its ovary, and its leaves, which are not fasciculated as in that species, its more striated branches, and other points.

## CHASMONE ARGENTEA. E. Mey.

HAB. In provinciis Bæticiæ et Tarraconensi vulgaris.

## ADENOCARPUS TELONENSIS. Gay.

HAB. In collibus siccis circâ Malacam, et alibi in Bæticiâ.

## ADENOCARPUS BOISSIERI.

*A. decorticans*. *Boiss. Not. sur l'Ab. Pinsapo. pag. 9.*

HAB. In vallibus calidioribus montis *Sierra Nevada*.

Obs. As the verb *decortico* can only be used in an active sense the epithet *decorticans* is inadmissible. Since then it must be changed, this splendid species cannot well receive a more appropriate appellation, than that which I give it, in honour of the author from whose labours we learn so much of the beautiful region it inhabits. It is indeed truly astonishing that an European plant of almost arboreous stature with spikes of flowers sometimes a foot in length should so long have escaped detection. Its place in the linear series is close to *A. Hispanicus*, to which, though very entirely distinct, it approaches the nearest.

## ONONIS VISCOSA. Lamck.

HAB. In agro Tarraconensi.

## ONONIS RAMOSISSIMA. Desf.

HAB. In arenâ littoris Bætici frequens.

## ONONIS PICTA. Desf.

HAB. In rupibus Lucentinis.

## ONONIS HISPANICA. Lamck.

HAB. In promontorio Charidemo, et ad littora Malacitana.

## ONONIS VARIEGATA. Linn.

HAB. In arenâ maris ad basin montis Calpes.

## ONONIS ORNITHOPODIOIDES. Linn.

HAB. Circâ Malacam.

## ONONIS SPECIOSA. La Gasc.

HAB. In vineis agri Malacitani.

## ONONIS ARRAGONENSIS. ASS.

HAB. In monte *Desierto de las Nieves*, circâ Arundam.

## ONONIS ROSÆFOLIA. DC.

HAB. In torrentis *Genil* locis glareosis propè Eliberim.

## ONONIS CENISIA. Linn.

HAB. In monte *Sierra Nevada*.

## ONONIS MINUTISSIMA. Linn.

HAB. In provinciis Tarraconensi et Bætica vulgaris.

## ONONIS CAPITATA. Cav.

HAB. In monte *Sierra de Onil*, et alibi in agro Lucentino, in montibus Malacitanis, et Barcinonensibus.

## ONONIS FRUTICOSA. Linn.

HAB. In rupe altâ *el Peñon de Jijona*, et in monte *Sierra de Penaguila*.

## ONONIS SPINOSA. Linn.

HAB. Circâ oppidulum *Carratraca*, et alibi in montibus Bæticiis.

## ONONIS HISPIDA. Desf.

HAB. In monte *Sierra Nevada*.

## ONONIS BREVIFLORA. DC.

*O. fœtida*. Schousb.

HAB. In montibus *las Alpujarras*.

## ONONIS SERRATA. Forsk.

HAB. In arenosis Bæticiis frequens, et in pinetis inter lacum  
l'Albufeira, et dexteram Tagi ripam in Lusitaniâ.

## ONONIS MITISSIMA. Linn.

HAB. In arvis Bæticiis frequens.

## ONONIS ALOPECUROIDES. Linn.

HAB. In arvis ad promontorium Junonis.

## ANTHYLLIS VULNERARIA. Linn.

HAB. Plurimæ varietates per totam Hispaniam meridionalem.

## ANTHYLLIS WEBBIANA. Hook.

*A Tejedensis. Boiss. Not. sur le Pinsap. pag. 10.*

HAB. In rupestribus altioribus montis *Sierra Tejeda*, et ex cl.  
Rambur in glareâ torrentis *Genil* ab Alpibus Eliberitanis ut  
videtur devecta.

Obs. This is certainly the plant described by M. Boissier as *A. Tejedensis*, I sent no other seeds of *Anthyllis* to England. Its having assumed a larger form when cultivated prevented him from readily recognizing it as figured. ( See Bot. Mag. tab. 5284 and Hook. Comp. to Bot. Mag. vol 1. pag. 187. ) Sir W. J. Hooker having seen native specimens is now persuaded that the species is very distinct from *A. Vulneraria*. There is it is true a variety of this latter species growing on the same mountain with purple flowers, but which I readily distinguished on the spot as a mere variation of *Vulneraria*, whereas I marked the former as new, and carefully gathered its ripe pods.

## ANTHYLLIS CYTISOIDES. Linn.

HAB. In montibus Hispanicis à Gadibus ad Barcinonem.

## ANTHYLLIS GENISTÆ. Duf.

HAB. In saxosis ad thermas agri Lucentini.

## ANTHYLLIS CORNICINA. Linn.

HAB. Circà Gades et ad oppidum *Algeras*.

## ANTHYLLIS ERINACEA. Linn.

HAB. In montosis Lucentinis, et alibi in Bæticiâ communis.

## LEOBORDEA LUPINIFOLIA. Boiss.

HAB. Propè Malacam in fissuris rupium et torrentium arenâ.

## TRIFOLIUM SCABRUM. Linn.

HAB. Circà Malacam, Tarraconem, et alibi.

## TRIFOLIUM LAPPAGEUM. Linn.

HAB. In montosis Bæticiis.

## TRIFOLIUM CHERLERI. Linn.

HAB. Circà Malacàm.

## TRIFOLIUM STELLATUM. Linn.

HAB. In provinciis Tarraconensi et Bætica frequens.

## TRIFOLIUM SUBTERRANEUM. Linn.

HAB. In monte *Sierra Nevada*.

## LOTUS CRETICUS. Linn.

HAB. Ad lacum Valentinum, et in arenosis maritimis totius Bæticae.

## LOTUS CYTISOIDES. All.

HAB. In collibus Malacitanis.

## LOTUS HISPIDUS. Desf.

HAB. In monte *Sierra Tejada*, occurrit etiam in monte *Sierra Nevada*, et in montibus altis inter oppida *Velez Malaga* et *Alhama*, ubi parvula hispidissima.

## TETRAGONOLOBUS PURPUREUS. Mœench.

HAB. Circà Divi Rocci oppidulum, et alibi in Bætica.

## TETRAGONOLOBUS SILIQUOSUS. Roth.

HAB. In montibus Bæticae communis.

## ASTRAGALUS EPIGLOTTIS. Linn.

HAB. In collibus Malacitanis.

## ASTRAGALUS PENTAGLOTTIS. Linn.

HAB. In Bæticae collibus siccis.

## ASTRAGALUS BÆTICUS. Linn.

HAB. In campis Bæticae.

## ASTRAGALUS MONSPESSULANUS. Linn.

HAB. In agro Tarraconensi.

## ASTRAGALUS SESAMEUS. Linn.

HAB. Circà oppidum *Reuss*, et alibi in agro Tarraconensi.

## ASTRAGALUS MACRORHIZUS. Linn.

HAB. In collibus Bæticiis, in monte Sancto, et alibi in provinciâ Tarraconensi.

ASTRAGALUS NARBONENSIS. Linn.

HAB. In monte *Sierra de Alfacar* (*Rambur*).

ASTRAGALUS CRETICUS. Lamck.

HAB. In montibus *las Alpujarras*, in rupibus elatioribus montis *Sierra Tejada.*, et ex cl. *Rambur* in monte *Sierra Nevada.*

PHACA BÆTICA. Linn.

HAB. In Bæticiæ collibus.

BISERRULA PELECINUS. Linn.

HAB. In Bæticâ vulgaris.

CORONILLA MINIMA. Linn.

HAB. In apricis Bæticiæ frequens.

CORONILLA CRETICA. Linn.

HAB. Propè Olisiponem.

CORONILLA EMERUS. Linn.

HAB. In Hispaniâ Tarraconensi.

CORONILLA GLAUCA. Linn.

HAB. In monte *Arabrigâ*, et in montibus promontorii Magni in Lusitaniâ.

CORONILLA JUNCEA. Linn.

HAB. In montibus *Lucentinis* et *Tarraconensibus*.

ARTHROLOBIUM SCORPIOIDES. DC.

HAB. In arvis Bæticiis frequens.

HIPPOCREPIS CILIATA. DC.

HAB. In arvis circâ *Malacam*, *Tarraconem* et alibi

HIPPOCREPIS SCABRA. Linn.

HAB. In collibus *Lucentinis*.

HEDYSARUM SPINOSISSIMUM. Linn.

*H. capitatum.* Desf.

HAB. In rupibus Bæticiis propè *Eliberim* (*Rambur*).

ONOBRYCHIS CAPUT GALLI. Lamck.

HAB. In monte *Penaguila* agri *Lucentini*.

ONOBRYCHIS SATIVA. Lamck.

HAB. Circâ *Barcinonem*.

ONOBRYCHIS SAXATILIS. All.

HAB. In montibus Lucentinis.

ONOBRYCHIS STENORHIZA. DC.

HAB. Circà *Aygues* oppidulum thermasque agri Lucentini.

ONOBRYCHIS ERIOPHORA. Desv.

HAB. In Lusitanià loco non notato.

LATHYRUS CLYMENUM. Linn.

HAB. In monte Calpe et circà Malacam.

LATHYRUS TINGITANUS. Linn.

HAB. Circà Malacam et in pomœriis oppidi Tartessi seu *Tarifa*.

LATHYRUS CICERA. Linn.

HAB. In arvis circà Tarraconem.

LATHYRUS OCHRUS. Linn.

HAB. Inter segetes totius Hispaniæ australioris.

LATHYRUS SYLVATICUS. Linn.

HAB. Propè Malacam, et in Lusitanià ad oppidulum *Cintra*.

LATHYRUS SETIFOLIUS. Linn.

HAB. Circà Malacam.

VICIA GRACILIS. Lois.

HAB. Ad Calpen.

VICIA CRACCA. Linn.

HAB. In agro Tarraconensi.

VICIA POLYPHYLLA. Desf.

HAB. Ad montem Sanctum Tarraconensium.

VICIA ONOBRYCHIOIDES. Linn.

HAB. Propè Eliberim (*Rambur*).

VICIA ATROPURPUREA. Desf.

*Vicia villosa. Brot.*

HAB. In provinciis Tarraconensi et Bæticâ vulgaris, et ad sinistram Tagi ripam propè Olisiponem, et alibi in Lusitaniâ.

VICIA NARBONENSIS. Linn.

HAB. In arvis Tarraconensibus.

VICIA LUTEA. Linn.

HAB. In Bæticæ arvis vulgaris.

VICIA HURTA. Balb.

HAB. In arvis Bæticis et Tarraconensibus frequens.

VICIA SATIVA. Linn.

HAB. In arvis totius Hispaniæ australioris frequens.

VICIA PEREGRINA. Linn.

HAB. In Hispaniâ Tarraconensi et in Bæticâ vulgaris.

PISUM ARVENSE. Linn.

HAB. Circâ Tarraconem.

LUPINUS ANGUSTIFOLIUS. Linn.

HAB. In agris Bæticis vulgaris.

LUPINUS LUTEUS. Linn.

HAB. Ad margines agrorum in Bæticâ.

LUPINUS HIRSUTUS. Linn.

HAB. Circâ Malacam ad ripas torrentis.

CNEORUM TRICOCCUM. Linn.

HAB. Inter Malacam et oppidulum *Torre de la mar*.

RHAMNUS ALATERNUS. Linn.

HAB. Varietates plurimæ per totam peninsulam Ibericam.

RHAMNUS INFECTORIUS. Linn.

HAB. In monte *Sierra Tejada*, et in reliquis Bæticæ montibus vulgaris.

RHAMNUS OLEOIDES. Linn.

HAB. In rupibus montis *Sierra Nevada*.

RHAMNUS LYCIOIDES. Linn.

HAB. In provinciâ Tarraconensi et in Bæticâ vulgaris.

ZIZIPHUS LOTUS. Lamck.

HAB. In arenâ maris propè promontorium Charidemum.

Obs. This species belongs to the interior of Africa, it is exceedingly abundant in the plain around the city of Marocco, but does not descend as far as the Canaries. Its northernmost station is probably



the south of Sicily, and this hot corner of Spain, or about the 37th degree of north latitude. It does not appear in Sardinia, nor in Portugal, unless it be yet to be found in the Algarves, for the cultivated plant described by Brotero under this name is probably a variety of *Zizyphus vulgaris*.

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**FAGONIA CRETICA.** Linn.

HAB. Circà Lucentum, et alibi in aridis Bæticæ.

**PEGANUM HARMALA.** Linn.

HAB. In pomœriis oppidorum Bæticorum.

**RUTA ANGUSTIFOLIA.** Pers.

HAB. In montibus Saguntinis.

Obs. This plant and *R. bracteosa*, *macrophylla*, *divaricata*, and perhaps some others appear to be peculiar developments of a common species which is probably *R. Chalepensis*, Linn.

**RUTA MONTANA** HORT. Kew.

HAB. Inter oppida Velez Malaga et *Athama*, necnon in collibus Olisiponensibus.

**HAPLOPHYLLUM LINIFOLIUM.** A. de Juss.

HAB. In Bæticâ circà Gades, ex herb. Cabreræ.

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**ZYGOPHYLLUM ALBUM.** Linn.

HAB. In arenis salsis ad ostium Iberi.

Obs. This is the true *Z. album*, L. distinguished by its stellated capsule from the *Z. Fontanesii* Webb et Berth. *Phytogr. Can.* p. 17, tab. 1. which has orbicular or orange-shaped fruit flattened frequently at its two poles. This Spanish station is wonderfully northern for an Egyptian species, nearly the 41st degree of N. latitude.

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**ERODIUM MALACOIDES.** Willd.

HAB. In arvis et ruderatis Hispaniæ Bæticæ et Tarraconensis cum *E. moschato* et *botryoide* vulgare.

**ERODIUM TRICHOMANEFOLIUM.** L'Herit.

HAB. In cacumine montis *Sierra Tejeda*, legit etiam in monte Nigro, seu *Sierra Prieta*, et in monte *Sierra Nevada* cl. Rambur. A plantâ Syriacâ Billardieri in monte Libano lectâ nullo prorsus discrepat modo.

**ERODIUM ASPLENIROIDES.** Willd.

**HAB.** In monte *Sierra Nevada*.

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**ACER OPALUS.** Linn.

**HAB.** In dumetis montis *Sierra Nevada*.

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**HYPERICUM DIVERSIFOLIUM.** DC.

**HAB.** In collibus Bæticis et Saguntinis, et in Lusitaniâ ad oppidum *Cintra*.

**HYPERICUM CRISPUM.** Linn.

**HAB.** In arvis siccis Bæticæ.

**HYPERICUM TOMENTOSUM.** Linn.

**HAB.** Ad fossas circâ *Malacam*, et alibi in Bæticâ.

**HYPERICUM LUSITANICUM.** Poir.

**HAB.** In Bæticâ loco non notato.

**HYPERICUM ERICOIDES.** Linn.

**HAB.** In rupestribus humidiusculis montis *Sierra de Alfacar* (*Rambur*).

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**MALVA PARVIFLORA.** Linn.

**HAB.** Ad vias in Bæticâ.

**MALVA ROTUNDIFOLIA.** Linn.

**HAB.** Varietas pusilla in monte *Sierra Tejada*.

**MALVA CRETICA.** Linn.

**HAB.** In monte Jovis propè *Dianium*.

**MALVA HISPANICA.** Linn.

**HAB.** In collibus *Malacitanis*.

**MALVA TOURNEFORTIANA.** Linn.

**HAB.** In collibus *Malacitanis*.

**LAVATERA MARITIMA.** Linn.

HAB. In collibus Saguntinis, et in Bæticâ.

**LAVATERA OLBIA.** Linn.

HAB. In collibus Olisiponensibus et Cintranis.

**LAVATERA OBLONGIFOLIA.** Boiss.

HAB. In cistetis aridis montium Bæticorum *las Alpujarras*. Colitur in horto Milfordiensi è seminibus jam ab anno 1826 ex Hispaniâ missis.

**ALTHEA OFFICINALIS.** Linn.

HAB. In pratis argillosis veteris regum Alhamaridum, (nunc Wellingtoniæ et Lanciæ Transcudanæ ducis,) villæ *el Soto de Roma*.

**LINUM MARITIMUM.** Linn.

HAB. In arenosis provinciæ Tarraconensis et in Bæticâ cum L. Gallico frequens.

**LINUM TENUIFOLIUM.** Linn.

HAB. In agro Tarraconensi.

**LINUM SUFFRUTICOSUM.** Linn.

HAB. In monte *Sierra de Agua*, in collibus Gaditanis, et alibi in Bæticâ.

**LINUM NARBONENSE.** Linn.

HAB. In agro Tarraconensi.

**QUERIA HISPANICA.** Linn.

HAB. Circà Gades.

**ALSINE SEGETALIS.** Linn.

HAB. In arvis Bæticis.

**ALSINE RUBRA.** Wahl.

HAB. In arvis Bæticis frequens.

**ALSINE MARGINATA.** Reichb.

HAB. In littoribus arenosis lacûs Valentini.

## ALSINE PROCUMBENS.

*Arenaria procumbens.* Wahl.

HAB. In fissuris rupium apricarum circà Malacam, Eliberim, et alibi in Bæticâ.

## ARENARIA SERPYLLIFOLIA. Linn.

HAB. In Bæticâ frequens.

## ARENARIA PURPURASCENS. Ram.

HAB. In stagnis elatis prope verticem montis *Sierra Nevada*.

## ARENARIA TETRAQUETRA. Linn.

β *imbricata*.

*A. imbricata.* La Gasc.

*A. amabilis.* Bory.

HAB. In Bæticæ collibus frequens. β In cacumine montis *Sierra Nevada*.

ARENARIA PUNGENS. Clem. (*in La Gasc. Gen. et Sp. p. 15.*)

HAB. In cacumine montis *Sierra Nevada*.

Obs. I can scarcely perceive in this species any thing beyond an uniflorous variety of the foregoing, and I am strengthened in this opinion by the identity of its internal structure and fruit. The differences of its appearance are considerable. Its strait or slightly recurved subulate leaves are 6 to 8 lines long, the sepals are 4 lines in length, and the flowers are placed on short foot-stalks about 6 lines long, so that the upper pair of leaves do not form bracts at the base of the calyx as is commonly the case in *Arenaria tetraquetra*. Such differences may possibly be specific, as I have not met with any other variety in which they are found, and it is singular that the plant occurs almost in contact with the var β of the above.

## CERASTIUM TOMENTOSUM. Linn.

HAB. In monte *Sierra Tejada*.

## CERASTIUM GLOMERATUM. Thuill.

*C. minutulum* Desmoul. *in Dur. exsicc. Astur.*

HAB. In rupibus montis *Picacho de Alcalá de los Gazules*.

## DIANTHUS PROLIFER. Linn.

HAB. In Bæticâ vulgaris.

## DIANTHUS GALLICUS. Pers.

HAB. In montosis ad promontorium Magnum in Lusitaniâ.

## DIANTHUS ATTENUATUS. Smith.

*D. Malacitanus.* Hæns!

HAB. In collibus Malacitanis, in monte Jovis propè Dianium, in

monte *Penaguila* agri Lucentini, in montibus *Alpujarras*, et alibi in rupestribus Bæticiis frequens.

**DIANTHUS PUNGENS.** Linn.

β minor.

*D. Hispanicus.* Ass.

HAB. In montosis Bæticiis. β In monte *Sierra Tejada*.

**SAPONARIA OCYMOIDES.** Linn.

HAB. In Hispaniâ citeriore propè *Falçette*.

**SAPONARIA VACCARIA.** Linn.

HAB. In monte *Sierra Nevada*.

**CUCUBALUS BACCIFER.** Linn.

HAB. In sepibus circà oppidum *Athama*.

**SILENE MARITIMA.** With.

HAB. In arenâ maris ad ostia Durii.

**SILENE GALLICA.** Linn.

HAB. Varietates plurimæ per totam Hispaniam meridionalem.

**SILENE DISTYCHA.** Willd.

*S. tricuspidata.* Desf!

*S. coarctata.* Duf! *La Gasc!* *Salzm!*

HAB. In collibus Bæticiis.

**SILENE NOCTURNA.** Linn.

HAB. In arvis Bæticiis et Tarraconensibus frequens. Ultrà formas mirè varias hùc olim relatas, referendæ sunt *S. pinguis* Vahl. *S. apetala* Willd. *S. nyctantha* Willd. *S. brachypetala* Rob. et Cast. *S. neglecta* Ten.

**SILENE VESPERTINA.** Retz.

HAB. In arvis et ruderatis Bæticiæ frequens. Hic quoque ultrà species auctorum hùc dudùm relatas, atque, ut credo, olim reducendas, jam eòdem ductandæ sunt insuper. *S. sericea* All! *S. canopica* Del! *S. tubiflora* Duf! *S. canescens* Ten! *S. pubescens* Oth! *S. decumbens* Oth! *Salzm!* *S. diffusa* Mor!

**SILENE NICÆENSIS. All.***S. arenaria. Desf!***HAB.** In arenosis provinciæ Bæticiæ frequens præsertim maritimis, et longè à mari propè Eliberim.**SILENE CONOIDEA. Linn.****HAB.** In arvis circà oppidum *Onil* agri Lucentini, et alibi in Bæticià.**SILENE HISPIDA. Desf.****HAB.** In arvis Malacitanis.**SILENE INAPERTA. Linn.****HAB.** In rupibus siccis circà Eliberim.**SILENE RUBELLA. Linn.***S. segetalis. Duf!***HAB.** In arvis Bæticiæ frequens.**SILENE NUTANS. Linn.****HAB.** In rupibus regionis mediæ montis *Sierra Nevada*.**SILENE RAMBURIANA.**

*S. caulibus decumbentibus, basi lignosis; foliis omnibus sessilibus, lineari-lanceolatis, acutis, molliter glanduloso-pubescentibus, subtus venosulis, 5-8-nerviis, pedunculis brevibus 4-2-floris; calycibus strictis 10-purpureo-striatis, glanduloso-pubescentibus, longissimis; petalis venosis, intus purpureis, limbo ad medium usque in laminas binas angustas, obtusas, partito, fauce parapetalis 2 auctâ; gynophoro capsulâ ferè duplò longiore.*

**HAB.** In rupestribus aridis regionis mediæ montium *Eliberitanorum de la Sierra Nevada*, ubi nos mense Augusto fructiferum legimus, *Junio floridum* invenit cl. *Rambur*.

**Obs.** I take the opportunity of dedicating this species to *M. Rambur* well known to zoologists by his *Fauna of Andalusia*, and whose herbarium formed in the same rich country contains many interesting plants not found either by *M. Boissier* or myself. The present species approaches both *S. Vallesiaca*, *Linn.* and *S. longiflora*, *Ehrh.* It is distinguished from the former by its inflorescence, and from the latter by its cespitose habit and other characters.

**SILENE VELUTINA. Pourr.***S. suffruticosa. Desf!**S. Salzmanni. Otth!*

**HAB.** In rupibus præruptis montis *Calpes*. Legit etiam in monte *Anticariæ*, seu *Sierra de Antequera* cl. *Rambur*.

**Obs.** This species is easily distinguishable from the preceding

by its ovate leaves, pubescent, but not glandulous, by its many-flowered stalks, and its much shorter gynophore. The *S. Requienii* Oth. comes very near this species, but is a variety of *S. fruticosa*, Linn.

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FRANKENIA PULVERULENTA. Linn.

*F. virens*. Desf. Cat. Hort. Par. pag. 407!

HAB. In littore Hispaniensi vulgaris.

Obs. The *F. virens*, Desf. is the larger southern form of this species with revolute pointed leaves, such as it occurs in Egypt and the Canary Islands, though I neglected noting this synonym in the *Phytographia Canariensis*. My specimens collected at Cadiz agree entirely with the plant of Desfontaines.

FRANKENIA CAPITATA. Webb et Berth. Phytogr. Can. pag. 131.

α *hirsuta* *F. hirsuta*. Linn? *F. intermedia*. DC.

β *lævis*. *F. lævis*. Linn.

γ *thymifolia*. *F. thymifolia*. DC.

HAB. α Frequens in littore Bætico. β Ad fretum Herculeum circa Calpen montem. γ Propè oppidum *Alhama*.

FRANKENIA REVOLUTA. Forsk.

*F. Corymbosa*. Desf!

HAB. Inter Eliberim et Portum Magnum. Totam insulam, seu scopulum *Alboran*, inter Hispaniam et promontorium Africae Rusadir sitam, stirpibus cæteris ferè omnibus exclusis, densissimè vestit, occurrit etiam copiosa in Tribus Insulis.

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POLYGALA VULGARIS. Linn.

HAB. In provinciâ Tarraconensi, et in montibus Bæticae *Sierra Tejada* et *Sierra Nevada*.

POLYGALA AMARA. Linn.

HAB. Ad ripas fluminis *Basoz* propè prædium Carthusianorum *Barcinonensium* et circa oppidum *Reuss*.

POLYGALA MONSPELIACA. Linn.

*P. glumacea*. Sibth. et Smith?

HAB. Per totam Hispaniam meridiionalem.

## POLYGALA SAXATILIS. Desf.

*P. juniperina. Cav.**P. linearis. La Gasc. ex Hæns. herb.*

HAB. In montibus non procul cœnobio Carthusianorum Barcinonensium, circà Tarraconem, in montibus circà oppidulum *Carratraca*, cæterisque Malacitanis, et alibi in Bæticâ. Invenit etiam in monte *Sierra Segura* venerabilis monachus *Muñoz*. In Lusitaniâ occurrit copiosa trans Tagum inter arbusta arenæ auriferæ.

## POLYGALA MAJOR. Jacq.

*P. rosea. Desf!*HAB. In monte *Sierra de Alfacar (Rambur)*.

Obs. I have carefully compared the plant of Desfontaines with that of Jacquin, and have found them identic. The length of the gynophore, on the shortness of which in his plants Desfontaines founded his species, is the same in both.

## POLYGALA MICROPHYLLA. Linn.

 *Ic. Hoffmanss. et Link. Fl. Port. tab. 56. Brot.* *Phyt. Lus. vol. 2. tab. 175.*

HAB. Ad montem *Picacho de Alcalá de los Gazules*, et in dumetis montosis inter oppida *Alcalá* et *Algesiras*. In Lusitaniâ ericetis vulgaris.

## DROSOPHYLLUM LUSITANICUM. Link.

HAB. Propè oppidum *Algesiras*.

## RESEDA LUTEA. Linn.

HAB. In Bæticâ vulgaris.

## RESEDA LANCEOLATA. La Gasc.

HAB. In montibus *las Alpujarras*, et propè Portum Magnum.

A precedente non multum diversa, et, ob fructum longiùs productum *R. crystallinæ*, Webb. et Berth. affinis.

## RESEDA STRICTA. Pers.

HAB. In monte Sancto Tarraconensium.



**RESEDA ALBA. Linn.**

**HAB.** In montibus Calpe, *las Alpujarras*, *Sierra Tejeda*, et alibi in Bætica.

**RESEDA GIGANTEA. Pourr.**

**HAB.** In torrentium glareâ propè *Eliberim (Rambur)*. Præcedenti valdè affinis.

**RESEDA PHYTEUMA. Linn.**

**HAB.** In Hispaniis frequens, variat caule et foliis hispidis.

**RESEDA MACROSPERMA. Reichb.**

**HAB.** Propè Gades, *Alcalá de los Gazules*, et passim per totam Bætiam.

**LUTEOLA TINCTORIA. Var. australis Webb et Berth. Phyt. Can. pag. 106.**

**HAB.** In Bæticae arvis et ruderatis vulgaris.

**LUTEOLA COMPLICATA.**

*Reseda complicata. Bory.*

**HAB.** In montibus editioribus Alpium Eliberitanarum, legi ad basin cacuminis excelsi *el Picacho de la Veleta*, ubi primus armis accinctus invenit celeberrimus chiliarchus Bory. In monte *Mulahasan*, qui ter centum et amplius pedes speculæ ( seu *de la Veleta* ) rupes supereminet non defectura, quem tamen, quod nunc mihi dolet, è longinquo tantùm prospicere, nec aggredi unquam licuit.

**Obs.** The character of the genus *Luteola* (see *Phytogr. Can.* p. 104) must be altered so as to admit this species and the *Luteola glauca* (*Reseda glauca, Linn.*). The capsule in the three species is similarly formed, and differs only in the number of its valves, a difference occurring equally in the genus *Reseda*, and I learn from M. Gay, who has made long and accurate researches on the species of this family, that the value of the number of parts in the group is less than I supposed, and indeed almost null. Another difference between *L. tinctoria* and its two congeners consists in the single large upper petal of the former, but this anomaly has been most ingeniously explained, and its differential value diminished in the learned memoirs of M. A. de St-Hilaire on the *Resedaceæ* (see *Prem. Mem.* pag. 14. likewise our *obs. ad calc. Resedellæ Phyt. Can.* pag. 107). Even if we do not admit the very remarkable hypothesis of M. de St-Hilaire, there is nothing in the enlargement of one petal and not of two in this strange family to prevent the union of the three species of *Luteola*. The genus therefore, as I propose to reconstruct it, will contain two groups, one formed of *L. tinctoria*, the other of *L. glauca*, and *L. complicata*. I intend to develop this view of it in the Spanish iconography now preparing.

## ASTROCARPUS SESAMOIDES. DC.

HAB. In Bæticæ montibus *Sierra de Agua*, et alibi. Var. purpurascens per totam Lusitaniam occurrit.

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## VIOLA CANINA. Linn.

HAB. In agro Tarraconensi.

## VIOLA HIRTA. Linn.

HAB. In monte *Montserrat*.

## VIOLA ARBORESCENS. Linn.

*V. suberosa. Desf.*

HAB. In rupestribus circà Malacam, ad promontorium Junonis, in pinetis Gaditanis, et alibi in Bæticâ.

## MNEMON TRICOLOR. Spach.

HAB. Per totam Bæticam et Hispaniam Tarraconensem.

## MNEMON TENELLUM.

*Viola tenella. Poir!*

HAB. In rupestribus siccis propè cacumen montis *Sierra Nevada*.

## MNEMON LAGASCÆ.

M. caulibus elongatis, repentibus, subalatis; foliis rotundatis, aut ovatis, glabris, integris, aut sinuato-crenatis, petiolatis, stipulis conformibus; calcare brevi, saccato.

*Viola Cenisia. La Gasc. et Rodr. Anal. Cienc. Nat. vol. 5. pag. 270.*

HAB. In locis petrosis humidis summi montis *Sierra Nevada*.

Obs. This addition to the pansies, which M. Spach has separated from the true violets, resembles entirely the *M. cenisium*, but amongst the many varieties of that species I have never met with any having so short a spur. After all perhaps it is only a variety of that plant, for the manner of growth, and the leaves are identic but the flowers are smaller, which may account for the shortness of the spur.

## CHRYSION BIFLORUM. Spach.

HAB. In rupibus altioribus montis *Sierra Nevada*.

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## FUMANA VULGARIS. Spach.

β major *Cistus Fumana* α *calycinus*. Desf.

HAB. In collibus Bæticis et Tarraconensibus vulgaris.

## FUMANA LÆVIPES. Spach.

HAB. In monte Jovis propè Dianium et per totam Bæticam.

## FUMANA THYMIFOLIA. Spach.

β *viscida* *Helianthemum glutinosum*. Linn.

γ *glabra* *Cistus lævis*. Cav.

HAB. In monte *Sierra Nevada*, in montosis Lucentinis, et per totam Bæticam. β Circà Barcinonem, Tarraconem, ad ostia Iberi, in montibus Malacitanis, in monte Arabrigâ et alibi.

γ In arenosis ad lacum Valentinum, qui nunc *la Albufera*.

## HELIANTHEMUM LEDIFOLIUM. Willd.

HAB. In Bæticæ siccis frequens.

## HELIANTHEMUM SALICIFOLIUM. Pers.

HAB. In siccis circà *Alcalá de los Gazules*, et alibi in Bæticâ.

## HELIANTHEMUM ÆGYPTIACUM. Mill.

HAB. Inter Gades et *Alcalá de los Gazules*, in monte *Sierra de Agua*, et alibi in Bæticâ passim.

## HELIANTHEMUM VARIABILE. Spach.

β *discolor*. Spach.

γ *hirtum*. Spach.

HAB. Per Hispaniam meridionalem ubiquè. γ In agris Barcinonensi, Tarraconensi, Gaditano, et alibi frequens.

## HELIANTHEMUM LAVANDULÆFOLIUM. DC.

HAB. Circà Dertosam, Lucentum, et alibi per provincias ambas in rupestribus siccis communis.

## HELIANTHEMUM SQUAMMATUM. Pers.

HAB. Ad thermas agri Lucentini, et alibi circà Lucentum vulgare.

## RHODAX CHAMÆCISTUS. Spach.

HAB. Per totam Bæticam vulgatissima, et in Lusitaniæ monte Arabrigâ.

## RHODAX DICHOTOMUS. Spach.

HAB. Ad Dertosam et alibi in Hispaniâ meridionali.

RHODAX ORIGANIFOLIUS. Spach.

HAB. In collibus Saguntinis.

TUBERARIA ANNUA. Spach.

HAB. Per totam Bæticam vulgaris.

TUBERARIA PERENNIS. Spach.

HAB. In locis argillosis Bæticæ frequens.

HALIMIUM ATRIPLICIFOLIUM. Spach.

HAB. In montosis Bæticis propè Arundam loco dicto *Desierto de las Nieves*, et in monte *Sierra Torroz*.

HALIMIUM LEPIDOTUM. Spach.

HAB. Per totam Bæticam vulgare.

HALIMIUM UMBELLATUM. Spach.

HAB. In monte Juresso Lusitaniæ.

LADANIUM LAURIFOLIUM. Spach.

HAB. In cistetis Hispanicis frequens et copiosissima.

LADANIUM OFFICINARUM. Spach.

HAB. In cistetis ad radices montis Mariani, Malacitanis, et alibi copiosissima per totam Hispaniam australem.

LEDONIA POPULIFOLIA. Spach.

HAB. Ad radices montis Mariani, in monte Arabrigâ, et alibi.

LEDONIA HIRSUTA. Spach.

HAB. Ad Braccaram Augustam, et alibi in Lusitaniâ.

STEPHANOCARPUS MONSPELIENSIS. Spach.

HAB. Per totam Hispaniam meridionalem vulgatissimâ.

CISTUS CRISPUS. Linn.

HAB. In montibus Saguntinis, Arundinensibus, et alibi per totam Bæticam.

CISTUS ALBIDUS. Linn.

HAB. Per totam Hispaniam meridionalem cum *C. salvifolio* vulgaris.

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## CAPPARIS SPINOSA. Linn.

β *inermis* *C. ovata*. Desf! *C. Fontanesii*. DC. *C. rupestris*. Sibth. et Smith.

HAB. α In rupestribus propè Malacam, *Velez Malaga*, *Alhama* et alibi. β In rupibus maritimis agri Lucentini.

## CLEOME VIOLACEA. Linn.

HAB. Circà Malacam, Cordubam (*Rev. Muñoz*), et alibi in Bætica.

## CRAMBE FILIFORMIS. Jacq.

*C. Hispanica*. Linn?

*C. reniformis*. Desf.

HAB. In montibus Malacitanis, propè oppidulum *Carratrac*a, et ex cl. Rambur in torrentium alveis circà *Eliberim*.

Obs. Trough what accident Jacquin located this plant in Patagonia I am unable to ascertain. The specimens preserved under this name in the herbarium DC. are identic with the Spanish plant as found by M. Rambur and myself, whilst those cultivated by Desfontaines in the Paris garden differ only in the greater magnitude of their leaves. On examining Jacquin's figure I have no doubt of its belonging to this plant, whether it be really indigenous, which is very improbable, in the austral hemisphere, or whether that locality was assigned it through error. In the absence of authentic specimens of the *C. Hispanica* of Linnæus I am unwilling to unite it with the above species, though I have little doubt of their identity.

## CAKILE MARITIMA. Scop.

*C. Americana*. Nutt. ex specimine Canadensi.

*C. Cubensis*. H. B. et Kunth!

HAB. In littore Tarraconensi, ad ostium Iberi, et in littoribus Bætis frequens.

## RAPISTRUM RUGOSUM. Boerh.

HAB. In totâ Hispaniâ meridionali et in Lusitaniâ vulgare.

## RAPHANUS RAPHANISTRUM. Linn.

HAB. In arvis Hispaniæ meridionalis vulgaris.

## RAPHANUS SATIVUS. Linn.

β *Gayanus* *Raphanistrum Gayanum*. Fisch. et C. A. Mey.

HAB. Hùc illùc hortis elapsa.

Obs. Since the publication of the remarks on *R. sativus*, *Linn.* in the *Phytographia Canariensis* (pag. 83, tab. 8 A, fig. 18-24). Professors Fischer and Meyer (*Index 4 sem.* pag. 44) have formed the *Raphanistrum Gayanum* from the variety therein named of *R. sativus* which is distinguished by the articulation at the base of the pod, for there is no other difference. I have since carefully cultivated several garden sorts, and they have yielded me these two varieties indifferently at different times, but when left to sow themselves they have assumed entirely articulated pods, frequently even strangulated between the seeds as in *Raphanistrum*. I am inclined therefore to conclude that this second variety is the normal form of the species though to distinguish it, it must continue to bear the name of the learned and accurate observer who first noticed it. My experience as yet has been as follows. Of six varieties bought at a seed shop the yellow (1) and violet alone produced all their pods articulated, the large variety called *raïfort* produced some plants with articulated, some with entire pods. On the following year the first two varieties, bought at a different shop, produced very few plants with articulated pods, whilst the grey variety had all its pods articulated. The disappearance of the lower articulation is effected, not by its abortion, but as may be easily seen in several varieties, by its coalition and fusion with the upper, a process which takes place likewise in the beak of the fruit of *Sinapis arvensis*, *Linn.* The dissepiment confounded by me formerly with the enclosing membranes (*Phyt. Can.* p. 84), exists, and the pod is decidedly bilocular.

#### ERUCARIA ALEPPICA. Gaert.

HAB. In montosis circà *Onil* et alibi in Bæticâ.

#### HIRSCHFELDIA ADPRESSA. Moench.

*Sinapis incana.* *Linn.*

HAB. Ubiquè in Hispaniâ et Lusitaniâ meridionali.

Obs. *Hirschfeldia* differs only from *Erucaria* by the conformation of its embryo. The radicle is incumbent in both, but in *Hirschfeldia* the cotyledons are conduplicated, that is their sides are folded inwards as in *Sinapis*, whereas in *Erucaria* their upper extremity is folded downwards, so as to form whith the radicle a spiral convolution. This is the only essential difference between the two genera, and I know not whether it is sufficient to keep them asunder. This will depend on the importance which shall be found to belong to the plications of the embryo in the formation of natural groups in this family, being the divers means which nature has imagined to pack it in a convenient compass. It remains to be seen whether she has accomplished this indifferently in various ways in all the most natural groups.

#### BRASSICA CHEIRANTHOS. Vill.

β *montana.* *DC.*

HAB. α In Lusitaniæ montibus Lunæ. β In alpihus Eliberitanis.

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(1) The names used by gardeners allude to the colour of the root.

**BRASSICA FRUTICULOSA.** Cyr.

HAB. In montosis inter Eliberim et Portum Magnum.

**BRASSICA SABULARIA.** Brot.

HAB. Propè Olisiponem ad sinistram Tagi ripam.

**ERUCASTRUM OBTUSANGULUM.** Reichb.

HAB. In provinciâ Tarraconensi.

**DIPLTAXIS CATHOLICA.** DC.

*D. virgata.* DC!

HAB. Circà Hispalim, Malacam, et alibi in Bæticâ et Lusitaniâ copiosissima.

**DIPLTAXIS HISPIDA.** DC.

*D. pendula.* DC.

*D. crassifolia.* DC.

HAB. In rupibus maritimis propè Lucentum.

**EUZOMUM ERUCOIDES.** Spach.

HAB. Copiosissimum circà Barcinonem.

**MORICANDIA ARVENSIS.** DC.

HAB. In campis petrosis circà Lucentum et alibi in Bæticâ.

**MORICANDIA RAMBURII.**

*M. foliis crassis, subacuminatis, inferioribus lanceolato-spathulatis, in petiolum attenuatis, superioribus ovatis, amplexicaulibus; floribus magnis; ovario cylindræo, styloque elongato; stigmatè suborbiculari-claviformi; siliquis longis, compressiusculis, valvulis nervo medio subcarinatis, nervulis utrinque 2 anastomozantibus irregulariter stipato; seminibus ellipsoideis, submarginatis, uniseriatis.*

HAB. In arenâ torrentis *Genil* circà Eliberim, et ex cl. Rambur in fissuris rupium montium Malacitanorum.

Obs. Though this species deviates remarkably from the character of the genus, in having its seeds uniseriate, yet is it in every other respect a true *Moricandia*, and so like the original species as not to be distinguished from it at first sight. The seeds are much larger than in *M. arvensis*, and this has probably caused the suppression of the opposite ovules, for they do not seem to abort, as there are no traces of their previous existence in the ovarium. The ovules are placed farther apart, the pod is narrower, and they have thence arranged themselves one after the other. I have likewise met with uniseriate pods in *M. arvensis*, the character therefore is not important. *Moricandia* modified to admit this new inmate will still differ from *Brassica* (and a part of *Sinapis* Auctt.) by its purple flowers, its ovoid or elliptical submarginate seeds, and its general habit, and above all by its stigma decurrent exteriorly on each side of the style,

and not capitated as in *Diplotaxis*, DC. and *Euzomum*, Spach (*Suites à Buffon*, vol. 6, pag. 580). This latter character will exclude from the genus *M. hesperidifolia*, DC. which is a *Diplotaxis* and very nearly allied to *D. erucoides*, DC., or rather it must become *Euzomum hesperidiflorum*, since *Euzomum* forms a very useful division containing the purpleflowered *Diplotaxis*, and bearing about the same relation to that genus that *Moricandia* does to *Brassica*. The *Brassica teretifolia*, Desf. appears to be altogether a real *Moricandia*. I have followed the plan of Professor Koch and placed the epithets more decidedly diagnostical in Italics, in order to bring at once to view the essential differences between *M. Ramburii* and *M. arvensis* to which it comes very near.

**MATTHIOLA TRISTIS. R. Br.**

HAB. Ad thermas Lucentinas nunc *Aygues*, in monte *Sierra de Tela*, et alibi in Bæticâ.

**MATTHIOLA SINUATA. R. Br.**

HAB. Circâ Malacam (*Rambur*).

**MATTHIOLA TRICUSPIDATA. R. Br.**

HAB. Circâ Malacam (*Rambur*).

**MATTHIOLA LUNATA. DC.**

HAB. In collibus Saguntinis, et in montibus *Alpujarras*. An à præcedente verè diversa?

**MATTHIOLA PARVIFLORA. R. Br.**

HAB. In campis aridis ad Charidemum promontorium, et ex cl. *Rambur* et *Salzmann* in arenosis circâ Malacam.

**MALCOLMIA LITTOREA. R. Br.**

HAB. In arenosis circâ lacum *Valentinum la Albufera*, et ad *Durii* et *Tagi* fauces.

**MALCOLMIA AFRICANA. R. Br.**

HAB. Ad littora *Barcinonis* et *Tarraconis*.

**MALCOLMIA PARVIFLORA. DC.**

HAB. In arenosis *Malacitanis*.

**MALCOLMIA LACERA. DC.**

HAB. Circâ *Cordubam*, *Malacam*, et in totâ Bæticâ vulgaris.

**CARDAMINE HIRSUTA. Linn.**

HAB. Circâ *Barcinonem*, *Eliberim*, et alibi in Bæticâ.



## BARBAREA PRÆCOX. R. Br.

HAB. In humidiusculis Bæticiæ frequens.

## ERYSIMUM CANESCENS. Roth.

HAB. In monte *Sierra Tejada*.

## PACHYPODIUM COLUMNÆ.

*Sisymbrium Columnæ. Jacq.*

HAB. Circà Malacam et in agro Tarraconensi.

## PACHYPODIUM ERYSIMOIDES. Webb. et Berth.

*Sisymbrium erysimoides. Desf.*

*Sisymbrium nitidum. Zea. S. rigidulum. La Gasc.*

HAB. In Bæticiæ arvis et ruderatis.

## DESCURAINIA IRIO. Webb et Berth.

*Sisymbrium Irio. Linn.*

HAB. In agro Barcinonensi, Malacitano, et alibi.

## DESCURAINIA PINNATIFIDA.

*Sisymbrium pinnatifidum. DC.*

HAB. In monte *Sierra Nevada*.

## ALYSSUM CALYGINUM. Linn.

HAB. In apricis Bæticiis et provinciæ Tarraconensis frequens.

## ALYSSUM CAMPESTRE. Linn.

HAB. Circà Tarraconem.

## ALYSSUM ATLANTICUM. Desf.

HAB. In montosis Malacitanis.

## ALYSSUM ALPESTRE. Linn.

HAB. In montosis circà oppidum *Curratracæ*.

## ALYSSUM SERPYLLIFOLIUM. Desf.

HAB. Circà Eliberim.

## KONIGA MARITIMA. R. Br.

HAB. In apricis maritimis frequens.

## KONIGA HALIMIFOLIA. Reichb.

*Alyssum longicaule. Boiss.*

HAB. In monte *Sierra Tejada*, et in monte *Sierra de Alfacar* ex cl. Rambur.

Obs. In the *Phytographia Canariensis* I adhered to the opinion of

Professor Koch, and adopted as more ancient the genus *Lobularia*, but it appears that this name has been otherwise employed in zoology, Koniga therefore of right takes its place. Professor Reichenbach has placed our plant in this genus, and M. C. A. Meyer has created *Ptilotrichum* for two plants of northern Asia which may likewise form a part of it. The only difference in these plants consists in the number of the prominences of the glandular ring, a matter not of generic importance as far as our present knowledge of that organ extends, whilst by uniting them we bring together species very nearly allied. Koniga will thus absorb *Ptilotrichum*, and admit several other species.

#### KONIGA LAGASCÆ.

*Alyssum purpureum* La Gasc. *A. dubium* Bory.

HAB. In rupestribus excelsis montis *Sierra Nevada*.

#### HUTCHINSIA PROCUMBENS. R. Br.

HAB. In mœnibus et ruderatis circâ Gades.

#### HUTCHINSIA PETRÆA. R. Br.

HAB. In rupibus montis *Picacho de Alcalá*.

#### LEPIDIUM LATIFOLIUM. Linn.

HAB. Circâ cœnobium Divi Michaelis Angelorum propè Malacam.

#### LEPIDIUM CAMPESTRE. R. Br.

HAB. In agro Tarraconensi.

#### LEPIDIUM SPINOSUM. Linn.

HAB. In siccis apricis Bæticiæ.

#### LEPIA STYLATA.

*Lepidium stylatum*. La Gasc. et Rodr. *An. Cienc. Nat.* vol. 5. pag. 276.

HAB. Propè cacumen montis *Sierra Nevada*.

Obs. This species is perfectly distinct, though nearly allied to *Lepia oxyota* and *Lepia bonanniana*, Presl. Varieties probably of the same form.

#### ÆTHEONEMA SAXATILIS. R. Br.

HAB. In monte *Sierra Nevada* (*Rambur*).

#### SENEBIERA PINNATIFIDA. DC.

HAB. In ruderatis frequens.

#### CORONOPUS RUELLII. Hall.

HAB. Circâ Malacam et alibi in Bæticiâ.

**THLASPI MONTANUM. Linn.**

HAB. In agro Barcinonensi, et in rupestribus montis *Picacho de Alcalá*.

**DRABA AIZOIDES. Linn.**

*D. involuta Agardh in herb. Hæns!*

HAB. In altioribus montis *Sierra Tejada* et *Sierra Nevada*.

Obs. This little plant differs from the commoner varieties of *D. aizoides* merely by its more hairy pods, and by its umbelliform inflorescence arising from the development of the main stem being impeded by heat and drought. It is perhaps the Spanish form which Professor DC. in the *Prodromus* unites with *D. cuspidata*. M. v. Bieb.

**IBERIS LINIFOLIA. Linn.**

HAB. In arvis Bæticiis.

**IBERIS UMBELLATA. Linn.**

HAB. In monte *Sierra de Alfacar (Rambur)*.

**IBERIS GIBRALTARICA. Linn.**

HAB. In rupibus præruptis montis Calpes.

**IBERIS SEMPERVIRENS. Linn.**

*I. Garrexiana. All.*

HAB. In montibus Bæticiis frequens, et in monte Arabrigâ.

**IBERIS SPATHULATA. Berg.**

HAB. In monte *Sierra Tejada*.

**JONDRABA SULPHUREA. Moench.**

HAB. In Bæticiâ frequens.

**BISCUTELLA APULA. Linn.**

HAB. In Bæticiæ arvis.

**BISCUTELLA MICROCARPA. DC.**

HAB. In arenosis circâ oppidum *Alcalá de los Gazules*, et (ex Brouss. in herbario Fontanesiano) circâ *Divi Rocci* oppidulum, undè descripsit celeb. DC. Priori valdè affinis, à cujus varietate ciliatâ forsân non diversa.

**BISCUTELLA LÆVIGATA. Linn.**

HAB. Innumeræ varietates per totam Hispaniam et Lusitaniam australem.

**CARRICHTERA VELLÆ. DC.**

HAB. In arvis Bæticiis.

**VELLA SPINOSA. Boiss.**

**HAB.** In monte *Sierra Tejada*, et alibi in montosis Bæticis.

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**GLAUCIUM CORNICULATUM. Curt.**

**HAB.** In agro Tarraconensi vulgare.

**ROEMERIA HYBRIDA. DC.**

**HAB.** In arvis Tarraconensibus.

**PAPAVER HYBRIDUM. Linn.**

**HAB.** In arvis ubiquè cum *P. Rhæade*, *Argemone*, et dubio.

**HYPECOUM PROCUMBENS. Linn.**

**HAB.** In agro Barcinonensi.

**HYPECOUM PATENS. Willd.**

**HAB.** In arvis Eliberitanis.

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**NYMPHÆA ALBA. Linn.**

**HAB.** In aquosis circà Sancti Caroli oppidulum, flos et folia minora quàm in speciminibus normalibus.

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**BERBERIS CRETICA. Linn.**

**HAB.** In monte *Sierra Tejada*, et ex cl. Rambur in montibus *de la Sierra Nevada*.

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**THALICTRUM FLAVUM. Linn.**

**HAB.** In agro Tarraconensi.

**THALICTRUM MINUS. Linn.**

**HAB.** In monte *Sierra Nevada*.

**ANEMONE PALMATA. Linn.**

**HAB.** Circà oppidulum Divi Rocci ad fretum Herculeum, et in totius Bæticæ campis et collibus vulgaris.

**HEPATICÀ TRILOBA.** Chaix.

HAB. In dumetis agri Tarraconensis.

**CLEMATIS FLAMMULA.** Linn.

HAB. Circà oppidum *Velez Malaga* et in totà Bætica communis.

**CLEMATIS CIRRHOSA.** Linn.

HAB. Circà Hispalim, *Alcalá*, et per totam Bætica copiosa

**ADONIS INTERMEDIA.** Webb. et Berth. Phyt. Can. pag. 12.

HAB. Inter segetes in Bætica et in agro Tarraconensi frequens.

Obs. Not having figured this species in the *Phytographia Canariensis* I shall take the opportunity of publishing it with further details in the Iconography of Spanish plants.

**RANUNCULUS HEDERACEUS.** Linn.

HAB. In aquosis Gaditanis.

**RANUNCULUS ACETOSELLÆFOLIUS.** Boiss.

HAB. In monte *Sierra Nevada* propè nivis apothecas, et in pratis Alpinis vallis Divi Johannis. Species pulcherrima R. nivali affinis.

**RANUNCULUS GRAMINEUS.** Linn.

β sericeus.

HAB. In monte Arabrigà, β in monte *Sierra de Agua*, et ex cl. Rambur in monte *Sierra de Alfacar*.

Obs. The variety β which I was first inclined to consider as a species, differs only from α in having longer leaves covered with a soft silky white pubescence exactly as in R. Illyricus. The specimens from the Serra da Arrabrida have a commencement of pubescence, and the Andalusian plant becomes ultimately glabrous, so that there is nothing sufficiently stable in this variation to constitute a specific distinction.

**RANUNCULUS BULLATUS.** Linn.

HAB. In rupibus apricis promontorii Calpes, in collibus Malacitanis, et alibi in Bætica.

**RANUNCULUS MONSPELIACUS.** Linn.

HAB. Propè *Montachique* in Lusitania, ubi copiosissima.

**RANUNCULUS CHÆROPHYLLUS.** Linn.

HAB. In monte *Sierra de Agua*, et in monte Arabrigà.

RANUNCULUS PARVIFOLIUS. Linn.

HAB. In montibus Tarraconensibus et Bæticiis, et in Lusitaniâ monte Arabrigâ.

RANUNCULUS REPENS. Linn.

HAB. In pratis agri Barcinonensis.

RANUNCULUS DEMISSUS. DC.

HAB. In monte *Sierra Nevada* (*Rambur*). Specimina Bætica nullo modo à stirpe à cl. Billardiero in summo Libano lectâ differunt.

HELLEBORUS FOETIDUS. Linn.

HAB. In Hispaniâ Tarraconensi circâ Barcinonem.

NIGELLA DAMASCENA. Linn.

HAB. In arvis Tarraconensibus et per totam Bæticiam.

NIGELLA HISPANICA. Linn.

HAB. In agro ditissimo, *la Huerta*, urbis Lucenti.

DELPHINIUM PEREGRINUM. Linn.

HAB. In arvis Bæticiis passim.

ACONITUM NAPELLUS. Linn.

HAB. In locis humidiusculis montis *Sierra Nevada*.

ACONITUM LYCOCTONUM. Linn.

HAB. In petrosis altioribus montis *Sierra Nevada*.

PEONIA CORALLINA. Linn.  $\beta$  Russi.

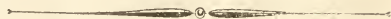
*P. Russi. Biv.*

HAB. In monte *Sierra Tejeda*.

PEONIA OFFICINALIS. Linn. Var. lobata.

*P. lobata. Desf.*

HAB. In Lusitaniâ loco non notato.













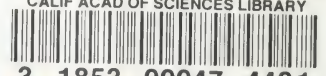
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