

Richness of wild flowering plants and ferns in Northern Cyprus

F. Neriman Ozhatay*, Ertugrul Ozbil, Sultan Ogmen

Eastern Mediterranean University, Faculty of Pharmacy, Famagusta, North Cyprus, Mersin 10 Turkey.

Abstract

Cyprus, the third largest island in the Mediterranean Sea, is situated just outside of the Gulf of Iskenderun, south of Turkey. Its topography can be summarized as ‘The Coastal Belt, Northern Range, Southern Range and Central plain’. The island has been divided into 8 phytogeographical divisions by Meikle in 1977. The whole checklist of the vascular plants taxa, occurring in Northern Cyprus, has been prepared. The checklist comprises of 1564 wild taxa (species and subspecies) belonging to various families. Taxonomic status of the taxa has been updated according to two databases as follows ‘The Plants Names’ and ‘International Plant Name Index (IPNI)’. Cyprus is a hotspot in Mediterranean basin and its number of the endemic taxa are 143; 73 of them occurring as endemic in Northern Cyprus and 15 of them are distributed only in the area of Northern Cyprus. The list of the vascular plants is given as tables and the endemic taxa is listed as a separate table in the article.

Keywords

Endemic taxa, Northern Cyprus, wild vascular plants.

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*Corresponding author: F. Neriman Ozhatay

email: neriman.ozhatay@emu.edu.tr

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INTRODUCTION

Cyprus ranks as the third largest Mediterranean island with an area of 9251 km² after Sicily and Sardinia as shown in Figure 1 (Pariona, 2018). The island is located in the south of Turkey, west of Syria and Lebanon, north of Israel and Egypt, and southeast of Greece. Due to the political reasons, the island is subdivided into four main segments. The Republic of Cyprus occupies the southern two-third of the

island (59.56%), the Turkish Republic of Northern Cyprus occupies the northern one-third (35.04%) of the island, and the United Nations-controlled Green Line provides a buffer zone that separates the two and covers 2.64% of the island. Lastly, two bases under British sovereignty are located on the island called Akrotiri and Dhekelia, covering the remaining 2.76% (Ilseven *et al.*, 2006).

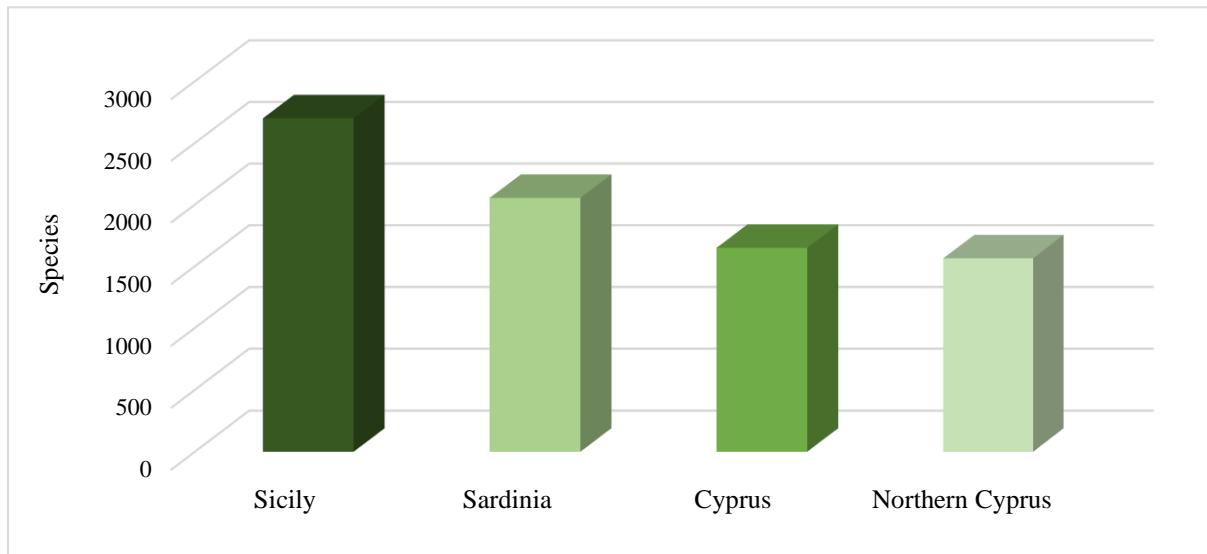


Figure 1: Species richness versus land surface within 3 islands in the Mediterranean (Sicily 25,708 km², Sardinia 24,090 km², Cyprus 9,251 km², and Northern Cyprus 3,355 km²).

Cyprus has remarkable flora for the following reasons: Its geographically isolated, located within the Mediterranean climate and contains unique habitat and altitude. On the island of Cyprus, 85-92 million years ago, geologically and biogeographically isolated regions were formed by the rise of sea beds after the formation of the Troodos Mountains. This isolation has caused many animal and plant species to be colonized on the island and to

gradually form endemic species (Hadjikyriakou and Hadjisterkotis, 2002). The movement of floral elements from other climatic regions to the Mediterranean region during the ice age and the presence of volcanic rock types and the agro-sylvopastoral systems in the last century were effective in increasing the rate of endemism within Cyprus (Vural *et al.*, 2010).

The most comprehensive Flora for Cyprus is written by Robert Desmond Meikle

(1923-2021). Mr. Meikle spent approximately 30 years on the Flora of Cyprus. He visited the island multiple times, collected various plant specimens and kept them in his herbarium. The first volume of the Flora of Cyprus was published in 1977 and the second volume was published in 1985 (Meikle, 1977; Meikle, 1985). They include more than 1700 taxa and 157 species illustration.

He introduced a system of subdividing the island into eight different phytogeographical regions according to their geographical features and differences in vegetation, which is still in use today as shown in Figure 2 (Hand *et al.*, 2011). The boundaries of these regions have been drawn by the roads and streams as much as possible.

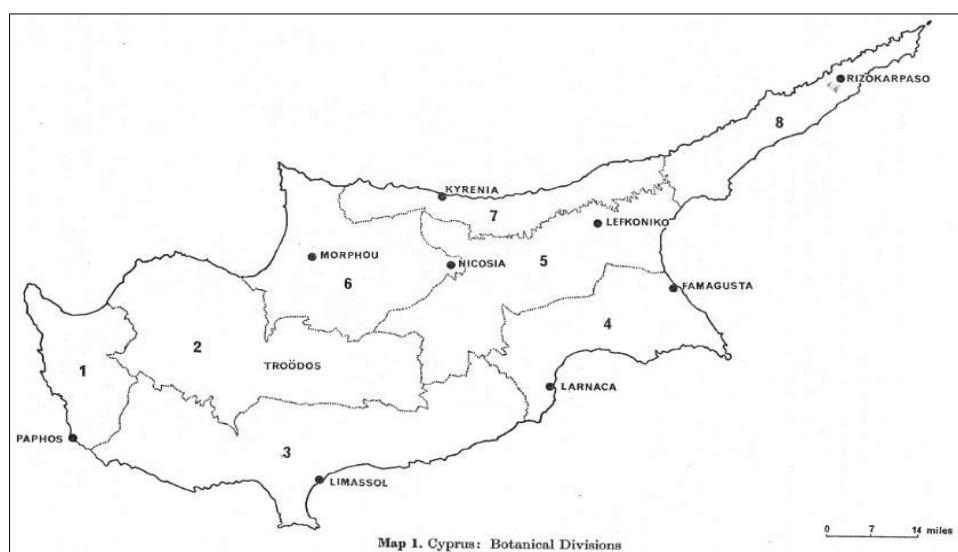


Figure 2: Phytogeographical 8 divisions of Cyprus.

Northern Cyprus includes partials of regions 4, 5, 6, and whole of regions 7 and 8. The following is a summary of the flora of these regions (Hand *et al.*, 2011; Hadjichambis *et al.*, 2004):

Division 4 is mostly cultivated or heavily grazed with typical Mesaoria cornfields in the north and with numerous barrens, eroded chalk or limestone hills in the south. Larnaca Salt Lake provides a habitat for interesting *Limonium* species and other halophytes.

Division 5 is mostly occupied by cereal fields of Mesaoria with interesting weed communities, but now through the general use of herbicides, it is almost weed free and the region is uninvitingly monotonous for the botanists. However, the Kyrenia range in the north of the division has rich and characteristic flora.

Division 6 is heavily cultivated, with cornfields in the centre and east, and it has extensive *Citrus* groves about Morphou. Botanically, the most important regions in

this division are Kormakiti and Ayia Irini. *Tulipa cypria* is locally abundant in fields about Diorios and Mrytou.

Division 7 has the richest flora among all of the island. The number of endemics and the rarities are too many to list. This division is mainly uncultivated with extensive areas of *Pinus brutia* and *Cupressus sempervirens* forests on the upper slopes.

Division 8 is an area with low hills and sand or rocky shores. This division includes many rare plant species. To date, 352 taxa containing 65 families and 217 genera have been identified on the coastal dunes of Cyprus. This corresponds to about 19% of the flora of the island.

The flora of Northern Cyprus, ‘An illustrated flora of Northern Cyprus’, is edited by Deryck E. Viney (1921-2016). Dr. Viney moved to Northern Cyprus and lived in Karaman after his retirement in 1981. He spent years travelling throughout the Northern Cyprus collecting plant specimens. He drew remarkable detailed illustrations of each specimen. The first volume of Viney’s flora was published in 1994 and second volume was published in 1996 (Viney, 1994, 1996). Besides the illustration, the flora includes keys for identification as well. All of these

properties of his flora makes it easy to use for everyone. Dr. Viney created field guide on the vascular plants of Northern Cyprus based on the scientific information but it was still meant to be suitable for amateurs as well.

The herbarium, which was prepared in cooperation with the TRNC Ministry of Agriculture and Forestry Department of Forestry and Deryck Viney, was opened on 9 November 1989. Northern Cyprus Herbarium is located within Alevkayası in the Turkish Republic of Northern Cyprus. There are approximately 1250 plant specimens in the herbarium. Dr. Viney kept all of his extensive collection he had accumulated over the years within Northern Cyprus in this herbarium. Unfortunately, it is closed since 2016 due to restoration.

Aim of this study

The purpose of this study is to prepare an up-to-date list of natural vascular plants growing in the Northern Cyprus within the illumination of recent studies. The list provided here is based on all of the published papers, books, monographs and revisions in regards to the Northern Cyprus vascular flora. The list prepared in this study is an updated list of natural plants growing in Northern Cyprus.

MATERIALS AND METHODS

The pathway that was followed in the preparation of the the indigenous species list of flowering plants and ferns (vascular plants) in Northern Cyprus:

1. The taxa in volumes 1 and 2 of the illustrated flora of Northern Cyprus were surveyed and listed (Viney, 2011). The list was arranged in different groups as Ferns (Table 1), Gymnosperms (Table 2), Monocotyledones (Table 3) and Dicotyledones (Table 4). Then, in each group was rearranged in terms of the families, genera and species in alphabetical order.

2. Additionally, published papers about the species in Northern Cyprus were

examined. Several books and other articles were surveyed and additional species were detected and listed (Anonim, 2003; Brandes, 2020; Hadjikyriakou and Hand, 2008 a, b; Hand *et al.*, 2021; Hand, 2018; Hand, 2019; Hand, 2001; Ilseven, 2004; Sekerciler and Merakli, 2013; Tamson, 2014).

3. Moreover, this draft list was compared with the Dynamic Checklist of flora of Cyprus and the list was updated accordingly (Hand *et al.*, 2011).

4. Lastly, the prepared list was updated through 'IPNI' and 'The Plant List' data bases.

RESULTS

The checklist is documented as four different tables according to the taxonomic groups: Ferns (Table 1), Gymnosperms (Table 2), Monocotyledones (Table 3) and Dicotyledones (Table 4). Endemics are

marked with (E) in each table. Species, whose existence needs to be investigated within Northern Cyprus, are marked with (?) in each table.

Table 1: Checklist of Ferns.

FERNS	
Aspleniaceae	Marsileaceae
<i>Asplenium ceterach</i> L.	<i>Marsilea aegyptiaca</i> Willd.
<i>A. onopteris</i> L.	Ophioglossaceae
<i>A. adiantum-nigrum</i> L.	<i>Ophioglossum lusitanicum</i> L.
Dryopteridaceae	Polypodiaceae
<i>Dryopteris pallida</i> (Bory) Fomin subsp. <i>libanotica</i> (Rosent.) E. Nardi	<i>Polypodium cambricum</i> L.
Dennstaedtiaceae	Pteridaceae
<i>Pteridium aquilinum</i> (L.) Kuhn.	<i>Adiantum capillus-veneris</i> L.
Equisetaceae	<i>Anogramma leptophylla</i> (L.) Link
<i>Equisetum ramosissimum</i> Desf.	<i>Cheilanthes acrostica</i> (Balb.) Tod.
<i>E. telmateia</i> Ehrh.	<i>C. pteridoides</i> C. Chr.
	<i>C. vellea</i> (Aiton) Domin
	Selaginaceae
	<i>Selaginella denticulata</i> (L.) Link

Table 2: Checklist of Gymnosperms.

GYMNOSPERMS	
Cupressaceae	Ephedraceae
<i>Cupressus sempervirens</i> L. var. <i>horizontalis</i> (Mill.) Aiton	<i>Ephedra foeminea</i> Forrsk. <i>E. nebrodensis</i> Tineo subsp. <i>procera</i> (Fisch. & C. A. Mey.) K. Richt.
<i>Juniperus oxycedrus</i> L. subsp. <i>oxycedrus</i>	
<i>J. phoenicea</i> L.	Pinaceae
<i>Tetraclinis articulata</i> (Vahl) Mast.	<i>Pinus brutia</i> Tenore <i>P. holepensis</i> Mill. <i>P. pinea</i> L.

Table 3: Checklist of Monocotyledones.

ANGIOSPERMS	
MONOCOTYLEDONES	
Alismataceae	<i>B. trifoliata</i> Kunth. <i>Drimia aphylla</i> (Forssk.) J. C. Manning&Goldblatt
<i>Alisma lanceolatum</i> With.	<i>D. maritima</i> (L.) Baker
<i>Baldellia ranunculoides</i> (L.) Parl.	<i>Hyacinthella millingenii</i> L. (E)
<i>Damasonium alisma</i> Mill.	<i>Muscari comosum</i> Mill.
<i>D. bourgaei</i> Coss.	<i>M. inconstictum</i> Rechinger f.
Amaryllidaceae	<i>M. neglectum</i> Ten.
<i>Allium amethystinum</i> Tausch	<i>M. parviflorum</i> Desf.
<i>A. ampeloprasum</i> L.	<i>Ornithogalum divergens</i> Boreau
<i>A. autumnalis</i> P. H. Davis. (E)	<i>O. narbonense</i> L.
<i>A. cupani</i> Rafin. subsp. <i>cyprium</i> Meikle (E)	<i>O. neurostegium</i> Boiss. & C.I. Blanche ex Boiss.
<i>A. curtum</i> Boiss.	<i>O. pedicellare</i> Boiss et. Kotschy (E)
<i>A. cyprium</i> Brullo, Pavone & Salmeri	<i>O. umbellatum</i> L.
<i>A. cyprium</i> subsp. <i>lefkarense</i> (Brullo, Pavone & Salmeri) Christodoulou & Hand. (E)	<i>O. trichophyllum</i> Boiss.
<i>A. junceum</i> Sm.	<i>Ruscus aculeatus</i> L.
<i>A. dentiferum</i> Webb & Berthel.	<i>Scilla autumnalis</i> L.
<i>A. guttatum</i> subsp. <i>sardoum</i> (Moris) Stearn	<i>S. ciliicica</i> Meikle
<i>A. neapolitanum</i> Cirillo.	<i>S. morrisii</i> Meikle (E)
<i>A. nigrum</i> L.	Colchicaceae
<i>A. oreintale</i> Boiss.	<i>Colchicum pusillum</i> Sieber
<i>A. pallens</i> L.	<i>C. stevenii</i> Kuntz.
<i>A. paniculatum</i> L.	<i>C. troodi</i> Kotschy (E)
<i>A. rubrovittatum</i> Boiss.	Cymodoceaceae
<i>A. stamineum</i> Boiss.	<i>Cymodocea nodosa</i> Ascherson
<i>A. trifoliatum</i> Cyr.	Cyperaceae
<i>A. willeanum</i> Holmboe (E)	<i>Bolboschoenus glaucus</i> (Lam.) S. G. Sm.
<i>Narcissus obsoletus</i> (Haw.) Steud.	<i>B. maritimus</i> (L.) Palla
<i>N. serotinus</i> L.	<i>Carex cyprica</i> A.M.Molina, Acedo & Llamas (E)
<i>N. tazetta</i> L.	<i>C. divisa</i> Huds.
<i>Pancratium maritimum</i> L.	<i>C. divulsa</i> Stokes
<i>Sternbergia lutea</i> (L.) Spreng.	<i>C. egorovae</i> A.M.Molina, Acedo & Llamas
Araceae	<i>C. extensa</i> Gooden.
<i>Arisarum vulgare</i> Targ. Tozz.	<i>C. flacca</i> Schreb.
<i>Arum dioscoridis</i> Sm.	<i>C. halleriana</i> Asso
<i>A. hygrophilum</i> Boiss.	<i>C. hispidis</i> Schkuhr
<i>A. italicum</i> Mill. subsp. <i>italicum</i>	<i>C. illegitima</i> Cesati
<i>Arum sintentisii</i> (Engl.) P. C. Boyce	<i>C. otrubae</i> Podp.
Arecaceae	<i>Cladium mariscus</i> (L.) Pohl
<i>Phoenix dactylifera</i> L.	<i>Cyperus capitatus</i> Vand.
Asparagaceae	<i>C. flavidus</i> (Retz.) Koyama
<i>Agave americana</i> L.	<i>C. fuscus</i> L.
<i>A. sisalana</i> Perrine	<i>C. globiger</i> L.
<i>Asparagus acutifolius</i> L.	<i>C. involucratus</i> Rottb.
<i>A. horridus</i> L.	<i>C. laevigatus</i> L.
<i>A. officinalis</i>	<i>C. longus</i> L.
<i>Bellevalia nivalis</i> Boiss. et Kotschy	<i>C. rotundus</i> L.

- Eleocharis palustris* (L.) Roem et Schultz
E. vulgaris (Walters) Å. Löve & E. Löve
Fimbristylis ferruginea (L.) Vahl.
Isolepis cernua (Vahl) Roem. Et Schult
Pycrus flavidus (Retz) Koyama
Schoenoplectus litoralis (Schrader) Palla
Schoenus nigricans L.
Scirpoides holoschoenus (L.) Sojak
Dioscoreaceae
Tamus communis L.
Elatinaceae
Elatine macropoda Guss.
Hydrocharitaceae
Halophila stipulacea Ascherson
Najas marina L. subsp. *armata* Horn
Iridaceae
Crocus hartmannianus Holmboe (E)
C. venneris Teppeiner (E)
Gladiolus italicus Mill.
G. triphyllus (Sm.) Ker-Gawler
Iris germanica L.
Moraea sisyrinchium (L.) Ker Gawl.
Rumulea columnae Seb. subsp. *columnae*
R. ramiflora Ten. subsp. *ramiflora*
R. tempskyana Freyn
Juncaceae
Juncus acutus L.
J. articulatus L.
J. articulatus x *fontanesii* subsp. *pyramidalis*
J. bufonius L.
J. capitatus Weigel
J. fontanesii Leharpe subsp. *pyramidalis* (Leharpe)
Snogerup
J. heldreichianus Parl. subsp. *heldreichianus*
J. hybridus Brot.
J. inflexus L.
J. littoralis C. A. Mey.
J. maritimus Lam.
J. rigidus Desf.
J. subulatus Forssk.
Luzula forsteri (Sm) DC. subsp. *rhizomata*
(Ebinger) Z. Kaplan
Juncaginaceae
Triglochin barrelieri Loisel
Liliaceae
Fritillaria acmopetala Boiss.
F. persica L.
Gagea chlorantha (M. Bibb.) J. A. et J. H. Schultes
G. fibrosa (Desf.) J. A. et J. H. Schultes
G. graeca (L.) A. Terracc.
G. juliae Pascher
G. peduncularis (J. et C. Presl.) Pascher
Smilax aspera L.
Tulipa cypria Stapf. (E)
Orchidaceae
Anacamptis collina (Banks. S. & Sol. ex Russell)
R. M. Batemen. Pridgeon. M. W. Chase
A. coriophora (L.) R. M. Batemen. Pridgeon. M.
W. Chase
A. morio L. subsp. *syriaca* (E.G.Camus) H. Kreutz
A. pyramidalis (L.) Rich
A. sancta (L.) R. M. Batemen. Pridgeon. M. W.
Chase
Himantoglossum robertiana Greuter
Dactylorhiza romana (Seb.) Soo.
Limodium abortivum (L.) Swartz
Neotinea maculata (Desf.) Stearn
Ophrys apifera Huds.
O. argolica H. Fleischm. subsp. *elegans* (Renz) F.
Nelson (E)
O. fuciflora (F. W. Schmidt) Moench subsp.
bornmullerii (M. Schulze) B. Willing & E. Willing
O. fuciflora (F. W. Schmidt) Moench subsp.
grandiflorum (Fleischm. et Soo.) Faurh.
O. fusca Link. subsp. *fleischmannii* (Hayek) Soo.
O. fusca Link. subsp. *iricolor* (Desf.) K. Richt.
O. kotschy H. Fleischm. & Soo
O. omegaifera H. Fleischm subsp. *fleischmannii*
(Hayek) Del Prete
O. scolopax Cav. subsp. *rhodia* (H. Baumann &
Künkele) H. A. Pedersen & Faurh.
O. sphegodes Mill. subsp. *mammosa* (Desf.) Soo.
ex E. Nelson
O. umbilicata Desf. subsp. *umbilicata*
O. umbilicata Desf. subsp. *laptehica* (Gölz & H. R.
Reich.) Faurh. & H. A. Pedersen
Orchis anatolica Boiss.
O. intacta Link.
O. italica Poir.
O. morio L. subsp. *syriaca* E. G. Camus
O. punctulata Lindl.
O. pyramidalis L.
O. quadriloba E. G. Camus
O. sezikiana B.Baumann & H.Baumann
O. simia Lam.
O. tridentata Scop.
Serapias bergonii E. G. Camus
S. levantina H. Baumann & Künkele
Spiranthes spiralis (L.) Chevall.
Poaceae
Achnatherum bromoides (L.) P. Beauv.
Aegilops bicornis (Forssk.) Jaub. & Spach.
Ae. biuncialis Vis. subsp. *biuncialis*
Ae. comosa Sm. subsp. *comosa*
Ae. geniculata Roth
Ae. × insulae-cypri H. Scholz
Ae. kotschy Boiss.
Ae. paniculata Roth
Ae. peregrina (Hackel) Maire var. *peregrina*
Ae. peregrina (Hackel) Maire var. *brachyathera*
(Boiss.) Maire
Ae. triuncialis L. var. *persica* (Boiss.) Eig
Ae. triuncialis L. var. *triuncialis*
Ae. ventricosa Tausch
Aeluropus lagopoides L.
Ae. lagopoides x *littoralis*
Ae. littoralis (Gouan) Parl.
Agrostis stolonifera L.
Aira elegans Willd. ex Roem. & Schult.
Alopecurus myosuroides Huds.

- A. utriculatus* Banks & Sol.
Amophilla arenaria (L.) Link
Andropogon distachyos L.
Aristida adscensionis L. subsp. *coeruleescens* (Desf.) Auquier & Duvign.
Arundo donax L.
A. micrantha Lam.
Avelliana festucoides (Link) Valdes & Scholz
Avena barbata Link subsp. *barbata*
A. barbata Link subsp. *wiestii* (Steud.) Mansf.
A. byzantina Koch
A. eriantha Durieu
A. ludoviciana Durieu
A. sativa L.
A. sterilis L. subsp. *ludoviciana* (Durieu) Gillet & Magne
A. sterilis L. subsp. *sterilis*
A. ventricosa Coss.
A. wiestii Steud.
Brachiaria eruciformis (Sm.) Griseb.
Brachypodium distachyon (L.) P. Beauv.
B. pinnatum (L.) P. Beauv.
B. sylvaticum (Huds.) P. Beauv. subsp. *sylvaticum*
Briza maxima L.
B. minor L.
Bromus alopecuros Poir. subsp. *caroli-henrici* (Greuter) P. M. Sm.
B. arvensis L.
B. bidentatus Holmstr. & H. Scholz (?)
B. chrysopogon Viv.
B. diandrus Roth
B. fasciculatus Presl. subsp. *delilei* (Boiss.) H. Scholz
B. fasciculatus Presl. subsp. *fasciculatus*
B. hordeaceus L. subsp. *molliformis* (J. Lloyd. ex Billot) Mairea & Weiller
B. intermedius Guss. subsp. *intermedius*
B. intermedius Guss. subsp. *optima* H. Scholz
B. japonicus Thunb.
B. lanceolatus Roth
B. madritensis L. subsp. *madritensis*
B. madritensis x *rubens*
B. molliformis Lloyd.
B. rigidus Roth
B. rubens L. subsp. *rubens*
B. scorpiarius L.
B. squarrosum L. subsp. *squarrosum*
B. sterilis L.
Carynephorus divaricatus (Pourr.) Breistr.
Catapodium marinum (L.) C. C. Hubb.
C. rigidum (L.) C.E Hubb.
Corynephorus articulatus (Desf.) P. Beauv.
Crihopsis delileana (Schult.) Roshev.
Cutandia dichotoma (Forssk.) Trabut
C. maritima (L.) Richter
Cynodon dactylon (L.) Pers.
Crypsis aculeata (L.) Aiton
C. factorovskii Eig
C. schoenoides (L.) Lam.
Cynosurus coloratus Nees
C. effusus Link
C. elegans Desf.
Dactylis glomerata L. subsp. *hispanica* (Roth) Nyman
Dactyloctenium aegyptium (L.) P. Beauv.
Digitaria sanguinalis (L.) Scop. subsp. *sanguinalis*
Echinochloa colona (L.) Link
E. crus-galli (L.) P. Beauv.
Elymus elongatus (Host) Runemark subsp. *haifensis* (Rech. f.) Haneen & Runemark
E. farctus (Viv.) Meld.
Eragrostis ciliaris (All.) Vign-Lut
E. minor Host
Festuca arundinacea Schreb.
Gastridium phleoides (Nees et. Mey.) C.E Hubb.
Hainardia cylindrica (Willd.) Greuter
Hordeum bulbosum L.
H. distichon L.
H. geniculatum All.
H. glaucum Steudel.
H. leporinum Link.
H. marinum Huds.
H. spontaneum Koch
H. vulgare L. subsp. *agriocriton* (Aberg) D. Love & A. Löve
Hyparrhenia hirta (L.) Stapf
Imperata cylindrica (L.) Raeus.
Lagurus ovatus L.
Lamarcia aurea (L.) Moench
Lolium multiflorum Lam.
L. perenne L.
L. rigidum Gaud. subsp. *rigidum*
L. rigidum x *temulentum*
L. subulatum Vis.
L. temulentum L.
L. x hubbardii
Maillea crypsoides (d'Urv.) Hack.
Melica minuta L.
Milium pedicellare (Bornm.) Meld.
Moorochloa eruciformis (Sm.) Veldkamp
Panicum miliaceum L.
P. repens L.
Parapholis cylindrica (Willd.) Romero Zarco
P. incurva (L.) C.E Hubb.
P. marginata Runemark
Paspalum dilatatum Poir.
P. distichum L.
Phalaris aquatica L.
P. brachystachys Link
P. minor Retz.
P. paradoxa L.
Phleum crypsoides (d'Urv.) Hack.
P. subulatum (Savi) Aschers.
Phragmites australis (cav.) Trin.
P. frutescens H. Scholz
Piptatherum coeruleescens (Desf.) P. Beauv.
P. miliaceum (L.) Coss.
Poa angustifolia L.
P. annua L.
P. bulbosa L.

<i>P. compressa</i> L.	<i>Triplachne nitens</i> (Guss.) Link
<i>P. infirma</i> Kunth	<i>Trisetaria linearis</i> Forssk.
<i>P. trivialis</i> L.	<i>Triticum aestivum</i> L.
<i>Polypogon maritimus</i> Willd.	<i>T. durum</i> Desf.
<i>P. monspeliensis</i> (L.) Desf	<i>T. spelta</i> L.
<i>P. viridis</i> (Gouan) Breistr	<i>T. turgidum</i> L.
<i>Psilurus incurvus</i> (Gouan) Schinz et. Thell	<i>Urocloa panicoides</i> P. Beauv.
<i>Rostraria amblyantha</i> (Boiss.) Holub	<i>Vulpia brevis</i> Link
<i>R. cristata</i> (L.) Tselev	<i>V. ciliata</i> Boiss.
<i>R. hadjikyriakou</i> Christodoulou & Hand (E)	<i>V. fasciculata</i> (Forssk.) Samp.
<i>R. hispida</i> (Savi) M. Doğan	<i>V. muralis</i> (Kunth) Nees
<i>R. obtusiflora</i> (Boiss.) Holub.	<i>V. myurus</i> (L.) C. C. Omel.
<i>R. smyrnacea</i> (Trin.) Scholz.	Posidoniaceae
<i>Saccharum spontaneum</i> L.	<i>Posidonia oceanica</i> (L.) Del.
<i>Schismus arabicus</i> Nees	Potamogetonaceae
<i>Sclerochloa dura</i> P. Beauv.	<i>Potamogeton nodosus</i> Poir.
<i>Secale cereale</i> L.	<i>P. pectinatus</i> L.
<i>Setaria italica</i> (L.) P. Beauv.	<i>P. perfoliatus</i> L.
<i>S. pumila</i> (Poir.) Roem.	Ruppiaceae
<i>S. verticillata</i> (L.) P. Beauv.	<i>Ruppia drepanensis</i> Tineo
<i>S. viridis</i> (L.) P. Beauv.	<i>R. maritima</i> L.
<i>Sorghum halepense</i> (L.) Pers.	<i>R. spiralis</i> L. ex Dumort.
<i>Sphenopus divaricatus</i> (Gouan) Reichb.	Typhaceae
<i>Sporobolus virginicus</i> (L.) Kunth	<i>Typha domingensis</i> Pers.
<i>Stenotaphrum secundatum</i> (Walt.) Kuntze	Xanthorrhoeaceae
<i>Stipa arabica</i> Trin. & Rupr.	<i>Aloe vera</i> (L.) Burm. f.
<i>S. barbata</i> Desf.	<i>Asphodelus fistulosus</i> L.
<i>S. bromoides</i> (L.) Doerfl.	<i>A. ramosus</i> L.
<i>S. capensis</i> Thunb.	<i>A. tenuifolius</i> Cav.
<i>S. holosericea</i> Trin.	<i>Asphodeline brevicaulis</i> (Bertol.) Gay
<i>Taeniatherum caput-medusae</i> (L.) Nevski subsp.	<i>A. lutea</i> (L.) Reichb.
<i>crinitum</i> (Scherb.) Melderis	Zannichelliaceae
<i>Trachynia distachya</i> (L.) Link	<i>Althenia filiformis</i> E. Petit
<i>Tripidium ravennae</i> (L.) H. Scholz.	<i>Zannichellia palustris</i> L.

Table 4: Checklist of Dicotyledones.

ANGIOSPERMS
DICOTYLEDONES
Acanthaceae
<i>Acanthus mollis</i> L.
Adoxaceae
<i>Sambucus ebulus</i> L.
<i>S. nigra</i> L.
<i>Viburnum tinus</i> L.
Aizoaceae
<i>Aizon hispanicum</i> L.
<i>Aptenia cordifolia</i> (L. f.) N. E. Br.
<i>Carpobrotus edulis</i> (L.) N. E. Br.
<i>Mesembryanthemum nodosum</i> L.
<i>M. crystallinum</i> L.
<i>M. nodiflorum</i> L.
Altingiaceae
<i>Liquidambar styraciflus</i> L.
Amaranthaceae
<i>Amaranthus albus</i> L.
<i>A. blitoides</i> S. Watson
<i>A. graecizans</i> L.
<i>A. hybridus</i> L.
<i>A. retroflexus</i> L.
<i>A. viridis</i> L.
<i>Arthrocnemum macrostachyum</i> (Moric.) K. Koch
<i>Bosea cypria</i> Schintz (E)
Anacardiaceae
<i>Pistacia atlantica</i> Desf.
<i>P. lentiscus</i> L.
<i>P. terebinthus</i> L.
<i>P. vera</i> L.
<i>Schinus molle</i> L.
Apiaceae
<i>Ainsworthia trachycarpa</i> Boiss.
<i>Ammi majus</i> L.
<i>A. visnaga</i> (L.) Lam.
<i>Apium graveolens</i> L.
<i>A. nodiflorum</i> (L.) Lag
<i>Bifora testiculatus</i> (L.) DC.
<i>Bupleurum lancifolium</i> Hornem.
<i>B. orientale</i> Snogerup
<i>B. semicompositum</i> L.
<i>B. s intentisii</i> Huter (E)
<i>B. subovatum</i> Spring
<i>B. trichopodium</i> Boiss.
<i>Bunium ferulaceum</i> Sihth et. Sm.

- Cachrys scabra* (Fenzl) Meikle
Coriandrum sativum L.
Crithmum maritimum L.
Cyclospermum leptophyllum (Pers.) Britton
Daucus aurea Desf.
D. broteri Ten.
D. carota L.
D. durieua Lange
D. glaber (Forssk.) Thell.
D. guttatus Sm.
D. involucratus Sibth. et Sm.
D. pumilus (L.) Hoffm. et Link
Dichoropetalum kyriakae (Hadjik. & Alziar) Hand & Hadjik.
Echinophora tenuifolia L.
Eryngium campestre L.
E. creticum Lam.
E. glomeratum Lam.
E. maritimum L.
Ferula communis L.
F. cypria Post.
F. glauca L.
Ferulago cypria H.Wolff. (E)
F. syriaca Boiss.
Foeniculum vulgare Mill.
Glaucosciadium cordifolium (Boiss.) B. L. Burtt & P. H. Davis
Helosciadium nodiflorum (L.) W. D. J. Koch
Krubera peregrina (L.) Hoffm.
Lagoecia cuminoides L.
Lecokia cretica (Lam.) DC.
Opopanax hispidus Griseb.
Orlaya daucoides Greuter
Petroselinum crispum (Mill.) A. W. Hill
Pimpinella cretica Poir.
P. cypria Boiss. (E)
P. peregrina L.
Pseudorlaya pumila L.
Ridolfia segetum (Guss.) Moris
Scaligeria alziari Hand & al. (E)
S. napiformis (Spreng.) Grande
Saligeria cretica (Mill.) Boiss.
Scandix australis L.
S. grandiflora L.
S. pecten-veneris L.
Smyrnium connatum Boiss.
S. olusatrum L.
Tordylium aegyptiacum (L.) Poir.
T. apulum L.
T. syriacum L.
T. trachycarpum (Boiss.) Jury & Al-Eisawi
Torilis africana Spreng.
T. heterophylla (L.) Reichb.
T. leptophylla (L.) Rchb.
T. nodosa (L.) Gaerth.
T. pseudonodosa Bianca
T. purpurea (Ten.) Guss.
T. tenella (Del.) Rchb
T. veneris (Huds.) Link
Turgenia latifolia (L.) Hoffm.
- Zosima absinthiifolia* (Vent.) Link
Apocynaceae
Cynanchum acutum L.
Cyprinia gracilis (Boiss.) Browicz
Nerium oleander L.
Trachomitum venetum (L.) Woodson
Vinca major L.
Araliaceae
Hedera helix L.
Aristolochiaceae
Aristolochia parvifolia Sm.
A. sempervirens L.
Asteraceae (Compositae)
Achiella arabica Kotschy
A. biebersteinii Afan.
A. cretica L.
A. maritima L. subsp. *maritima*
A. millefolium L.
A. santolina L.
Aethiorphiza lubosa (L.) Cass.
Ambrosia maritima L.
Anthemis amblyolepis Eig.
A. chia L.
A. cotula L.
A. palaestina (Kotschy) Boiss.
A. parvifolia Eig.
A. pseudocotula Boiss.
A. rigida Heldr.
A. tomentosa L.
A. tricolor Boiss. (E)
Artemisia arborescens L.
Aster squamatus (Spreng.) Hieron.
Asteriscus aquaticus (L.) Less.
Atractylis cancellata L.
Bellis annua L.
B. perennis L.
B. sylvestris Cyr.
Bidens frondosa L.
Bombycilaena discolor (Pers.) Lainz
Calendula arvensis L.
C. officinalis L.
Cardopatium corymbosum (L.) Pers.
Carduus argentatus L.
C. pycnocephalus L.
Carlina involucrata Poir.
C. lanata L.
C. libonotica Boiss.
C. pygmaea (Post.) Holmboe (E)
Carthamus boissieri Hal.
C. caeruleus L.
C. dentatus Vahl
C. lanatus L.
C. tenuis (Boiss. et. Blanche) Bornm.
Catanche lutea L.
Centaurea aegiolophila Wagenitz
C. benedicta (L.) L.
C. calcitrapa L. subsp. *angusticeps* (Lindberg f.) Meikle (E)
C. calcitrapa L. subsp. *calcitrapa*
C. cyanoides Wahlenb.

- C. iberica* L.
C. hyalolepis Boiss.
Chlamydophora pycnocephalus L
Chondrilla juncea L.
C. tridentata (Del.) Ehrenb.
Chrysanthemum coronarium L. var. *discolor*
d'Urv.
C. segetum L.
Cnicus benedictus L.
Conyza bonariensis (L.) Cronq.
Cichorium endivia L.
C. intybus L.
C. pumilum Jacq.
C. spinosum L.
Cirsium arvense (L.) Scop.
Crepis aspera L.
C. foetida L. subsp. *commutata* (Spreng.) Babc.
C. foetida L. subsp. *foetida*
C. fraasii Sch. Bip.
C. micrantha Czerep.
C. palaestina (Boiss.) Bornm.
C. pulchra L.
C. pusilla (Sommier) Merxm.
C. reuteriana Boiss.
C. sancta (L.) Bornm.
C. zacintha (L.) Loisel
Crupina crupinastrum (Moris.) Vis.
Cynara cardunculus L.
C. cornigera Lindley
C. scolymus L.
Dittrichia graveolens (L.) Greuter
D. viscosa (L.) Greuter subsp. *viscosa*
D. viscosa (L.) Greuter subsp. *angustifolia* (Beg.)
Greuter
Echinops spinosissimus Turra
Erigeron bonariensis L.
E. canadensis L.
Eupatorium cannabinum L.
Evax contracta Boiss.
E. eriosphaera Boiss.
E. pygmaea (L.) Brot.
Filago aegaea Wagenitz subsp. *aristata* Wagenitz
F. contracta (Boiss.) Chrtek & Holub
F. eriocephala Guss.
F. eriosphaera (Boiss. & Heldr.) Chrtek & Holub
F. gallica L.
F. mareotica Delile
F. pygmaea L.
F. pyramidata L.
Garhadiolus hedynoïs Jaub. & Spach
Geropogon hybridus (L.) Sch.
Glebionis coronaria (L.) Spach
G. segetum (L.) Fourr.
Gundelia tournefortii L.
Hedypnois rhagadioloides (L.) F. W. Schmidts
Helichrysum conglobatum (Viv.) Steudel.
H. luteoalbum (L.) Rchb.
Helminthotheca echioides (L.) Holob.
Hirtellina lobelii (DC.) Dittrich
Hyoseris scabra L.
Hypochaeris achyrophorus L.
H. glabra L.
Inula crithmoides L.
Klasea cerinthifolia (Sm.) Greuter & Wagenitz
Koelpinia linearis Pallas.
Lactuca saligna L.
L. serriola L.
L. tuberosa Jacq.
L. undulata Ledebo.
L. viminea (L.) J. Presl & C. Presl
Launaea resedifolia (L.) O. Kuntze
L. fragilis (Asso) Pau subsp. *fragilis*
Leontodon tuberosus L.
Limbara crithmoides (L.) Dumort. subsp.
longifolia (Arcang.) Greuter
Mantisalca salmantica (L.) Briq. & Cavill.
Matricaria aurea (Loefl.) Sch.
M. recutita L.
Notobasis syriacus (L.) Cass.
Onopordum cyprium Eig. (E)
Osteospermum ecklonis (DC.) Norl.
Otanthus maritimus (L.) Hoffsgg.
Pallenis spinusa (L.) Cass.
Phagnalon rupestre (L.) DC.
Picnomon acarna (L.) Cass.
Picris cyprica Lack
P. altissima Del.
P. rhagadioloides (L.) Desf.
Ptilostemon chamaepeuce (L.) Less. subsp.
chamaepeuce
Ptilostemon chamaepeuce (L.) Less. subsp. *cyprius*
(Greuter) Chrtek & B. Slavik (E)
Pulicaria arabica (L.) Cass.
P. dysenterica (L.) Bernh.
Reichardia intermedia (Sch. Bip.) Coutinho
R. picroides (L.) Roth.
R. tingitana (L.) Roth.
Rhagadiolus edulis Gartner
R. stellatus (L.) Gartner
Scariola viminea (L.) F. W. Schmidt
Scolymus hispanicus L.
S. maculatus L.
Scorzoneroides alpigena (K. Koch) Grossh.
S. jacquiniana (Koch) Celak
S. laciniata L.
S. trooea Boiss. (?)
Senecio aegyptius L.
S. angulatus L. f.
S. cineria DC.
S. glaucus L. subsp. *cyprius* Meikle (E)
S. leucanthemifolius Poir.
S. vulgaris L.
Serratula cerinthifolia (Sm.) Boiss.
Silybum marianum (L.) Gartner
Sonchus asper (L.) Hill.
S. bulbosus (L.) N. Kilian & Greuter
S. oleraceus L.
S. tenerrimus L.
Staehelina lobelii DC.
Stephanomeria tuberosus (Jacq.) Grossh.

- Symphyotrichum squamatum* (Spreng.) G. L.
Nesom
Tagetes minuta L.
Taraxacum aphrogenes Meikle (?)
T. cyprium Lindberg
T. hellenicum Dahlst.
Tolpis virgata (Desf.) Bertol.
Tragopogon sinnatus Ave-Lall.
T. porrifolius L. subsp. *longirostris* (Sch. Bip.)
Greuter
Urospermum picroides (L.) F. W. Schmidt
Xanthium spinosa L.
Xanthium strumarium L.
Xeranthemum inspertum (L.) Mill.
Basellaceae
Anredera cordifolia (Ten.) Steenis
Berberidaceae
Bongardia chrysogonum (L.) Endl.
Leontice leontopetalum L.
Boraginaceae
Alkanna lehmanii (Tineo) A. DC.
A. orientalis Boiss.
A. tinctoria (L.) Tausch
Anchusa aegyptiaca DC.
A. arzarea Mill.
A. humilis (Desf.) I. M. Johnston
A. strigosa Labill.
A. undulata L.
Asperugo procumbens L.
Borago officinalis L.
Buglossoides arvensis (L.) I. M. Johnston
B. incrassata (Guss.) I. M. Johnst. subsp.
splitgerberi (Guss.) E. Zippel & Selvi
B. tenuiflora (L. f.) I. M. Jonhston
Cordia myxa L.
Cynoglossum creticum Mill.
Echium angustifolium Mill.
E. arenarium Guss.
E. glomeratum Poir.
E. plantagineum L.
Heliotropium dolasum De Not.
H. europaeum L.
H. hirsutissimum Grauter
H. supinum L.
Lithodora hispidula (Sm.) Griseb
Myosotis ramosissima Rochel.
Neatostema apulus (L.) I. M. Johnston
Nonea echoidea Roem. & Schult.
N. philistea Boiss.
N. ventricosa (Sm.) Griseb
Onosma caespitosa Kotschy (E)
O. fruticosa Sm. (E)
O. giganteum Lam.
O. orientalis (L.) L.
Brassicaceae
Aethionema arabicum (L.) Andrz. ex Lipsky
A. carneum (Banks & Sol.) Fedtsch
Alyssum strigosum Banks et Sol.
Arabidopsis thaliana (L.) Heynh.
Arabis cypria Holmboe (E)
A. kennedyae Meikle (?)
A. verna (L.) R. Br. In W. T. Aiton
Biscutella didyma L.
Brassica hilarionis Post (E)
B. nigra (L.) W. D. J. Koch
B. tournefortii Govan
Cakile maritima Scop.
Capsella bursa-pastoris (L.) Medike
Cardamine hirsuta L.
Cardaria draba Desv.
Carrichtera annua (L.) DC.
Clypeola jonthlaspi L.
Conringia orientalis (L.) Dumort.
Coronopus squamatus Aschers.
Crampe hispanica L.
Didesmus degyptius (L.) Desv.
Diplotaxis viminea DC.
Draba minima (C. A. Mey.) Steud.
D. praecox Steven
D. verna L.
Enarthrocarpus arcnatus Labill
E. lyratus (Forssk.) DC.
Erophila verna (L.) Chevall.
Eruca vesicaria (L.) Cav.
Erucaria hispanica (L.) Druce
E. minima C. A. Mey.
Hirschfeldia incana (L.) Lagreze-Fossat
Hornungia procumbens (L.) Hayek
Hymenolobus procumbens (L.) schinz et. Thell.
Iberis odorata L.
Lepidium coronopus (L.) Al-Shehbaz
L. draba L. subsp. *draba*
L. latifolium L.
Lobularia maritima (L.) Desv.
L. libya (Viv.) Meisn.
Malcolmia africana (L.) W. T. Aiton
M. chia (L.) DC.
M. flexuosa Sibth. et Sm
M. nana (DC.) Batt.
Maresia nana (DC.) Batt.
Matthiola fruticulosa (L.) Maire
M. incana (L.) R. Br.
M. longipetala (Vent.) DC.
M. tricuspidata (L.) R.Br.
Microthlaspi natolicum (Boiss.) F. K. Mey. subsp.
sporadum F. K. Mey.
M. perfoliatum (L.) F. K. Mey.
Nasturtium officinale R.Br.
Neotorularia torulosa (Desf.) Hedge & J. Léonard
Neslia apiculata C.A.Mey.
N. paniculata (L.) Desv.
Raphanus raphanistrum L.
R. sativus L.
Rapistrum rugosum All.
Sinapis alba L.
S. arvensis L.
Sisymbrium irio L.
S. officinale (L.) Scop.
S. orientale L.
S. polyceratum L.

<i>Thlaspi perfoliatum</i> L.	<i>Sagina apetala</i> Ard.
<i>Torularia torulosa</i> (Desf.) O.E. Schulz	<i>S. bocconii</i> (Scheefe) Ascher.
Cactaceae	<i>S. marina</i> (L.) Griseb.
<i>Opuntia ficus-indica</i> (L.) Mill.	<i>S. maritima</i> G. Don
<i>O. humifusa</i> (Raf.) Raf.	<i>Saponaria mesogitana</i> Boiss.
Callitrichaceae	<i>Spergularia bocconii</i> (Scheele) Asch. & Graebn.
<i>Callitricha brutia</i> Petagne	<i>S. diandra</i> (Guss.) Sart. & Heldr.
Campanulaceae	<i>S. marina</i> (L.) Besser
<i>Campanula deliciatula</i> Boiss.	<i>Silene aegyptiaca</i> (L.) L.f.
<i>C. erinus</i> L.	<i>S. alexandrina</i> (Asch.) Danin
<i>C. fastigiata</i> Dufour ex A. DC.	<i>S. behen</i> L.
<i>Legousia falcata</i> (Ten.) Jauchen	<i>S. colorata</i> Poir.
<i>L. hybrida</i> (L.) Delarbre	<i>S. conoidea</i> L.
<i>L. speculum-veneris</i> (L.) Chais	<i>S. cretica</i> L.
<i>Solenopsis antiphonitis</i> Hadjik. & Hand. (E)	<i>S. discolon</i> Sibth. et Sm
<i>S. bivonae</i> (Tineo) M. B. Crespo, Serra & A. Juan	<i>S. fraudatrix</i> Meikle (E)
Cannabaceae	<i>S. fruticosa</i> L.
<i>Cannabis sativa</i> L.	<i>S. fuscato</i> Link
<i>Celtis australis</i> L.	<i>S. galataea</i> Boiss.
Capparaceae	<i>S. gallica</i> L.
<i>Capparis spinosa</i> L.	<i>S. gigantea</i> L.
Caprifoliaceae	<i>S. kotschy</i> Boiss.
<i>Lonicera etrusca</i> Santi	<i>S. laevigata</i> Sm.
Caryophyllaceae	<i>S. longipetala</i> Vent.
<i>Arenaria leptoclados</i> (Reichb.) Guss.	<i>S. macrodonta</i> Boiss.
<i>A. pamphylica</i> Boiss. et Heldr. subsp. <i>pamphylica</i>	<i>S. nocturna</i> L.
<i>A. pamphylica</i> Boiss. et Heldr. subsp. <i>kyrenica</i>	<i>S. rubella</i> L.
McNeill	<i>S. sedoides</i> Poir.
<i>Cerastium brachypetalum</i> Pers.	<i>S. tridentata</i> Desf.
<i>C. comatum</i> Desv.	<i>S. vulgaris</i> (Moench) Garcke
<i>C. dichotomum</i> L.	<i>Stellaria apetala</i> Ucria
<i>C. glomeratum</i> L.	<i>S. cilicica</i> Boiss. & Balansa
<i>C. illyricum</i> Ard.	<i>S. cupaniana</i> Jord & Fourr
<i>Dianthus cyprinus</i> A.K. Jackson et Turill (E)	<i>Vaccaria pyramidata</i> Medik.
<i>D. strictus</i> Banks et Sol. subsp. <i>troodi</i> (Post.)	<i>V. hispanica</i> (Mill.) Rauschert subsp. <i>hispanica</i>
Burdet & Greuter (E)	<i>Velezia rigida</i> L.
<i>D. triplacanthus</i> Sibth. et Sm.	Casuarinaceae
<i>Gypsophila linearifolia</i> (Fisch. & C. A. Mey.)	<i>Casuarina equisetifolia</i> L.
Boiss.	Chenopodiaceae
<i>G. pilosa</i> Huds.	<i>Arthrocnemum macrostachyum</i> (Moric.) K. Koch
<i>Herniaria cinerea</i> DC.	<i>Atriplex davisii</i> Aellen
<i>H. hemistemon</i> J. Gay	<i>A. halimus</i> L.
<i>H. hirsuta</i> L.	<i>A. patula</i> L.
<i>Kohlrauschia velutina</i> (Guss.) Reichb.	<i>A. portulacoides</i> L.
<i>Minuartia geniculata</i> (Poir.) Thell.	<i>A. prostrata</i> DC.
<i>M. globulosa</i> (Labill.) Schinz & Thell.	<i>A. rosea</i> L.
<i>M. hybrida</i> (Vill.) Schischk.	<i>A. tatarica</i> L.
<i>M. intermedia</i> (Boiss.) Hand.-Mazz.	<i>Bassia indica</i> (Wight) A. J. Scott
<i>M. mediterranea</i> (Ledeb.) K.Mel	<i>Beta adanensis</i> Pamukç.
<i>M. picta</i> (Sibth. et. Sm.) Bornm.	<i>B. macrocarpa</i> Guss.
<i>M. thymifolia</i> (Sibth. et. Sm.) Bornm.	<i>Chenopodium album</i> L.
<i>Paronychia argentea</i> Lam.	<i>C. botrys</i> L.
<i>P. macrosepala</i> Boiss.	<i>C. murale</i> L.
<i>Petrorhagia cretica</i> (L.) P.W.Ball	<i>C. opulifolium</i> Koch
<i>P. dubia</i> (Raf.) G. López & Romo	<i>C. vulvaria</i> L.
<i>P. kennedyae</i> (A. K. Jacks. & Turrill) P. W. Ball &	<i>Dysphania botrys</i> (L.) Clemants & Mosyakin
Heywood	<i>Halimione portulacoides</i> (L.) Aellen
<i>Polycarpon tetraphyllum</i> L.	<i>Halocnemum strobilaceum</i> (Pall.) M. Bieb.
<i>Pteranthus dichotomus</i> Forssk.	<i>Halopeplis amplexicaulis</i> (Vahl.) Cesati
<i>Rhodalsine geniculata</i> (Poir.) F. N. Williams	<i>Noaea mucronata</i> (Forssk.) Aschers.

- Salicornia europaea* L.
S. fruticosa L.
S. macrostachya Mori.
S. vera Forssk.
Salsola inermis Forssk.
S. kali L. subsp. *kali*
S. kali L. subsp. *ruthenica* Soo.
S. soda L.
S. tragus L. subsp. *pontica* (Pall.) Rilke
S. tragus L. subsp. *tragus*
Sarcocornia fruticosa (L.) A. J. Scott
S. perennis (Mill.) A. J. Scott
Suaeda aegyptiaca (Hasselq.) Zohary
S. maritima (L.) Dumort. subsp. *maritima*
S. vera Forssk. ex J. F. Gmel.
- Cistaceae**
C. creticus L. subsp. *creticus*
C. creticus L. subsp. *eriocephalus* (Viv.) Greuter & Burdet
C. monspeliensis L.
C. parviflorus Lam.
C. ×pauranthus
C. salviifolins L.
C. monspeliensis × *parviflorus*
Fumana arabica (L.) Spach
F. laevis (Cav.) Pau
F. thymifolia (L.) Verlot.
Helianthemum aegyptiacum (L.) Mill.
H. ledifolium (L.) Mill. subsp. *lasiocarpum* (Jacq. & Hérincq) Nyman
H. ledifolium (L.) Mill. subsp. *ledifolium*
H. obtisifolium Dunal (E)
H. salicifolium (L.) Mill.
H. stipulatum (Forssk.) C. Christens
H. syriacum (Jacq.) Dum.-Cours.
Tuberaria guttata (L.) Fourr.
T. inconspicua (Thib. ex Pers.) Willk.
- Cleomaceae**
Cleome iberica DC.
C. ornithopodioides L.
- Convolvulaceae**
Calystegia sepium (L.) R. Br.
Convolvulus althaeoides L.
C. arvensis L.
C. althaeoides L.
C. betonicifolius Mill.
C. coelesyriacus Boiss.
C. dorycnium L.
C. humilis Jacq.
C. oleifolium Desr.
C. pentapetaloides L.
C. siculus L.
Cressa cretica L.
Cuscuta campestris Yuncker
C. monogyna Vahl
C. palaestina Boiss.
C. planiflora Ten.
Ipomoea imperati (Vahl) Griseb.
I. indica (Burm.) Merill
I. purpurea (L.) Roth
- I. sagittata* Poir.
I. stolinifera (Cyr.) J. F. Gmel.
- Crassulaceae**
Crassula alata (Viv.) Berger
C. vaillantii (Willd.) Roth
Rosularia cypria (Holmboe) Meikle
R. globulariifolia (Fenzl) A. Berger
R. pallidiflora (Holmboe) Meikle (E)
Sedum aetnense Tineo
S. caespitosum (Cav.) DC.
S. eriocarpum Sm. subsp. *porphyreum* (Kotschy) 'Hart' (E)
S. lampusae (Kotschy) Boiss. (E)
S. litoreum Guss.
S. microcarpum (Sm.) Schönland
S. sediforme (Jacq.) Pau.
Telmissa microcarpa (Sm.) Boiss.
Umbilicus horizontalis (Guss.) DC
U. rupestris (Salisb.) Dandy
- Cucurbitaceae**
Bryonia cretica L.
Citrullus colocynthis (L.) Schrad.
Ecballium elaterium (L.) A.Rich.
- Cytinaceae**
Cytinus hypocistis L.
- Datiscaceae**
Datista cannabina L.
- Dipsacaceae**
Cephalaria syriaca (L.) Schrader
Lomelesia brachiata (Sm.) Greuter & Burdet
L. divaricata (Jacq.) Greuter & Burdet
L. prolifera (L.) Greuter & Burdet
Pterocephalus brevis Coult.
P. multiflorum Poech subsp. *Multiflorum* (E)
P. multiflorum subsp. *obtusifolium* Holmboe (E)
Scabiosa brachiata Sm.
S. sicula L.
S. prolifera L.
- Elaeagnaceae**
Elaeagnus angustifolia L.
- Ericaceae**
Arbutus andrachne L.
Erica manipuliflora Salisb.
E. sicula Guss.
- Euphorbiaceae**
Andrachne telephiooides L.
Chrozophora obliqua (Vahl) Spreng.
C. tinctoria (L.) Rof.
Euphorbia aleppica L.
E. arguta Banks et Sol.
E. berythea Boiss. & C. I. Blanche
E. cassia Boiss.
E. chamaepelus Boiss.
E. chamaesyce L.
E. dimorphocaulon P. H. Davis
E. exigua L.
E. falcata L. subsp. *falcata*
E. falcata L. subsp. *macrostegia* (Bornm.) O. Schwarz
E. helioscopia L.

- E. hirsuta* L.
E. hirta L.
E. nutans Lag.
E. paralias L.
E. peplis L.
E. peplus L.
E. petiolata Banks & Sol.
E. pubescens Vahl.
E. sintenisii Freyn
E. terracina L.
E. valerianifolia Lam.
Mercurialis annua L.
Ricinus communis L.
Fabaceae (Leguminosae)
Acacia farnesiana Willd.
A. karroo Hayne
A. saligna (Labill.) H. L. Wendl.
Alhagi maurorum Medik. subsp. *graecorum*
 (Boiss.) Awmack & Lock
A. maurorum Medik. subsp. *maurorum*
Anagyris foetida L.
Argyrolobium uniflorum (Becne.) Jaub.
Astragalus asterias Ledeb.
A. boeticus L.
A. caprinus L. subsp. *caprinus*
A. cypricus Boiss. (E)
A. epiglottis L.
A. hamosus L.
A. palecinus L.
A. sinaicus Boiss.
A. suberosus Banks. & Sol.
Bauhinia variegata L.
Bituminaria bituminosa (L.) C. H. Stirt.
Calycotome villosa (Poir.) Link
Ceratonia siliqua L.
Cersis siliquastrum L.
Cicer arietinum L.
C. repanda (Poir.) Guss. subsp. *repanda*
C. scorpioides (L.) Koch
Dorycnium graecum (L.) Ser.
D. rectum (L.) Ser.
Erophaca baetica (L.) Boiss.
E. baetica (L.) Boiss. subsp. *orientalis* (Chater &
 Meikle) Podlech
Genista fasselata Decne.
Glycyrrhiza glabra L.
Hedysarum cyprium Boiss. (E)
H. spinosissimum L.
Hippocrepis ciliata Willd.
H. emerus (L.) Lassen
H. multisiliquosa L.
H. unisiliquosa L. subsp. *bisiliqua* (Forskl.) Bornm.
H. unisiliquosa L. subsp. *unisiliquosa*
Hymenocarpos circinnatus (L.) Savi
Lathyrus annuus L.
L. aphaca L.
L. blepharicarpos Boiss.
L. cicera L.
L. gorgonei Parl.
L. ochrus (L.) DC.
- L. sativus* L.
L. saxatilis (Vent.) Vis.
L. setifolius L.
L. sphaericus Retz.
Lens culinaris Medik.
L. ervides (Brign.) Grande
L. orientalis (Boiss.) Hand.-Maz
Lotus edulis L.
L. corniculatus L.
L. cytisoides L.
L. halophilus Boiss. & Spruner
L. longisiliquosus R. Roem.
L. ornithopodioides L.
L. palustris Willd.
L. peregrinus L.
L. tenuis Willd.
L. tetragonolobus L.
Lupinus micranthus Guss.
Medicago acicularis (L.) Mill.
M. arabica (L.) Huds.
M. bianchaena Boiss.
M. bonarotiana Arcang.
M. ciliaris (L.) All.
M. constricta Dur.
M. cornuta (L.) Bartal
M. disciformis DC.
M. hypogaea E. Small.
M. intertexta (L.) Mill.
M. littoralis Lois.
M. lupulina L.
M. marina L.
M. minima (L.) Bartal
M. monspeliaca (L.) Trautv.
M. orbicularis (L.) Bartal
M. polymorpha L.
M. praecox DC.
M. rigidula (L.) All.
M. rotata Boiss.
M. rugosa Desr.
M. sativa L.
M. scutellata (L.) Mill.
M. truncatula Gaertn.
M. turbinata (L.) All.
Melilotus indicus (L.) All.
M. italicus L.
M. messanensis (L.) All.
M. siculus (Turra) B. D. Jacks.
M. sulcatus Desf.
Onobrychis aequidentata (Sibth. et. Sm.) d'Urv.
O. caput-galli (L.) Lam
O. cristata-galli (Murr.) Lam.
O. venosa (Desf.) Desv. (E)
Ononis biflora Desf.
O. diffusa Ten.
O. mitissima L.
O. ornithopodioides L.
O. pubescens L.
O. pusilla L.
O. reclinata L.
O. serrata Forssk.

- O. sicula* Guss.
O. spinosa L. subsp. *leiosperma* (Boiss.) Sirj.
O. variegeta L.
O. viscosa L. subsp. *breviflora* (DC.) Nyman
Ornithopus compresus L.
Parkinsonia aculeata L.
Pisum sativa L. subsp. *biflorus* (Raf.) Soldano
Prosopis farcta (Banks et Sol.) Macbride
Robinia pseudoacacia L.
Scorpirus muricatus L.
Securigera parviflora (Desv.) Lassen
S. securidaca L.
Sulla spinosissima (L.) B. H. Chol & H. Ohashi
Trifolium angustifolium L.
T. boissieri Soyer-Willamet.
T. campestre Schreb. subsp. *campestre*
T. cherieri L.
T. clypeatum L.
T. dasyurum C. Presl.
T. diffusum Ehrh.
T. echinatum M. Bieb.
T. fragiferum L. subsp. *bonannii* (C. Presl.) Sojak
T. globosum L.
T. lappaceum L.
T. leucanthum M. Bieb.
T. nigrescens Viv. subsp. *petrisavii* (Clem.) Holmboe
T. pamphylicum Boiss. et. Heldr.
T. pilulare Boiss.
T. repens L.
T. resupinatum L.
T. scabrum L.
T. sculatum Boiss.
T. spumosum L.
T. stellatum L.
T. striatum L.
T. suffocatum L.
T. tomentosum L.
Trigonella berythea Boiss.
T. cariensis Boiss.
T. foenum-graecum L.
T. monspeliacum L.
T. spicata Sibth.
T. spinosa L.
T. spruneriana Boiss.
T. strangulata Boiss.
Tripodion tetraphyllum (L.) Fourr. subsp. *tetraphyllum*
Vicia amphicarpa L.
V. angustifolia L.
V. assyriaca Boiss.
V. bithynica L.
V. cretica Boiss.
V. cypria Kotschy.
V. ervilla (L.) Willd.
V. faba L.
V. hybrida L.
V. johannis Tamamsh.
V. lathyroides L.
V. laxiflora Brot.
- V. lunata* (Boiss. et Bal.)
V. monantha Retz. subsp. *monantha*
V. narbonensis L.
V. palestina Boiss.
V. pannonica Crantz
V. parviflora Cav.
V. peregrina L.
V. pubescens (DC.) Link
V. sativa L. subsp. *sativa*
V. villosa Roth. subsp. *eriocarpa* (Hauskkn.) P. W. Ball
- Fagaceae**
Quercus coccifera L.
Q. infectoria Oliv.
- Frankeniaceae**
Frankenia hirsuta L.
- Gentianaceae**
Blackstonia acuminata (Koch et Ziz) Domin subsp. *acuminata*
B. perfoliata (L.) Hudson subsp. *intermedia* (Ten.) Zeltner
Centaureum erythraea Rafn subsp. *rhodense* (Boiss & Reut.) Melderis
C. mairei Zeltner
C. maritimum (L.) Fritsch
C. pulchellum (Swartz) Druce subsp. *pulchellum*
C. tenuiflorum (Hoff et Link) Fritsch
- Geraniaceae**
Erodium botrys (Cav.) Bertol.
E. ciconium (L.) L. 'Herit
E. cicutarium (L.) L'Herit subsp. *cicutarium*
E. crassifolium subsp. *crassifolium* L. 'Herit
E. gruinum (L.) L. 'Herit
E. laciniatum (Cav.) Willd.
E. malacoides (L.) Willd.
E. moschatum (L.) L. 'Herit
E. touchyanum Godr.
Geranium columbinum L.
G. dissectum L.
G. lucidum L.
G. molle L.
G. purpureum Vill.
G. pusillum Burm.
G. rotundifolium L.
G. tuberosum L.
- Haloragaceae**
Myriophyllum spicatum L.
- Hypericaceae**
Hypericum empetrifolium Willd.
H. hircinum L.
H. lanuginosum Lam.
H. perforatum L. subsp. *veronense* (Schrank) H. Lindb.
H. repens L. (E)
H. triquetrifolium Turra.
- Juglandaceae**
Juglans regia L.
- Lamiaceae (Labiatae)**
Acanthoprasium integrifolium (Benth.) Ryding (E)

- Acinos exiguus* (Sm.) Meikle (**E**)
Ajuga chamaepitys Schreber subsp. *palastina* (Boiss.) Bornm.
A. chamaepitys Schreber subsp. *cypria* P.H. Davis
A. iva Schreber
Ballota nigra L. subsp. *rudelaris* (Sw.) Briq.
Calamintha incana (Sm.) Benth
Dracocephalum triflorum L.
Lamium amplexicaule L.
L. garganicum L. subsp. *garganicum*
L. moschatum Mill. subsp. *moschatum*
L. moschatum Mill. subsp. *micranthum* (Boiss.) Mennema
Lavandula stoechas L.
Marrubium vulgare L.
Melissa officinalis L.
Mentha aquatica L.
M. longifolia L. subsp. *cypria* (Heinr. Braun) Harley (**E**)
M. pulegium L.
M. spicata L. subsp. *condensata* (Briq.) Harley
Micromeria microphylla (Urv.) Benth
M. myrtifolia Boiss. & Hohen.
M. nervosa (Desf.) Benth
Moluccella laevis L.
M. spinosa L.
Origanum laevigatum Boiss.
O. majorana L. var. *tenuifolium* Weston (**E**)
O. onites L.
O. syriacum L.
Phlomis brevibracteata Turrill
P. cypria L. subsp. *cypria*
P. fruticosa L.
Prasium majus L.
Rosmarinus officinalis L.
Salvia fruticosa Mill.
S. hierosolymitana Boiss.
S. lanigera Poir.
S. pinnata L.
S. veneris Hedge (**E**)
S. verbenaca L.
S. viridis L.
Satureja thymbra L.
Scutellaria sibithorpii (Benth) Hal. (**E**)
Sideritis curvidens Staff.
S. cypria Post. (**E**)
Stachys cretica L.
Teucrium creticum L.
T. cyprium Boiss.
T. divaricatum Heldreich subsp. *canescens* (Celak.) Holmboe (**E**)
T. karpasiticum Hadjik & Hand (**E**)
T. kyreniae (P. H. Davis) Hadjik & Hand (**E**)
T. micropodioides Rouy (**E**)
T. salaminium Hadjik & Hand (**E**)
T. scordium L. subsp. *scordioium*
T. scordium L. subsp. *scordioides* (Schreb.) Arcang.
T. scordium L. subsp. *scordium*
Thymbra capitata (L.) Cav.
- Thymus capitatus* (L.) Hoffsgg.
T. integer Griseb. (**E**)
Vitex angus-castus L.
Wiedemannia orientalis Fisch. & C. A. Mey.
Ziziphora capitata L.
- Lauraceae**
Laurus nobilis L.
- Linaceae**
Linum bienne Mill.
L. corymbulosum Reichb.
L. grandiflorum Desf.
L. nodiflorum L.
L. pubescens Banks & Sol.
L. strictum L. subsp. *spicatum* (Pers.) H. Lindb.
L. trigynum L.
L. usitatissimum L.
- Lythraceae**
Lytrum hyssopifolia L.
L. junceum Banks et. Sol.
L. tribalteatum Sprengel
Punica granatum L.
- Malvaceae**
Alcea acaulis (Cav.) Alef.
Althaea hirsuta L.
A. setosa Boiss.
Corchorus olitarius L.
Hibiscus trionum L.
Malva aegyptia L.
M. cretica Cav.
M. multiflora (Cav.) Soldano et al.
M. nicaeensis All.
M. parviflora L.
M. punctata (All.) Alef.
M. sylvestris L.
M. verticillata L.
Malvella sherardiana (L.) Jaub. & Spach
- Meliaceae**
Melia azedarach L.
- Molluginaceae**
Glinus lotoides L.
- Moraceae**
Ficus carica L.
F. cycomorus L.
Morus alba L.
- Myrtaceae**
Eucalyptus camaldulensis Dehnhardt
E. gomphocephala DC.
E. tereticornis Sm.
E. torquata Luehm.
Myrtus communis L.
- Neuradaceae**
Neurada procumbens L.
- Nitrariaceae**
Peganum harmala L.
- Oleaceae**
Olea europaea L.
Phillyrea latifolia L.
- Onagraceae**
Epilobium hirsutum L.

Orobanchaceae

Bellardia trixago (L.) All.
Odontites cyprius Boiss. (E)
Orobanche aegyptiaca Pers.
O. alba Willd.
O. crenata Forssk.
O. minor Sm.
O. mutelii F. W. Schulz.
O. orientalis Beck-Managetta
O. pubescens d'Urv.
O. ramosa L.
Parentucellia latifolia (L.) Cuatrec.

Oxalidaceae

Oxalis corniculatis L.

O. pes-caprae L.

Papaveraceae

Ceratocapnus palaestinus Boiss.
Fumaria bracteosa Pomel.
F. capreolata L.
F. densiflora DC.
F. gaillardotii Boiss.
F. judaica Boiss.
F. macrocarpa Parl. subsp. *macrocarpa*
F. parviflora Lam.

Glaucium corniculatum (L.) J.H. Rudolph
G. flavum Crantz. subsp. *leiocarpum* (Boiss.)
 Author

Hypecoum imberbe Sm.

H. pendulum L.

H. procumbens L. subsp. *procumbens*

Papaver cyprium (Chrtek & B. Slavik) M. V.
 Agab., Christodoulou & Hand. (E)

P. gracile Boiss.

P. hybridum L.

P. rhoeas L. subsp. *rroeas*

P. setigerum DC.

Roemeria hybrida (L.) DC.

Passifloraceae

Passiflora caerulea L.

Pedaliaceae

Sesamum indicum L.

Phytolaccaceae

Phytolacca americana L.

P. dioica L.

Plantaginaceae

Antirrhinum majus L.

Callitricha brutia Petagna

C. pulchra Schotsm.

Chaenorhinum gerense (Stapf) Speta

C. rubrifolium (DC.) Fourr.

Cymbalaria longipes (Boiss. & Heldr) Chev.

Kickxia commutata (Reichb.) Fritsch subsp. *graeca*

(Bory & Chaub) R. Fernandes

K. elatine (L.) Dumort. subsp. *sieberi* (Rchb.)

Hayek

K. lanigera (Desf.) Hand-Mazz

Linaria albifrons (Sm.) Spreng.

L. chalepensis (L.) Mill.

L. haelava (Forssk.) Del.

L. micrantha (Cav.) Hoffsgg.

L. pelisseriana (L.) Mill.

L. simplex Desf.

Misopates orontium (L.) Raf.

Plantago afra L.

P. albicans L.

P. amplexicaulis Cav.

P. bellardii All.

P. coronopus L. subsp. *coronopus*

P. cretica L.

P. lagopus L.

P. lanceolata L.

P. major L.

P. maritimus L.

P. notata Lag.

P. ovata Forssk.

P. sarcophylla Zohary

P. squarrosa Murr.

Veronica anagallis-aquatica L.

V. arvensis L.

V. cymbalaria Bodard

V. polita Fries

Platanaceae

Platanus orientalis L.

Plumbaginaceae

Limonium albidum (Guss.) Pignatti

L. ammochostianum Erben, Christodoulou, Hand & Kefalas (E)

L. aucheri (Girard) Greuter & Burdet

L. aucheri x *virgatum*

L. avei (De Not.) Brullo & Erber

L. cyprium (Meikle) Hand & Buttler (E)

L. echiooides (L.) Mill.

L. karpasiticum Kefalas, Erben, Christodoulou & Hand (E)

L. meyeri (Boiss.) O. Kuntze

L. mucronulatum (H. Lindb.) Greuter & Burdet (E)

L. sinuatum (L.) Mill.

L. virgatum (Willd.) Fourr.

Plumbago europaea L.

Polygonaceae

Polygala monspeliana L.

P. venulose Sm.

Polygonaceae

Emex spinosa (L.) Campdera

Persicaria lapathifolium (L.) Delarbre subsp.

lapathifolium

Polygonum aviculare L.

P. equisetiforme Sm.

P. maritimum L.

P. salicifolium Willd.

Rumex bucephalophorus L. subsp.

bucephalophorus

R. bucephalophorus L. subsp. *gallicus* (Steinh.)

Rech. f.

R. conglomeratus Murr.

R. crispus L. subsp. *crispus*

R. cyprius Murb.

R. dentatus L. subsp. *mesopotamicus* Rech. f.

R. pulcher L.

- Portulacaceae**
- Portulaca cypria* Danin
P. granulata – stellulata (Poellin.) Ricceri & Arrigoni
P. nitida (H. Baker & Danin) Arrigoni & Ricceri
P. oleracea L.
P. rausii Danin
P. sativa Haw.
P. trituberculata Danin et al.
- Primulaceae**
- A. arvensis* L. var. *arvensis*
A. arvensis L. var. *caerulea* Gouan
A. arvensis L. var. *foemina* (Mill.) Schinz et Thell
Androsace maxima L.
Astrolinon linum-stellatum (L.) Duby
Cyclamen cyprium Kotsch (E)
C. graecum Link subsp. *anatolicum* Ietsw.
C. persicum Mill.
Lysimachia dubia Sol.
Samolus valerandi L.
- Punicaceae**
- Punica granatum* L.
- Ranunculaceae**
- Adonis annua* L.
A. dentata Del.
A. microcarpa DC.
Anemone blanda Schott & Kotschy
A. coronaria L.
Ceratocephala falcata (L.) Pers.
Clematis cirrhosa L.
Delphinium caseyi B.L. Burtt (E)
D. peregrinum L.
Ficaria chrysoccephala (P. D. Sell) Galasso & al.
Nigella ciliaris DC.
N. domascena L.
N. fumariifolia Kotschy
Nigella nigellastrum (L.) Willk.
N. sativa L.
Ranunculus arvensis L.
R. asiaticus L.
R. bullatus L.
R. chius DC.
R. constatinopolitanus (DC.) Urv.
R. cornutus DC.
R. cythereaeus (Halacsy) Baldini
R. isthmicus Boiss.
R. marginatus Urv.
R. millefoliatus Vahl. subsp. *millefoliatus*
R. millefoliatus Vahl. subsp. *leptaleus* (DC.) Meikle (E)
R. millefolius Banks
R. muricatus L.
R. neopolitanus Ten.
R. paludosus Poir.
R. peltatus Schrank subsp. *fucoides* (Freyn) Munoz Garm.
P. sphaerospermus Boiss. & C. I. Blanche
Staphisagria macrosperma Spach
- Resedaceae**
- Reseda alba* L.
- R. lutea* L.
R. luteola L.
R. minoica Martin-Bravo & Jim.
R. orientalis (Muell. Arg.) Kotschy
- Rhamnaceae**
- Rhamnus alaternus* L.
R. oleoides L.
R. lycioides L. subsp. *graeca* (Boiss. & Reut.) Tutin
Ziziphus lotus (L.) Lam.
Z. spina-christi (L.) Willd.
Z. zizyphus (L.) Meikle
- Rosaceae**
- Aphanes arvensis* L.
Crateagus azarolus L.
C. monogyna Jacq.
Eriobotrya japonica Lindl.
Potentilla reptans L.
Poterium verrucosum G. Don
Pyrus syriaca Boiss.
Rubus sanctus Schreb.
Sarcopoterium spinosum (L.) Spach
- Rubiaceae**
- Asperula arvensis* L.
A. cypria Ehrend. (E)
A. stricta Boiss.
Crucianella aegyptiaca Boiss.
C. latifolia L.
C. macrostachya Boiss.
Cruciata articulata (L.) Ehrend.
Galium aparine L.
G. canum Req.
G. divaricatum Lam.
G. humifusum M. Bieb.
G. murale (L.) All.
G. pisiferum Boiss.
G. setaceum Lam.
G. tricornutum Dandy
G. verrucosum Huds.
Rubia laurae (Holmboe) Airy-Shaw (E)
R. tenuifolia d'Urv.
R. tinctorium
Sherardia arvensis L.
Theligonum cynocrambe L.
Valantia hispida L.
V. muralis L.
- Rutaceae**
- Haplophyllum buxbaumii* (Poir.) G. Don
Ruta chalepensis L.
- Salicaceae**
- Populus alba* L.
P. nigra L.
Salix alba L.
- Santalaceae**
- Osyris alba* L.
Thesium humile Vahl.
- Sapindaceae**
- Acer obtusifolium* Sibth. et Sm
Dodonaea viscosa (L.) Jacq.

Saxifragaceae	<i>T. tartonraira</i> All. subsp. <i>argentea</i> (Sm.) Holmboe
<i>Saxifraga hederacea</i> L.	
<i>S. tridactylites</i> L.	
Scrophulariaceae	
<i>Limosella aquatica</i> L.	
<i>Scrophularia peregrina</i> L.	
<i>S. peyronii</i> Post	
<i>Verbascum levanticum</i> I. K. Ferguson	
<i>V. orientale</i> (L.) All.	
<i>V. sinuatum</i> L.	
Simaraubiaceae	
<i>Ailanthus altissima</i> (Mill.) Swingle	
Solanaceae	
<i>Cestrum nocturnum</i> L.	
<i>Datura innoxia</i> Mill.	
<i>D. stramonium</i> L.	
<i>Hyoscyamus albus</i> L.	
<i>H. aureus</i> L.	
<i>Lycium ferocissimum</i> Miers	
<i>L. schweinfurthii</i> U. Dammar	
<i>Mandragora officinarum</i> L.	
<i>Nicotiana glauca</i> Graham	
<i>Physalis angulata</i> L.	
<i>Solanum angustifolium</i> Mill.	
<i>S. cornutum</i> Mill.	
<i>S. elaeagnifolium</i> Cav.	
<i>S. nigrum</i> L.	
<i>S. villosum</i> Mill.	
<i>Withania somnifera</i> Dunal	
Styracaceae	
<i>Styrax officinalis</i> L.	
Tamaricaceae	
<i>Tamarix aphylla</i> (L.) H. Karst.	
<i>T. hampeana</i> Boiss. ex Heldr.	
<i>T. smyrnensis</i> Bunge.	
<i>T. tetragyna</i> Ehrenb.	
<i>T. tetrandra</i> M. Bieb.	
Thymelaeaceae	
<i>Thymelaea hirsuta</i> (L.) Endl.	
<i>T. passerina</i> (L.) Coss. & Germ. subsp. <i>pubescens</i> (Guss.) Meikle	
Ulmaceae	
<i>Celtis australis</i> L.	
<i>Ulmus canescens</i> Melville	
<i>Zelkova abelicea</i> (Lam.) Boiss.	
Urticaceae	
<i>Parietaria cretica</i> L.	
<i>P. judaica</i> L.	
<i>P. lusitanica</i> L.	
<i>Urtica cypria</i> (H. Lindb.) Hand	
<i>U. membranacea</i> Poir.	
<i>U. pilulifera</i> L.	
<i>U. urens</i> L.	
Valerianaceae	
<i>Centranthus calcitrapa</i> (L.) Dufr. subsp. <i>orbiculatus</i> (Sm.) Meikle (E)	
<i>C. ruber</i> (L.) DC	
<i>Valeriana italica</i> Lam.	
<i>Valerianella coronata</i> (L.) DC.	
<i>V. discooides</i> (L.) Lois.	
<i>V. echinata</i> (L.) DC	
<i>V. lasiocarpa</i> (Stev.) Betcke	
<i>V. muralis</i> (Stev.) Baxt.	
<i>V. muricata</i> (Stev.) Baxt.	
<i>V. orientalis</i> (Schlech.) Boiss.	
<i>V. vesicaria</i> (L.) Moench	
Verbanaceae	
<i>Lantana camara</i> L.	
<i>Phyla canescens</i> (Kunth) Greene	
<i>P. nodiflora</i> (L.) Greene	
<i>Verbena officinalis</i> L.	
<i>V. supina</i> L.	
<i>Vitex agnus-castus</i> L.	
Zygophyllaceae	
<i>Peganum harmala</i> L.	
<i>Tetraena alba</i> (L. f.) Beler & Thulin	
<i>Tribulus terrestris</i> L.	

Cyprus is a hotspot in the Mediterranean region and number of the endemic taxa are about 143 within the whole island (Hand *et al.*, 2011). The table given below is the list of taxa that naturally grow in the northern part of the island of Cyprus, in Northern

Cyprus, according to our current knowledge. In the list, those with distribution in both the northern and southern parts are indicated in black and those that grow only in Northern Cyprus are indicated in red.

Table 5: Checklist of endemic taxa in Northern Cyprus.

Amaranthaceae	<i>Bosea cypria</i>	Dipsacaceae	<i>Pterocephalus multiflorus</i> subsp. <i>multiflorus</i>
Amaryllidaceae	<i>Allium autumnale</i> →	<i>P. multiflorus</i> subsp. <i>obtusifolius</i>	
	<i>A. cupani</i> subsp. <i>cyprium</i>	Fabaceae	<i>Astragalus cyprius</i>
	<i>A. cyprium</i> subsp. <i>lefkarens</i>		<i>Hedysarum cyprium</i>
	<i>A. willeanum</i>		<i>Onobrychis venosa</i>
Apiaceae		Hypericaceae	
	<i>Bupleurum sintenisii</i>	<i>Hypericum repens</i>	
	<i>Ferulago cypria</i>	Iridaceae	<i>Crocus hartmannianus</i>
	<i>Pimpinella cypria</i>		<i>C. veneris</i>
	<i>Scaligeria alzarii</i>		<i>Gladiolus triphyllus</i>
Asparagaceae		Lamiaceae	
	<i>Hyacinthella millingenii</i>	<i>Acanthoprasium integrifolium</i>	
	<i>Ornithogalum pedicellare</i>	<i>Acinos exiguus</i>	
	<i>Scilla morrisii</i>	<i>Mentha longifolia</i> subsp. <i>cyprica</i>	
Asteraceae		<i>Origanum majorana</i> var. <i>tenuifolium</i>	
	<i>Anthemis tricolor</i>	<i>Phlomis brevibracteata</i>	
	<i>Carlina pygmaea</i>	<i>Salvia veneris</i>	
	<i>Centaurea calcitrapa</i> subsp. <i>angusticeps</i>	<i>Scutellaria sibthorpii</i>	
	<i>Onopordum cyprium</i>	<i>Sideritis cypria</i>	
	<i>Ptilostemon chamaepeuce</i> subsp. <i>cyprius</i>	<i>Teucrium divaricatum</i> subsp. <i>canescens</i>	
	<i>Scorzonera trooidea</i>	<i>T. karpasiticum</i>	
	<i>Senecio glaucus</i> subsp. <i>cyprius</i>	<i>T. kyreniae</i>	
	<i>Taraxacum aphrogenes</i>	<i>T. micropodioides</i>	
Boraginaceae		<i>T. salaminium</i>	
	<i>Onosma caespitosa</i>	<i>Thyms integer</i>	
	<i>O. fruticosa</i>	Liliaceae	
Brassicaceae		<i>Tulipa cypria</i>	
	<i>Arabis cypria</i>	Orchidaceae	
	<i>A. kennedyae</i>	<i>Ophrys argolica</i> subsp. <i>elegans</i>	
	<i>Brasica hilarionis</i>	Orobanchaceae	
Campanulaceae		<i>Odontites cyprius</i>	
	<i>Solenopsis antiphonitis</i>	Papaveraceae	
Caryophyllaceae		<i>Papaver cyprium</i>	
	<i>Dianthus cyprius</i>	Plumbaginaceae	
	<i>D. strictus</i> subsp. <i>troodi</i>	<i>L. ammochostianum</i>	
	<i>Petrorrhagia kennedyae</i>	<i>L. cyprium</i>	
	<i>Silene fraudatrix</i>	<i>L. karpasiticum</i>	
Cistaceae		<i>L. mucronulatum</i>	
	<i>Helianthemum obtusifolium</i>	Poaceae	
Colchicaceae		<i>Bromus bidentatus</i>	
	<i>Colchicum troodi</i>	<i>Rostraria hadjikyriakou</i>	
Crassulaceae		Primulaceae	
	<i>Rosularia pallidiflora</i>	<i>Cyclamen cyprium</i>	
	<i>Sedum eriocarpum</i> subsp. <i>porphyreum</i>	Ranunculaceae	
	<i>S. lampasae</i>	<i>Delphinium caseyi</i>	
Cyperaceae		<i>Ranunculus millefoliatus</i> subsp. <i>leptaleus</i>	
	<i>Carex cypriaca</i>	Rubiaceae	
		<i>Asperula cypria</i>	
		<i>Rubia laurae</i>	
		Valerianaceae	
		<i>Centranthus calcitrapa</i> subsp. <i>orbiculatus</i>	

*The endemic taxa with distribution in both the northern and southern parts are indicated in black; and those that distributed only in Northern Cyprus are indicated in red.

CONCLUSION

In this paper, the checklist of wild vascular taxa occurring in the Northern Cyprus has been presented (Tables 1, 2, 3, and 4). The list comprises of 1564 wild vascular taxa that was obtained through the data from all of the published documents. The list was

updated according to ‘The Plant List’ and ‘IPNI’. The statistical values for the richest families consisting of endemic taxa and total endemism percentage was updated accordingly as presented in Figure 3 and 4, respectively.

Table 6: The five richest families of endemic taxa in the Northern Cyprus flora.

Family	Total taxa	Endemic taxa	Endemism (%)
Lamiaceae	61	14	22.95
Asteraceae	175	8	4.57
Amaryllidaceae	24	4	16.67
Caryophyllaceae	67	4	5.97
Apiaceae	72	4	5.55

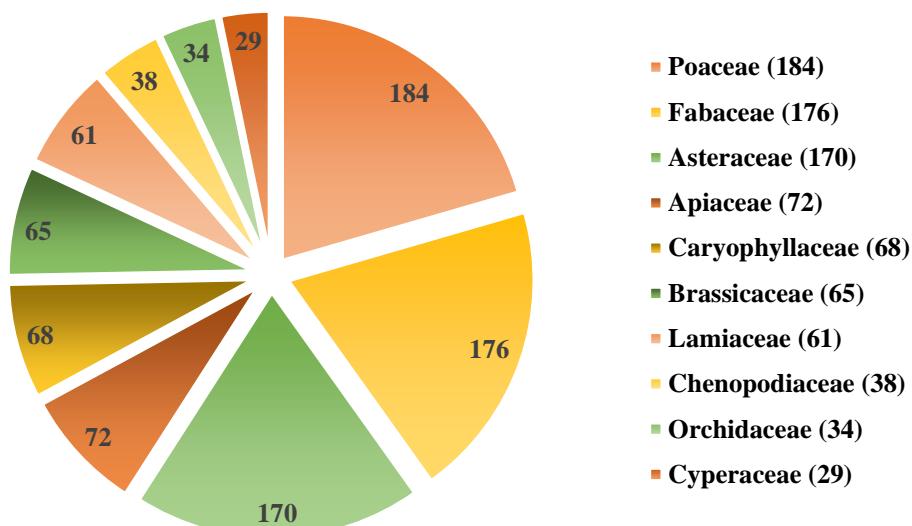


Figure 3: The ten richest families within Northern Cyprus in terms of species diversity.

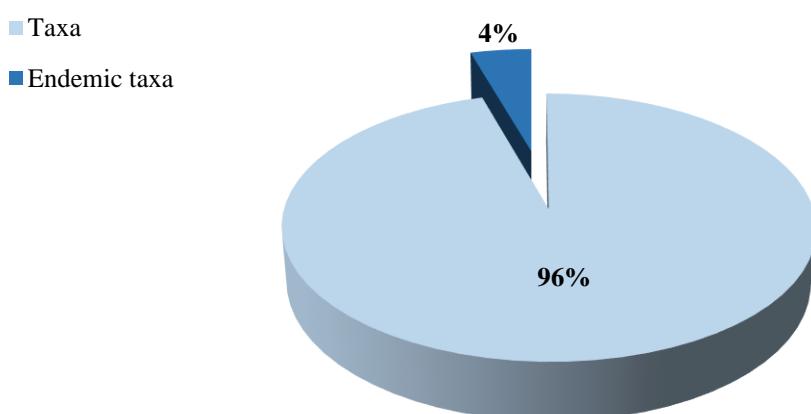


Figure 4: The percentage of endemic taxa compared to the total number of taxa within Northern Cyprus (73 endemic taxa in comparison to 1564 total taxa).

In this updated list of the vascular plants of the Northern Cyprus, there are total of 75 endemic taxa (Table 5) of which 21 of them have been named after Cyprus as carrying *cypria*, *cyprium* or *cyprius* epithets (Viney, 1992; Yildiz and Guzel, 2008). The five richest genera for endemic taxa in the Northern Cyprus area was shown to

represent an overall endemism richness (Table 6). To sum up, according to our current knowledge, 15 taxa of 75 endemic taxa are distributed only in northern part of the island, within Northern Cyprus, and the rest are distributed both in north and south regions.

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Also, on the 100th anniversary of his birth, we would also like to commemorate Dr. Viney. His two volumes “An Illustrated Flora of North Cyprus” introducing the plants growing in Northern Cyprus is extremely useful.

REFERENCES

- Anonim (2003). Kanlidere ve Asidere Florasi. Kibris Turk Biyologlar Dogayi Arastirma ve Koruma Dernegi. Lefkosa, Kibris.
- Brandes D (2020). Some contributions to the wall flora of North Cyprus. *Braunschweiger Geobotanische Arbeiten* **14**: 11-33.
- Hadjichambis A Ch, Della A, Paraskova-Hadjichambi D, Georghiou K, Dimopoulos P (2004). Flora of the Sand Dune Ecosystems of Cyprus. Proceeding 10th MEDECOS conference, Rhodes, Greece.
- Hadjikyriakou G, Hadjisterkotis E (2002). The Adventive Plants of Cyprus with New Records of invasive species.
- Hadjikyriakou G, Hand R (2008a). Ministry of Agriculture and Ministry of the Interior, **45**: 59-71 Nicosia, Cyprus. Notes on *Teucrium sect. Polium* (Lamiaceae) in Cyprus. *Willdenowia* **38**.
- Hadjikyriakou G, Hand R (2008b). Notes on *Teucrium sect. Polium* (Lamiaceae) in Cyprus. *Willdenowia* **38**.
- Hand R, Hadjikyriakou GN, Christodoulou CS (2011) (continuously updated): Flora of Cyprus – a dynamic checklist. Published at <http://www.flora-of-cyprus.eu/> Accessed 02.12.2021
- Hand R, Chrysostomou CS, McLoughlin EM (2021). *Rostraria hadjikyriakou* (Poaceae) a new gypsophilous and endemic species from Cyprus. *Fl Medit* **31**: 71-82.
- Hand R (2018). Additional data on Beta in Cyprus. *Cypricola* **5**: 1-3.
- Hand R (2019). Further noteworthy records of vascular plants in Cyprus (1997-2018) and some status clarification. *Cypricola* **12**: 1-17.

- Hand R (2001) (edited). Supplementary notes to the flora of Cyprus II. *Willdenowia* **31**: 183-409.
- Ilseven S (2004). Kuzey Kıbrıs'ın doğal orman ve park ağaçları. G. Magusa, Kozansoy Basım Yayım Ltd.
- Ilseven S, Hidirer G, Tumer A (2006). Kıbrıs Coğrafyası. FSF Matbaacılık.
- Meikle R (1977). Flora of Cyprus, vol. I, Bentham-Moxon Trust, Royal Botanic Gardens. Kew.
- Meikle R (1985). Flora of Cyprus, vol. II, Bentham-Moxon Trust, Royal Botanic Gardens Kew.
- Sekerciler F, Merakli MK (2013). A new record for the Flora of Northern Cyprus: *Solanum angustifolium* Mill. (Solanaceae). *Biodivers Conserv* **6** (1): 178-181.
- Tamson S (2014). Orchids of Northern Cyprus. Ankara, Published by Ertem Basım.
- Pariona A (2018). The most populated islands in the Mediterranean Sea. *WorldAtlas*. Published at <https://www.worldatlas.com/articles/biggest-islands-in-the-mediterranean-sea.html>. Archived from the original on 12 May 2018. Accessed 02.12.2021.
- Viney DE (1992). Endemic Wild Plants of North Cyprus, TBMM Basımevi.
- Viney DE (1994, 1996). An Illustrated Flora of North Cyprus. Vol. I-II, Published by Paperback (2011). KoeltzScientific Books, Koenigstein, Germany.
- Viney DE (2011). An Illustrated Flora of North Cyprus. Paperback Published by R.G. Gantner Verlag, Ruggell, Liechtenstein.
- Vural M, Zeydanli U, Beton D, Merakli MK (2010). Determining Core Areas of Floral Species Richness in the Karpaz Peninsula (Cyprus). Top Biodiversity Cyprus 2010 Conference Proceedings.
- Yildiz K, Guzel S (2008). Morphological Investigation of Some North Cyprus Endemics. *Int J Eng Sci* **2** (3): 85-91.