

# Changes in the vascular flora of the Djurdjura massif (northern Algeria): diachronic comparison of historical data (1854-1965) with current data (1988-2024)

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**Abstract.** During over 170 years (1854-2024) of botanical explorations in the Djurdjura massif (northern Algeria), several publications were devoted to its flora but never summarized until now. Our study, based on an extensive literature review, aimed to highlight the potential temporal floristic changes and to provide a useful tool for further floristic and taxonomic studies. We created a checklist of historical data (1854-1965) and compared it to current data (1988-2024) on the flora of Djurdjura, to compile finally a comprehensive checklist of the vascular plant species growing in the massif. We found that about 47 floristic studies were carried out in the massif, providing information on 1351 plant species (about 30% of the Algerian flora). Concerning the temporal change, 360 species (26.6% of the total) were newly added after 1988, whereas 269 species (20%) have not been recorded for 60 or more years. The comparative checklist confirms the status of the Djurdjura massif as a centre of floristic diversity and endemism in Algeria. The list can serve as a basis for an inventory of missing species of the Djurdjura massif, targeting the species of high conservation priority.

**Key words:** floristic comparison, historical data, missing species, Mediterranean mountains, taxonomy, temporal change

## 1. Introduction

In the context of floristic studies, with particular emphasis on the integration of data from various sources, historical floristic data are more and more important (Geri *et al.* 2016). Information provided by historical floristic records is essential to allow effective comparisons between previous and present situations (Walz & Müller 2009). Besides, growing concern about biodiversity loss highlights the need to quantify and understand temporal change in the flora (Dornelas *et al.* 2013). Thus, the analysis of older literature and historical herbarium specimens informs us on the presence of taxa (species, subspecies, varieties), which have not been recorded for several decades, and can today be considered as lost or presumably lost. Hereinafter, we will use the term “species” to refer to species as well as infraspecific taxa. In this context, the present work aims to identify species that are historically documented in the Djurdjura massif in Algeria, to evaluate which ones are still present and which ones are missing. The

latter are presumably extinct but this situation may be also linked to insufficient floristic sampling effort.

The Djurdjura massif is part of the 11<sup>th</sup> regional hotspot of plant biodiversity, the so-called “Kabylia-Numidia-Kroumiria” (Véla & Benhouhou 2007) – an area of high conservation priority in the Mediterranean basin. It is classified likewise as an “Important Plant Area” in Algeria (Yahi *et al.* 2012) and as a significant “key biodiversity area for plants” (IUCN 2015). Within the Kabylia region, the Djurdjura massif includes a protected area (national park and biosphere reserve), covering 185.5 km<sup>2</sup>. The floristic diversity of the massif is much greater than that of the other large mountains of Algeria, reflecting its great diversity of habitats and specific biogeographical location on the Algerian Mediterranean coast (Meddour 2012).

Attracting by its high plant diversity and endemism (Quézel 1957), the Djurdjura massif has a long history of floristic investigations and many botanists have visited this area since 1854. The earliest leading works about plants were published in the 19<sup>th</sup> century, covering

the entire phytogeographic subsector of Great Kabylia and not dedicated specifically to this mountain range. Two main parallel monographs (Letourneux 1893; Debeaux 1894), dealing with the vascular flora of the whole Kabylia, from the sea to the Djurdjura summits, took into account almost all the previous published contributions or unpublished observations by other botanists from a period of 40 years (1854-1894). In the next 70 years – during the first half of the 20<sup>th</sup> century until the independence of Algeria (1962) and a bit after (1965) – a number of significant publications on the flora of Djurdjura provided an appreciable body of knowledge. Some of them are focused on Djurdjura or Kabylia (Lapie 1909; Maire 1913, 1916; Battandier *et al.* 1920; Maire & de Peyerimhoff 1927; de Peyerimhoff 1947; Dubuis & Faurel 1945, 1949), whereas others are more general, concerning Algeria or North Africa, but citing explicitly the Djurdjura massif (Battandier & Trabut 1888-1890, 1895, 1905; Battandier 1910, 1919; Lapie & Maige 1915; Maire 1921-1949, 1926, 1931, 1952-1987; de Peyerimhoff 1941; Guinochet 1954; Quézel 1956, 1957; Dubuis & Faurel 1957-1965; Quézel & Santa 1962-1963, 1964).

Until now, there was no accessible compilation of these various and scattered publications, summarizing the historical state of floristic knowledge regarding this area. Therefore, we considered it crucial to provide a comprehensive historical checklist of the vascular plant species of the Djurdjura massif, based on a large compilation of all available floristic studies, with particular reference to 30 historical ones, published in 1854-1965. It lists all the known taxonomic units, i.e. families, genera, species, and infraspecific taxa, observed in the past in this area. Our key objective was to compare this historical checklist (1854-1965) with current floristic data, based mainly on the recent checklist of the vascular flora of Djurdjura provided by Meddour & Sahar (2021) and other bibliographic sources on the flora of Djurdjura in 1988-2024. In fact, this unique historical checklist, with an updated nomenclature, is proposed as a vital tool to assess temporal changes in the flora of the massif, due to land use changes over the past 60 years.

Thereafter, we wanted to determine (*i*) the number of vascular plant species documented in the literature on the Djurdjura massif; (*ii*) the completeness of the species checklist of vascular plants of the study area; and (*iii*) the main floristic changes: the new, the rare, and the missing species.

## 2. Material and methods

### 2.1. Study area

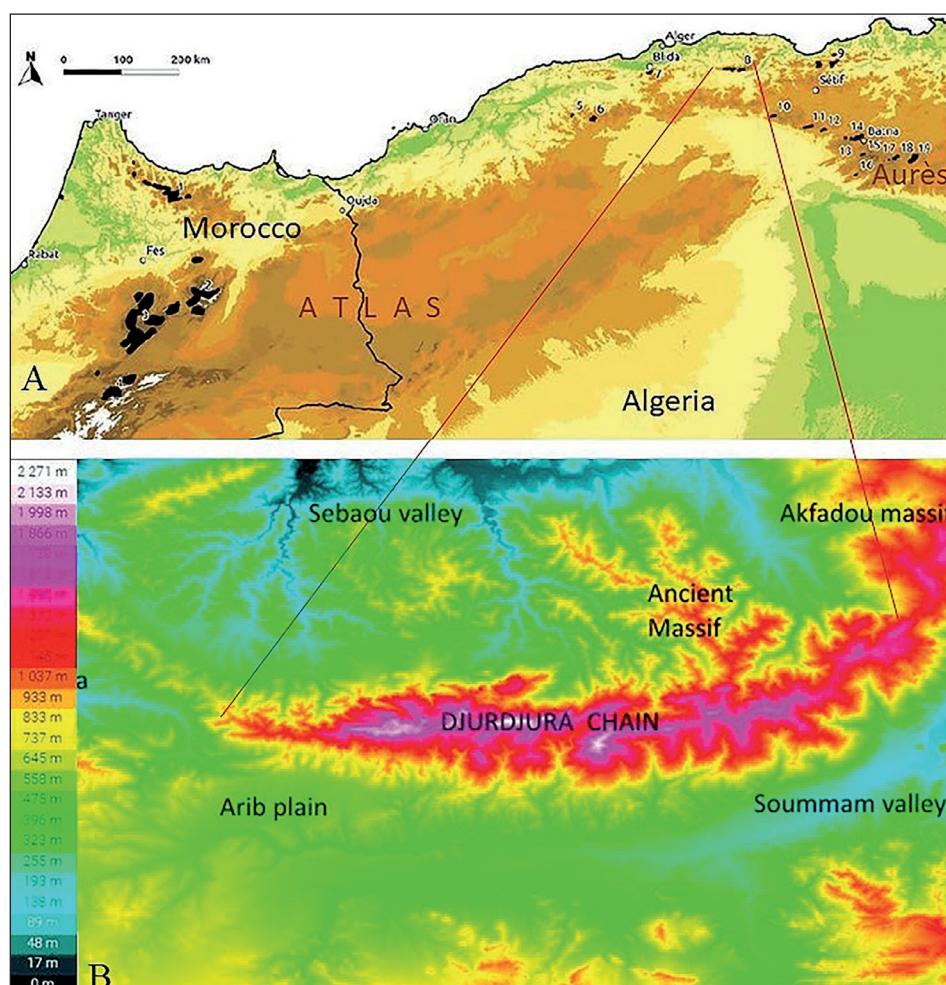
The Djurdjura massif is located in northern Algeria. We consider the massif as a continuous area above

900-1000 m asl, and eastward to Azerou n'Tohor, Chellata, and Ait Zikki, but excluding the Akfadou massif (Fig. 1). This mountain range is the second highest in northern Algeria and its highest peaks are Lalla Khedidja (2308 m asl) and Ich n'Timedouine (2305 m asl). The range has a longitudinal shape, from Tizi Oudjabouu in the west to Col de Chellata in the east. With an area of ca. 300 km<sup>2</sup>, it lies between 36°31'02"N 3°57'23"E and 36°25'42"N 4°29'43"E, and is about 60 km long and on average 6 km wide (3-10 km). Foothills generally begin at ca. 900 m asl on northern slopes and at about 700 m asl on southern slopes.

The Djurdjura massif has a complex orography, geomorphology, and geological constitution. It consists of a very thick limestone formation originating from the lower Lias and the Eocene, referred to as “massive limestone” (Abdesselam *et al.* 2000). Between large layers of limestone (dolomitized and flint), there are also layers of schists, sandstones, gneisses, and granites at several points (Flandrin 1952). This area is distinguished by an alpine-type karst chain.

Djurdjura is one of the wettest regions in Algeria and enjoys a typical Mediterranean mountain climate, studied in detail by Meddour (2012). Therefore, its characteristics are briefly summarized below. The northern slopes of the massif are much more influenced by the sea than the southern slopes. Depending on elevation and topography, high annual rainfall (1000-1550 mm) is characteristic of the area in the upper altitudinal zone, but north-facing slopes receive higher amounts of precipitation than the southern ones. Annual average temperature ranges between 11.5°C and 15.5°C. Thus, several climatic zones (subhumid, humid, and perhumid) and vegetation belts (meso-, supra-, and oro-Mediterranean) are found there (Meddour 2012). These natural conditions, combined with inaccessibility, are the main reasons for the preserved natural biodiversity of the massif, along with the diversity of habitat types: dry pastures and meadows (36% of the total area), secondary forests and fragments of primary forests (31%), open habitats and rocky ridges (26%), freshwater habitats (2%), and anthropogenic habitats (5%) (IUCN 2015). From the biogeographical viewpoint, the Djurdjura massif belongs to the Djurdjuran Kabylia district or Great Kabylia subsector (labelled K1), Kabyl-Numidian sector, Maghrebo-Tellian province, and Mediterranean region (Meddour 2012). The massif is a very interesting area, and its geographical position, geological history, and climate make it a meeting point for floras of diverse origins (Meddour & Sahar 2021).

The study area has already been described in detail in our previous works (Meddour 2012; Meddour & Sahar 2021) and also by the IUCN (2015), so we refer the reader to these sources for further information.



**Fig. 1.** Location of the study area in Northern Algeria (A), topography, and limits (B) of the Djurdjura massif (<https://fr-fr.topographic-map.com>)

## 2.2. Brief overview of botanical studies in the study area

Between 1854 and 1894, almost all “Algerian” botanists visited the Djurdjura range. Most of the flora of Kabylia of Djurdjura or Great Kabylia was inventoried more than a century ago, i.e. since Letourneux published his precious catalogue in 1871 and its second edition in 1893. His work was followed by that of Debeaux a year after (1894), on the vascular plants of Kabylia of Djurdjura, with information on the distribution of plant species. These two catalogues include all the 826 species of vascular plants that were observed by several botanists who visited Kabylia, and especially Djurdjura, until the end of the 19<sup>th</sup> century (1854-1894).

In the early and mid-20<sup>th</sup> century, until 1965, several authors – Battandier, Trabut, Lapie, Maire, Dubuis, Faurel, and Quézel – published important contributions to the flora of Algeria or Kabylia (regional floras, floristic contributions, and scientific reports), with new records for Djurdjura, not previously known from the two catalogues.

The main works of botanists of that period are listed in Table 1. From 1890 to 1920, Battandier and Trabut

published several floras and reports containing relevant information on species occurrence and distribution in Algeria, particularly in Djurdjura. They enumerated 304 species in 1890, 108 species in 1905, and 274 in 1920 (with the collaboration of Maire) for the Djurdjura massif. In 1909, Lapie published a remarkable phytogeographical work on the flora and vegetation of Kabylia, mainly of Djurdjura. His contribution is undoubtedly the most significant, as he listed 389 species for this area. Between 1913 and 1949, Maire devoted himself to the botanical exploration of North Africa. The results were first recorded in many “contributions” (1918-1949) and later they constituted the main part of the materials presented in the 16 volumes of his “Flora of North Africa”, published post-mortem from 1952 to 1987. For the Djurdjura massif, he mentioned 168 species in the 16 published volumes. Countless indications there attest that this illustrious botanist herborized in Great Kabylia, notably in Djurdjura (1913, 1916), and 149 species were reported by him in 1916. Dubuis & Faurel (1945, 1949) recorded 78 and 198 species, respectively, in the Djurdjura, and in their later “Notes” (1957-1965) provided for this area some new data on the distribution

**Table 1.** List of coded references (authors) and numbers of plant taxa they recorded from the Djurdjura

References	No. of taxa recorded	Total no. of records	Code (*)
Letourneux 1893 + Debeaux 1894	826	1634	00
Battandier 1888-90	304		05
Battandier & Trabut 1895	34		20
Battandier & Trabut '1902' 1905	108		21
Battandier 1910	22		13
Battandier 1919	10		19
Battandier, Maire & Trabut '1914' 1920	274	752	25
Lapie 1909	389		09
Lapie & Maige '1914' 1915	34	423	06
Maire 1913	19		01
Maire 1916	149		02
Maire 1921-1949	49		18
Maire 1926	34		10
Maire & de Peyerimhoff 1927	8		26
Maire 1931	6		24
Maire 1952-1987	168	433	28
Dubuis & Faurel 1945	78		03
Dubuis & Faurel 1949	198		08
Dubuis & Faurel 1957-1965	30	306	04
Quézel 1956	102		12
Quézel 1957	86		15
Quézel & Santa 1962-1963	181		07
Quézel & Santa 1964	29	398	22
Peyerimhoff de 1941	16		14
Peyerimhoff de 1947	56		11
Guinochet 1954	45		23
Chevassut 1956	1		27
Ducellier 1917	1		16
Gauthier-Lièvre 1931	2	121	17
<b>Total for historical period (1854-1965)</b>	<b>991</b>	<b>4067</b>	
Meddour & Sahar 2021	757		43
Meddour & Sahar 2023	121		44
Meddour 1994	97		36
Meddour 1999	76	1051	37
BET Enviconsult 2015	693	693	41
Mediouni & Yahi 1989	86		32
Mediouni & Yahi 1994	103		35
Mediouni <i>et al.</i> 1990	53		33
Mediouni & Azira 1992	40	282	34
Ménard & Vallet 1988	222		30
Larbi 2015	204		42
Wojterski 1988	149		29
Quézel & Barbero 1989	128		31
Addar <i>et al.</i> 2004	115		38
Romo 2008	14		39
Nemer <i>et al.</i> 2019	52		40
Rebbas <i>et al.</i> 2023	49		45
<b>Total for current period (1988-2024)</b>	<b>1082</b>	<b>2959</b>	

Explanation: (\*) – Code numbers used in Appendix 1

of many species. After many visits to the high Numidian Mountains, Quézel (1956, 1957) studied the flora and vegetation of the Djurdjura massif in particular. He mentioned for this area initially 86 species (1956), next 102 (1957), and 181 in the *Flora of Algeria* (1962-1963, with Santa). Thus, Djurdjura was frequently visited by botanists during the colonial period, from the mid-19<sup>th</sup> century to 1965 (for 111 years), so Quézel & Bounaga (1975) considered this massif to be very well-studied floristically.

After that fruitful period of research, followed by the Algerian War of Independence (1954-1962), floristic studies in the Djurdjura massif were only occasional, and 23 years elapsed before the publication of new contributions to its vascular flora. The first one was that of Wojterski (1988), and since then few other authors have published papers with lists of plants (Table 1): Ménard & Vallet (1988), Quézel & Barbero (1989), Mediouni & Yahi (1989, 1994), Mediouni *et al.* (1990), Mediouni & Azira (1992), Meddour (1994, 1999), Addar *et al.* (2004), Romo (2008), Larbi (2015), and Nemer *et al.* (2019). However, almost all those studies focused on phytosociology. Fortunately, BET Enviconsult (2015) and later our research team (Meddour & Sahar 2021) made thorough floristic surveys of the Djurdjura massif. The latter publication presented the first modern checklist of the flora of Djurdjura, based on field surveys and collections. Besides, Rebbas *et al.* (2023) provided a complete inventory of the Orchidaceae, while our team (Meddour & Sahar 2023), compiled an all-inclusive list of medicinal plants for the Djurdjura massif. In parallel, this area has been a subject of new floristic observations by the amateur and professional community, including ourselves, using iNaturalist (<https://www.inaturalist.org/observations>), providing 544 plant species (updated on 31 July 2024).

In botanical literature, temporal periods are often not bounded, because the beginning and end of a time series is arbitrary (Dornelas *et al.* 2013), but in the present case, they are circumscribed by the availability of floristic data linked to national historical events.

### 2.3. Data collection and analysis

To compile the checklist of the vascular flora of the Djurdjura massif, we critically reviewed and analysed a vast bibliographic corpus of relevant literature (floras, monographs, and other taxonomic studies) published in 1854 to 1965 (30 references, 111 years) and in 1988 to 2024 (17 references, 37 years). The 2 periods correspond to the history of Algeria: its colonization and independence, respectively. All the publications were based on botanical research conducted at a regional scale and concerning the Djurdjura massif in particular.

We selected from those studies all the species known with certainty and reported from the Djurdjura massif, and then compiled a combined checklist covering the vascular flora of the area. Each record represents a taxon (species, subspecies, or variety) found within the boundaries of the Djurdjura massif. The historical floristic data (species, varieties, forms) were reconciled with respect to their synonymies and authors. All the data were kept in a comprehensive database, on which a thorough refinement procedure was performed in a Microsoft Excel 2010 worksheet.

As soon as this checklist was prepared, we were confronted with serious problems of taxonomy and botanical synonymy, following nomenclatural changes of the old floras and the Flora of Algeria of Quézel & Santa (1962-1963). To update the data from all the scattered publications, the nomenclature of the species was revised and critically checked by referring primarily to the taxonomic backbone, the African Plant Database (APD 2024). Next, it was crosschecked against the worldwide taxonomic database POWO (2024).

The taxonomic circumscription of the families follows the classification proposed by PPG I (2016) for ferns and fern allies, by Christenhusz *et al.* (2011) for gymnosperms and by APG IV (2016) for angiosperms. The pooled checklist of the vascular flora of the study area contains only native and non-native naturalized species (as we have excluded non-native cultivated plants). To assess the status (native or non-native), we consulted 2 main databases (Euro+Med PlantBase 2024; POWO 2024).

Concerning the rarity category of the species at the national level, we use here the rarity index as established by Quézel & Santa (1962-1963), which has 4 levels: extremely rare, very rare, rare, and quite rare. However, the term rare in their Flora refers to frequency, and not to the extent of the distribution range of the species in question. For endemic and subendemic species, Dobignard & Chatelain (2010-2013) were consulted, and this status was checked against the main databases with chorological maps (APD 2024; Euro+Med PlantBase 2024; POWO 2024). According to these sources, the “Algerian endemic” status is attributed to plant species occurring solely in the Algerian territory, and the subendemic status, to those occurring in Algeria and a neighbouring country (Morocco or Tunisia), while the Maghrebian endemic status, to those occurring in Algeria and 2-4 neighbouring countries (Morocco, Tunisia, Libya).

The herbaria consulted online were P, MPU, G, BC, and ENSA (the acronyms follow Thiers 2024). In each herbarium, the last specimens of species collected in Djurdjura massif were carefully chosen and the reference collection is given in the present paper.

Each species was classified according to its presence in the Djurdjura massif as “current” (observed

or collected in 1988-2024) or “historical” (recorded in 1854-1965). We compared them also with our recent checklist of Djurdjura National Park (Meddour & Sahar 2021), to make diachronic assessment and consider the floristic changes, especially in a conservation perspective. The species common to both the lists are highlighted, followed by the species that were no longer recorded after the historical period (i.e. those whose occurrence has not been confirmed in recent decades), and finally, the newly recorded ones during the current period.

As recommended by Martínez-Camilo *et al.* (2019), we completed the comparison of the two lists by determining the number of species, genera, and families that were not found in both lists, presented graphically using a Venn diagram. We also calculated the similarity values between the 2 lists with Sørensen index (Magurran 1988), separately for families, genera, and species.

### 3. Results

#### 3.1. Herbarium specimens

The floristic data are represented by only 222 herbarium specimens available online, collected in the Djurdjura massif especially during the historical period. They account for 16.4% of all the species recorded. Their proportions are as follows: 91 herbarium specimens in MPU, 69 in P, 33 in BC, 17 in G, and 12 in ENSA. Unfortunately, the herbaria created during the colonial period (e.g. those of Faurel, Maire, Quézel) and stored initially at the Faculty of Sciences of Algiers, were all transferred before independence to several herbaria in France (e.g. MPU, P), and not all of them are available online.

#### 3.2. iNaturalist observations

The current flora of the Djurdjura massif is well illustrated by photographs (544 species, 40% of all the plants recorded) with dates and coordinates, through the iNaturalist database. We contributed 348 species, i.e. 64% of the total observations. Moreover, 26 species present on the historical list but not recorded in the current list (they were not mentioned by authors during the 1988-2024 period), were observed in Djurdjura by the iNaturalist community.

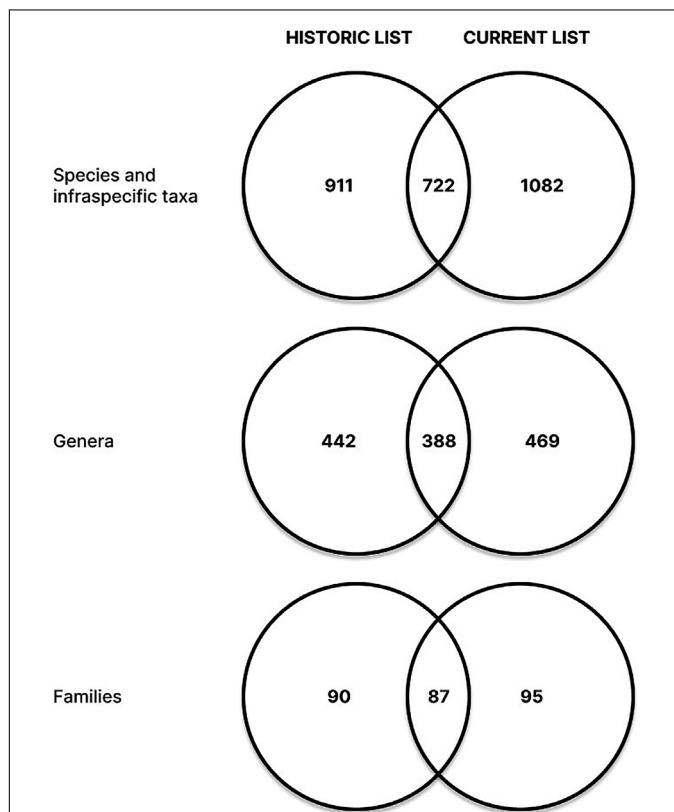
#### 3.3. Taxonomic diversity

Altogether, 7026 historical and current records of vascular plants corresponding to 1351 species and infraspecific taxa (i.e. 992 species, 326 subspecies, and 33 varieties) were distinctly annotated within the area of the Djurdjura massif, in 47 literature sources published from 1893 to 2023. Appendix 1 shows the complete list of the species recorded in the Djurdjura massif, organ-

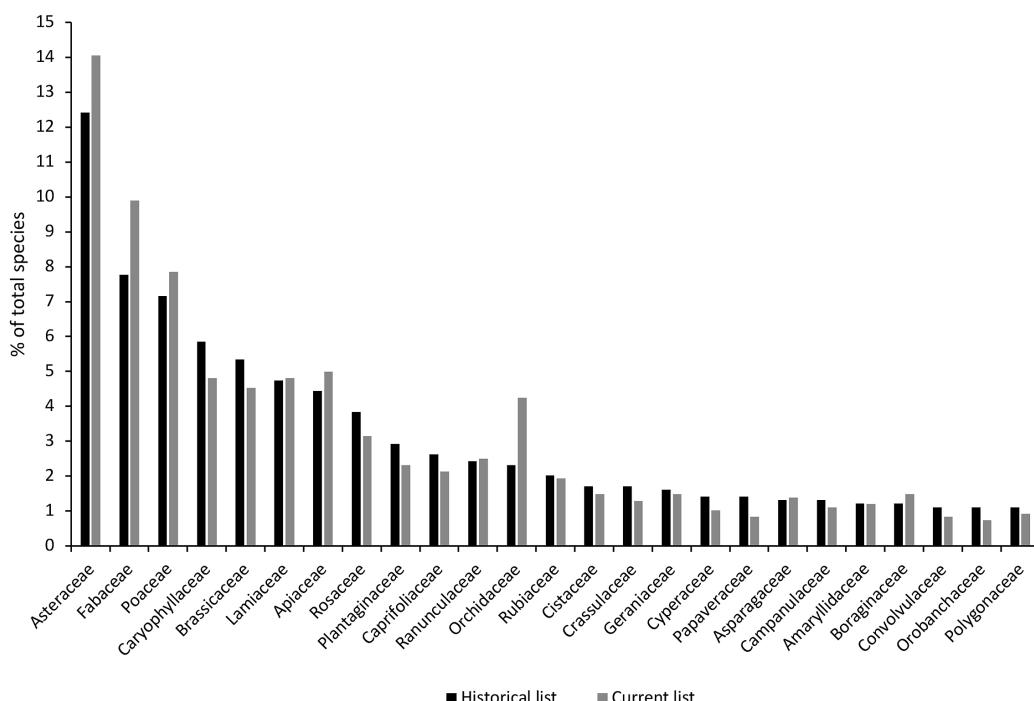
ized in 2 columns allowing a comparison between the historical and current floristic data. The species names as they appear in the references used are kept in a database available on request from the authors.

Our results indicate that the flora of the study area comprises 1351 species of 523 genera and 98 families. It includes 1314 angiosperms (97%), 11 gymnosperms (1%), and 26 lycophytes and ferns (2%). For the historical period, 991 species of 442 genera and 90 families were distinctly annotated within the Djurdjura massif; while for the current period, 1082 species of 469 genera and 95 families. The diachronic comparison revealed that only 722 species, accounting for 53.4% of all the species inventoried by various authors during the 2 periods, are common to both floristic lists.

The species number derived from the current list was higher than the species number derived from historical list (1082 and 991, respectively) and this trend was also detected at the genus level (469 and 442, respectively) and family level (95 and 90, respectively). The counts at each taxonomic level reveal that the 2 lists are complementary for the Djurdjura flora (Fig. 2). The similarity values of the Sørensen index between the 2 lists were lower for species (0.70) than for genera (0.85) and families (0.94). Out of the 1351 species overall, 722 are common to both lists (53.4%), 360 species are new



**Fig. 2.** Venn diagrams displaying numbers of vascular plant species (and infraspecific taxa), genera, and families recorded in the Djurdjura massif only in 1854-1965 (historical data), only in 1988-2024 (current data) or in both periods



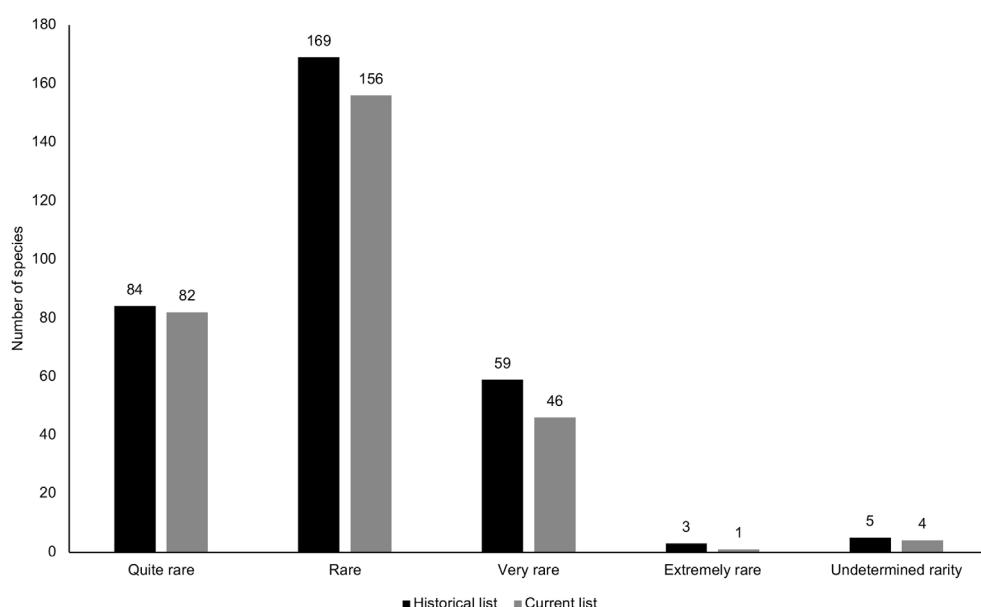
**Fig. 3.** Comparison between historical and current data on the relative importance of the main plant families (accounting for > 1% of total species) in the Djurdjura massif

(26.6%), and 269 have not been observed again (about 20%).

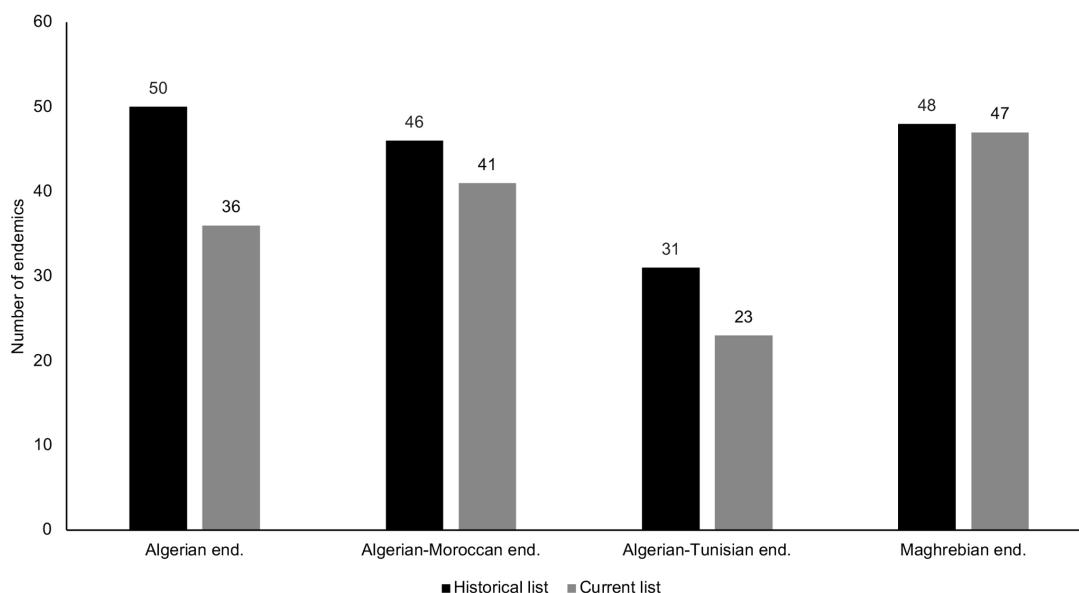
As mentioned above, 95 families are currently represented vs 90 families on the historical list. We also show that some main families are represented currently with more species, e.g. the Asteraceae, Fabaceae, Poaceae, Apiaceae, and above all Orchidaceae (Fig. 3). This may be partly related to the fact that during the historical period researchers probably neglected the most widespread, less interesting species.

#### 3.4. Rarity categories

Overall, 391 species are rare *sensu lato* at the national level (29% of the local flora), with the following proportions within this group: most of them are classified as rare (53%), followed by quite rare (26%), very rare (19%), extremely rare (1%), and of undetermined rarity (1%). Importantly, we noted that in all categories of rarity, there is a shortage in the number of species in the current period, especially for rare and very rare ones (Fig. 4).



**Fig. 4.** Comparison of species rarity categories between the historical and current lists of plant species in the Djurdjura massif



**Fig. 5.** Comparison of various types of endemism (end.) between the historical and current lists of plant species in the Djurdjura massif

### 3.5. Endemicity

The Djurdjura massif hosts 202 endemics and subendemics (15% of the local flora), with the following proportions within this group: most of them are Maghrebian (29%), Algerian (27%) or Algerian-Moroccan (27%), followed by Algerian-Tunisian (17%). Out of this total, 175 species (86.6%) are recorded on the historical list, whereas only 147 are on the current list (72.8%). In all types of endemicity, there is a deficit in the current number of species, especially for Algerian endemics (Fig. 5).

### 3.6. Newly recorded species

As many as 360 additional species (26.6% of the local flora) have been recently recorded in the Djurdjura. Unfortunately, they are mainly ruderal and widespread species (omitted formerly), with the overall result indicating a progressive and general “trivialisation” of the local flora (76% of the 360 added species are common in Algeria). Concerning their status, these species are almost all native, because only 12 (i.e. 3% of the “new” species) are naturalized: *Amaranthus blitum* subsp. *oleraceus* (L.) Costea, *Antirrhinum majus* L., *Arundo donax* L., *Dichodon viscidum* (M.Bieb.) Holub, *Erigeron canadensis* L., *Erigeron sumatrensis* Retz., *Legousia speculum-veneris* (L.) Chaix, *Linum usitatissimum* L., *Oxalis pes-caprae* L. var. *pes-caprae*, *Punica granatum* L., *Sambucus nigra* L., and *Vicia sativa* L. subsp. *sativa*.

### 3.7. Species not recorded again

Overall, 269 species are lacking in the current list (i.e. not observed again). Nonetheless, we probably should exclude from this group 26 species newly

observed in Djurdjura by the iNaturalist community, although not verified in the field by specialists. Thus, 243 species (18% of the whole flora) were not recorded again since 1965 or even 1894 (60-130 years), including 53 endemic ones (Table 2) and 70 rare ones (see Appendix 1). Some taxa of this group were reported from single locations (site-restricted species) in the past and were not found later.

## 4. Discussion

Our results allowed us to compile a comprehensive combined checklist of the vascular flora of the Djurdjura massif, thus enhancing and updating the previous works in which its flora was already well documented (Letourneau 1893; Debeaux 1894; Meddour & Sahar 2021). This compilation confirms the status of the Djurdjura as a centre of floristic diversity and endemism in Algeria (Quézel 1957; Meddour & Sahar 2021). The checklist includes 1351 species and intraspecific taxa (992 species, 326 subspecies, and 33 varieties), belonging to 523 genera and 98 families. In a very small territory of ca. 300 km<sup>2</sup>, they represent about 30% of the Algerian flora, which comprises 4449 species (Dobignard & Chatelain 2010-2013). Besides, the Djurdjura massif hosts as many as 202 endemics and subendemics (accounting for 15% of the local flora), in relation to its high elevations, accordingly confirming its status as a significant “key biodiversity area for plants” (IUCN 2015). Thus, the study area proves to be a major hotspot of Algerian biodiversity. Indeed, when comparing the richness of the studied flora with other mountainous regions of Algeria, we clearly see that their flora is poorer: only 531 species of 73 families in the

**Table 2.** Heritage plant taxa (endemic and/or rare, site-restricted) no longer recorded in the Djurdjura massif since 1965 (or even since 1894 – in bold)

Missing taxon	Endemicity type	Rarity category
<i>Alyssum luteolum</i> Pomel	Alg	
<i>Anthriscus sylvestris</i> subsp. <i>mollis</i> (Boiss. & Reut.) Maire	Alg-Mor-Tun	R
<i>Arabis hirsuta</i> subsp. <i>balansae</i> (Boiss. & Reut.) Maire	End Alg-Mor	
<i>Armeria spinulosa</i> Boiss.	Alg-Tun	
<i>Artemisia alba</i> subsp. <i>kabylica</i> (Chabert) Greuter	Alg	RR
<i>Bufonia duvaljouvei</i> Batt. & Trab. subsp. <i>duvaljouvei</i>	Alg	R
<i>Bufonia duvaljouvei</i> subsp. <i>battandieri</i> (Rouy ex Batt.) Maire	Alg-Mor	R
* <i>Bunium chabertii</i> (Batt.) Batt.	Alg	RR
<i>Carduus spachianus</i> Durieu subsp. <i>spachianus</i>	Alg-Mor-Tun-Lib	
<i>Carthamus calvus</i> (Boiss. & Reut.) Batt.	Alg-Mor-Tun	
<i>Carthamus strictus</i> (Pomel) Batt.	Alg	R
<i>Cerastium atlanticum</i> Durieu	Alg-Mor-Tun	AR
<i>Chaenorhinum flexuosum</i> (Desf.) Lange subsp. <i>flexuosum</i>	Alg-Mor-Tun	R
<i>Clinopodium grandiflorum</i> subsp. <i>baborense</i> (Batt.) Govaerts	Alg-Mor	R
<i>Convolvulus durandoi</i> Pomel	Alg-Tun	R
<i>Cynosurus polybracteatus</i> Poir.	Alg-Tun	
<i>Erodium cheilanthisfolium</i> subsp. <i>antariense</i> (Rouy) Maire	Alg-Mor	
<i>Euphorbia cossioniana</i> Boiss.	Alg-Mor-Tun	R
<i>Festuca djurdjurae</i> (Trab.) Romo	Alg	
<i>Festuca numidica</i> (Trab.) Romo	Alg-Tun	R
<i>Fumaria atlantica</i> Coss. & Durieu ex Hausskn.	Alg-Tun	
<i>Galactites mutabilis</i> Durieu	Alg-Tun	AR
<i>Galium poiretianum</i> Ball	Alg-Mor-Tun-Lib	
* <i>Genista numidica</i> subsp. <i>filiramea</i> (Pomel) Batt.	Alg	RR
<i>Helminthotheca balansae</i> (Coss. & Durieu) Lack	Alg	
<i>Hieracium amplexicaule</i> subsp. <i>atlanticum</i> (Fr.) Zahn	Alg-Mor	
<i>Hypericum naudinianum</i> Coss. & Durieu	Alg-Mor	AR
<i>Kickxia elatinoides</i> (Desf.) Rothm.	Alg	
<i>Lepidium hirtum</i> subsp. <i>dhayense</i> (Munby) Thell.	Alg-Mor	
<i>Linaria decipiens</i> Batt.	Alg	R
* <i>Linaria parviracemosa</i> D.A. Sutton	Alg	R
<i>Linum corymbiferum</i> subsp. <i>aristidis</i> (Batt.) Batt.	Alg-Tun	
<i>Lophiolepis kirbensis</i> (Pomel) Del Guacchio, Bureš, Iamonico & P. Caputo	Alg	R
<i>Marrubium alyssoides</i> Pomel	Alg-Mor	R
<i>Minuartia tenuissima</i> (Pomel) Mattf.	Alg-Mor-Tun	AR
<i>Odontites discolor</i> subsp. <i>ciliatus</i> (Pomel) Bolliger	Alg	RRR
<i>Paronychia arabica</i> subsp. <i>aurasiaca</i> (Webb ex Coss.) Batt.	Alg-Mor-Tun	
<i>Plagius grandis</i> (L.) Alavi & Heywood	Alg-Tun	
<i>Plantago atlantica</i> Batt.	Alg	R
<i>Polyneum fontanesii</i> Durieu & Moq.	Alg-Mor	
* <i>Romulea battandieri</i> Bég.	Alg	R
* <i>Romulea penzigi</i> Bég.	Alg	RR
<i>Scabiosa daucoides</i> Desf.	Alg-Tun	
<i>Scrophularia tenuipes</i> Coss. & Durieu	Alg-Tun	R
<i>Teucrium atratum</i> Pomel	Alg-Tun	R
<i>Thymus lanceolatus</i> Desf.	Alg	R
<i>Thymus pallens</i> de Noé	Alg-Tun	
<i>Tulipa sylvestris</i> subsp. <i>primulina</i> (Baker) Maire & Weiller	Alg-Mor	R
<i>Umbilicus patens</i> Pomel	Alg-Mor-Tun-Lib	
<i>Valeriana heterocarpa</i> (Pomel) Christenh. & Byng	Alg-Mor	
<i>Valeriana sulcata</i> (Pomel) Christenh. & Byng	Alg	AR
<i>Verbascum betonicifolium</i> (Desf.) Desf.	Alg	
<i>Veronica rosea</i> Desf.	Alg-Mor	R

Explanations: \* – reported from single locations (site-restricted species) in Djurdjura; endemicity types, Alg – Algerian, Mor – Moroccan, Tun – Tunisian, Lib – Libyan); rarity categories, AR – quite rare, R – rare, RR – very rare, RRR – extremely rare, R? – undetermined rarity, species whose rarity is not specified are common in the broad sense

Babors massif (Gharzouli & Djellouli 2005), 562 species of 93 families in the Belezma massif (Benchouala *et al.* 2023), and 558 species of 78 families on Djebel Ouarsenis (Chelghoum *et al.* 2024).

The higher plant species number recorded in Djurdjura may result from the peculiar phytogeographical location of the mountain range in the Mediterranean region, and to the presence of Lalla Khedidja, the second highest mountain peak of the Tell Atlas (northern Algeria). This floristic diversity can be as well attributed to the diversity the massif exhibits in geology, topography, climatic features, and to the wide range of human impacts, leading to a great diversity of habitats (Meddour & Sahar 2021).

The diachronic comparison revealed that species number in the current list is higher than in the historical list (1082 and 991, respectively). Siab-Farsi *et al.* (2024) showed the same trend by comparing the wall flora of the Royal Mauritanian Mausoleum in Algeria in a similar period (1867-2022). Some of the main families, such as the Asteraceae, Fabaceae, Poaceae, Apiaceae, and above all Orchidaceae, are represented currently with more species, too. However, in the case of orchids, recent sampling focused on this group (Rebbas *et al.* 2023) made it possible to identify all the species present in Djurdjura, thus doubling the number identified earlier (23 vs 46 species). A new species for Djurdjura and Algeria was discovered by Nemer *et al.* (2019), namely *Cypripedium calceolus* L. We suggest that intensive collection efforts and botanical explorations could notably increase the knowledge of other plant families in the study area.

In comparison to the historical list, we recorded a high number of “new” species (360 or 26.6% of the overall flora), which were not found previously and have been added to the flora of Djurdjura. It is well known that increasing the sampling effort increases the probability of finding new species (Geri *et al.* 2016). However, these additions are not all reliable, because some of them are surely the result of identification errors. Indeed, numerous species, particularly endemic ones, have been reported from Djurdjura, although they were never observed before in the entire Kabylo-Numidian region (Battandier & Trabut 1888-1890; Maire 1952-1987; Quézel & Santa 1962-1963; eflora Maghreb 2024). The noteworthy ones are: *Brassica maurorum* Durieu, *Bupleurum atlanticum* Murb., *Carthamus pectinatus* Desf., *Centaurea tougourensis* Boiss. & Reut., *Cynoglossum mathezii* Greuter & Burdet, *Delphinium mauritanicum* Coss., *Festuca deserti* (Coss. & Durieu) Trab., *Saxifraga numidica* Maire, *Silene pomelii* Batt. subsp. *pomelii*, *Silene velutinoides* Pomel, *Stachys duriaeae* de Noé, *Thymus dreatensis* Batt., etc. All these species deserve to be confirmed or refuted by new field surveys and sample collections, urgently needed.

On the other hand, 20% of the total number of species have not been recorded again since the historical period. However, it is important to mention that in the Djurdjura massif, rare and uncommon species – especially endemics – could explain this tendency, since they are less likely to be collected or found (Martínez-Camilo *et al.* 2019). It is known that floristic surveys certainly miss a number of species in a given area, especially those that are not at the reproductive stage by the time of the visit, flower sporadically, are ephemeral, or are discreet (Castro *et al.* 1999). Moreover, comparing species counts and numbers of various datasets will quite generally produce divergent results due to differences in terms of sampling effort (Gotelli & Colwell 2001). We must bear these limits in mind in the case of our comparison.

A large number (55 species) of the rare and/or endemic species have not been seen in Djurdjura for a very long time (60 or 130 years), e.g. *Artemisia alba* subsp. *kabylica* (Chabert) Greuter, *Carduus spachianus* Durieu subsp. *spachianus*, *Cerastium atlanticum* Durieu, *Convolvulus durandoi* Pomel, *Helminthotheca balansae* (Coss. & Durieu) Lack, *Kickxia elatinoides* (Desf.) Rothm., *Lophiolepis kirbensis* (Pomel) Del Guacchio, Bureš, Iamonico & P. Caputo, *Odontites purpureus* (Desf.) G. Don, *Plagius grandis* Vogt & Greuter, *Thymus pallescens* de Noé, *Tulipa sylvestris* subsp. *primulina* (Baker) Maire & Weiller, *Valliana heterocarpa* (Pomel) Christenh. & Byng, and *Verbascum betonicifolium* (Desf.) Desf. Moreover, many species and subspecies are restricted to one small district. In many cases, they may be known from one “site” of less than 100 km<sup>2</sup> (labelled as “site-restricted species”, SRS) (Radford *et al.* 2011). There are around 10 exclusive species of the Djurdjura massif, which have not been observed for 60 years at least, i.e. *Astragalus depressus* L., *Bunium chabertii* (Batt.) Batt., *Genista numidica* subsp. *filiramea* (Pomel) Batt., *Hieracium humile* Jacq. subsp. *humile*, *Hypericum hirsutum* L., *Linaria parviracemosa* D.A. Sutton, *Romulea battandieri* Bég., *Romulea penzigi* Bég., *Rumex obtusifolius* L. subsp. *obtusifolius*, and *Spergularia rubra* (L.) J. Presl & C. Presl. All these heritage and site-restricted species must be actively sought out in the field as a priority.

Following the precautionary approach suggested by Butchart *et al.* (2006), we can consider species that were not recorded during the previous decades (in the last 60 to 130 years) as both “critically endangered” and “possibly extinct”. A taxon can be classified as extinct only when recent field surveys focused on finding the taxon in its historical area of occurrence were unsuccessful (see e.g. the case of *Adenocarpus faurei* Maire in Algeria; Miara *et al.* 2018). Only species with probabilities higher than 90%, using both

the threat-based and survey-based approaches, were recommended to be categorized as extinct (Butchart *et al.* 2006).

Thus, this analysis can serve as a basis for an inventory of missing species of the Djurdjura massif, targeting the species of high conservation priority. We assume that their supposed disappearance is particularly linked to insufficient floristic sampling effort in this massif. There is still a chance for them to be rediscovered, as in the case of *Convolvulus durandoi* Pomel, with significant recent discoveries of several locations in poorly surveyed areas in Algeria (Véla *et al.* 2018), so let us anticipate and hope for the rediscovery of this species in Djurdjura. The same goes for *Tulipa sylvestris* subsp. *primulina* (Baker) Maire & Weiller, recently rediscovered in the Belezma National Park in Algeria by Maalem *et al.* (2023).

On the whole, the recorded floristic changes (seeming or real disappearance) can be ascribed to many causes. They are probably related partly to human activities (Dornelas *et al.* 2013). By a similar comparative approach, Ricciardi (2004) showed a heavy loss (9-42%) of plant species that occurred both on the island of Capri and along the shores of Naples Bay during the 20<sup>th</sup> century, which seems to be closely related to the strong increase in human disturbance. Likewise, by a multitemporal analysis, Ceschin *et al.* (2009), in a humid area in Rome's archaeological site, showed that the species composition changed considerably: over 40% of the species disappeared, and approximately the same number of species appeared, but the latter are mainly ruderal and common species. Also, Chiarucci *et al.* (2017) found major changes in plant assemblages on the island of the Tuscan Archipelago (Italy) between 1830-1950 and 1951-2015, with native flora significantly decreasing (-10.7%) and alien flora doubling in richness, in response to prolonged anthropization. More recently, Klinkovská *et al.* (2024) detected significant changes in the flora of the Czech Republic over the last 6 decades (1961-2020) and noted the existence of many groups of increasingly common species (labelled "winners"), such as those with high colonization ability in areas affected by severe anthropogenic disturbances. In contrast, specialized species of natural habitats, with low colonization and competitive abilities, declined over the same period (labelled "losers"), due to the ongoing decline of habitat quality.

Besides, according to Jackowiak (2023), research has shown that the proportions of native plants versus

alien plants can be used as an indicator of anthropogenic changes. In this sense, in our case during the current period only a slight proportion (3%) of new alien, established species were recorded in Djurdjura, which is a well-preserved mountainous area, under protection status for almost a century. This indicates weak anthropogenic changes.

## 5. Conclusions

Although based merely on a literature review, this study of the vascular flora of the Djurdjura massif improves the level of knowledge of this presumably well-known part of Algeria. Our research provides the first all-inclusive floristic compilation for the entire area of the Djurdjura massif. That is why this checklist is one of the largest in Algeria in terms of species count, lasting over 170 years. It reveals remarkable changes in the floristic assemblage of this territory, both quantitatively (by adding of species) and qualitatively (by nomenclature updating). It can serve also as a basis for an inventory of endemic, site-restricted, and rare species of the Djurdjura massif, targeting the species of high conservation value, especially those not observed again for 60 or even up to 130 years. This study helped us to provide evidence of the importance of ongoing floristic checklists and shows the importance of conducting further botanical surveys to complement the information on vascular plant richness in relatively well-explored areas of Algeria. We hope that this study, proposed as a first milestone, will inspire a new wave of floristic fieldwork, to facilitate plant diversity research and to help in conservation and management of this important biodiversity area.

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## Author contributions

Research concept and design: R. Meddour, O. Sahar  
Collection and/or assembly of data: R. Meddour  
Data analysis and interpretation: R. Meddour  
Writing the article: R. Meddour  
Critical revision of the article: O. Sahar  
Final approval of the article: R. Meddour, O. Sahar

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## **Appendix 1.**

## Appendix 1. Comparison of historical data with current data for the vascular flora of Djurdjura massif, Northern Algeria

Codes and abbreviations: <sup>1</sup>The references are numbered as they appear on the Table 1. <sup>2</sup>iNaturalist: Yes, this species has recent observations from Djurdjura. <sup>3</sup>This column contains the identification codes of specimens recorded in Djurdjura massif from international herbaria. Endemity type: Alg – Algerian, Mor – Moroccan, Tun – Tunisian, Lib – Libyan. Rarity form: AR – quite rare, R – rare, RR – very rare, RRR – extremely rare, R? – undetermined rarity (species whose rarity is not specified are common in the broad sense)

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
1	<i>Acanthus mollis</i> subsp. <i>platyphyllus</i> Murb.	Acanthaceae	0
2	<i>Acer campestre</i> L. subsp. <i>campestre</i>	Sapindaceae	9
3	<i>Acer monspessulanum</i> L. subsp. <i>monspessulanum</i>	Sapindaceae	0, 2, 5, 6, 9, 11, 23, 25
4	<i>Acer opalus</i> Mill. subsp. <i>opus</i>	Sapindaceae	6, 7, 9, 14, 16, 25
5	<i>Acer opalus</i> subsp. <i>obtusatum</i> (Waldst. & Kit. ex Willd.) Gams	Sapindaceae	0, 5, 6, 8, 9, 10, 11, 12, 13, 25
6	<i>Acer × martini</i> Jord.	Sapindaceae	2, 3, 7
7	<i>Achillea ligustica</i> All.	Asteraceae	21
8	<i>Achnatherum paradoxum</i> (L.) Banfi, Galasso & Bartolucci	Poaceae	
9	<i>Acis autumnalis</i> (L.) Sweet	Amaryllidaceae	9
10	<i>Adiantum capillus-veneris</i> L.	Pteridaceae	0
11	<i>Adonis aestivalis</i> L.	Ranunculaceae	
12	<i>Aegilops geniculata</i> Roth	Poaceae	
13	<i>Aegilops neglecta</i> Req. ex Bertol.	Poaceae	0
14	<i>Aegilops ventricosa</i> Tausch	Poaceae	
15	<i>Aethionema thomasianum</i> J. Gay	Brassicaceae	0, 2, 5, 7, 8, 9, 15, 21, 28
16	<i>Agrimonia eupatoria</i> L. subsp. <i>eupatoria</i>	Rosaceae	0, 3
17	<i>Agrostis castellana</i> Boiss. & Reut.	Poaceae	7, 28
18	<i>Agrostis gigantea</i> Roth subsp. <i>gigantea</i>	Poaceae	0, 7, 28
19	<i>Agrostis reuteri</i> Boiss.	Poaceae	
20	<i>Agrostis stolonifera</i> L. subsp. <i>stolonifera</i>	Poaceae	0
21	<i>Agrostis vinealis</i> Schreb.	Poaceae	0, 22, 28
22	<i>Aira caryophyllea</i> L. subsp. <i>caryophyllea</i>	Poaceae	0
23	<i>Aira cupaniana</i> Guss.	Poaceae	
24	<i>Aira tenorei</i> Guss.	Poaceae	
25	<i>Ajuga chamaepitys</i> (L.) Schreb. subsp. <i>chamaepitys</i>	Lamiaceae	0
26	<i>Ajuga iva</i> (L.) Schreb.	Lamiaceae	0
27	<i>Alchemilla arvensis</i> (L.) Scop.	Rosaceae	5
28	<i>Alchemilla floribunda</i> Murb.	Rosaceae	0
29	<i>Alisma plantago-aquatica</i> L. subsp. <i>plantago-aquatica</i>	Alismataceae	
30	<i>Alliaria petiolata</i> (M. Bieb) Cavara & Grande	Brassicaceae	0, 8, 12, 25, 28
31	<i>Allium ampeloprasum</i> L.	Amaryllidaceae	0
32	<i>Allium chamaemoly</i> L.	Amaryllidaceae	0
33	<i>Allium coppolieri</i> Tineo	Amaryllidaceae	9, 25
34	<i>Allium cupanii</i> Raf. subsp. <i>cupanii</i>	Amaryllidaceae	28
35	<i>Allium flavum</i> subsp. <i>ionochlorum</i> Maire	Amaryllidaceae	18, 25, 28
36	<i>Allium hirtovaginatum</i> Kunth subsp. <i>hirtovaginatum</i>	Amaryllidaceae	25, 28
37	<i>Allium litardierei</i> J.-M.Tison	Amaryllidaceae	
38	<i>Allium multiflorum</i> Desf.	Amaryllidaceae	0
39	<i>Allium pallens</i> L.	Amaryllidaceae	9, 25
40	<i>Allium roseum</i> L. subsp. <i>roseum</i>	Amaryllidaceae	
41	<i>Allium subhirsutum</i> L.	Amaryllidaceae	0

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
1	30, 41, 43	Yes		Alg-Mor-Tun	
2	41, 43				R
3	29, 33, 36, 37, 41, 43, 44	Yes	G00610138		
4	43				RR
5	31, 34, 36, 38, 41, 42, 43, 44	Yes	MPU001021		R
6	31, 43				RR
7			BC-613783		RR
8	31				
9	41				
10	41	Yes			
11	41				
12	41	Yes			
13	30, 38, 40, 42, 43		P02658257		
14	41				
15	43		MPU009079		RR
16	30, 43	Yes			
17					R
18	43	Yes			RR
19	41				
20					
21					
22	43				R
23	41, 43				
24	30, 41, 43				
25	41, 43	Yes			
26	41, 43, 44				
27	42, 43	Yes			
28	40, 41, 43				
29	41				
30	30, 32, 34, 35, 36, 37, 38, 41, 43	Yes			
31	43, 44	Yes			
32	30				
33					
34	32, 35, 41, 43				
35	40, 41, 43	Yes	MPU006836	Alg-Mor	
36					
37	41	Yes			R
38	43			Alg-Mor	
39	43				
40	41, 43				
41	43				RR

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
42	<i>Allium subvillosum</i> Salzm. ex Schult. & Schult. f.	Amaryllidaceae	0
43	<i>Allium triquetrum</i> L.	Amaryllidaceae	
44	<i>Allium vineale</i> L.	Amaryllidaceae	
45	<i>Alnus glutinosa</i> (L.) Gaertn. subsp. <i>glutinosa</i>	Betulaceae	0, 5, 9, 28
46	<i>Alopecurus alpinus</i> Vill.	Poaceae	0, 2, 7, 8, 15, 20, 21, 28
47	<i>Alopecurus arundinaceus</i> Poir.	Poaceae	2, 3, 9
48	<i>Alyssum atlanticum</i> Desf.	Brassicaceae	0, 2, 4, 5, 8, 25, 28
49	<i>Alyssum granatense</i> Boiss. & Reut.	Brassicaceae	0, 25
50	<i>Alyssum luteolum</i> Pomel	Brassicaceae	0, 5
51	<i>Amaranthus blitum</i> subsp. <i>oleraceus</i> (L.) Costea	Amaranthaceae	
52	<i>Amelanchier ovalis</i> Medik. subsp. <i>ovalis</i>	Rosaceae	0, 5, 6, 8, 9, 11, 14, 15, 25, 28
53	<i>Ammi majus</i> L.	Apiaceae	
54	<i>Ammoides atlantica</i> (Coss. & Durieu) H. Wolff	Apiaceae	0, 3, 8, 9, 25
55	<i>Ammoides pusilla</i> (Brot.) Breistr.	Apiaceae	0
56	<i>Ampelodesmos mauritanicus</i> (Poir.) Durand & Schinz	Poaceae	0, 9, 25, 26
57	<i>Anacamptis coriophora</i> (L.) R.M.Bateman, Pridgeon & M.W.Chase	Orchidaceae	
58	<i>Anacamptis morio</i> subsp. <i>longicornu</i> (Poir.) H. Kretzschmar, Eccarius & H. Dietr.	Orchidaceae	25
59	<i>Anacamptis papilionacea</i> subsp. <i>expansa</i> (Ten.) Amard. & Dusak	Orchidaceae	
60	<i>Anacamptis pyramidalis</i> (L.) Rich. var. <i>pyramidalis</i>	Orchidaceae	2, 9
61	<i>Anacyclus clavatus</i> (Desf.) Pers.	Asteraceae	
62	<i>Anacyclus pyrethrum</i> (L.) Link	Asteraceae	0, 5
63	<i>Anagyris foetida</i> L.	Fabaceae	0
64	<i>Anarrhinum pedatum</i> Desf.	Plantaginaceae	0
65	<i>Anchusa azurea</i> Mill. var. <i>azurea</i>	Boraginaceae	0, 9
66	<i>Androsace maxima</i> L. subsp. <i>maxima</i>	Primulaceae	0, 5
67	<i>Andryala integrifolia</i> L.	Asteraceae	0, 9
68	<i>Andryala rothia</i> Pers.	Asteraceae	
69	<i>Anogramma leptophylla</i> (L.) Link	Pteridaceae	0
70	<i>Anthemis maritima</i> L.	Asteraceae	
71	<i>Anthemis pedunculata</i> subsp. <i>atlantica</i> (Pomel) Oberpr.	Asteraceae	0, 2, 5, 9, 25
72	<i>Anthemis pedunculata</i> Desf. subsp. <i>pedunculata</i>	Asteraceae	0, 2, 5, 9
73	<i>Anthemis punctata</i> subsp. <i>kabylica</i> (Batt.) Oberpr.	Asteraceae	0, 5, 8, 9, 13, 15, 21
74	<i>Anthericum baeticum</i> (Boiss.) Boiss.	Asparagaceae	0, 9, 18, 25
75	<i>Anthoxanthum odoratum</i> L.	Poaceae	12, 25
76	<i>Anthriscus sylvestris</i> subsp. <i>mollis</i> (Boiss. & Reut.) Maire	Apiaceae	0, 2, 5, 18
77	<i>Anthyllis montana</i> L. subsp. <i>montana</i>	Fabaceae	0, 2, 3, 4, 5, 6, 7, 8, 9, 11, 15, 18, 21, 25
78	<i>Anthyllis vulneraria</i> subsp. <i>aura</i> (G. Beck) Maire	Fabaceae	0, 9, 18, 25
79	<i>Antirrhinum majus</i> L.	Plantaginaceae	
80	<i>Apium graveolens</i> L.	Apiaceae	0
81	<i>Aquilegia cossoniana</i> (Maire & Sennen) Rivas Mart.	Ranunculaceae	0, 5, 7, 8, 9, 15, 18, 28
82	<i>Arabidopsis thaliana</i> (L.) Heynh.	Brassicaceae	0
83	<i>Arabis auriculata</i> Lam.	Brassicaceae	0, 2, 5, 25
84	<i>Arabis caucasica</i> Willd.	Brassicaceae	0, 2, 9, 12, 25, 28
85	<i>Arabis doumetii</i> Coss.	Brassicaceae	0, 2, 5, 7, 8, 13, 15, 21, 28
86	<i>Arabis hirsuta</i> (L.) Scop. subsp. <i>hirsuta</i>	Brassicaceae	0, 4, 7, 22, 28
87	<i>Arabis hirsuta</i> subsp. <i>balansae</i> (Boiss. & Reut.) Maire	Brassicaceae	28

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
42					
43	41, 43, 44	Yes			
44	41	Yes			R
45	41, 43	Yes			AR
46	38				RR
47	41				
48	31, 33, 38, 41, 43	Yes	ENSA574	Alg-Mor	
49	29, 30, 32, 35, 41, 43	Yes			
50			G00417755	Alg	
51	41				
52	29, 30, 31, 33, 41, 42, 43	Yes	MPU008995		R
53	41				
54	29, 36, 37, 38, 43		MPU010110	Alg	
55					
56	30, 31, 35, 40, 41, 42, 43, 44	Yes			
57	41, 43, 45	Yes			
58	41, 43, 45	Yes			
59	41, 43, 45	Yes			AR
60	40, 43, 45	Yes	P00422012		AR
61	41, 43	Yes			
62					
63	44				
64	43			Alg-Mor-Tun	
65	41, 43	Yes			
66					AR
67	30, 41, 42, 43	Yes			
68	43	Yes			R
69	41				
70	41				
71	29, 31, 36, 37, 38, 42, 43			Alg-Tun	
72		Yes			AR
73	39, 41, 43	Yes	MPU007522	Alg	R
74	30, 41, 43	Yes	P02158200		
75	30, 41, 43	Yes			
76				Alg-Mor-Tun	R
77	33, 40, 41, 43	Yes			R
78	30, 32, 35, 36, 37, 40, 41, 42, 43	Yes			
79	43				
80	43, 44				
81	30, 41, 43		MPU008529	Alg-Mor	RR
82	31, 41	Yes			
83	29	Yes			
84	29, 30, 31, 32, 33, 34, 35, 36, 38, 41, 42, 43	Yes	G00417740		AR
85	39			Alg	R
86	43	Yes			R
87				Alg-Mor	

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
88	<i>Arabis parvula</i> L. Dufour ex DC.	Brassicaceae	28
89	<i>Arabis pubescens</i> (Desf.) Poir. subsp. <i>pubescens</i>	Brassicaceae	0, 5, 8, 25, 28
90	<i>Arabis sagittata</i> (Bertol.) DC.	Brassicaceae	0, 5, 28
91	<i>Arabis verna</i> (L.) R. Br.	Brassicaceae	0, 5
92	<i>Arbutus unedo</i> L.	Ericaceae	0, 9
93	<i>Arceuthobium oxycedri</i> (DC.) M. Bieb.	Santalaceae	0, 5, 6, 9
94	<i>Arctium atlanticum</i> (Pomel) H. Lindb.	Asteraceae	0, 2, 3, 5, 9, 11
95	<i>Arenaria grandiflora</i> L. subsp. <i>grandiflora</i>	Caryophyllaceae	0, 2, 5, 7, 8, 15, 21, 28
96	<i>Arenaria leptoclados</i> (Rchb.) Guss.	Caryophyllaceae	4
97	<i>Arenaria serpyllifolia</i> L. subsp. <i>serpyllifolia</i>	Caryophyllaceae	0, 5, 28
98	<i>Argyrolobium zanonii</i> (Turra) P.W. Ball subsp. <i>zanonii</i>	Fabaceae	0
99	<i>Aria edulis</i> (Willd.) M. Roem.	Rosaceae	0, 5, 8, 9, 10, 11, 12, 25, 28
100	<i>Arisarum vulgare</i> subsp. <i>hastatum</i> (Pomel) Dobignard	Araceae	0
101	<i>Aristolochia fontanesii</i> Boiss. & Reut.	Aristolochiaceae	5, 8, 18
102	<i>Aristolochia paucinervis</i> Pomel	Aristolochiaceae	
103	<i>Aristolochia sempervirens</i> L.	Aristolochiaceae	
104	<i>Armeria alliacea</i> (Cav.) Hofmanns. & Link	Plumbaginaceae	0, 2, 5, 7, 8, 9, 25
105	<i>Armeria atlantica</i> Pomel	Plumbaginaceae	0, 9
106	<i>Armeria choulettiana</i> Pomel	Plumbaginaceae	0, 8, 18
107	<i>Armeria spinulosa</i> Boiss.	Plumbaginaceae	9
108	<i>Arrhenatherum album</i> (Vahl) Clayton subsp. <i>album</i>	Poaceae	0, 3
109	<i>Arrhenatherum elatius</i> subsp. <i>bulbosum</i> (Willd.) Schübl. & G. Martens	Poaceae	0, 7, 22, 28
110	<i>Artemisia absinthium</i> L.	Asteraceae	0, 2, 5, 6, 7, 8, 9, 11, 14, 23, 25
111	<i>Artemisia alba</i> subsp. <i>kabylica</i> (Chabert) Greuter	Asteraceae	0
112	<i>Artemisia atlantica</i> Coss.	Asteraceae	2
113	<i>Arum italicum</i> Mill.	Araceae	12
114	<i>Arundo donax</i> L.	Poaceae	
115	<i>Asparagus acutifolius</i> L.	Asparagaceae	
116	<i>Asperugo procumbens</i> L.	Boraginaceae	0, 9
117	<i>Asperula arvensis</i> L.	Rubiaceae	0
118	<i>Asperula laevigata</i> L.	Rubiaceae	0, 9, 12
119	<i>Asphodeline lutea</i> (L.) Rchb.	Asphodelaceae	0, 9, 20, 28
120	<i>Asphodelus cerasiferus</i> J. Gay	Asphodelaceae	
121	<i>Asphodelus ramosus</i> L. var. <i>ramosus</i>	Asphodelaceae	9, 25
122	<i>Asplenium adiantum-nigrum</i> L.	Aspleniaceae	0, 3, 4, 9, 12
123	<i>Asplenium ceterach</i> L. subsp. <i>ceterach</i>	Aspleniaceae	0, 9
124	<i>Asplenium onopteris</i> L.	Aspleniaceae	0
125	<i>Asplenium petrarchae</i> Guérin	Aspleniaceae	7
126	<i>Asplenium ruta-muraria</i> L. subsp. <i>ruta-muraria</i>	Aspleniaceae	1, 3, 4, 8, 9, 21, 28
127	<i>Asplenium scolopendrium</i> L. subsp. <i>scolopendrium</i>	Aspleniaceae	2, 3, 21, 25
128	<i>Asplenium trichomanes</i> L.	Aspleniaceae	0, 2, 9, 25
129	<i>Astragalus armatus</i> subsp. <i>numidicus</i> (Coss. & Durieu ex Murb.) Tietz	Fabaceae	0, 5, 7, 9, 11, 23, 25
130	<i>Astragalus depressus</i> L.	Fabaceae	0, 2, 3, 4, 5, 7, 8, 9
131	<i>Astragalus echinatus</i> Murray	Fabaceae	0
132	<i>Astragalus glaux</i> L.	Fabaceae	0
133	<i>Astragalus hamosus</i> L.	Fabaceae	
134	<i>Astragalus sesameus</i> L.	Fabaceae	0, 5

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
88					
89	29, 36, 37, 42, 43		MPU009037	Alg-Mor-Tun	
90	42				
91	30, 41, 43		ENSA1063		AR
92	41, 43, 44	Yes			
93					AR
94	41, 43			Alg-Mor	R
95	43	Yes			R
96	39				
97	29, 33, 41, 43	Yes			
98	41				
99	29, 30, 31, 33, 41, 42, 43	Yes			R
100	30, 41, 42, 43	Yes		Alg-Mor	
101	42, 43	Yes	MPU002690		
102	41, 43				R
103	41, 43	Yes			
104	30, 38, 41, 43				R
105		Yes		Alg-Mor	
106	40	Yes	MPU003320	Alg-Mor-Tun	AR
107				Alg-Tun	R
108	41, 43	Yes	G00379566		
109	30, 43				RR
110	29, 30, 36, 37, 41, 42, 43, 44	Yes			R
111			MPU003320	Alg	RR
112	32, 34, 35, 38, 41			Alg-Mor-Tun	R
113	41, 43, 44	Yes	BC-63390		
114	41, 43				
115	41, 43	Yes			
116					
117	43				
118	41, 43				
119	29, 30, 33, 41, 43	Yes			
120	32, 35, 38				
121	29, 30, 41, 42, 43, 44	Yes			
122	29, 34, 41, 43				
123	29, 34, 39, 41, 42, 43, 44	Yes			
124	31, 36, 37, 43	Yes			
125					R
126		Yes			
127	41, 43				
128	29, 34, 35, 36, 37, 41, 42, 43	Yes			
129	29, 30, 31, 32, 33, 35, 38, 40, 41, 42, 43	Yes	BC- Tremols-946832	Alg-Mor-Tun	
130					RR
131					
132	43				
133	41				
134	41	Yes			

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
135	<i>Athamanta sicula</i> L.	Apiaceae	0, 2, 5
136	<i>Athyrium filix-femina</i> (L.) Roth	Aspleniaceae	15
137	<i>Atractylis caespitosa</i> Desf.	Asteraceae	0, 5, 9
138	<i>Atractylis cancellata</i> L.	Asteraceae	0
139	<i>Atropa bella-donna</i> L.	Solanaceae	0, 5, 9
140	<i>Avena barbata</i> Pott ex Link	Poaceae	
141	<i>Avena macrostachya</i> Coss. & Durieu	Poaceae	0, 7, 8, 9, 10, 20, 21, 25, 28
142	<i>Avena sterilis</i> subsp. <i>ludoviciana</i> (Durieu) Gillet & Magne	Poaceae	28
143	<i>Avenella flexuosa</i> (L.) Drejer subsp. <i>flexuosa</i>	Poaceae	0, 4, 8, 18, 20, 21, 28
144	<i>Barbarea intermedia</i> Boreau	Brassicaceae	0, 25
145	<i>Barbarea vulgaris</i> R. Br. subsp. <i>vulgaris</i>	Brassicaceae	9, 28
146	<i>Bellardia trixago</i> (L.) All.	Orobanchaceae	25
147	<i>Bellis annua</i> L.	Asteraceae	0, 25
148	<i>Bellis pappulosa</i> Boiss. ex DC.	Asteraceae	0, 5
149	<i>Bellis rotundifolia</i> (Desf.) Boiss. & Reut.	Asteraceae	
150	<i>Bellis sylvestris</i> Cirillo	Asteraceae	0, 9, 25
151	<i>Berberis vulgaris</i> subsp. <i>australis</i> (Boiss.) Heywood	Berberidaceae	0, 5, 7, 8, 9, 10, 11, 12, 15, 23, 25, 28
152	<i>Beta vulgaris</i> L.	Amaranthaceae	
153	<i>Betonica officinalis</i> var. <i>algeriensis</i> (de Noé) Ball	Lamiaceae	0, 2, 8
154	<i>Biarum dispar</i> (Schott) Talavera	Araceae	0
155	<i>Biscutella auriculata</i> L.	Brassicaceae	
156	<i>Biscutella didyma</i> L.	Brassicaceae	0
157	<i>Biscutella raphanifolia</i> Poir. var. <i>raphanifolia</i>	Brassicaceae	0, 5, 8, 18, 22, 28
158	<i>Biserrula epiglottis</i> (L.) Coulot, Rabaute & J.-M. Tison	Fabaceae	0
159	<i>Biserrula pelecinus</i> L.	Fabaceae	0
160	<i>Bituminaria bituminosa</i> (L.) C.H. Stirton subsp. <i>bituminosa</i>	Fabaceae	0, 9
161	<i>Bivonaea lutea</i> (Biv.) DC.	Brassicaceae	0, 5, 7, 28
162	<i>Blackstonia grandiflora</i> (Viv.) Pau	Gentianaceae	0, 3, 9, 25
163	<i>Blitum virgatum</i> L.	Amaranthaceae	0
164	<i>Bombycilaena discolor</i> (Pers.) M. Laínz	Asteraceae	0
165	<i>Borago officinalis</i> L.	Boraginaceae	9
166	<i>Brachypodium distachyon</i> (L.) P. Beauv.	Poaceae	
167	<i>Brachypodium sylvaticum</i> (Huds.) P. Beauv. subsp. <i>sylvaticum</i>	Poaceae	0, 3, 12
168	<i>Brassica gravinae</i> Ten.	Brassicaceae	0, 2, 8, 9, 28
169	<i>Brassica maurorum</i> Durieu	Brassicaceae	
170	<i>Brassica repanda</i> subsp. <i>africana</i> (O.E. Schulz) Greuter & Burdet	Brassicaceae	0, 5
171	<i>Brassica souliei</i> subsp. <i>amplexicaulis</i> (Desf.) Greuter & Burdet	Brassicaceae	0
172	<i>Briza maxima</i> L.	Poaceae	0, 9
173	<i>Bromus benekenii</i> (Lange) Trimen	Poaceae	
174	<i>Bromus erectus</i> Huds.	Poaceae	0, 9, 15, 18, 20, 21, 25, 28, 28
175	<i>Bromus hordeaceus</i> L. subsp. <i>hordeaceus</i>	Poaceae	0, 25
176	<i>Bromus lanceolatus</i> Roth	Poaceae	
177	<i>Bromus madritensis</i> L.	Poaceae	0
178	<i>Bromus rigidus</i> Roth	Poaceae	
179	<i>Bromus rubens</i> L.	Poaceae	
180	<i>Bromus squarrosum</i> L.	Poaceae	0, 9, 20, 21

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
135	41, 43	Yes			
136					AR
137	31, 43	Yes		Alg-Mor-Tun	
138	41				
139	30, 41, 43	Yes			R
140	29, 36, 37, 43				
141	30, 31, 33, 43		BC-141812	Alg	AR
142	41	Yes			
143					
144					RR
145					
146	40, 41, 43	Yes			
147	30, 41, 42, 43	Yes			
148	43				R
149	30, 43			Alg-Mor	
150	30, 31, 32, 35, 36, 37, 41, 43	Yes			
151	30, 31, 32, 33, 35, 36, 37, 38, 39, 41, 42, 43, 59	Yes	P02327559		R
152	32, 35, 44	Yes			
153	41				
154		Yes			
155	43				
156	30, 32, 35, 41, 42, 43	Yes			
157	43	Yes		Alg-Tun	
158					
159	41				AR
160	41, 43	Yes			
161					
162	29, 41, 42, 43, 44	Yes			
163					
164	41, 43				
165	41, 43, 44	Yes	P00556697		
166	29, 41, 43				
167	41, 42, 43	Yes			
168	30	Yes	MPU008622		
169	30			Alg-Mor	
170					
171	43				
172	30, 40, 41, 43	Yes			
173	41				AR
174	31, 38, 41, 43	Yes	MPU004508		
175	32, 35, 39, 41, 43	Yes			
176	43				R
177	30, 41, 43	Yes			
178	30				
179	40, 41, 43				
180	29, 30, 33, 36, 37, 41, 42, 43				

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
181	<i>Bromus sterilis</i> L.	Poaceae	0, 20, 21, 28
182	<i>Bromus tectorum</i> L.	Poaceae	0, 9, 25
183	<i>Bryonia cretica</i> subsp. <i>dioica</i> (Jacq.) Tutin	Cucurbitaceae	
184	<i>Bufonia duvaljouvei</i> Batt. & Trab. subsp. <i>duvaljouvei</i>	Caryophyllaceae	28
185	<i>Bufonia duvaljouvei</i> subsp. <i>battandieri</i> (Rouy ex Batt.) Maire	Caryophyllaceae	0, 5, 6, 21
186	<i>Buglossoides incrassata</i> (Guss.) I.M. Johnst. subsp. <i>incrassata</i>	Boraginaceae	0, 25
187	<i>Bunium atlanticum</i> (Maire) Dobignard	Apiaceae	0, 7, 8, 9, 10, 12
188	<i>Bunium chabertii</i> (Batt.) Batt.	Apiaceae	
189	<i>Bunium fontanesii</i> (Pers.) Maire	Apiaceae	0
190	<i>Bunium pachypodium</i> P.W. Ball	Apiaceae	0
191	<i>Bupleurum atlanticum</i> Murb.	Apiaceae	
192	<i>Bupleurum balansae</i> Boiss. & Reut.	Apiaceae	
193	<i>Bupleurum montanum</i> Coss.	Apiaceae	0, 5, 6, 25
194	<i>Bupleurum spinosum</i> Gouan	Apiaceae	0, 8, 9, 10, 11, 15, 25
195	<i>Bupleurum tenuissimum</i> L.	Apiaceae	9
196	<i>Calendula arvensis</i> (Vaill.) L.	Asteraceae	0
197	<i>Calendula incana</i> Willd.	Asteraceae	0, 7, 9
198	<i>Calendula stellata</i> Cav.	Asteraceae	0
199	<i>Calendula suffruticosa</i> subsp. <i>boissieri</i> Lanza	Asteraceae	0, 7, 25
200	<i>Calendula suffruticosa</i> subsp. <i>foliosa</i> (Batt.) A.C. Gonç. & P. Silveira	Asteraceae	
201	<i>Calendula suffruticosa</i> Vahl sensu lato	Asteraceae	
202	<i>Calicotome spinosa</i> (L.) Link	Fabaceae	0, 5, 9, 25, 26
203	<i>Calystegia sepium</i> (L.) R.Br.	Convolvulaceae	
204	<i>Campanula alata</i> Desf.	Campanulaceae	0, 9
205	<i>Campanula dichotoma</i> L.	Campanulaceae	0
206	<i>Campanula erinus</i> L.	Campanulaceae	0
207	<i>Campanula jurjurensis</i> Pomel	Campanulaceae	0, 2, 5, 7, 8, 9, 15, 21, 23
208	<i>Campanula mollis</i> L. subsp. <i>mollis</i>	Campanulaceae	0, 5
209	<i>Campanula rapunculus</i> L. subsp. <i>rapunculus</i>	Campanulaceae	0, 9, 25
210	<i>Campanula trachelium</i> L. subsp. <i>trachelium</i>	Campanulaceae	0, 7, 12
211	<i>Campanula trachelium</i> subsp. <i>mauritanica</i> (Pomel) Quézel	Campanulaceae	9, 13, 15, 21, 25
212	<i>Campanula trichocalycina</i> Ten.	Campanulaceae	1, 2, 7, 8, 12
213	<i>Capsella bursa-pastoris</i> (L.) Medik. subsp. <i>bursa-pastoris</i>	Brassicaceae	0, 8, 28
214	<i>Capsella rubella</i> Reut.	Brassicaceae	0
215	<i>Cardamine hirsuta</i> L.	Brassicaceae	0
216	<i>Carduus macrocephalus</i> Desf.	Asteraceae	0, 9, 25
217	<i>Carduus numidicus</i> Coss. & Durieu	Asteraceae	0, 5, 7
218	<i>Carduus pycnocephalus</i> L. subsp. <i>pycnocephalus</i>	Asteraceae	0, 9
219	<i>Carduus spachianus</i> Durieu subsp. <i>spachianus</i>	Asteraceae	0
220	<i>Carex cuprina</i> (Heuf.) Nendtv. ex A. Kern.	Cyperaceae	0
221	<i>Carex distachya</i> Desf.	Cyperaceae	
222	<i>Carex distans</i> L.	Cyperaceae	0
223	<i>Carex divisa</i> Huds.	Cyperaceae	0, 9
224	<i>Carex divulsa</i> Stokes	Cyperaceae	0
225	<i>Carex flacca</i> Schreb. subsp. <i>flacca</i>	Cyperaceae	0
226	<i>Carex flacca</i> subsp. <i>erythrostachys</i> (Hoppe) Holub	Cyperaceae	0
227	<i>Carex flava</i> L.	Cyperaceae	0, 3, 4, 7, 20, 21, 28

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
181	30, 38				
182	29, 30, 33, 43				
183	43	Yes			
184				Alg	R
185				Alg-Mor	R
186	42, 43				
187	30, 31, 32, 34, 35, 36, 38, 41, 42, 43 0, 2, 3, 5, 7, 8, 9, 13, 15, 21, 24		MPU006886	Alg-Mor	RR
189	43			Alg	R
190	43			Alg-Mor-Tun	R
191	30				
192	32, 33, 34, 35, 38, 41			Alg-Mor	AR
193	29, 31, 41, 42, 43	Yes	BC-688224	Alg-Mor	AR
194	30, 31, 32, 33, 35, 38, 40, 41, 42, 43	Yes			
195					
196	41, 43	Yes			
197	43				
198	30				
199	43	Yes		Alg-Mor-Lib	R?
200	41, 43			Alg	R
201	42	Yes			
202	29, 30, 35, 41, 42, 43, 44	Yes			
203	41	Yes			
204	43	Yes	P00495214	Alg-Tun	
205	41, 43	Yes			
206		Yes	P00498930		
207	41, 43		MPU005679	Alg-Tun	RR
208					
209	30, 31, 38, 41, 43	Yes	P00499286		
210			P00499422		RR
211	31, 41, 43	Yes	MPU009749	Alg-Mor-Tun	
212			P00499442		R
213	30, 41, 43	Yes	ENSA394		
214					
215	30, 41, 43				
216	30, 38, 40, 41, 42, 43	Yes	P04300812		
217	41		P02838201	Alg	R?
218	30, 36, 37, 42, 43	Yes			
219				Alg-Mor-Tun	
220					AR
221	31, 41, 43				
222					
223	41				
224					
225	41	Yes			
226					
227	43				R

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
228	<i>Carex halleriana</i> Asso	Cyperaceae	
229	<i>Carex hispida</i> Willd.	Cyperaceae	0
230	<i>Carex pairae</i> F.W. Schultz	Cyperaceae	0
231	<i>Carex paui</i> Sennen	Cyperaceae	0, 12
232	<i>Carex pendula</i> Huds.	Cyperaceae	
233	<i>Carex remota</i> L.	Cyperaceae	
234	<i>Carex spicata</i> Huds.	Cyperaceae	0, 7, 14, 18, 28
235	<i>Carlina hispanica</i> Lam. subsp. <i>hispanica</i>	Asteraceae	0, 23, 25
236	<i>Carlina involucrata</i> Poir.	Asteraceae	
237	<i>Carlina racemosa</i> L.	Asteraceae	
238	<i>Carrichtera annua</i> (L.) DC.	Brassicaceae	0
239	<i>Carthamus atractyloides</i> (Pomel) Greuter	Asteraceae	0, 2, 3, 5, 7, 8, 9, 11, 21, 23
240	<i>Carthamus caeruleus</i> L.	Asteraceae	
241	<i>Carthamus calvus</i> (Boiss. & Reut.) Batt.	Asteraceae	0, 5
242	<i>Carthamus multifidus</i> Desf.	Asteraceae	
243	<i>Carthamus pectinatus</i> Desf.	Asteraceae	
244	<i>Carthamus pinnatus</i> Desf.	Asteraceae	0, 2, 3, 5, 7, 9, 25
245	<i>Carthamus strictus</i> (Pomel) Batt.	Asteraceae	0, 2, 5, 9, 21, 25
246	<i>Catananche caerulea</i> L.	Asteraceae	0, 5, 9, 25
247	<i>Catananche lutea</i> L.	Asteraceae	
248	<i>Catananche montana</i> Coss. & Durieu	Asteraceae	0, 5, 9, 11
249	<i>Catapodium marinum</i> (L.) C.E.Hubb.	Poaceae	
250	<i>Catapodium rigidum</i> (L.) C.E. Hubb. subsp. <i>rigidum</i>	Poaceae	9
251	<i>Caucalis platycarpos</i> L. subsp. <i>platycarpos</i>	Apiaceae	0, 7
252	<i>Cedrus atlantica</i> (Endl.) Manetti ex Carrière	Pinaceae	0, 6, 8, 9, 10, 11, 12, 14, 21, 23, 25, 26, 28
253	<i>Celtis australis</i> L.	Cannabaceae	0
254	<i>Centaurea acaulis</i> L.	Asteraceae	
255	<i>Centaurea benedicta</i> (L.) L.	Asteraceae	
256	<i>Centaurea calcitrapa</i> L.	Asteraceae	
257	<i>Centaurea diluta</i> subsp. <i>algeriensis</i> (Coss. & Durieu) Maire	Asteraceae	
258	<i>Centaurea involucrata</i> Desf.	Asteraceae	
259	<i>Centaurea jacea</i> subsp. <i>gaudinii</i> (Boiss. & Reut.) Gremli	Asteraceae	0, 5
260	<i>Centaurea melitensis</i> L.	Asteraceae	
261	<i>Centaurea parviflora</i> Desf.	Asteraceae	0, 3
262	<i>Centaurea pubescens</i> Willd. subsp. <i>pubescens</i>	Asteraceae	0, 23, 25
263	<i>Centaurea pullata</i> L.	Asteraceae	
264	<i>Centaurea sphaerocephala</i> L.	Asteraceae	0, 3
265	<i>Centaurea tougourensis</i> Boiss. & Reut.	Asteraceae	
266	<i>Centaurium erythraea</i> Rafn subsp. <i>erythraea</i>	Gentianaceae	9
267	<i>Centaurium erythraea</i> subsp. <i>suffruticosum</i> (Griseb.) Greuter	Gentianaceae	
268	<i>Centaurium pulchellum</i> subsp. <i>grandiflorum</i> (Batt.) Maire	Gentianaceae	
269	<i>Cephalanthera longifolia</i> (L.) Fritsch	Orchidaceae	0, 9
270	<i>Cephalanthera rubra</i> (L.) L.C.M. Rich.	Orchidaceae	7, 8, 18, 28
271	<i>Cephalaria leucantha</i> (L.) Roem. & Schult.	Caprifoliaceae	
272	<i>Cephalaria mauritanica</i> Pomel	Caprifoliaceae	0, 5, 7, 8, 9, 11, 19, 21, 23, 25
273	<i>Cerastium atlanticum</i> Durieu	Caryophyllaceae	0
274	<i>Cerastium boissierianum</i> Greuter & Burdet	Caryophyllaceae	0, 5, 8, 9, 15, 23, 25, 28

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
228	41, 43				
229					
230					R
231	41				R
232	41				
233	41				AR
234					
235	29, 41, 43	Yes			
236	42, 43				
237	43				
238					
239	29, 40, 41, 43	Yes	MPU007410	Alg-Mor	
240	43				
241				Alg-Mor-Tun	
242	43	Yes		Alg-Mor-Tun	
243	29, 43			Alg-Mor-Tun	AR
244	30, 31, 41, 42, 43	Yes	MPU005290		R
245			P02474980	Alg	R
246	30, 31, 32, 33, 35, 38, 40, 41, 42, 43	Yes			
247	30, 31, 33, 41, 43				
248	43	Yes	BC-837103	Alg-Mor	AR
249	43				
250	41, 43	Yes			
251	30, 38, 41	Yes			R
252	29, 31, 32, 34, 35, 36, 37, 38, 40, 41, 42, 43, 44	Yes	P01582528	Alg-Mor	
253	41, 43, 44	Yes			
254	43				
255	41				R
256	41, 43	Yes			
257	41, 43			Alg-Mor-Tun	
258	30				R
259					
260	43				
261	43	Yes		Alg-Tun	AR
262	30, 31, 40, 41, 42, 43	Yes			
263	31, 43	Yes			
264	41, 43	Yes			
265	30			Alg	R
266	43, 44	Yes			
267	41				
268	43			Alg-Mor-Tun	R
269	31, 41, 43, 45				
270	43, 45		P00379319		RR
271	35				R
272	29, 41, 43	Yes	MPU007493	Alg-Mor	R
273			BC-807334	Alg-Mor-Tun	AR
274	31, 33, 41	Yes			AR

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
275	<i>Cerastium brachypetalum</i> subsp. <i>roeseri</i> (Boiss. & Heldr.) Nyman	Caryophyllaceae	0, 5, 28
276	<i>Cerastium dichotomum</i> L.	Caryophyllaceae	0, 5
277	<i>Cerastium diffusum</i> Pers. subsp. <i>diffusum</i>	Caryophyllaceae	0, 18, 28
278	<i>Cerastium glomeratum</i> Thuill. subsp. <i>glomeratum</i>	Caryophyllaceae	0
279	<i>Cerastium pumilum</i> Curtis	Caryophyllaceae	0
280	<i>Ceratonia siliqua</i> L.	Fabaceae	
281	<i>Cerinthe major</i> L. subsp. <i>major</i>	Boraginaceae	0, 8, 18
282	<i>Chaenorhinum flexuosum</i> (Desf.) Lange subsp. <i>flexuosum</i>	Plantaginaceae	3, 8, 9
283	<i>Chaerophyllum nodosum</i> (L.) Crantz	Apiaceae	0, 5
284	<i>Chaerophyllum temulum</i> L.	Apiaceae	0
285	<i>Chaetonychia cymosa</i> (L.) Sweet	Caryophyllaceae	
286	<i>Chamaeleon gummifer</i> (L.) Cass.	Asteraceae	
287	<i>Chamaerops humilis</i> L. var. <i>humilis</i>	Arecaceae	9
288	<i>Chelidonium majus</i> L. subsp. <i>majus</i>	Papaveraceae	0, 5, 7, 8, 11, 12, 28
289	<i>Chenopodiastrum murale</i> (L.) Fuentes, Uotila & Borsch	Amaranthaceae	
290	<i>Chenopodium album</i> L. var. <i>album</i>	Amaranthaceae	0
291	<i>Chenopodium opulifolium</i> Schrad. ex W.D.J. Koch & Ziz	Amaranthaceae	0
292	<i>Chenopodium vulvaria</i> L.	Amaranthaceae	3
293	<i>Chrysojasminum fruticans</i> (L.) Banfi	Oleaceae	0, 9, 25
294	<i>Cichorium intybus</i> L. subsp. <i>intybus</i>	Asteraceae	
295	<i>Cichorium pumilum</i> Jacq.	Asteraceae	0, 9
296	<i>Circaea lutetiana</i> L.	Onagraceae	0, 5
297	<i>Cirsium monspessulanum</i> (L.) Hill.	Asteraceae	
298	<i>Cistus albidus</i> L.	Cistaceae	9
299	<i>Cistus clusii</i> Dunal	Cistaceae	0, 9
300	<i>Cistus creticus</i> L. subsp. <i>creticus</i>	Cistaceae	0, 9
301	<i>Cistus heterophyllum</i> Desf. subsp. <i>heterophyllum</i>	Cistaceae	0
302	<i>Cistus monspeliensis</i> L.	Cistaceae	0, 9
303	<i>Cistus salviifolius</i> L.	Cistaceae	0, 9
304	<i>Clematis cirrhosa</i> L.	Ranunculaceae	0
305	<i>Clematis flammula</i> L.	Ranunculaceae	
306	<i>Cleonia lusitanica</i> (L.) L.	Lamiaceae	0
307	<i>Clinopodium alpinum</i> subsp. <i>meridionale</i> (Nyman) Govaerts	Lamiaceae	0, 2, 9
308	<i>Clinopodium grandiflorum</i> subsp. <i>baborensse</i> (Batt.) Govaerts	Lamiaceae	2, 8, 12, 25
309	<i>Clinopodium menthifolium</i> subsp. <i>ascendens</i> (Jord.) Govaerts	Lamiaceae	
310	<i>Clinopodium nepeta</i> subsp. <i>sprunieri</i> (Boiss.) Bartolucci & F. Conti	Lamiaceae	
311	<i>Clinopodium vulgare</i> subsp. <i>arundanum</i> (Boiss.) Nyman	Lamiaceae	0, 9, 12
312	<i>Clypeola jonthlaspi</i> L.	Brassicaceae	0, 28
313	<i>Colchicum cupaniifolium</i> Guss. subsp. <i>cupaniifolium</i>	Colchicaceae	0
314	<i>Colchicum filifolium</i> (Cambess.) Stef.	Colchicaceae	
315	<i>Colchicum lusitanum</i> Brot.	Colchicaceae	0, 25
316	<i>Colchicum neapolitanum</i> (Ten.) Ten.	Colchicaceae	28
317	<i>Coleostephus myconis</i> (L.) Cass. ex Rchb. f. subsp. <i>myconis</i>	Asteraceae	0
318	<i>Conopodium glaberrimum</i> (Desf.) Engstrand	Apiaceae	0, 2, 8, 10, 12
319	<i>Convolvulus althaeoides</i> L. subsp. <i>althaeoides</i>	Convolvulaceae	

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
275	41, 42, 43	Yes			R
276	43				
277	37, 43		G00431530		
278	30, 41, 43				
279	36, 37				
280	44	Yes			
281	30, 41, 43	Yes	MPU010190		
282				Alg-Mor-Tun	R
283	30				R
284	41, 43				R
285	41				
286	41, 43, 44	Yes			
287	41	Yes			
288			ENSA232		R
289	43	Yes			
290	41	Yes			
291		Yes			
292	41, 42, 43				
293	41				
294	41	Yes			
295	30, 43	Yes			
296					
297	43				R
298	41, 43	Yes			
299	43	Yes			
300	43	Yes			
301					
302	41, 43	Yes			
303	41, 43	Yes			
304	30, 41, 43	Yes			
305	30, 41, 42, 43	Yes			
306	43				
307	30, 31, 36, 38, 40, 41, 42, 43	Yes	P03508687		
308				Alg-Mor	R
309	43				
310	29, 41, 42, 43	Yes			AR
311	32, 35, 36, 38, 41, 42, 43	Yes			
312	30				
313					
314	32, 35, 43	Yes			
315			MPU001431		
316	41				R
317	43	Yes			
318	30, 31, 36, 38, 41, 42, 43	Yes		Alg-Mor-Tun	
319	41, 42, 43	Yes			

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
320	<i>Convolvulus althaeoides</i> subsp. <i>tenuissimus</i> (Sm.) Batt.	Convolvulaceae	0
321	<i>Convolvulus arvensis</i> L.	Convolvulaceae	0
322	<i>Convolvulus cantabrica</i> L.	Convolvulaceae	0, 25
323	<i>Convolvulus durandoi</i> Pomel	Convolvulaceae	0
324	<i>Convolvulus humilis</i> Jacq.	Convolvulaceae	0
325	<i>Convolvulus sabatius</i> subsp. <i>mauritanicus</i> (Boiss.) Murb.	Convolvulaceae	0, 5, 9, 25
326	<i>Convolvulus siculus</i> L.	Convolvulaceae	0
327	<i>Convolvulus tricolor</i> L. subsp. <i>tricolor</i>	Convolvulaceae	
328	<i>Coriaria myrtifolia</i> L.	Coriariaceae	0, 9
329	<i>Coronilla atlantica</i> (Boiss. & Reut.) Boiss.	Fabaceae	0
330	<i>Coronilla scorpioides</i> (L.) W.D.J. Koch	Fabaceae	0, 9
331	<i>Coronilla valentina</i> subsp. <i>pentaphylla</i> (Desf.) Batt.	Fabaceae	3, 4
332	<i>Corydalis solida</i> subsp. <i>bracteosa</i> (Batt. & Trab.) Greuter & Burdet	Papaveraceae	2, 7, 8, 10, 12, 13, 15, 19, 25, 28
333	<i>Corynephorus articulatus</i> (Desf.) P. Beauv.	Poaceae	0
334	<i>Cosentinia vellea</i> (Aiton) Tod.	Pteridaceae	0
335	<i>Cotoneaster granatensis</i> Boiss.	Rosaceae	0, 5, 6, 8, 9, 10, 11, 14, 25, 28
336	<i>Crambe filiformis</i> Jacq.	Brassicaceae	28
337	<i>Crataegus azarolus</i> L.	Rosaceae	0, 5, 9, 28
338	<i>Crataegus laciniata</i> Ucria	Rosaceae	0, 2, 5, 8, 9, 10, 11, 23, 25, 28
339	<i>Crataegus laevigata</i> (Poir.) DC.	Rosaceae	0
340	<i>Crataegus monogyna</i> Jacq.	Rosaceae	0, 11, 25
341	<i>Crepis pulchra</i> L. subsp. <i>pulchra</i>	Asteraceae	0, 2, 3, 5, 7, 21
342	<i>Crepis vesicaria</i> L. subsp. <i>vesicaria</i>	Asteraceae	
343	<i>Crepis vesicaria</i> subsp. <i>taraxacifolia</i> (Thuill.) Thell.	Asteraceae	0, 5
344	<i>Crucianella angustifolia</i> L.	Rubiaceae	0
345	<i>Crupina crupinastrum</i> (Moris) Vis.	Asteraceae	0
346	<i>Crupina intermedia</i> (Mutel) Walp.	Asteraceae	0, 5, 9
347	<i>Crupina vulgaris</i> Cass.	Asteraceae	0
348	<i>Cuscuta epithymum</i> (L.) L.	Convolvulaceae	0, 13
349	<i>Cuscuta planiflora</i> Ten. var. <i>planiflora</i>	Convolvulaceae	0, 13
350	<i>Cuscuta planiflora</i> var. <i>papillosa</i> Engelm.	Convolvulaceae	9, 13, 25
351	<i>Cuscuta triumvirati</i> Lange	Convolvulaceae	9
352	<i>Cyclamen africanum</i> Boiss. & Reut.	Primulaceae	0, 5, 9, 18
353	<i>Cynanchica aristata</i> (L. f.) P. Caputo & Del Guacchio subsp. <i>aristata</i>	Rubiaceae	0, 2, 25
354	<i>Cynara cardunculus</i> L.	Asteraceae	
355	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	
356	<i>Cynoglossum cheirifolium</i> L.	Boraginaceae	
357	<i>Cynoglossum creticum</i> Mill.	Boraginaceae	0
358	<i>Cynoglossum maghrebicum</i> Sutorý	Boraginaceae	0, 5, 9, 18
359	<i>Cynoglossum mathezii</i> Greuter & Burdet	Boraginaceae	
360	<i>Cynosurus balansae</i> Coss. & Durieu	Poaceae	0, 1, 3, 8, 20, 21, 26, 28
361	<i>Cynosurus echinatus</i> L.	Poaceae	
362	<i>Cynosurus effusus</i> Link	Poaceae	0, 21
363	<i>Cynosurus elegans</i> Desf.	Poaceae	0, 9, 25, 28
364	<i>Cynosurus polybracteatus</i> Poir.	Poaceae	28
365	<i>Cyperus longus</i> subsp. <i>badius</i> (Desf.) Bonnier & Layens	Cyperaceae	0
366	<i>Cyperus rotundus</i> L.	Cyperaceae	

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
320	43	Yes			
321	41, 43	Yes			
322	41, 42, 43	Yes			
323				Alg-Tun	R
324					
325	41, 42, 43	Yes	BC-655507	Alg-Mor	AR
326					
327	41, 43				AR
328	41				
329	41, 43			Alg-Tun	
330	41, 43				AR
331	41, 43	Yes			
332	29, 32, 35, 43		MPU007531	Alg	RR
333					
334					
335	29, 30, 31, 32, 33, 35, 38, 39, 41, 42, 43	Yes	P00601181		AR
336					R
337	30, 41, 43	Yes			AR
338	29, 30, 31, 32, 35, 36, 37, 38, 40, 41, 42, 43	Yes			AR
339					
340	41, 43, 44	Yes			
341					R
342	43	Yes			
343	43	Yes			
344	29, 30, 33, 40, 41, 42, 43	Yes			
345	30	Yes			
346	30				R
347	42, 43	Yes			
348	42	Yes			
349	43	Yes	MPU007737		
350					
351					
352	31, 35, 36, 41, 42, 43	Yes		Alg-Mor-Tun	
353	29, 30, 31, 41, 43	Yes			
354	44	Yes			
355	41, 44	Yes			
356	29, 41, 42, 43	Yes			
357	38, 41, 42, 43	Yes			
358	32, 35, 43			Alg-Mor	
359	43			Alg-Mor	
360	31, 33, 38, 41, 43	Yes		Alg-Mor	
361	29, 30, 42, 43				
362			G00417410		
363	29, 30, 31, 36, 41, 42, 43	Yes	BC-139417	Alg-Mor-Tun	
364			BC-139423	Alg-Tun	
365	41				
366	41	Yes			

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
367	<i>Cypripedium calceolus</i> L.	Orchidaceae	
368	<i>Cystopteris fragilis</i> (L.) Bernh. subsp. <i>fragilis</i>	Aspleniaceae	0, 2, 9, 12, 28
369	<i>Cytinus hypocistis</i> (L.) L. subsp. <i>hypocistis</i>	Cytinaceae	
370	<i>Cytisus arboreus</i> (Desf.) DC.	Fabaceae	
371	<i>Cytisus balansae</i> (Boiss.) Ball	Fabaceae	0, 2, 5, 6, 7, 8, 15, 21, 28
372	<i>Cytisus villosus</i> Pourr.	Fabaceae	0, 5, 9, 12
373	<i>Dactylis glomerata</i> L.	Poaceae	0, 9
374	<i>Dactylorhiza elata</i> (Poir.) Soó	Orchidaceae	0, 20, 22, 25, 28
375	<i>Dactylorhiza maculata</i> subsp. <i>maurusia</i> (Emb. & Maire) Soó	Orchidaceae	4, 28
376	<i>Dactylorhiza romana</i> subsp. <i>guimaraesii</i> (E.G. Camus) H.A. Pedersen	Orchidaceae	28
377	<i>Daphne gnidium</i> L.	Thymelaeaceae	0, 9, 25
378	<i>Daphne laureola</i> L. subsp. <i>laureola</i>	Thymelaeaceae	0, 2, 5, 8, 9, 10, 12, 14, 21, 23, 25
379	<i>Daphne oleoides</i> Schreb.	Thymelaeaceae	0, 2, 5, 6, 7, 8, 9, 11, 13, 14, 21, 23, 25
380	<i>Daucus carota</i> L. sensu lato	Apiaceae	9
381	<i>Daucus crinitus</i> Desf.	Apiaceae	
382	<i>Daucus setifolius</i> Desf. subsp. <i>setifolius</i>	Apiaceae	0, 5, 25
383	<i>Delphinium ambiguum</i> L.	Ranunculaceae	0
384	<i>Delphinium balansae</i> Boiss. & Reut.	Ranunculaceae	0, 7, 9, 25, 28
385	<i>Delphinium gracile</i> DC.	Ranunculaceae	0
386	<i>Delphinium halteratum</i> Sm.	Ranunculaceae	
387	<i>Delphinium mauritanicum</i> Coss.	Ranunculaceae	
388	<i>Delphinium obcordatum</i> DC.	Ranunculaceae	
389	<i>Delphinium pentagynum</i> Lam. subsp. <i>pentagynum</i>	Ranunculaceae	0
390	<i>Delphinium sylvaticum</i> Pomel	Ranunculaceae	8, 28
391	<i>Dianthus illyricus</i> subsp. <i>angustifolius</i> (Poir.) Fassou, N. Korotkova, Dimop. & Borsch	Caryophyllaceae	0, 9
392	<i>Dianthus serrulatus</i> Desf. subsp. <i>serrulatus</i>	Caryophyllaceae	
393	<i>Dianthus serrulatus</i> subsp. <i>macranthus</i> Maire	Caryophyllaceae	0
394	<i>Dianthus siculus</i> C. Presl	Caryophyllaceae	0
395	<i>Dianthus sylvestris</i> subsp. <i>boissieri</i> (Willk.) Dobignard	Caryophyllaceae	2, 9
396	<i>Dianthus vulturius</i> Guss. & Ten.	Caryophyllaceae	0, 1, 5, 8, 9, 15, 21, 28
397	<i>Dichodon viscidum</i> (M.Bieb.) Holub	Caryophyllaceae	
398	<i>Dioscorea communis</i> (L.) Caddick & Wilkin	Dioscoreaceae	12
399	<i>Diplotaxis harra</i> (Forssk.) Boiss.	Brassicaceae	0
400	<i>Dipsacus fullonum</i> L.	Caprifoliaceae	
401	<i>Dittrichia viscosa</i> (L.) Greuter subsp. <i>viscosa</i>	Asteraceae	0, 9, 25
402	<i>Doronicum plantagineum</i> subsp. <i>atlanticum</i> (Chabert) Greuter	Asteraceae	0, 8, 9, 12
403	<i>Draba hispanica</i> subsp. <i>djurdjurae</i> (Batt.) Greuter	Brassicaceae	0, 2, 4, 5, 8, 15, 19, 22, 28
404	<i>Draba muralis</i> L.	Brassicaceae	0, 2, 8, 28
405	<i>Draba verna</i> L.	Brassicaceae	0
406	<i>Drimia anthericoides</i> (Poir.) Véla & De Bélair	Asparagaceae	0
407	<i>Drimia fugax</i> (Moris) Stearn	Asparagaceae	0
408	<i>Drimia maritima</i> (L.) Stearn	Asparagaceae	
409	<i>Dryopteris filix-mas</i> (L.) Schott subsp. <i>filix-mas</i>	Polypodiaceae	3, 4, 8, 28
410	<i>Dryopteris pallida</i> (Bory) Maire & Petitmengin	Polypodiaceae	0, 7, 8, 9, 21, 28
411	<i>Ebenus pinnata</i> Aiton	Fabaceae	9

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
367	40, 45	Yes			
368	29, 31, 34, 41				R?
369	43				
370	43				
371	43				R
372	36, 41, 43	Yes			
373	29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 40, 41, 42, 43	Yes			
374	41, 43, 45	Yes	MPU010465		
375	40, 41, 43, 45	Yes	P00421487	Alg-Mor	
376	45				
377	41, 42, 43, 44	Yes			
378	29, 30, 31, 32, 34, 35, 36, 37, 38, 41, 42, 43, 44	Yes	MPU010379		R
379	31, 43		MPU005291		R
380	29, 41, 42, 43, 44	Yes			
381	43				
382	32, 35				
383	43				
384	29, 30, 43		ENSA147	Alg-Mor-Tun	R
385					
386	41				
387	38				AR
388	43				
389					
390	41			Alg-Tun	R
391	29, 43			Alg-Mor-Tun	
392	40, 43			Alg-Mor-Tun-Lib	
393	41, 43		G00430790		
394					
395	29, 31, 33, 38, 41, 42, 43	Yes			
396	30, 40, 41		MPU005815		R
397	43				RR
398	36, 37, 41, 43	Yes			
399		Yes			
400	41				
401	29, 41, 42, 43, 44	Yes			
402	31, 32, 33, 34, 35, 36, 38, 41, 42, 43	Yes		Alg-Mor-Tun	
403	33, 41, 43	Yes	MPU006515	Alg-Tun	AR
404	29				R
405	29, 30				
406	30, 43			Alg	
407					
408	41, 42				
409	41, 43				RR
410	29		P00312396		AR
411	41, 43	Yes		Alg-Mor-Tun	

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
412	<i>Ecballium elaterium</i> (L.) Rich.	Cucurbitaceae	
413	<i>Echinops bovei</i> Boiss.	Asteraceae	0, 9, 25
414	<i>Echium aspernum</i> Lam.	Boraginaceae	0, 25
415	<i>Echium plantagineum</i> L.	Boraginaceae	
416	<i>Eleocharis palustris</i> (L.) Roem. & Schult. subsp. <i>palustris</i>	Cyperaceae	21, 22, 28
417	<i>Elymus panormitanus</i> (Parl.) Tzvelev	Poaceae	1, 2, 8, 18, 28
418	<i>Elymus repens</i> (L.) Gould	Poaceae	
419	<i>Ephedra nebrodensis</i> Tineo	Ephedraceae	0, 2, 9, 21, 28
420	<i>Epilobium hirsutum</i> L.	Onagraceae	0
421	<i>Epilobium obscurum</i> Schreb.	Onagraceae	9, 25
422	<i>Epilobium parviflorum</i> Schreb.	Onagraceae	0, 5
423	<i>Epilobium tetragonum</i> subsp. <i>tournefortii</i> (Michalet) Lévéillé	Onagraceae	0
424	<i>Epipactis helleborine</i> subsp. <i>tremolsii</i> (Pau) E. Klein	Orchidaceae	0, 8, 12, 20, 28
425	<i>Equisetum ramosissimum</i> Desf. var. <i>ramosissimum</i>	Equisetaceae	
426	<i>Equisetum telmateia</i> Ehrh.	Equisetaceae	0
427	<i>Erica arborea</i> L.	Ericaceae	0, 25
428	<i>Erica scoparia</i> L.	Ericaceae	5
429	<i>Erigeron canadensis</i> L.	Asteraceae	
430	<i>Erigeron sumatrensis</i> Retz.	Asteraceae	
431	<i>Erinacea anthyllis</i> Link subsp. <i>anthyllis</i>	Fabaceae	7, 15, 18, 21
432	<i>Erinus alpinus</i> L.	Plantaginaceae	0, 2, 5, 7, 8, 9, 21, 25
433	<i>Erodium cheilanthisfolium</i> Boiss. subsp. <i>cheilanthisfolium</i>	Geraniaceae	0, 2, 5, 7, 9, 15, 21
434	<i>Erodium cheilanthisfolium</i> subsp. <i>antariense</i> (Rouy) Maire	Geraniaceae	8
435	<i>Erodium chium</i> (L.) Willd.	Geraniaceae	0
436	<i>Erodium cicutarium</i> (L.) L'Hér.	Geraniaceae	25
437	<i>Erodium guttatum</i> (Desf.) Willd.	Geraniaceae	
438	<i>Erodium malacoides</i> (L.) L'Hér.	Geraniaceae	
439	<i>Erodium moschatum</i> (L.) L'Hér.	Geraniaceae	0
440	<i>Erodium trifolium</i> (Cav.) Guitt.	Geraniaceae	3
441	<i>Eryngium campestre</i> L.	Apiaceae	
442	<i>Eryngium dichotomum</i> Desf.	Apiaceae	
443	<i>Eryngium ilicifolium</i> Lam.	Apiaceae	0
444	<i>Eryngium tricuspidatum</i> L.	Apiaceae	0
445	<i>Eryngium triquetrum</i> Vahl	Apiaceae	3, 25
446	<i>Erysimum grandiflorum</i> Desf.	Brassicaceae	0, 2, 5, 9, 12, 15, 21, 22, 25, 28
447	<i>Eudianthe coeli-rosa</i> (L.) Fenzl ex Endl.	Caryophyllaceae	0, 2, 5, 9, 21, 28
448	<i>Eudianthe laeta</i> (Aiton) Rchb. ex Willk.	Caryophyllaceae	21
449	<i>Euonymus latifolius</i> Mill.	Celastraceae	0, 3, 5, 6, 7, 8, 11, 14, 21, 25
450	<i>Eupatorium cannabinum</i> L. subsp. <i>cannabinum</i>	Asteraceae	0, 5, 7, 25
451	<i>Euphorbia amygdaloides</i> L.	Euphorbiaceae	5, 8, 12, 18
452	<i>Euphorbia bivonae</i> Steud. subsp. <i>bivonae</i>	Euphorbiaceae	
453	<i>Euphorbia clementei</i> Boiss. subsp. <i>clementei</i>	Euphorbiaceae	0, 5, 7
454	<i>Euphorbia cossioniana</i> Boiss.	Euphorbiaceae	0, 5, 21
455	<i>Euphorbia cuneifolia</i> Guss.	Euphorbiaceae	0
456	<i>Euphorbia exigua</i> L.	Euphorbiaceae	
457	<i>Euphorbia helioscopia</i> L. subsp. <i>helioscopia</i>	Euphorbiaceae	
458	<i>Euphorbia medicaginea</i> Boiss.	Euphorbiaceae	

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
412	44	Yes			
413	29, 30, 41, 43	Yes	BC-675949		
414	41, 42, 43	Yes			
415	41, 43	Yes			
416					
417	31, 43				R
418	41				
419	41	Yes			
420					
421	43	Yes			R
422					AR
423	43				
424	40, 41, 42, 43, 45	Yes	P00379308		R
425	41, 43	Yes			
426	41	Yes			
427	41, 43, 44	Yes			
428	41				AR
429	41				
430	41	Yes			
431	30, 31, 41, 42, 43	Yes			AR
432	41				R
433	30, 41	Yes	P05127369		R
434			G00431098	Alg-Mor	
435	41				
436	38, 41	Yes			
437	41	Yes			
438	41				
439					
440			P04652499		
441	30, 38	Yes			AR
442	43				
443					
444	29, 36, 37, 41, 42, 43	Yes			
445	29, 33, 41, 42, 43	Yes			
446	29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 41, 42, 43	Yes	MPU008611	Alg-Mor-Tun	
447	36, 37, 40, 41, 42, 43	Yes	MPU286476		
448					
449	29, 43				RR
450	41				R
451	43				R
452	43				
453	30	Yes	P00540517		R
454				Alg-Mor-Tun	R
455	43				AR
456	41				
457	41, 43	Yes			
458	43				

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
459	<i>Euphorbia nicaeensis</i> All.	Euphorbiaceae	0, 2, 5, 8, 9, 11, 13, 15
460	<i>Euphorbia peplus</i> L. var. <i>peplus</i>	Euphorbiaceae	0
461	<i>Euphorbia phymatosperma</i> subsp. <i>cernua</i> (Coss. & Durieu ex Boiss.) Vindt	Euphorbiaceae	0, 3, 5
462	<i>Euphorbia segetalis</i> var. <i>pinea</i> (L.) Rouy	Euphorbiaceae	0, 5
463	<i>Ferula communis</i> L.	Apiaceae	0, 25
464	<i>Ferulago lutea</i> (Poir.) Grande	Apiaceae	9, 25
465	<i>Festuca algeriensis</i> Trab.	Poaceae	8, 9, 15, 20, 21, 25, 28
466	<i>Festuca atlantica</i> Duval-Jouve ex Clauson	Poaceae	0, 2, 4, 9, 10, 15, 20, 23, 25, 26
467	<i>Festuca circummediterranea</i> Patzke	Poaceae	0, 9, 18, 20, 21, 28
468	<i>Festuca deserti</i> (Coss. & Durieu) Trab.	Poaceae	
469	<i>Festuca djurdjurae</i> (Trab.) Romo	Poaceae	0, 8, 9, 20, 21
470	<i>Festuca myuros</i> L.	Poaceae	
471	<i>Festuca numidica</i> (Trab.) Romo	Poaceae	28
472	<i>Festuca ovina</i> L. sensu lato	Poaceae	
473	<i>Festuca rubra</i> L.	Poaceae	8, 15, 28
474	<i>Festuca sicula</i> C.Presl	Poaceae	
475	<i>Ficus carica</i> L. var. <i>carica</i>	Moraceae	0
476	<i>Filago argentea</i> (Pomel) Chrtk & Holub	Asteraceae	
477	<i>Filago discolor</i> (DC.) Andrés-Sánchez & Galbany	Asteraceae	0, 5
478	<i>Filago germanica</i> (L.) Huds.	Asteraceae	
479	<i>Filago pygmaea</i> L.	Asteraceae	0
480	<i>Filago pyramidata</i> L.	Asteraceae	15
481	<i>Filipendula vulgaris</i> Moench	Rosaceae	0, 8
482	<i>Foeniculum vulgare</i> Mill.	Apiaceae	
483	<i>Fraxinus angustifolia</i> subsp. <i>oxycarpa</i> (Willd.) Franco & Rocha Afonso	Oleaceae	0, 3, 9
484	<i>Fritillaria oranensis</i> Pomel	Liliaceae	20, 28
485	<i>Fumana ericoides</i> subsp. <i>montana</i> (Pomel) Güemes & Muñoz Garm.	Cistaceae	0, 5, 6
486	<i>Fumana fontanesii</i> Pomel	Cistaceae	9
487	<i>Fumana scoparia</i> Pomel	Cistaceae	0, 5, 6
488	<i>Fumana thymifolia</i> (L.) Spach ex Webb	Cistaceae	9
489	<i>Fumaria agraria</i> Lag.	Papaveraceae	0
490	<i>Fumaria atlantica</i> Coss. & Durieu ex Hausskn.	Papaveraceae	0, 5, 22, 28
491	<i>Fumaria capreolata</i> L. subsp. <i>capreolata</i>	Papaveraceae	0
492	<i>Fumaria gaillardotii</i> Boiss.	Papaveraceae	22, 28
493	<i>Fumaria officinalis</i> L. subsp. <i>officinalis</i>	Papaveraceae	
494	<i>Fumaria parviflora</i> Lam. var. <i>parviflora</i>	Papaveraceae	0
495	<i>Fumaria rupestris</i> Boiss. & Reut.	Papaveraceae	0, 5
496	<i>Gagea algeriensis</i> (Chabert) Chabert ex Batt.	Liliaceae	9, 12, 20, 25
497	<i>Gagea foliosa</i> (J. Presl & C. Presl) Schult. & Schult. f.	Liliaceae	0
498	<i>Gagea granatellii</i> (Parl.) Parl.	Liliaceae	0
499	<i>Galactites mutabilis</i> Durieu	Asteraceae	0, 5
500	<i>Galactites tomentosus</i> Moench	Asteraceae	0, 9
501	<i>Galium album</i> Mill. subsp. <i>album</i>	Rubiaceae	0, 5, 9, 21
502	<i>Galium aparine</i> L.	Rubiaceae	0
503	<i>Galium elongatum</i> C. Presl	Rubiaceae	
504	<i>Galium lucidum</i> All.	Rubiaceae	0, 2, 9, 25

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
459	29, 31, 43	Yes			
460	41, 43	Yes			
461	41, 42, 43		MPU014502		AR
462		Yes			
463	29, 30, 36, 37, 41, 42, 43, 44	Yes			
464	43				
465	31, 33, 34, 41		MPU010600	Alg	R
466	29, 31, 36, 37, 41, 42, 43		MPU007722	Alg	RR
467			P00653873		AR
468	32, 35			Alg-Mor	R
469			MPU007954	Alg	R
470	29, 43			Alg-Tun	R
471					R
472	30, 41, 43				
473	38		G00431619	Alg-Mor	R
474	38				
475	41, 43, 44	Yes			
476	43				R
477	43	Yes			AR
478	41, 43				RR
479	41	Yes			
480	43	Yes			
481					R
482	43, 44				
483	41, 43, 44	Yes			
484	43	Yes		Alg-Mor-Tun	AR
485					
486	43			Alg-Mor-Tun	
487	41		MPU005768		
488	41, 43	Yes			
489	30				
490				Alg-Tun	
491	41, 43				
492					
493	32, 35, 41, 43, 44				
494					
495	43				
496	43			Alg-Mor	R
497	41	Yes	BC-814983		
498	38, 43				
499				Alg-Tun	AR
500	41, 43	Yes			
501	32, 33, 34, 35, 38, 41, 42, 43				R
502	30, 36, 37, 38, 41, 42, 43	Yes			
503	43				
504	29, 43	Yes			

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
505	<i>Galium murale</i> (L.) All.	Rubiaceae	0
506	<i>Galium parisiense</i> L.	Rubiaceae	
507	<i>Galium perralderii</i> Coss. & Durieu	Rubiaceae	0, 3, 5, 7, 8, 9, 15, 21
508	<i>Galium poiretianum</i> Ball	Rubiaceae	0, 25
509	<i>Galium pusillum</i> L.	Rubiaceae	
510	<i>Galium scabrum</i> L.	Rubiaceae	0, 8, 9, 10, 12, 19, 25
511	<i>Galium spurium</i> L. subsp. <i>spurium</i>	Rubiaceae	0, 5
512	<i>Galium tunetanum</i> Lam.	Rubiaceae	0, 5, 9, 12, 25
513	<i>Galium verrucosum</i> Huds.	Rubiaceae	0
514	<i>Galium verticillatum</i> Danhoine ex Lam.	Rubiaceae	0, 5, 7
515	<i>Galium verum</i> L. subsp. <i>verum</i>	Rubiaceae	0, 5, 7
516	<i>Galium viscosum</i> Vahl subsp. <i>viscosum</i>	Rubiaceae	9
517	<i>Gastridium scabrum</i> C. Presl	Poaceae	28
518	<i>Gastridium ventricosum</i> (Gouan) Schinz & Thell.	Poaceae	9
519	<i>Genista monspessulana</i> (L.) L.A.S. Johnson	Fabaceae	0, 5
520	<i>Genista numidica</i> subsp. <i>filiramea</i> (Pomel) Batt.	Fabaceae	0, 5, 7, 19
521	<i>Genista spartioides</i> Spach	Fabaceae	0, 5, 19
522	<i>Genista tricuspidata</i> Desf.	Fabaceae	0, 9, 25
523	<i>Geranium atlanticum</i> Boiss.	Geraniaceae	0, 12
524	<i>Geranium lanuginosum</i> Lam.	Geraniaceae	0, 5
525	<i>Geranium lucidum</i> L.	Geraniaceae	0, 9, 12, 25
526	<i>Geranium malviflorum</i> Boiss. & Reut.	Geraniaceae	0, 5, 8, 9, 25
527	<i>Geranium molle</i> L.	Geraniaceae	9
528	<i>Geranium purpureum</i> Vill.	Geraniaceae	0, 12
529	<i>Geranium pusillum</i> L.	Geraniaceae	
530	<i>Geranium pyrenaicum</i> Burm. f.	Geraniaceae	0, 5, 8, 9
531	<i>Geranium robertianum</i> L.	Geraniaceae	0, 2, 5, 7, 9, 21
532	<i>Geranium rotundifolium</i> L.	Geraniaceae	0
533	<i>Geranium tuberosum</i> L.	Geraniaceae	0
534	<i>Geropogon hybridus</i> (L.) Sch. Bip.	Asteraceae	0
535	<i>Geum sylvaticum</i> Pourr.	Rosaceae	0, 3, 5, 8, 9, 12
536	<i>Geum urbanum</i> L.	Rosaceae	0, 3, 5, 8, 9, 12, 28
537	<i>Gladiolus dubius</i> Guss.	Iridaceae	
538	<i>Gladiolus italicus</i> Mill.	Iridaceae	
539	<i>Glaucium corniculatum</i> Rudolph	Papaveraceae	0
540	<i>Glebionis segetum</i> (L.) Fourr.	Asteraceae	0
541	<i>Globularia alypum</i> L.	Plantaginaceae	0, 9
542	<i>Hedera algeriensis</i> Rantonnet ex C.Morren	Araliaceae	2, 3, 11, 12
543	<i>Hedysarum naudinianum</i> Coss. & Durieu	Fabaceae	
544	<i>Helianthemum canum</i> (L.) Hornem. subsp. <i>canum</i>	Cistaceae	0, 2, 5, 6, 7, 8, 9, 21, 25
545	<i>Helianthemum croceum</i> (Desf.) Pers. subsp. <i>croceum</i>	Cistaceae	0
546	<i>Helianthemum croceum</i> subsp. <i>suffruticosum</i> (Boiss.) Sauvage ex Dobignard	Cistaceae	2, 5, 25
547	<i>Helianthemum fontanesii</i> Boiss. & Reut.	Cistaceae	0, 5, 9
548	<i>Helianthemum hirtum</i> (L.) Mill.	Cistaceae	
549	<i>Helianthemum ledifolium</i> (L.) Mill. subsp. <i>ledifolium</i>	Cistaceae	0
550	<i>Helianthemum nummularium</i> (L.) Mill.	Cistaceae	
551	<i>Helianthemum rotundifolium</i> Dunal subsp. <i>rotundifolium</i>	Cistaceae	0, 5, 9
552	<i>Helianthemum virgatum</i> (Desf.) Pers. subsp. <i>virgatum</i>	Cistaceae	9

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
505		Yes			
506	43				
507	29, 30, 41, 43	Yes	P03935775	Alg Alg-Mor-Tun	AR
508					
509	41				
510	32, 34, 35, 36, 37, 38, 41, 42, 43	Yes	MPU009665		
511					
512	30, 36, 37, 38, 42, 43		MPU007494		
513	35, 38, 43				
514	41	Yes			R
515					AR
516					
517	36, 43				
518	43	Yes			
519	43				
520			MPU010022	Alg	RR
521			MPU010020		R
522	29, 30, 35, 36, 40, 41, 42, 43	Yes			
523	29, 41, 43		P04842266	Alg-Mor-Tun	
524	41		BC-876282		RR
525	34, 41, 42, 43	Yes	P05126759		
526	30, 31, 36, 37, 43		P05126704		R
527	30, 42, 43	Yes			
528	36, 37, 42, 43	Yes			
529	41				RR
530	31, 32, 34, 35, 38, 41, 43	Yes	P05126632		R
531	30, 38, 41, 43		P05126045		R
532	41, 43	Yes			R
533	30, 41, 43				RR
534					
535	31, 32, 35, 38, 41, 43	Yes			
536	38, 41, 43	Yes			
537	30, 43	Yes			
538	41				
539					
540	41, 43, 44				
541	41, 43, 44				
542	30, 31, 41, 42, 43	Yes	P04350538	Alg-Tun	
543	43			Alg	AR
544	32, 33, 35, 38, 41, 43	Yes			RR
545	29, 41, 42, 43	Yes			AR
546					
547	31, 32, 35, 38, 41, 42, 43	Yes		Alg-Mor-Tun	RR
548	29, 43				
549	43				
550	41				
551	31, 35, 38, 41, 42, 43	Yes			
552					

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
553	<i>Helichrysum lacteum</i> Coss. & Durieu	Asteraceae	0, 5, 7, 8, 9, 10, 11, 21
554	<i>Helichrysum pendulum</i> subsp. <i>fontanesii</i> (Cambess.) M.B. Crespo & Mateo	Asteraceae	0, 9, 25
555	<i>Helichrysum pomelianum</i> Greuter	Asteraceae	8, 18
556	<i>Helichrysum stoechas</i> (L.) Moench	Asteraceae	
557	<i>Helictochloa bromoides</i> (Gouan) Romero Zarco	Poaceae	
558	<i>Helictochloa cincinnata</i> (Ten.) Romero Zarco	Poaceae	0, 8, 9, 15, 18, 23, 25, 28
559	<i>Heliotropium europaeum</i> L.	Boraginaceae	
560	<i>Helminthotheca aculeata</i> (Vahl) Lack subsp. <i>aculeata</i>	Asteraceae	0
561	<i>Helminthotheca balansae</i> (Coss. & Durieu) Lack	Asteraceae	0
562	<i>Helminthotheca comosa</i> (Boiss.) Holub subsp. <i>comosa</i>	Asteraceae	0, 5, 25
563	<i>Helminthotheca echooides</i> (L.) Holub	Asteraceae	
564	<i>Helminthotheca glomerata</i> (Pomel) Greuter	Asteraceae	0
565	<i>Helosciadium nodiflorum</i> (L.) W.D.J. Koch	Apiaceae	
566	<i>Hemionitis acrostica</i> (Balb.) Mosyakin	Pteridaceae	0
567	<i>Hemionitis pteridioidea</i> (Reichard) Christenh.	Pteridaceae	
568	<i>Heracleum sphondylium</i> subsp. <i>algeriense</i> (Coss. ex Batt. & Trab.) Dobignard	Apiaceae	3, 5, 8, 15, 21
569	<i>Herniaria cinerea</i> DC.	Caryophyllaceae	0, 5, 9, 21
570	<i>Herniaria glabra</i> L.	Caryophyllaceae	0, 5, 15
571	<i>Herniaria permixta</i> Guss.	Caryophyllaceae	0, 5, 21, 25
572	<i>Hexaphylla hirsuta</i> (Desf.) P. Caputo & Del Guacchio	Rubiaceae	0, 2, 9
573	<i>Hieracium amplexicaule</i> subsp. <i>atlanticum</i> (Fr.) Zahn	Asteraceae	0, 2, 5, 8
574	<i>Hieracium grandifolium</i> Sch. Bip.	Asteraceae	0, 5, 7, 8, 10, 21, 25
575	<i>Hieracium humile</i> Jacq. subsp. <i>humile</i>	Asteraceae	7, 9, 13, 24
576	<i>Himantoglossum hircinum</i> (L.) Spreng.	Orchidaceae	0, 2, 3, 25
577	<i>Himantoglossum robertianum</i> (Loisel.) P. Delforge	Orchidaceae	
578	<i>Hippocrepis multisiliquosa</i> L.	Fabaceae	25
579	<i>Hippocrepis salzmannii</i> Boiss. & Reut.	Fabaceae	0
580	<i>Hirschfeldia incana</i> subsp. <i>geniculata</i> (Desf.) Tzvelev	Brassicaceae	
581	<i>Holcus lanatus</i> L.	Poaceae	0, 9, 25
582	<i>Holosteum umbellatum</i> L. subsp. <i>umbellatum</i>	Caryophyllaceae	0, 5
583	<i>Hordelymus europaeus</i> (L.) Harz	Poaceae	0, 8, 12, 20, 21, 28
584	<i>Hordeum bulbosum</i> L.	Poaceae	0, 9
585	<i>Hordeum marinum</i> subsp. <i>gussoneanum</i> (Parl.) Thell.	Poaceae	3, 28
586	<i>Hordeum murinum</i> L. sensu lato	Poaceae	9, 25
587	<i>Hordeum murinum</i> subsp. <i>leporinum</i> (Link) Arcang.	Poaceae	
588	<i>Hormathophylla spinosa</i> (L.) K��pfer	Brassicaceae	0, 2, 5, 6, 7, 8, 11, 15, 21, 28
589	<i>Hornungia petraea</i> (L.) Rchb.	Brassicaceae	0
590	<i>Hornungia procumbens</i> (L.) Hayek	Brassicaceae	
591	<i>Hyacinthoides aristidis</i> (Coss.) Rothm.	Asparagaceae	
592	<i>Hyacinthoides cedretorum</i> (Pomel) Dobignard	Asparagaceae	0, 2, 3, 8, 9, 10, 12, 16, 25, 28
593	<i>Hyoscyamus albus</i> L.	Solanaceae	
594	<i>Hyoscyamus niger</i> L.	Solanaceae	0
595	<i>Hyoseris radiata</i> L.	Asteraceae	0, 2, 9, 25
596	<i>Hyparrhenia hirta</i> (L.) Stapf	Poaceae	
597	<i>Hypericum afrum</i> Lam.	Hypericaceae	
598	<i>Hypericum androsaemum</i> L.	Hypericaceae	0, 5, 8
599	<i>Hypericum australe</i> Ten.	Hypericaceae	0

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
553	31, 41, 43			Alg-Mor-Lib	R
554	29, 41, 43	Yes	MPU002647		
555			MPU002646		
556	30, 31, 42, 43			MPU004524	R
557	33, 38, 43			MPU004524	R
558	29, 31, 43	Yes	MPU004524		
559	41, 43				
560	41				
561				Alg	
562					R
563	41, 43				
564	43			Alg-Mor	R
565	29, 41	Yes			
566		Yes			
567	41				
568	31			Alg	R
569	43				
570	43				
571					
572	30, 38, 40, 41, 42, 43	Yes			
573				Alg-Mor	
574					RR
575					RRR
576	40, 41, 45	Yes	P00422107		AR
577	41, 43, 45	Yes			
578	41, 43				
579					RR
580	43	Yes		Alg-Mor-Tun	
581					
582					
583					R
584	30, 41				
585	41		G00634358		R
586	42, 43				
587	41				
588	41		ENSA602		RR
589	29, 39				AR
590	30				
591	43			Alg-Tun	
592	36, 41, 43	Yes		Alg-Mor	
593	43, 44				
594	43	Yes			AR
595	29, 30, 32, 35, 36, 37, 38, 41, 42, 43, 44	Yes			
596	41	Yes			
597	41			Alg-Tun	
598					R
599	38, 41, 42, 43	Yes	BC-Tremols-928981		

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
600	<i>Hypericum hirsutum</i> L.	Hypericaceae	0, 2, 7, 8, 13, 21
601	<i>Hypericum montanum</i> L.	Hypericaceae	0, 5, 8, 9, 12, 21, 25
602	<i>Hypericum naudinianum</i> Coss. & Durieu	Hypericaceae	0, 7, 8, 9, 25
603	<i>Hypericum perfoliatum</i> L.	Hypericaceae	
604	<i>Hypericum perforatum</i> L.	Hypericaceae	25
605	<i>Hypericum pubescens</i> Boiss.	Hypericaceae	0, 7
606	<i>Hypericum tetrapterum</i> Fr. var. <i>tetrapterum</i>	Hypericaceae	0, 9
607	<i>Hypericum tomentosum</i> L.	Hypericaceae	
608	<i>Hypochaeris achyrophorus</i> L.	Asteraceae	0, 2, 12, 21, 25
609	<i>Hypochaeris laevigata</i> (L.) Ces., Passer. & Gib.	Asteraceae	0
610	<i>Hypochaeris radicata</i> L. subsp. <i>radicata</i>	Asteraceae	2, 7, 8, 15, 19
611	<i>Hypochaeris radicata</i> subsp. <i>heterocarpa</i> (Moris) Arcang.	Asteraceae	0
612	<i>Hypochaeris robertia</i> (Sch. Bip.) Fiori	Asteraceae	2, 7, 8, 15, 19
613	<i>Iberis atlantica</i> (Litard. & Maire) Greuter & Burdet	Brassicaceae	28
614	<i>Iberis odorata</i> L.	Brassicaceae	0, 5, 8, 9, 10, 11, 12, 23, 25
615	<i>Iberis sempervirens</i> L.	Brassicaceae	
616	<i>Ilex aquifolium</i> L.	Aquifoliaceae	0, 5, 8, 9, 10, 11, 12, 23, 25
617	<i>Ionopsisidium albiflorum</i> Durieu	Brassicaceae	0, 8
618	<i>Iris foetidissima</i> L.	Iridaceae	0
619	<i>Iris juncea</i> Poir.	Iridaceae	
620	<i>Iris unguicularis</i> Poir. subsp. <i>unguicularis</i>	Iridaceae	0
621	<i>Iris xiphium</i> L.	Iridaceae	
622	<i>Isatis djurdjurae</i> Coss. & Durieu	Brassicaceae	0, 3, 4, 5, 7, 8, 9, 11, 18, 21, 22, 28
623	<i>Isatis tinctoria</i> L. subsp. <i>tinctoria</i>	Brassicaceae	0, 7, 8, 21, 28
624	<i>Isoetes histrix</i> Durieu ex Bory	Isoetaceae	0
625	<i>Isolepis cernua</i> (Vahl) Roem. & Schult.	Cyperaceae	0
626	<i>Jacobaea delphiniiifolia</i> (Vahl) Pelser & Veldkamp	Asteraceae	
627	<i>Jacobaea gallerandiana</i> (Coss. & Durieu) Pelser	Asteraceae	0, 2, 5, 8, 15, 21
628	<i>Jasione crispa</i> subsp. <i>sessiliflora</i> (Boiss. & Reut.) Rivas Mart.	Campanulaceae	0, 2, 3, 5, 7, 9, 15
629	<i>Jasione montana</i> L. subsp. <i>montana</i>	Campanulaceae	
630	<i>Juncus articulatus</i> L. subsp. <i>articulatus</i>	Juncaceae	0
631	<i>Juncus conglomeratus</i> L.	Juncaceae	
632	<i>Juncus effusus</i> L. subsp. <i>effusus</i>	Juncaceae	28
633	<i>Juncus fontanesii</i> J. Gay ex Laharpe	Juncaceae	0
634	<i>Juncus inflexus</i> L. subsp. <i>inflexus</i>	Juncaceae	9, 25
635	<i>Juncus valvatus</i> Link	Juncaceae	28
636	<i>Juniperus communis</i> var. <i>hemisphaerica</i> (J. Presl & C. Presl) Parl.	Cupressaceae	0, 6, 7, 8, 9, 10, 11, 14, 15, 21, 23, 25, 28
637	<i>Juniperus macrocarpa</i> Sm.	Cupressaceae	0
638	<i>Juniperus oxycedrus</i> L. var. <i>oxycedrus</i>	Cupressaceae	9
639	<i>Juniperus oxycedrus</i> var. <i>badia</i> H. Gay	Cupressaceae	0
640	<i>Juniperus sabina</i> L. var. <i>sabina</i>	Cupressaceae	7, 8, 15, 28
641	<i>Juniperus turbinata</i> Guss.	Cupressaceae	
642	<i>Jurinea humilis</i> (Desf.) DC.	Asteraceae	0, 9, 15, 23, 25
643	<i>Kickxia elatinoides</i> (Desf.) Rothm.	Plantaginaceae	0
644	<i>Klasea flavescens</i> subsp. <i>mucronata</i> (Desf.) Cantó & Rivas Mart.	Asteraceae	0
645	<i>Knautia mauritanica</i> Pomel	Caprifoliaceae	0, 9, 25

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
600					RR
601	34, 41, 43				R
602			BC- Tremols-929002	Alg-Mor	AR
603	41, 43	Yes			
604	41, 42, 43	Yes			
605					
606					RR
607	29, 41	Yes			
608	43		MPU007650		
609	30, 31, 32, 35, 36, 38, 41, 42, 43	Yes	MPU007650		
610	41, 42, 43		MPU006481		RR
611	30, 43				
612	41		MPU006481		RR
613	31, 41, 43	Yes	BC-137727	Alg-Mor	R
614	41, 42, 43				
615	30				R
616	29, 30, 31, 32, 35, 36, 38, 41, 42, 43, 44	Yes			
617					R
618					
619	43	Yes			
620	41, 43	Yes		Alg-Mor-Tun	
621	43				
622	41, 43, 44	Yes	MPU008659	Alg-Mor	R
623	34, 43		P05437929		R
624					
625					
626	43				
627	43		BC-836943	Alg	R
628	43	Yes	P00495080		AR
629	43				
630	29, 41		P00494184		
631	41, 43				
632	41, 43	Yes			
633			P01721803		
634	41				
635			MPU001500		R
636	29, 30, 31, 32, 34, 35, 38, 40, 41, 42, 43	Yes	BC-647518		R
637					
638	30, 35, 41, 42, 43, 44	Yes			
639		Yes			
640	31, 33, 41, 43	Yes			RR
641	41	Yes			
642	30, 31, 32, 35, 40, 41, 43	Yes			
643				Alg	
644					
645	30, 38, 41, 42, 43	Yes		Alg-Mor-Tun	

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
646	<i>Koeleria caudata</i> (Link) Steud.	Poaceae	0, 9, 28
647	<i>Koeleria splendens</i> C. Presl	Poaceae	4, 28
648	<i>Koeleria vallesiana</i> (Honck.) Gaud.	Poaceae	25
649	<i>Kundmannia sicula</i> (L.) DC.	Apiaceae	0
650	<i>Lactuca muralis</i> (L.) Gaertn.	Asteraceae	0, 2, 3, 5, 7, 8
651	<i>Lactuca saligna</i> L.	Asteraceae	
652	<i>Lactuca serriola</i> L.	Asteraceae	0, 5, 9
653	<i>Lactuca viminea</i> subsp. <i>chondrillifora</i> (Bureau) St.-Lag.	Asteraceae	0, 9, 25
654	<i>Lactuca viminea</i> subsp. <i>ramosissima</i> (All.) Arcang.	Asteraceae	
655	<i>Lactuca virosa</i> L.	Asteraceae	
656	<i>Lagurus ovatus</i> L.	Poaceae	0, 9
657	<i>Lamarckia aurea</i> (L.) Moench	Poaceae	
658	<i>Lamium amplexicaule</i> L. subsp. <i>amplexicaule</i>	Lamiaceae	0
659	<i>Lamium amplexicaule</i> subsp. <i>mauritanicum</i> (Gand. ex Batt.) Maire	Lamiaceae	
660	<i>Lamium flexuosum</i> Ten. subsp. <i>flexuosum</i>	Lamiaceae	0, 2, 5, 8, 9, 12
661	<i>Lamium garganicum</i> L. subsp. <i>garganicum</i>	Lamiaceae	0, 2, 5, 7, 8, 9, 11, 12, 15, 21
662	<i>Lamium hybridum</i> Vill.	Lamiaceae	7
663	<i>Lamium purpureum</i> L. var. <i>purpureum</i>	Lamiaceae	0
664	<i>Lapsana communis</i> subsp. <i>macrocarpa</i> (Coss.) Nyman	Asteraceae	0, 5
665	<i>Lathyrus angulatus</i> L.	Fabaceae	0
666	<i>Lathyrus annuus</i> L.	Fabaceae	
667	<i>Lathyrus cicera</i> L.	Fabaceae	0
668	<i>Lathyrus clymenum</i> L.	Fabaceae	0
669	<i>Lathyrus niger</i> (L.) Bernh. subsp. <i>niger</i>	Fabaceae	0, 21
670	<i>Lathyrus ochrus</i> L.	Fabaceae	
671	<i>Lathyrus setifolius</i> L.	Fabaceae	
672	<i>Lathyrus sphaericus</i> Retz.	Fabaceae	0
673	<i>Lathyrus tingitanus</i> L.	Fabaceae	7
674	<i>Laurus nobilis</i> L.	Lauraceae	0, 2, 5, 25
675	<i>Lavandula stoechas</i> L. subsp. <i>stoechas</i>	Lamiaceae	0, 9
676	<i>Legousia falcata</i> (Ten.) Janch.	Campanulaceae	9
677	<i>Legousia hybrida</i> (L.) Delarbre	Campanulaceae	0
678	<i>Legousia speculum-veneris</i> (L.) Chaix	Campanulaceae	
679	<i>Leontodon djurdjurae</i> Coss. & Durieu ex Batt.	Asteraceae	0, 2, 5, 7, 8, 9, 15, 21, 23, 25
680	<i>Leontodon rothii</i> Ball	Asteraceae	
681	<i>Leontodon tuberosus</i> L.	Asteraceae	0, 25
682	<i>Lepidium coronopus</i> (L.) Al-Shehbaz	Brassicaceae	0
683	<i>Lepidium draba</i> L.	Brassicaceae	
684	<i>Lepidium hirtum</i> subsp. <i>dhayense</i> (Munby) Thell.	Brassicaceae	0, 4, 5, 7, 9, 15, 28
685	<i>Leuzea conifera</i> (L.) DC.	Asteraceae	0
686	<i>Limodorum abortivum</i> (L.) Sw. var. <i>abortivum</i>	Orchidaceae	0, 9
687	<i>Limodorum trabutianum</i> Batt.	Orchidaceae	17, 18, 28
688	<i>Linaria decipiens</i> Batt.	Plantaginaceae	1, 5, 8, 13, 21, 25
689	<i>Linaria multicaulis</i> subsp. <i>heterophylla</i> (Desf.) D.A. Sutton	Plantaginaceae	0, 2, 9, 12, 18
690	<i>Linaria parvirostris</i> D.A. Sutton	Plantaginaceae	0, 5, 7
691	<i>Linaria pinifolia</i> (Poir.) Thell.	Plantaginaceae	8, 13
692	<i>Linaria reflexa</i> (L.) Chaz. subsp. <i>reflexa</i>	Plantaginaceae	0, 9

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
646					AR
647					RR
648	31, 43				
649					
650					R
651	41				
652	41				
653	29, 41, 43	Yes			
654	30				
655	41				R
656	30, 41, 42, 43	Yes			
657	41	Yes			
658	30, 38, 41, 43	Yes			
659	43			Alg-Mor	R
660	31, 36, 38, 41, 42, 43	Yes			
661	29, 30, 31, 32, 33, 35, 36, 41, 42, 43	Yes			AR
662	41				R
663	41				R
664	41, 43			Alg-Mor-Tun	
665					
666	41				AR
667					
668	41, 43	Yes			
669					R
670	41	Yes			
671	41				R
672	43				R
673	41		MPU001170		R
674	41, 43, 44	Yes			
675	41, 43, 44	Yes			
676	36, 37, 38, 41, 42, 43	Yes	P00499514		
677	43				R
678	43	Yes			
679	31, 39, 43		MPU007644	Alg	AR
680	31				
681	43				
682		Yes			
683	43	Yes			AR
684				Alg-Mor	
685	41, 43	Yes			
686	41, 45		P00421324		
687			P00421320		R?
688			BC-137773	Alg	R
689	29, 30, 31, 36, 38, 41, 42, 43	Yes		Alg-Mor-Tun	
690				Alg	R
691	43			Alg-Tun	R
692	41, 42, 43	Yes			

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
693	<i>Linaria simplex</i> Willd. ex Desf.	Plantaginaceae	0
694	<i>Linaria triphylla</i> (L.) Mill.	Plantaginaceae	0
695	<i>Linaria tristis</i> subsp. <i>marginata</i> (Desf.) Maire	Plantaginaceae	0, 3, 5, 8, 9
696	<i>Linaria virgata</i> (Poir.) Desf.	Plantaginaceae	0, 9
697	<i>Linum bienne</i> Mill.	Linaceae	0
698	<i>Linum corymbiferum</i> Desf. subsp. <i>corymbiferum</i>	Linaceae	0, 9, 25
699	<i>Linum corymbiferum</i> subsp. <i>aristidis</i> (Batt.) Batt.	Linaceae	1
700	<i>Linum numidicum</i> Murb.	Linaceae	
701	<i>Linum strictum</i> L.	Linaceae	
702	<i>Linum suffruticosum</i> L.	Linaceae	
703	<i>Linum tenue</i> Desf.	Linaceae	0
704	<i>Linum trigynum</i> L.	Linaceae	2
705	<i>Linum usitatissimum</i> L.	Linaceae	
706	<i>Lobularia maritima</i> (L.) Desv.	Brassicaceae	0
707	<i>Locajonoa coerulescens</i> (Desf.) Soreng	Poaceae	
708	<i>Logfia gallica</i> (L.) Coss. & Germ.	Asteraceae	0
709	<i>Logfia heterantha</i> (Raf.) Holub	Asteraceae	0, 5
710	<i>Lolium arundinaceum</i> (Schreb.) Darbysh. subsp. <i>arundinaceum</i>	Poaceae	0
711	<i>Lolium multiflorum</i> Lam.	Poaceae	0
712	<i>Lolium perenne</i> L.	Poaceae	0, 23
713	<i>Lolium rigidum</i> Gaudin	Poaceae	
714	<i>Lomelosia argentea</i> (L.) Greuter & Burdet	Caprifoliaceae	0
715	<i>Lomelosia crenata</i> (Cirillo) Greuter & Burdet	Caprifoliaceae	0, 5, 7, 8, 9, 11, 15, 23, 25
716	<i>Lomelosia stellata</i> (L.) Raf.	Caprifoliaceae	0
717	<i>Lonicera arborea</i> Boiss.	Caprifoliaceae	0, 1, 5, 7, 8
718	<i>Lonicera biflora</i> Desf.	Caprifoliaceae	
719	<i>Lonicera etrusca</i> Santi var. <i>etrusca</i>	Caprifoliaceae	0, 2
720	<i>Lonicera implexa</i> Aiton	Caprifoliaceae	
721	<i>Lonicera kabylica</i> (Batt.) Rehder	Caprifoliaceae	1, 8, 9, 10, 11, 13, 14, 15, 21, 25
722	<i>Lophiolepis echinata</i> (Desf.) Del Guacchio, Bureš, Iamonico & P. Caputo	Asteraceae	0, 5
723	<i>Lophiolepis kirbensis</i> (Pomel) Del Guacchio, Bureš, Iamonico & P. Caputo	Asteraceae	0
724	<i>Lophiolepis scabra</i> (Poir.) Del Guacchio, Bureš, Iamonico & P. Caputo	Asteraceae	
725	<i>Lotus angustissimus</i> L.	Fabaceae	
726	<i>Lotus biflorus</i> Desr.	Fabaceae	
727	<i>Lotus corniculatus</i> L. subsp. <i>corniculatus</i>	Fabaceae	0, 4, 5, 8, 9, 15, 22, 25
728	<i>Lotus cytisoides</i> L.	Fabaceae	0, 25
729	<i>Lotus dorycnium</i> L.	Fabaceae	
730	<i>Lotus edulis</i> L.	Fabaceae	
731	<i>Lotus longisiliquosus</i> R. Roem.	Fabaceae	9, 25
732	<i>Lotus ornithopodioides</i> L.	Fabaceae	
733	<i>Lotus parviflorus</i> Desf.	Fabaceae	
734	<i>Lotus tetragonolobus</i> L.	Fabaceae	
735	<i>Lupinus angustifolius</i> L.	Fabaceae	
736	<i>Lupinus gussoneanus</i> J. Agardh	Fabaceae	0
737	<i>Luzula forsteri</i> (Sm.) DC. subsp. <i>forsteri</i>	Juncaceae	12
738	<i>Luzula mauretanica</i> (Maire & Trab.) Rivas Mart., Molero Mesa, Marfil & G. Benítez	Juncaceae	9, 25

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
693					
694	30, 41, 43	Yes			
695	41			Alg	
696	43			Alg-Tun-Lib	
697	43				
698	41, 42, 43	Yes		Alg-Tun	
699				Alg-Tun	
700	41			Alg-Mor-Tun	R
701	43				
702	41				
703					R
704		Yes			
705	41	Yes			
706	41, 43	Yes			
707	33, 35, 43				
708	41, 43				
709	43	Yes	BC-138738		R
710	43				
711					
712		Yes			
713	32, 35, 41, 43				
714					RR
715	29, 33, 35, 40, 41, 43	Yes			AR
716	41, 43	Yes			
717					AR
718	30				
719	29, 31, 32, 35, 38, 41, 42, 43, 44	Yes			AR
720	30, 41, 43	Yes			
721	29, 30, 31, 32, 33, 35, 36, 37, 41, 42, 43	Yes	MPU007456	Alg	R
722	29, 41, 43				
723			G00416526	Alg	R
724	43				
725	41				RR
726	41				
727	30, 31, 41, 42, 43		MPU007571		
728	41, 43	Yes			
729	41				
730	41				
731	30, 38, 42, 43	Yes			
732	41				
733	41				
734	41				
735	41, 43	Yes			
736	41				
737	43	Yes			
738	30, 31, 32, 34, 35, 38, 41, 43			Alg-Mor	

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
739	<i>Lysimachia arvensis</i> (L.) U. Manns & Anderb.	Primulaceae	0, 9
740	<i>Lysimachia linum-stellatum</i> L.	Primulaceae	
741	<i>Lysimachia monelli</i> (L.) U. Manns & Anderb. subsp. <i>monelli</i>	Primulaceae	0, 9, 25
742	<i>Lythrum junceum</i> Banks & Sol.	Lythraceae	
743	<i>Lythrum salicaria</i> L.	Lythraceae	0
744	<i>Magydaris panacifolia</i> (Vahl.) Lange	Apiaceae	
745	<i>Magydaris pastinacea</i> (Lam.) Paol.	Apiaceae	
746	<i>Malope malacoides</i> L. sensu lato	Malvaceae	
747	<i>Malope malacoides</i> subsp. <i>stipulacea</i> (Cav.) Baker f.	Malvaceae	0, 5
748	<i>Malva arborea</i> (L.) Webb & Berthel.	Malvaceae	
749	<i>Malva multiflora</i> (Cav.) Soldano, Banfi & Galasso	Malvaceae	
750	<i>Malva setigera</i> K.F. Schimp. & Spenn.	Malvaceae	0
751	<i>Malva subovata</i> (DC.) Molero & J.M. Monts. subsp. <i>subovata</i>	Malvaceae	0, 5, 6
752	<i>Malva sylvestris</i> L.	Malvaceae	0, 5
753	<i>Mantisalca salmantica</i> (L.) Briq. & Cavill.	Asteraceae	9, 25
754	<i>Marrubium alyssoides</i> Pomel	Lamiaceae	0, 2
755	<i>Marrubium vulgare</i> L.	Lamiaceae	
756	<i>Matricaria chamomilla</i> L.	Asteraceae	
757	<i>Matthiola fruticulosa</i> (Loef. ex L.) Maire subsp. <i>fruticulosa</i>	Brassicaceae	0
758	<i>Medicago ciliaris</i> (L.) All.	Fabaceae	
759	<i>Medicago doliana</i> Carmign.	Fabaceae	
760	<i>Medicago lupulina</i> L.	Fabaceae	0, 4, 5, 15, 25
761	<i>Medicago minima</i> (L.) L.	Fabaceae	0
762	<i>Medicago monspeliaca</i> (L.) Trautv.	Fabaceae	
763	<i>Medicago orbicularis</i> (L.) Bartal.	Fabaceae	0
764	<i>Medicago polymorpha</i> L.	Fabaceae	
765	<i>Medicago rigidula</i> (L.) All.	Fabaceae	0, 5
766	<i>Medicago secundiflora</i> Durieu	Fabaceae	0, 5
767	<i>Medicago tornata</i> (L.) Mill.	Fabaceae	
768	<i>Medicago truncatula</i> Gaertn.	Fabaceae	0
769	<i>Medicago turbinata</i> (L.) Willd.	Fabaceae	
770	<i>Melica ciliata</i> L.	Poaceae	0, 20
771	<i>Melica cupani</i> Guss.	Poaceae	0, 4, 18, 20, 21, 22, 28
772	<i>Melica minuta</i> L.	Poaceae	25
773	<i>Melica uniflora</i> Retz.	Poaceae	0, 1, 2, 8, 9, 10, 12, 28
774	<i>Melilotus albus</i> Medik.	Fabaceae	
775	<i>Melilotus macrocarpus</i> Coss. & Dur.	Fabaceae	
776	<i>Melilotus segetalis</i> (Brot.) Ser.	Fabaceae	
777	<i>Melilotus sulcatus</i> Desf.	Fabaceae	
778	<i>Melissa officinalis</i> L. subsp. <i>officinalis</i>	Lamiaceae	0, 5
779	<i>Mentha pulegium</i> L.	Lamiaceae	0, 25
780	<i>Mentha suaveolens</i> Ehrh.	Lamiaceae	0, 25
781	<i>Mercurialis annua</i> L.	Euphorbiaceae	
782	<i>Micromeria graeca</i> (L.) Benth. ex Rchb. subsp. <i>graeca</i>	Lamiaceae	0
783	<i>Micromeria nervosa</i> (Desf.) Benth.	Lamiaceae	25
784	<i>Micropus supinus</i> L.	Asteraceae	0
785	<i>Minuartia campestris</i> L.	Caryophyllaceae	

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
739	29, 32, 35, 41, 42, 43				
740	41				
741	30, 41, 42, 43	Yes			
742	41				
743					
744	41				RR
745	43	Yes			
746	41	Yes			
747	43		MPU007179		
748	41				R
749	44	Yes			
750					R
751	41				
752	41, 42, 43, 44	Yes			
753	29, 30, 38, 40, 41, 43	Yes			
754				Alg-Mor	R
755	41, 43, 44	Yes			
756	41				
757	30, 41, 43	Yes			
758	41				
759	41				
760	41, 43				
761	41	Yes			
762	41				
763	41				
764	43	Yes			
765					R
766	43				
767	41				R
768	41				
769	41				
770	43	Yes	MPU010564		
771					
772	41, 43				
773	43				AR
774	43				
775	43			Alg-Tun	
776	41				
777	41				
778	41, 43, 44	Yes			AR
779	29, 41, 42, 43, 44	Yes			
780	29, 41, 43, 44	Yes			
781	41				
782	41, 42, 43	Yes			
783					RR
784					
785	43				

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
786	<i>Minuartia montana</i> L.	Caryophyllaceae	28
787	<i>Minuartia tenuissima</i> (Pomel) Mattf.	Caryophyllaceae	25
788	<i>Misopates orontium</i> (L.) Raf. subsp. <i>orontium</i>	Plantaginaceae	
789	<i>Moehringia pentandra</i> J.Gay	Caryophyllaceae	
790	<i>Moenchia erecta</i> (L.) Gaertn., B. Mey. & Scherb.	Caryophyllaceae	0, 25
791	<i>Monotropa hypopitys</i> L.	Ericaceae	3, 7, 8, 12, 18, 23
792	<i>Moraea sisyrinchium</i> (L.) Ker Gawl.	Iridaceae	0
793	<i>Muscari comosum</i> (L.) Mill.	Asparagaceae	0
794	<i>Muscari neglectum</i> Guss. ex Ten.	Asparagaceae	0
795	<i>Mutarda arvensis</i> (L.) D.A.German	Brassicaceae	
796	<i>Myosotis discolor</i> Pers. subsp. <i>discolor</i>	Boraginaceae	
797	<i>Myosotis ramosissima</i> Rochel subsp. <i>ramosissima</i>	Boraginaceae	0, 9, 25
798	<i>Myosotis speciosa</i> Pomel	Boraginaceae	0, 1, 3, 5, 7, 8, 9, 18
799	<i>Myrtus communis</i> L.	Myrtaceae	
800	<i>Narcissus tazetta</i> L. subsp. <i>tazetta</i>	Amaryllidaceae	0
801	<i>Nasturtium officinale</i> W.T. Aiton	Brassicaceae	0
802	<i>Neotinea conica</i> (Willd.) R.M.Bateman	Orchidaceae	
803	<i>Neotinea lactea</i> (Poir.) R.M. Bateman, Pridgeon & M.W. Chase	Orchidaceae	0
804	<i>Neotinea maculata</i> (Desf.) Stearn	Orchidaceae	0, 25
805	<i>Nepeta algeriensis</i> de Noé	Lamiaceae	0, 5, 18
806	<i>Nepeta multibracteata</i> Desf.	Lamiaceae	0, 3, 9
807	<i>Nerium oleander</i> L.	Apocynaceae	0, 3
808	<i>Nigella arvensis</i> L.	Ranunculaceae	0
809	<i>Nigella damascena</i> L.	Ranunculaceae	
810	<i>Nigella papillosa</i> subsp. <i>atlantica</i> (Murb.) Amich ex López González	Ranunculaceae	0
811	<i>Noccaea persfoliata</i> (L.) Al-Shehbaz	Brassicaceae	0, 9, 25
812	<i>Notobasis syriaca</i> (L.) Cass.	Asteraceae	0
813	<i>Odontarrhena serpyllifolia</i> (Desf.) Jord. & Fourr.	Brassicaceae	0, 1, 5, 8, 9, 15, 28
814	<i>Odontites discolor</i> Pomel subsp. <i>discolor</i>	Orobanchaceae	0
815	<i>Odontites discolor</i> subsp. <i>ciliatus</i> (Pomel) Bolliger	Orobanchaceae	0, 8
816	<i>Odontites lapiei</i> Batt.	Orobanchaceae	0, 2, 5, 7, 8, 9, 11, 13, 21, 24
817	<i>Odontites purpureus</i> (Desf.) G. Don	Orobanchaceae	0
818	<i>Odontites rigidifolius</i> (Biv. ex Spreng.) Benth.	Orobanchaceae	0, 5, 8
819	<i>Oenanthe globulosa</i> L.	Apiaceae	
820	<i>Oenanthe virgata</i> Poir.	Apiaceae	0
821	<i>Olea europaea</i> L. subsp. <i>europaea</i>	Oleaceae	0, 9
822	<i>Oloptum miliaceum</i> (L.) Röser & Hamasha	Poaceae	
823	<i>Onobrychis alba</i> subsp. <i>mairei</i> (Širj.) Maire	Fabaceae	0, 5, 22
824	<i>Onobrychis caput-galli</i> Lam.	Fabaceae	
825	<i>Onobrychis kabylica</i> (Bornm.) Širj.	Fabaceae	
826	<i>Ononis alba</i> Poir.	Fabaceae	0
827	<i>Ononis aragonensis</i> Asso	Fabaceae	0, 2, 5, 6, 7, 8, 15, 19, 21
828	<i>Ononis cristata</i> Mill. subsp. <i>cristata</i>	Fabaceae	0, 3, 5, 7, 8, 21
829	<i>Ononis hispida</i> Desf. subsp. <i>hispida</i>	Fabaceae	
830	<i>Ononis natrix</i> L. subsp. <i>natrix</i>	Fabaceae	0, 5
831	<i>Ononis pendula</i> Desf.	Fabaceae	
832	<i>Ononis pusilla</i> L. subsp. <i>pusilla</i>	Fabaceae	0, 5

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
786					
787				Alg-Mor-Tun	AR
788 43		Yes			
789 30, 31, 36, 42, 43		Yes			
790			BC-10187		
791					RR
792 41, 43			P01844581		
793 30, 41, 42, 43		Yes			
794 43		Yes			
795 41, 43					
796 43					R
797 36, 37, 41, 43		Yes			
798 30, 36, 37, 41, 43			BC-144413	Alg	
799 41, 43, 44					
800 29, 30, 34, 43		Yes			
801 41, 43, 44		Yes			
802 45					
803 41, 43					
804 45					R
805 43			MPU003993	Alg-Tun	
806 41, 43					
807 41, 43, 44		Yes			
808 43					
809 41, 43, 44		Yes	P02557920		
810 43					
811 35, 42		Yes	ENSA362		
812 30, 41					
813 33, 41		Yes			AR
814 41		Yes		Alg	RRR
815				Alg	RRR
816 41		Yes	MPU007509	Alg	R
817					
818					RR
819 30					
820 43				Alg-Mor-Tun	
821 41, 43, 44		Yes			
822 41, 43					
823 43		Yes		Alg-Mor	R
824 41					
825 41				Alg-Mor-Tun	AR
826					
827 30, 31, 41, 43					RR
828 41					AR
829 41, 43					
830					R
831 41					
832		Yes			

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
833	<i>Ononis ramosissima</i> Desf.	Fabaceae	0, 25
834	<i>Ononis sicula</i> Guss.	Fabaceae	
835	<i>Onosma fastigiata</i> subsp. <i>mauretanica</i> Maire	Boraginaceae	0, 2, 5, 7, 8, 9, 11, 18, 21
836	<i>Ophrys × fernandii</i> Rolfe	Orchidaceae	
837	<i>Ophrys × sommieri</i> E.G.Camus ex Cortesi	Orchidaceae	
838	<i>Ophrys apifera</i> Huds.	Orchidaceae	0
839	<i>Ophrys atlantica</i> Munby	Orchidaceae	0
840	<i>Ophrys bombyliflora</i> Link	Orchidaceae	
841	<i>Ophrys fusca</i> Link sensu lato	Orchidaceae	
842	<i>Ophrys fusca</i> Link subsp. <i>fusca</i>	Orchidaceae	28
843	<i>Ophrys fusca</i> subsp. <i>funerea</i> (Viv.) Arcang.	Orchidaceae	
844	<i>Ophrys lutea</i> Cav. sensu lato	Orchidaceae	0
845	<i>Ophrys lutea</i> Cav. subsp. <i>lutea</i>	Orchidaceae	
846	<i>Ophrys omegaifera</i> subsp. <i>hayekii</i> (H.Fleischm. & Soó) Kreutz	Orchidaceae	
847	<i>Ophrys scolopax</i> subsp. <i>apiformis</i> (Desf.) Maire & Weiller	Orchidaceae	
848	<i>Ophrys speculum</i> Link subsp. <i>speculum</i>	Orchidaceae	
849	<i>Ophrys tenthredinifera</i> Willd.	Orchidaceae	0, 9
850	<i>Ophrys × battandieri</i> E.G.Camus	Orchidaceae	
851	<i>Orchis anthropophora</i> (L.) All.	Orchidaceae	0
852	<i>Orchis italica</i> Poir.	Orchidaceae	
853	<i>Orchis laeta</i> Steinh.	Orchidaceae	0
854	<i>Orchis mascula</i> (L.) L. subsp. <i>mascula</i>	Orchidaceae	0, 18, 20, 22, 23, 25, 28
855	<i>Orchis olbiensis</i> Reut. ex Gren.	Orchidaceae	
856	<i>Orchis patens</i> Desf.	Orchidaceae	28
857	<i>Orchis purpurea</i> Huds. subsp. <i>purpurea</i>	Orchidaceae	
858	<i>Orchis simia</i> Lam.	Orchidaceae	28
859	<i>Origanum floribundum</i> Munby	Lamiaceae	0, 8, 25
860	<i>Origanum vulgare</i> subsp. <i>glandulosum</i> (Desf.) Ietswaart	Lamiaceae	0, 9
861	<i>Orlaya grandiflora</i> (L.) Hoffm.	Apiaceae	
862	<i>Ornithogalum arabicum</i> L.	Asparagaceae	25
863	<i>Ornithogalum baeticum</i> subsp. <i>algeriense</i> (Jord. & Fourr.) Valdés	Asparagaceae	0
864	<i>Ornithogalum narbonense</i> L.	Asparagaceae	0
865	<i>Ornithogalum orthophyllum</i> subsp. <i>kochii</i> (Parl.) Zahar.	Asparagaceae	0
866	<i>Ornithopus compressus</i> L.	Fabaceae	
867	<i>Orobanche alba</i> Willd. subsp. <i>alba</i>	Orobanchaceae	0, 5
868	<i>Orobanche amethystea</i> Thuill.	Orobanchaceae	0
869	<i>Orobanche caryophyllacea</i> Sm.	Orobanchaceae	0, 5
870	<i>Orobanche clausonis</i> Pomel	Orobanchaceae	0, 5
871	<i>Orobanche crenata</i> Forssk.	Orobanchaceae	
872	<i>Orobanche foetida</i> Poir.	Orobanchaceae	
873	<i>Orobanche ramosa</i> L.	Orobanchaceae	
874	<i>Osmunda regalis</i> L.	Osmundaceae	
875	<i>Osiris alba</i> L.	Santalaceae	
876	<i>Otoglyphis pubescens</i> (Desf.) Pomel	Asteraceae	
877	<i>Oxalis pes-caprae</i> L. var. <i>pes-caprae</i>	Oxalidaceae	
878	<i>Paeonia algeriensis</i> Chabert	Paeoniaceae	0, 2, 5, 7, 8, 9, 10, 11, 12
879	<i>Pallenis maritima</i> subsp. <i>sericea</i> (Maire & Wilczek) Véla	Asteraceae	0

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
833	41, 43				
834	41				
835	41, 43		MPU001600	Alg-Mor	AR
836	45				
837	45				
838	41, 43, 44, 45	Yes			
839	41, 45	Yes			AR
840	41, 45				
841	41, 45				
842	41, 43, 45				
843	45				
844	41, 43	Yes	P00428738		
845	45				
846	45	Yes			
847	41, 45				
848	41, 45	Yes			
849	41, 45	Yes	P00428402		
850	45				
851	40, 41, 45	Yes	P00429869		
852	41, 45	Yes			
853	41, 45	Yes	P00429669	Alg-Tun	R
854	41, 45	Yes	P00429742		
855	40, 41, 43, 45	Yes			
856	41, 43, 45	Yes	P00429695		
857	45				R
858	41, 45				AR
859	38, 43	Yes	G00611882	Alg	R
860	30, 40, 41, 42, 43, 44	Yes	BC-833534	Alg-Tun	
861	43				RR
862					
863	30, 36, 37, 41, 42, 43	Yes		Alg-Mor-Tun	
864	41, 43	Yes			
865					
866	41				
867		Yes			RR
868					
869					R
870					
871	43				
872	43				RR
873	43				
874	41				
875	43				
876	32, 35				
877	41	Yes			
878	32, 35, 36, 41, 43	Yes	P00375245	Alg	R
879		Yes		Alg-Mor-Tun	

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
880	<i>Pallenis spinosa</i> (L.) Cass.	Asteraceae	0
881	<i>Papaver dubium</i> L.	Papaveraceae	0
882	<i>Papaver hybridum</i> L.	Papaveraceae	0
883	<i>Papaver lecoqii</i> Lamotte	Papaveraceae	0, 28
884	<i>Papaver rhoeas</i> L. subsp. <i>rhoeas</i>	Papaveraceae	0
885	<i>Papaver somniferum</i> L.	Papaveraceae	
886	<i>Parapholis filiformis</i> (Roth) C.E. Hubb.	Poaceae	0
887	<i>Parentucellia latifolia</i> (L.) Caruel	Orobanchaceae	0
888	<i>Parentucellia viscosa</i> (L.) Caruel	Orobanchaceae	
889	<i>Parietaria judaica</i> L. subsp. <i>judaica</i>	Urticaceae	0, 25
890	<i>Parietaria lusitanica</i> L. subsp. <i>lusitanica</i>	Urticaceae	0
891	<i>Paronychia arabica</i> subsp. <i>aurasiaca</i> (Webb ex Coss.) Batt.	Caryophyllaceae	0, 5, 8
892	<i>Paronychia argentea</i> Lam.	Caryophyllaceae	0
893	<i>Paronychia capitata</i> (L.) Lam. subsp. <i>capitata</i>	Caryophyllaceae	0
894	<i>Paronychia echinulata</i> Chater	Caryophyllaceae	0
895	<i>Paronychia kapela</i> subsp. <i>serpyllifolia</i> (Chaix) Graebn.	Caryophyllaceae	7, 28
896	<i>Patzkea durandoi</i> (Cluson) G.H. Loos	Poaceae	20, 21, 28
897	<i>Patzkea patula</i> (Desf.) H. Scholz	Poaceae	20, 21, 28
898	<i>Pentanema montanum</i> (L.) D. Gut. Larr., Santos-Vicente, Anderb., E. Rico & M.M. Mart. Ort.	Asteraceae	0, 9
899	<i>Pentanema squarrosum</i> (L.) D. Gut. Larr., Santos-Vicente, Anderb., E. Rico & M.M. Mart. Ort.	Asteraceae	7, 8, 12, 18
900	<i>Persicaria lapathifolia</i> (L.) Delarbre	Polygonaceae	0
901	<i>Persicaria maculosa</i> Gray var. <i>maculosa</i>	Polygonaceae	5
902	<i>Petasites pyrenaicus</i> (L.) López González	Asteraceae	0, 5
903	<i>Petrorhagia prolifera</i> (L.) P.W. Ball & Heywood	Caryophyllaceae	
904	<i>Petrosedum amplexicaule</i> (DC.) Velayos	Crassulaceae	0, 8, 9, 12, 25, 28
905	<i>Petrosedum sediforme</i> (Jacq.) Grulich	Crassulaceae	0
906	<i>Petrosedum tenuifolium</i> (Sm.) Grulich	Crassulaceae	
907	<i>Petroselinum crispum</i> (Mill.) Fuss	Apiaceae	
908	<i>Phagnalon rupestre</i> (L.) DC. subsp. <i>rupestre</i>	Asteraceae	0
909	<i>Phagnalon saxatile</i> (L.) Cass.	Asteraceae	
910	<i>Phagnalon sordidum</i> (L.) Rchb. var. <i>sordidum</i>	Asteraceae	0, 3, 25
911	<i>Phalaris coerulescens</i> Desf.	Poaceae	
912	<i>Phillyrea angustifolia</i> L.	Oleaceae	0
913	<i>Phillyrea latifolia</i> L.	Oleaceae	9
914	<i>Phleum bertolonii</i> DC.	Poaceae	0, 3
915	<i>Phleum phleoides</i> (L.) H. Karst.	Poaceae	0, 3, 8, 9, 18, 20, 25, 28
916	<i>Phleum pratense</i> L.	Poaceae	
917	<i>Phlomis bovei</i> de Noé subsp. <i>bovei</i>	Lamiaceae	0, 2, 8, 9, 12, 23, 25
918	<i>Phlomis crinita</i> Cav.	Lamiaceae	
919	<i>Phonus lanatus</i> (L.) Hill	Asteraceae	
920	<i>Physospermum verticillatum</i> (Waldst. & Kit.) Vis.	Apiaceae	0, 2, 3, 5, 8, 9, 10, 11, 12, 15, 21
921	<i>Picnomon acarna</i> (L.) Cass.	Asteraceae	0, 5
922	<i>Picris hispanica</i> (Willd.) P.D. Sell	Asteraceae	
923	<i>Pilosella pseudopilosella</i> (Ten.) Soják	Asteraceae	0, 2, 8, 9, 18, 25
924	<i>Pimpinella battandieri</i> Chabert	Apiaceae	0, 1, 2, 3, 5, 7, 8, 9, 15, 18, 21, 24
925	<i>Pimpinella lutea</i> Desf.	Apiaceae	
926	<i>Pimpinella tragium</i> subsp. <i>lithophila</i> (Schischk.) Tutin	Apiaceae	0, 5, 8, 15, 25

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
880	41, 42, 43	Yes			
881	41	Yes			
882					
883					
884	43, 44	Yes			
885	41				
886	43				
887	41, 43				
888	43				
889	34, 38, 41				
890					R
891			MPU011758	Alg-Mor-Tun	
892	41, 42, 43, 44	Yes			
893	43				
894					
895	29, 30, 33, 41, 43				AR
896					AR
897	38				
898	40, 41, 43	Yes			
899	43				RR
900		Yes			
901					R
902	41, 43				
903	30, 41				
904	43	Yes			R
905	40, 41, 42, 43	Yes			
906	29, 32, 33, 34, 35, 38, 43				
907	44				
908	43	Yes			
909	30, 41, 43	Yes			
910	41, 43	Yes			
911	41				
912					R
913	41, 42, 43	Yes			
914	30, 43				
915					AR
916	41				
917	29, 30, 31, 32, 34, 35, 36, 37, 38, 41, 42, 43	Yes	BC-143068	Alg-Tun	R
918	32, 35	Yes			
919	41	Yes			
920	31, 32, 35, 42, 43	Yes			R
921	29, 43	Yes			
922	29, 41				
923	30, 31, 35, 38, 41, 42, 43	Yes	MPU002033		
924	32, 35, 38, 41, 43	Yes	MPU010111	Alg	R
925	43				
926	29, 30, 31, 33, 38, 41, 43	Yes	MPU010113		

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
927	<i>Pinus halepensis</i> Mill.	Pinaceae	0, 9
928	<i>Pinus nigra</i> subsp. <i>mauretanica</i> (Maire & Peyerimh.) Heywood	Pinaceae	3, 7, 8, 11, 14, 18, 23, 24, 26, 28
929	<i>Pistacia atlantica</i> Desf.	Anacardiaceae	0
930	<i>Pistacia lentiscus</i> L.	Anacardiaceae	0, 9
931	<i>Pistacia terebinthus</i> L.	Anacardiaceae	0, 5, 9, 23, 25
932	<i>Pistorinia breviflora</i> subsp. <i>intermedia</i> (Boiss. & Reut.) Greuter & Burdet	Crassulaceae	0, 2, 5, 9, 28
933	<i>Plagius grandis</i> (L.) Alavi & Heywood	Asteraceae	0
934	<i>Plagius maghabinus</i> Vogt & Greuter	Asteraceae	0, 25
935	<i>Plantago atlantica</i> Batt.	Plantaginaceae	0, 8
936	<i>Plantago coronopus</i> L. subsp. <i>coronopus</i>	Plantaginaceae	0, 2, 9, 15, 25
937	<i>Plantago coronopus</i> subsp. <i>cupanii</i> (Guss.) Nyman	Plantaginaceae	15
938	<i>Plantago lagopus</i> L. subsp. <i>lagopus</i>	Plantaginaceae	
939	<i>Plantago lanceolata</i> L.	Plantaginaceae	0, 18
940	<i>Plantago major</i> L. sensu lato	Plantaginaceae	
941	<i>Plantago major</i> subsp. <i>intermedia</i> (Gilib.) Lange	Plantaginaceae	0, 3, 5, 7, 21
942	<i>Plantago mauritanica</i> Boiss. & Reut.	Plantaginaceae	0, 3, 5, 6, 7, 8, 9, 21
943	<i>Plantago serraria</i> L.	Plantaginaceae	
944	<i>Platanthera bifolia</i> (L.) Rich. subsp. <i>bifolia</i>	Orchidaceae	
945	<i>Plocama calabrica</i> (L. f.) M. Backlund & Thulin	Rubiaceae	0, 5, 25, 26
946	<i>Plumbago europaea</i> L.	Plumbaginaceae	0, 9
947	<i>Poa alpina</i> L. subsp. <i>alpina</i>	Poaceae	0, 7, 8, 9, 11, 15, 20, 21, 28
948	<i>Poa annua</i> L.	Poaceae	
949	<i>Poa bulbosa</i> L.	Poaceae	0, 2, 9, 15, 23, 25
950	<i>Poa ligulata</i> Boiss.	Poaceae	0, 7, 8, 9, 15, 20, 21, 25, 28
951	<i>Poa trivialis</i> L.	Poaceae	0, 9
952	<i>Podospermum laciniatum</i> (L.) DC.	Asteraceae	0
953	<i>Polycarpon polycarpoides</i> (Biv.) Zodda ex Fiori	Caryophyllaceae	0, 5, 25
954	<i>Polycarpon tetraphyllum</i> (L.) L. subsp. <i>tetraphyllum</i>	Caryophyllaceae	
955	<i>Polycnemum fontanesii</i> Durieu & Moq.	Amaranthaceae	0, 9
956	<i>Polygala monspeliaca</i> L.	Polygalaceae	9
957	<i>Polygala nicaeensis</i> subsp. <i>mediterranea</i> Chodat	Polygalaceae	0, 3, 8, 9
958	<i>Polygonum aviculare</i> L. subsp. <i>aviculare</i>	Polygonaceae	0, 9
959	<i>Polypodium cambricum</i> L.	Polypodiaceae	0
960	<i>Polypogon monspeliensis</i> (L.) Desf.	Poaceae	
961	<i>Polystichum aculeatum</i> (L.) Roth	Polypodiaceae	0, 2, 8, 9, 15, 22, 28
962	<i>Polystichum setiferum</i> (Forssk.) T. Moore ex Woynar	Polypodiaceae	0, 1, 2, 9, 12, 25, 28
963	<i>Populus nigra</i> L. subsp. <i>nigra</i>	Salicaceae	6
964	<i>Potamogeton lucens</i> L.	Potamogetonaceae	4
965	<i>Potentilla caulescens</i> subsp. <i>djurdjurae</i> (Chabert) Romo	Rosaceae	0, 3, 5, 7, 8, 15, 21, 25, 28
966	<i>Potentilla hispanica</i> Zimmeter	Rosaceae	
967	<i>Potentilla micrantha</i> Ramond ex DC.	Rosaceae	0, 8, 9, 12, 25, 28
968	<i>Potentilla recta</i> L. subsp. <i>recta</i>	Rosaceae	0, 5, 28
969	<i>Potentilla reptans</i> L. var. <i>reptans</i>	Rosaceae	22, 28
970	<i>Prasium majus</i> L.	Lamiaceae	
971	<i>Primula vulgaris</i> subsp. <i>atlantica</i> (Maire & Wilczek) Greuter & Burdet	Primulaceae	0, 3, 8, 11, 12, 15
972	<i>Prospero autumnale</i> (L.) Speta	Asparagaceae	
973	<i>Prospero obtusifolium</i> (Poir.) Speta	Asparagaceae	0

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
927	41, 43, 44	Yes			
928	31, 41, 42, 43	Yes	P00507221	Alg-Mor	RR
929	43	Yes			
930	30, 41, 43, 44	Yes			
931	41, 43	Yes			
932	41, 42, 43	Yes	MPU007595		
933				Alg-Tun	
934	32, 35, 41, 42, 43	Yes	P00489626	Alg-Mor-Tun	
935				Alg	R
936	30, 38, 41, 42, 43	Yes			
937	29, 36, 37, 43		BC-834803		AR
938	41, 43	Yes			
939	32, 35, 41, 42, 43, 44	Yes			
940	41	Yes			
941					AR
942	29, 30, 31, 40, 41, 43	Yes		Alg-Mor	AR
943	41, 43	Yes			
944	45				R
945	41, 43	Yes			
946	41	Yes			
947	39, 43				R
948	43				
949	29, 30, 31, 32, 35, 38, 40, 41, 43	Yes			
950	41, 43		P00083489		R
951	41, 43				
952	43				
953	29, 42, 43				
954	43	Yes			
955				Alg-Mor	
956	41				
957	30, 32, 35, 41, 42, 43	Yes			
958	41	Yes			
959	29, 41, 43				
960	41				
961	43		MPU008525		R
962	29, 43	Yes			
963	43	Yes			R
964					R
965	29, 41, 42, 43	Yes	MPU001177	Alg	RR
966	43				RR
967	29, 30, 31, 32, 34, 35, 36, 38, 41, 42, 43	Yes			AR
968	41, 43		MPU005011		
969	29, 30, 41, 43	Yes			
970	41, 43				
971	29, 31, 41, 43	Yes		Alg-Mor	R
972	32, 35, 38, 41, 43				
973	41				

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
974	<i>Prunella laciniata</i> (L.) L.	Lamiaceae	0
975	<i>Prunella vulgaris</i> L. subsp. <i>vulgaris</i>	Lamiaceae	0, 5, 9, 12
976	<i>Prunus × fruticans</i> Weihe	Rosaceae	5, 21
977	<i>Prunus avium</i> (L.) L.	Rosaceae	0, 5, 9, 10, 11, 12
978	<i>Prunus insititia</i> L.	Rosaceae	0
979	<i>Prunus prostrata</i> Labill.	Rosaceae	0, 2, 5, 8, 9, 11, 15, 23, 25, 28
980	<i>Prunus spinosa</i> L.	Rosaceae	0
981	<i>Pseudognaphalium luteoalbum</i> (L.) Hilliard & B.L. Burtt	Asteraceae	0
982	<i>Pseudopodospermum brevicaule</i> (Vahl) Zaika, Sukhor. & N. Kilian	Asteraceae	0, 9, 25
983	<i>Pseudopodospermum undulatum</i> subsp. <i>deliosum</i> (Guss.) Bartolucci, Galasso & F. Conti	Asteraceae	0, 25
984	<i>Pseudoroegneria marginata</i> (H.Lindb.) V. Lucía, M.M. Mart.Ort., E. Rico & K. Anamth.-Jon.	Poaceae	7, 8, 18, 20, 28
985	<i>Pseudoturritis turrita</i> (L.) Al-Shehbaz	Brassicaceae	7, 8, 21
986	<i>Pteridium aquilinum</i> (L.) Kuhn	Dennstaedtiaceae	0, 9, 25
987	<i>Pteris vittata</i> L.	Pteridaceae	21
988	<i>Ptilostemon rhiphaeus</i> (Pau & Font Quer) Greuter	Asteraceae	0, 2, 5, 7, 8, 9, 11, 23, 25
989	<i>Pulicaria dysenterica</i> (L.) Bernh.	Asteraceae	
990	<i>Pulicaria odora</i> (L.) Rchb.	Asteraceae	0
991	<i>Punica granatum</i> L.	Lythraceae	
992	<i>Quercus canariensis</i> Willd.	Fagaceae	0, 9, 10, 12, 25, 28
993	<i>Quercus ilex</i> subsp. <i>ballota</i> (Desf.) Samp.	Fagaceae	0, 2, 9, 11, 25, 26, 28
994	<i>Quercus suber</i> L.	Fagaceae	0, 9
995	<i>Rabelera holostea</i> (L.) M.T. Sharples & E.A. Tripp	Caryophyllaceae	12
996	<i>Ranunculus aquatilis</i> L.	Ranunculaceae	0
997	<i>Ranunculus aurasiacus</i> Pомel	Ranunculaceae	0, 5, 7, 8, 9, 15, 28
998	<i>Ranunculus bulbosus</i> subsp. <i>aleae</i> (Willk.) Rouy & Foucaud	Ranunculaceae	8, 18, 28
999	<i>Ranunculus bullatus</i> L.	Ranunculaceae	0
1000	<i>Ranunculus ficaria</i> subsp. <i>ficariiformis</i> Rouy & Foucaud	Ranunculaceae	0, 9, 12, 25
1001	<i>Ranunculus flabellatus</i> Desf.	Ranunculaceae	0, 9
1002	<i>Ranunculus gramineus</i> L.	Ranunculaceae	0, 5, 28
1003	<i>Ranunculus hederaceus</i> L.	Ranunculaceae	0, 5
1004	<i>Ranunculus macrophyllus</i> Desf. subsp. <i>macrophyllus</i>	Ranunculaceae	4
1005	<i>Ranunculus millefoliatus</i> Vahl	Ranunculaceae	0, 5, 9, 28
1006	<i>Ranunculus paludosus</i> Poir.	Ranunculaceae	0
1007	<i>Ranunculus spicatus</i> Desf. sensu lato	Ranunculaceae	
1008	<i>Ranunculus spicatus</i> subsp. <i>blepharicarpos</i> (Boiss.) Grau	Ranunculaceae	0, 10, 12
1009	<i>Ranunculus spicatus</i> Desf. subsp. <i>spicatus</i>	Ranunculaceae	10, 12
1010	<i>Ranunculus trichophyllus</i> Chaix	Ranunculaceae	9, 17
1011	<i>Raphanus raphanistrum</i> L. subsp. <i>raphanistrum</i>	Brassicaceae	
1012	<i>Reichardia picroides</i> (L.) Roth	Asteraceae	0
1013	<i>Reseda alba</i> L.	Resedaceae	9
1014	<i>Reseda decursiva</i> Forssk.	Resedaceae	
1015	<i>Reseda luteola</i> L. subsp. <i>luteola</i>	Resedaceae	0
1016	<i>Reseda phyteuma</i> L.	Resedaceae	0
1017	<i>Retama raetam</i> subsp. <i>bovei</i> (Spach) Talavera & Gibbs	Fabaceae	0
1018	<i>Retama sphaerocarpa</i> (L.) Boiss.	Fabaceae	0, 2, 9
1019	<i>Rhagadiolus edulis</i> Gaertn.	Asteraceae	

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
974	29, 30, 41, 42, 43	Yes			
975	42, 43	Yes			AR
976	43	Yes			
977	36, 41, 42, 43, 44	Yes			
978	41, 43				
979	29, 30, 31, 33, 36, 37, 41, 42, 43	Yes			
980	41				
981					
982	42				
983	43				
984	31, 43	Yes	MPU010632	Alg-Mor	R
985	43				R
986	36, 38, 41, 42, 43, 44	Yes			R
987					
988	29, 31, 32, 35, 36, 37, 38, 41, 42, 43	Yes		Alg-Mor	R
989	41, 43				
990	36, 37, 41, 42, 43	Yes			
991	43, 44	Yes			
992	36, 41, 43	Yes	P06850968		
993	31, 34, 35, 36, 37, 40, 41, 42, 43, 44	Yes	P06847797		
994	41, 43, 44	Yes			
995					R
996	43				
997	30, 38, 41		ENSA66	Alg-Mor	R
998	41, 43	Yes	MPU002598		
999	32, 35, 38, 43		BC-Tremols-864827		
1000	30, 41, 42, 43	Yes	ENSA132		
1001	41			Alg-Mor-Tun	
1002	41		ENSA65		
1003					
1004	29, 41, 42, 43	Yes	ENSA124		
1005	30, 32, 34, 35, 41, 43				
1006	30, 31, 41, 43	Yes			
1007	41	Yes			
1008	29, 30, 31, 36, 37, 42, 43	Yes			
1009					RR
1010		Yes			
1011	41, 43	Yes			
1012	41, 43	Yes			
1013	41, 42, 43	Yes			
1014	30				
1015	43	Yes	P05366228		
1016	43	Yes			R
1017					
1018	41, 43	Yes			
1019	37, 43				R

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
1020	<i>Rhagadiolus stellatus</i> (L.) Gaertn.	Asteraceae	0
1021	<i>Rhamnus alaternus</i> L.	Rhamnaceae	
1022	<i>Rhamnus alpina</i> L.	Rhamnaceae	0, 2, 5, 8, 9, 10, 11, 14, 15, 16, 18, 23, 25
1023	<i>Rhamnus cathartica</i> L. var. <i>cathartica</i>	Rhamnaceae	3, 7, 8
1024	<i>Rhamnus myrtifolia</i> Willk. subsp. <i>myrtifolia</i>	Rhamnaceae	0, 2, 5, 6, 11, 14, 25
1025	<i>Rhamnus oleoides</i> L. subsp. <i>oleoides</i>	Rhamnaceae	0
1026	<i>Rhamphospermum pubescens</i> (L.) Al-Shehbaz	Brassicaceae	0, 2, 9
1027	<i>Rhaponticoides africana</i> (Lam.) M.V. Agab. & Greuter	Asteraceae	0
1028	<i>Rhaponticum coniferum</i> (L.) Greuter	Asteraceae	
1029	<i>Rhodalsine geniculata</i> (Poir.) F.N. Williams	Caryophyllaceae	0
1030	<i>Ribes petraeum</i> Wulfen	Grossulariaceae	0, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 21, 23, 25, 28
1031	<i>Ribes uva-crispa</i> L. subsp. <i>uva-crispa</i>	Grossulariaceae	0, 2, 5, 6, 7, 8, 9, 11, 14, 21, 28
1032	<i>Rindera gymnandra</i> (Coss.) Gürke	Boraginaceae	0, 2, 5, 7, 8, 9, 11, 15, 21
1033	<i>Roemeria argemone</i> (L.) C.Morales, R.Mend. & Romero García	Papaveraceae	
1034	<i>Roemeria hybrida</i> (L.) DC.	Papaveraceae	0
1035	<i>Romulea battandieri</i> Bég.	Iridaceae	
1036	<i>Romulea bulbocodium</i> (L.) Sebast. & Mauri	Iridaceae	0
1037	<i>Romulea penzigi</i> Bég.	Iridaceae	7, 8, 15, 28
1038	<i>Rosa agrestis</i> Savi	Rosaceae	0, 5, 6
1039	<i>Rosa canina</i> L.	Rosaceae	0, 8, 9, 18, 22, 28
1040	<i>Rosa corymbifera</i> Borkh.	Rosaceae	4
1041	<i>Rosa deseglisei</i> Boreau	Rosaceae	0, 28
1042	<i>Rosa dumalis</i> Bechst.	Rosaceae	4
1043	<i>Rosa micrantha</i> Borrer ex Sm.	Rosaceae	5
1044	<i>Rosa montana</i> Chaix ex Vill.	Rosaceae	0, 5, 6, 7, 8, 28
1045	<i>Rosa pouzinii</i> Tratt.	Rosaceae	0, 5, 25
1046	<i>Rosa pulverulenta</i> M. Bieb.	Rosaceae	0, 4, 5, 6, 7, 8, 9, 23, 25, 28
1047	<i>Rosa sempervirens</i> L.	Rosaceae	0
1048	<i>Rosa stylosa</i> Desv.	Rosaceae	0, 5, 8
1049	<i>Rosa × andegavensis</i> Bastard	Rosaceae	0, 5
1050	<i>Rostraria cristata</i> (L.) Tzvelev	Poaceae	9
1051	<i>Rubia peregrina</i> L. sensu lato	Rubiaceae	
1052	<i>Rubia peregrina</i> L. subsp. <i>peregrina</i>	Rubiaceae	
1053	<i>Rubia peregrina</i> subsp. <i>longifolia</i> (Poir.) O. Bolòs	Rubiaceae	
1054	<i>Rubus incanescens</i> (DC.) Bertol.	Rosaceae	
1055	<i>Rubus ulmifolius</i> Schott	Rosaceae	0, 9, 25
1056	<i>Rumex acetosella</i> subsp. <i>angiocarpus</i> (Murb.) Murb.	Polygonaceae	0, 25
1057	<i>Rumex bucephalophorus</i> L. subsp. <i>bucephalophorus</i>	Polygonaceae	0
1058	<i>Rumex conglomeratus</i> Murray	Polygonaceae	0, 25
1059	<i>Rumex crispus</i> L.	Polygonaceae	0
1060	<i>Rumex induratus</i> Boiss. & Reut.	Polygonaceae	0, 9, 25, 28
1061	<i>Rumex obtusifolius</i> L. subsp. <i>obtusifolius</i>	Polygonaceae	0, 5, 7, 8, 9, 21, 28
1062	<i>Rumex pulcher</i> L. subsp. <i>pulcher</i>	Polygonaceae	
1063	<i>Rumex spinosus</i> L.	Polygonaceae	
1064	<i>Rumex thyrsoides</i> Desf.	Polygonaceae	0
1065	<i>Rumex tuberosus</i> L. subsp. <i>tuberous</i>	Polygonaceae	0, 2, 9, 25
1066	<i>Ruscus aculeatus</i> L.	Asparagaceae	0, 9, 10, 11

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
1020	36	Yes			
1021	30, 41, 42, 43, 44	Yes			
1022	29, 31, 33, 41, 43	Yes	MPU001644		AR
1023	41				RR
1024	29, 33, 42, 43	Yes			AR
1025	41, 43				
1026	43		G00417927		
1027	41, 42, 43				
1028	32, 35, 43	Yes			
1029					
1030	41, 43		MPU005287		RR
1031	43				RR
1032	29, 33, 41		G00394719	Alg	R
1033	43				R
1034					
	1035		MPU001369	Alg	R
1036	29, 41, 43	Yes			
1037				Alg	RR
1038		Yes			
1039	30, 36, 37, 38, 40, 41, 42, 43, 44	Yes	MPU002007		
1040					
1041					
1042		Yes			
1043		Yes			AR
1044	31, 32, 34, 35, 38, 43				R
1045	43	Yes			
1046	29, 31, 33, 36, 37, 41, 42, 43	Yes	P00124472		R?
1047	41, 42, 43	Yes			
1048					RR
1049					
1050	41	Yes			
1051	41				
1052	43				
1053	43				
1054	30, 38, 41, 43	Yes			R
1055	36, 37, 41, 42, 43, 44	Yes			
1056	30, 41, 43				
1057	30, 41, 42, 43	Yes			
1058	41, 43, 44				
1059	41				
1060	36, 37, 41, 43				R
1061					RR
1062	41, 43				
1063	41	Yes			
1064	36, 37, 43	Yes			
1065	31, 41, 43	Yes			
1066	30, 31, 36, 38, 41, 42, 43, 44	Yes			

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
1067	<i>Ruscus hypophyllum</i> L.	Asparagaceae	
1068	<i>Ruta angustifolia</i> Pers.	Rutaceae	9
1069	<i>Ruta chalepensis</i> L.	Rutaceae	
1070	<i>Ruta montana</i> (L.) L.	Rutaceae	0
1071	<i>Sabulina mediterranea</i> (Ledeb. ex Link) Rchb.	Caryophyllaceae	0, 5
1072	<i>Sabulina tenuifolia</i> (L.) Rchb. subsp. <i>tenuifolia</i>	Caryophyllaceae	0
1073	<i>Sabulina verna</i> subsp. <i>kabylica</i> (Pomel) Dillenb. & Kadereit	Caryophyllaceae	0, 2, 5, 7, 8, 9, 21, 25, 28
1074	<i>Sagina apetala</i> Ard.	Caryophyllaceae	0, 5, 28
1075	<i>Salix alba</i> L.	Salicaceae	
1076	<i>Salix atrocinerea</i> Brot.	Salicaceae	
1077	<i>Salix pedicellata</i> Desf. subsp. <i>pedicellata</i>	Salicaceae	0, 9, 25
1078	<i>Salvia argentea</i> L.	Lamiaceae	0
1079	<i>Salvia barrelieri</i> Ettl.	Lamiaceae	0
1080	<i>Salvia jordanii</i> J.B.Walker	Lamiaceae	
1081	<i>Salvia phlomoides</i> Asso	Lamiaceae	
1082	<i>Salvia rosmarinus</i> Spenn.	Lamiaceae	0, 9
1083	<i>Salvia sclarea</i> L.	Lamiaceae	0, 2, 8, 23, 25
1084	<i>Salvia verbenaca</i> L.	Lamiaceae	
1085	<i>Salvia viridis</i> L.	Lamiaceae	0
1086	<i>Sambucus ebulus</i> L.	Viburnaceae	0, 1, 2, 5, 9, 11, 15, 25
1087	<i>Sambucus nigra</i> L.	Viburnaceae	
1088	<i>Samolus valerandi</i> L.	Primulaceae	0
1089	<i>Sanguisorba ancistroides</i> (Desf.) Ces.	Rosaceae	
1090	<i>Sanguisorba mauritanica</i> Desf.	Rosaceae	0, 5
1091	<i>Sanguisorba minor</i> Scop. sensu lato	Rosaceae	
1092	<i>Sanguisorba minor</i> subsp. <i>balearica</i> (Nyman) Muñoz Garm. & C. Navarro	Rosaceae	
1093	<i>Sanguisorba verrucosa</i> (Link ex G. Don) Ces.	Rosaceae	0, 9
1094	<i>Sanicula europaea</i> L.	Apiaceae	0, 5, 8, 12
1095	<i>Santolina pectinata</i> Lag. subsp. <i>pectinata</i>	Asteraceae	0, 5, 8, 9, 23, 25
1096	<i>Saponaria sicula</i> Raf. subsp. <i>sicula</i>	Caryophyllaceae	0, 1, 2, 3, 7, 8, 15, 21, 25, 28
1097	<i>Saxifraga carpetana</i> Boiss. & Reut. subsp. <i>carpetana</i>	Saxifragaceae	0, 5, 9, 12, 15, 25, 28
1098	<i>Saxifraga dichotoma</i> Willd.	Saxifragaceae	8, 21
1099	<i>Saxifraga globulifera</i> Desf.	Saxifragaceae	9, 25
1100	<i>Saxifraga numidica</i> Maire	Saxifragaceae	
1101	<i>Saxifraga trubutiana</i> Engl. & Irmsch.	Saxifragaceae	0, 2, 23, 28
1102	<i>Saxifraga tridactylites</i> L.	Saxifragaceae	0, 5
1103	<i>Scabiosa atropurpurea</i> subsp. <i>maritima</i> (L.) Arcang.	Caprifoliaceae	0, 8, 25
1104	<i>Scabiosa columbaria</i> L.	Caprifoliaceae	
1105	<i>Scabiosa daucoides</i> Desf.	Caprifoliaceae	0, 5
1106	<i>Scabiosa ochroleuca</i> L.	Caprifoliaceae	0, 5, 7, 8, 21, 25
1107	<i>Scabiosa semipapposa</i> Salzm. ex DC.	Caprifoliaceae	0
1108	<i>Scandix australis</i> L. subsp. <i>australis</i>	Apiaceae	0, 5
1109	<i>Scandix pecten-veneris</i> L.	Apiaceae	
1110	<i>Scilla peruviana</i> L.	Asparagaceae	0
1111	<i>Scirpoides holoschoenus</i> (L.) Soják	Cyperaceae	
1112	<i>Scleranthus annuus</i> L. subsp. <i>annuus</i>	Caryophyllaceae	0, 2, 3, 5, 21, 25, 28
1113	<i>Scleranthus delortii</i> Gren.	Caryophyllaceae	0, 25
1114	<i>Scolymus grandiflorus</i> Desf.	Asteraceae	

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
1067	41				
1068	43, 44				
1069	41				
1070	44	Yes			
1071					
1072	43				
1073	29, 30, 41, 42, 43	Yes	MPU005827	Alg-Mor	R
1074					
1075	43, 44				
1076	41				R
1077	41, 43	Yes			
1078					
1079					
1080	43	Yes			R
1081	41				
1082	41, 43, 44				
1083	41, 43				R
1084	30, 41, 43	Yes			
1085					
1086	41, 42, 43	Yes			AR
1087	34, 41, 44	Yes			R
1088					
1089	43				AR
1090	43			Alg-Tun	
1091	41	Yes			
1092	43				
1093	32, 35, 42, 43	Yes	BC-613923		
1094	41				
1095	30, 41, 43	Yes	G00385018		R
1096	30, 33, 41, 43	Yes	P05075542		R
1097	29, 31, 36, 43	Yes	BC-659264		
1098	41		MPU008999		R
1099	29, 30, 32, 35, 41, 42, 43	Yes	MPU007596		
1100	30, 39			Alg	RR
1101					
1102	34, 35, 41, 43				
1103	41, 42, 43	Yes			
1104	41				R
1105			MPU007487	Alg-Tun	
1106	43	Yes	MPU023437		R
1107	43				
1108	30, 43				
1109	41	Yes			
1110	41				
1111	41				
1112	30				R
1113					R
1114	30, 38, 41, 43	Yes			

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
1115	<i>Scolymus hispanicus</i> L.	Asteraceae	
1116	<i>Scorpiurus muricatus</i> L.	Fabaceae	
1117	<i>Scorpiurus vermiculatus</i> L.	Fabaceae	
1118	<i>Scorzoneroidea cichoriacea</i> (Ten.) Greuter	Asteraceae	8
1119	<i>Scorzoneroidea hispidula</i> (Del.) Greuter & Talavera	Asteraceae	
1120	<i>Scrophularia auriculata</i> L. subsp. <i>auriculata</i>	Scrophulariaceae	0, 25
1121	<i>Scrophularia canina</i> L. subsp. <i>canina</i>	Scrophulariaceae	0, 25
1122	<i>Scrophularia laevigata</i> Vahl	Scrophulariaceae	0, 5, 9
1123	<i>Scrophularia tenuipes</i> Coss. & Durieu	Scrophulariaceae	5, 8, 25
1124	<i>Scutellaria columnae</i> All. subsp. <i>columnae</i>	Lamiaceae	0, 5, 8, 9
1125	<i>Sedum acre</i> L.	Crassulaceae	0, 2, 3, 5, 8, 25
1126	<i>Sedum album</i> L. subsp. <i>album</i>	Crassulaceae	0, 9, 28
1127	<i>Sedum caeruleum</i> L.	Crassulaceae	0, 9, 25
1128	<i>Sedum cepaea</i> L.	Crassulaceae	0, 8
1129	<i>Sedum cespitosum</i> (Cav.) DC.	Crassulaceae	0
1130	<i>Sedum dasypodium</i> L. subsp. <i>dasyphyllum</i>	Crassulaceae	0, 2, 9, 23, 25, 28
1131	<i>Sedum gypsicola</i> Boiss. & Reut. subsp. <i>gypsicola</i>	Crassulaceae	0, 2, 4, 5, 19
1132	<i>Sedum magellense</i> Ten.	Crassulaceae	0, 2, 5, 7, 8, 9, 15, 28
1133	<i>Sedum mucizonia</i> (Ortega) Raym.-Hamet	Crassulaceae	0
1134	<i>Sedum multiceps</i> Coss. & Durieu	Crassulaceae	0
1135	<i>Sedum pubescens</i> Vahl	Crassulaceae	
1136	<i>Sedum rubens</i> L.	Crassulaceae	
1137	<i>Selaginella denticulata</i> (L.) Spring	Selaginellaceae	0, 9, 25
1138	<i>Selinopsis montana</i> Coss. & Durieu ex Batt.	Apiaceae	0, 2, 5, 8, 9, 15, 23, 25
1139	<i>Senecio balansae</i> Boiss. & Reut.	Asteraceae	0, 9, 23, 25
1140	<i>Senecio glaucus</i> subsp. <i>coronopifolius</i> (Maire) C. Alexander	Asteraceae	
1141	<i>Senecio leucanthemifolius</i> Poir. subsp. <i>leucanthemifolius</i>	Asteraceae	9
1142	<i>Senecio perralderianus</i> Coss. & Durieu subsp. <i>perralderianus</i>	Asteraceae	0, 5, 8, 9, 10, 11, 12, 23, 24
1143	<i>Senecio vulgaris</i> L.	Asteraceae	
1144	<i>Serapias lingua</i> L. subsp. <i>lingua</i>	Orchidaceae	
1145	<i>Serapias parviflora</i> Parl.	Orchidaceae	
1146	<i>Serapias strictiflora</i> Welw. ex Veiga	Orchidaceae	
1147	<i>Serapias vomeracea</i> (Burm. f.) Briq.	Orchidaceae	
1148	<i>Sesamoides purpurascens</i> (L.) G. López	Resedaceae	
1149	<i>Seseli atlanticum</i> Boiss.	Apiaceae	0, 5, 8, 25
1150	<i>Sherardia arvensis</i> L.	Rubiaceae	0, 9
1151	<i>Sideritis incana</i> L.	Lamiaceae	0, 2
1152	<i>Sideritis montana</i> L. subsp. <i>montana</i>	Lamiaceae	
1153	<i>Silene andryalifolia</i> Pomel	Caryophyllaceae	0, 2, 5, 8, 9, 18, 25, 28
1154	<i>Silene atlantica</i> Coss. & Durieu	Caryophyllaceae	0, 5, 8, 9, 28
1155	<i>Silene bellidifolia</i> Juss. ex Jacq.	Caryophyllaceae	
1156	<i>Silene choulettii</i> Coss.	Caryophyllaceae	0, 5, 8, 12
1157	<i>Silene colorata</i> subsp. <i>trichocalycina</i> (Fenzl) Maire	Caryophyllaceae	0
1158	<i>Silene disticha</i> Willd.	Caryophyllaceae	
1159	<i>Silene fuscata</i> Link ex Brot.	Caryophyllaceae	
1160	<i>Silene gallica</i> L. var. <i>gallica</i>	Caryophyllaceae	0, 5, 9, 21, 28
1161	<i>Silene imbricata</i> Desf.	Caryophyllaceae	0, 28

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
1115	29, 41, 43, 44	Yes			
1116	32, 35, 41, 43	Yes			
1117	41				
1118	43				AR
1119	43				
1120	43	Yes			
1121	41, 43, 44	Yes			
1122	43				
1123				Alg-Tun	R
1124	43	Yes			R
1125	40, 41, 42, 43	Yes			AR
1126	39, 41, 42, 43	Yes			
1127	29, 36, 37, 40, 41, 42, 43	Yes			
1128					R
1129					
1130	32, 33, 34, 35, 41, 42, 43	Yes			
1131		Yes			
1132	33, 34, 35, 43				RR
1133					R
1134	30			Alg	R
1135	29, 43	Yes			
1136	41				
1137	41, 43	Yes			
1138	30, 31, 32, 35, 41, 43		MPU019317	Alg-Tun	AR
1139	36, 37, 41, 42, 43	Yes			
1140	30				
1141	42, 43	Yes			
1142	30, 31, 33, 36, 41, 42, 43	Yes	G00610655	Alg	
1143	41, 42, 43				
1144	41, 43, 45	Yes			
1145	45	Yes			
1146	45				
1147	41				RR
1148	30				AR
1149	31, 38, 43			Alg-Mor-Tun	R
1150	30, 41, 42, 43	Yes			
1151					
1152	41				
1153	41, 43	Yes	P00527293		AR
1154	29, 36, 37, 38, 43		P04927440	Alg-Tun	
1155	41				
1156	43		MPU287447	Alg	
1157		Yes	P04940287		
1158	41				
1159	41	Yes	P04914286		
1160	41	Yes	P04914161		
1161	43		P05109923	Alg	

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
1162	<i>Silene latifolia</i> Poir. subsp. <i>latifolia</i>	Caryophyllaceae	0
1163	<i>Silene neglecta</i> Ten.	Caryophyllaceae	0
1164	<i>Silene nocturna</i> L. subsp. <i>nocturna</i>	Caryophyllaceae	0
1165	<i>Silene patula</i> Desf. subsp. <i>patula</i>	Caryophyllaceae	0, 5
1166	<i>Silene pomelii</i> Batt. subsp. <i>pomelii</i>	Caryophyllaceae	
1167	<i>Silene pseudoatocion</i> Desf.	Caryophyllaceae	0
1168	<i>Silene rosulata</i> Soy.-Will. & Godr. subsp. <i>rosulata</i>	Caryophyllaceae	0
1169	<i>Silene secundiflora</i> Otth subsp. <i>secundiflora</i>	Caryophyllaceae	0, 28
1170	<i>Silene stricta</i> L.	Caryophyllaceae	
1171	<i>Silene tridentata</i> Desf.	Caryophyllaceae	
1172	<i>Silene velutinoides</i> Pомел	Caryophyllaceae	
1173	<i>Silene vulgaris</i> (Moench) Gärcke subsp. <i>vulgaris</i>	Caryophyllaceae	0
1174	<i>Simethis mattiazzii</i> (Vand.) G. López & E. Jarvis	Asphodelaceae	0
1175	<i>Sinapis pubescens</i> L.	Brassicaceae	
1176	<i>Sison amomum</i> L.	Apiaceae	0, 5
1177	<i>Sisymbrium crassifolium</i> Cav.	Brassicaceae	
1178	<i>Sisymbrium officinale</i> (L.) Scop.	Brassicaceae	0
1179	<i>Smilax aspera</i> L.	Smilacaceae	
1180	<i>Smyrnium olusatrum</i> L.	Apiaceae	0
1181	<i>Smyrnium perfoliatum</i> L. subsp. <i>perfoliatum</i>	Apiaceae	0, 2, 5, 8, 25
1182	<i>Smyrnium perfoliatum</i> subsp. <i>rotundifolium</i> (Mill.) Bonnier & Layens	Apiaceae	
1183	<i>Solanum nigrum</i> L.	Solanaceae	
1184	<i>Solanum villosum</i> Mill.	Solanaceae	0
1185	<i>Solenopsis laurentia</i> (L.) C. Presl	Campanulaceae	0, 5, 9
1186	<i>Solidago virgaurea</i> L. subsp. <i>virgaurea</i>	Asteraceae	0, 1, 2, 3, 8, 9, 11, 12, 15
1187	<i>Sonchus asper</i> subsp. <i>glaucescens</i> (Jord.) Ball	Asteraceae	0, 5
1188	<i>Sonchus maritimus</i> L.	Asteraceae	
1189	<i>Sonchus oleraceus</i> L.	Asteraceae	
1190	<i>Sonchus tenerrimus</i> L. subsp. <i>tenerrimus</i>	Asteraceae	
1191	<i>Spartium junceum</i> L.	Fabaceae	0, 9, 25, 28
1192	<i>Spergularia bocconeи</i> (Scheele) Asch. & Graebn.	Caryophyllaceae	0
1193	<i>Spergularia rubra</i> (L.) J. Presl & C. Presl	Caryophyllaceae	5, 7, 28
1194	<i>Spiranthes spiralis</i> (L.) Chevall.	Orchidaceae	
1195	<i>Stachys circinata</i> L'Hér.	Lamiaceae	0, 2, 5, 9
1196	<i>Stachys duriaeи</i> de Noé	Lamiaceae	
1197	<i>Stachys marrubiifolia</i> Viv.	Lamiaceae	
1198	<i>Stachys mialhesii</i> de Noé	Lamiaceae	8
1199	<i>Stachys ocymastrum</i> (L.) Briq.	Lamiaceae	
1200	<i>Staelhelina dubia</i> L.	Asteraceae	0, 5
1201	<i>Staphisagria macrosperma</i> Spach	Ranunculaceae	
1202	<i>Stellaria apetala</i> Ucria	Caryophyllaceae	0
1203	<i>Stellaria media</i> (L.) Vill.	Caryophyllaceae	
1204	<i>Stipa apertifolia</i> Martinovský	Poaceae	0, 2, 7, 8, 20, 21, 25, 28
1205	<i>Stipa barbata</i> Desf.	Poaceae	0
1206	<i>Stipa pulcherrima</i> K.Koch	Poaceae	
1207	<i>Stoibrax dichotomum</i> (L.) Raf.	Apiaceae	
1208	<i>Sulla glomerata</i> (F.Dietr.) B.H.Chi & H.Ohashi	Fabaceae	
1209	<i>Taeniatherum caput-medusae</i> (L.) Nevski	Poaceae	0

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
1162	41, 43				
1163					
1164	41, 43		P05033915		
1165	29, 30, 31, 36, 38, 41, 43	Yes	P00527225	Alg-Mor-Tun	R
1166	43			Alg-Mor	
1167	43		P05165306	Alg-Mor	
1168	29				R
1169	41				R
1170	41				
1171	43				R
1172	41				R
1173	29, 41, 42, 43, 44	Yes	P04914481		
1174	41, 43				
1175		29, 31, 32, 35, 36, 37, 42, 43			
1176					RR
1177	43				
1178	41, 43				
1179	41, 43	Yes			
1180	30, 41, 43	Yes			
1181	43	Yes			R
1182	29, 30, 42, 43				R
1183	41	Yes			
1184					
1185	41		P00494813		
1186	30, 31, 43	Yes			AR
1187					R
1188	41				
1189	32, 35, 41, 43, 44	Yes			
1190	43				
1191	41, 43	Yes	P02891517		AR
1192			MPU010009		
1193					RR
1194	45				
1195	41, 43		G00431675		
1196	43		MPU004951	Alg-Tun	
1197	43				R
1198	31			Alg	R
1199	41, 43	Yes			
1200					
1201	41				
1202	36, 42, 43				
1203	37, 38, 41				
1204	43		MPU010521		R
1205					
1206	41				R
1207	43				
1208	41, 43				
1209					

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
1210	<i>Tamarix gallica</i> L.	Tamaricaceae	
1211	<i>Tanacetum corymbosum</i> (L.) Sch. Bip. subsp. <i>corymbosum</i>	Asteraceae	0, 5, 8, 9
1212	<i>Taraxacum erythrospermum</i> Andr. ex Besser	Asteraceae	0
1213	<i>Taraxacum inaequilobum</i> Pomel	Asteraceae	9, 25
1214	<i>Taraxacum megalorrhizon</i> (Forssk.) Hand.-Mazz.	Asteraceae	
1215	<i>Taraxacum obovatum</i> (Willd.) DC.	Asteraceae	9, 15, 25
1216	<i>Taxus baccata</i> L.	Taxaceae	0, 2, 6, 8, 9, 10, 11, 12, 21, 25, 28
1217	<i>Teesdalia coronopifolia</i> (J.P. Bergeret) Thell.	Brassicaceae	0
1218	<i>Teucrium atratum</i> Pomel	Lamiaceae	8, 12
1219	<i>Teucrium chamaedrys</i> subsp. <i>algeriense</i> Rech.f.	Lamiaceae	0, 2, 9, 25
1220	<i>Teucrium flavum</i> subsp. <i>glaucum</i> (Jord. & Fourr.) Ronniger	Lamiaceae	0, 25
1221	<i>Teucrium kabyicum</i> Batt.	Lamiaceae	0, 9
1222	<i>Teucrium polium</i> L. subsp. <i>polium</i>	Lamiaceae	0, 2, 9, 25
1223	<i>Teucrium pseudochamaepitys</i> L.	Lamiaceae	0, 9
1224	<i>Teucrium pseudoscorodonia</i> Desf.	Lamiaceae	0, 5
1225	<i>Thalictrum minus</i> L. subsp. <i>minus</i>	Ranunculaceae	0, 2, 4, 5, 8, 9, 25, 28
1226	<i>Thapsia garganica</i> L. subsp. <i>garganica</i>	Apiaceae	0, 25
1227	<i>Thapsia gummifera</i> (Desf.) Spreng.	Apiaceae	0, 2
1228	<i>Thapsia meoides</i> (Desf.) Guss.	Apiaceae	0, 5
1229	<i>Thapsia thapsioides</i> (Desf.) Simonsen, Rønsted, Weitzel & Spalik	Apiaceae	
1230	<i>Thapsia villosa</i> L. var. <i>villosa</i>	Apiaceae	0
1231	<i>Thesium divaricatum</i> Mert. & W.D.J. Koch	Santalaceae	0, 5, 7, 18, 22, 25, 28
1232	<i>Thinopyrum elongatum</i> (Host) D.R. Dewey	Poaceae	
1233	<i>Thlaspi arvense</i> L.	Brassicaceae	
1234	<i>Thymelaea hirsuta</i> (L.) Endl.	Thymelaeaceae	
1235	<i>Thymus algeriensis</i> Boiss. & Reut.	Lamiaceae	0, 5, 25
1236	<i>Thymus dreatensis</i> Batt.	Lamiaceae	
1237	<i>Thymus lanceolatus</i> Desf.	Lamiaceae	0, 5, 6, 8, 9, 21, 25
1238	<i>Thymus munbyanus</i> subsp. <i>ciliatus</i> (Desf.) Greuter & Burdet	Lamiaceae	
1239	<i>Thymus numidicus</i> Poir.	Lamiaceae	6, 9
1240	<i>Thymus pallescens</i> de Noé	Lamiaceae	0
1241	<i>Thymus willdenowii</i> Boiss.	Lamiaceae	0, 5, 9
1242	<i>Tolpis virgata</i> (Desf.) Bertol. subsp. <i>virgata</i>	Asteraceae	0
1243	<i>Torilis africana</i> Spreng.	Apiaceae	7
1244	<i>Torilis arvensis</i> (Huds.) Link	Apiaceae	
1245	<i>Torilis elongata</i> (Hofmanns. & Link) Samp.	Apiaceae	0, 5
1246	<i>Torilis nodosa</i> (L.) Gaertn.	Apiaceae	0
1247	<i>Torminalis glaberrima</i> (Gand.) Sennikov & Kurtto	Rosaceae	0, 2, 4, 5, 6, 7, 8, 9, 10, 11, 18, 25, 28
1248	<i>Trachelium caeruleum</i> L.	Campanulaceae	
1249	<i>Tragopogon crocifolius</i> L. subsp. <i>crocifolius</i>	Asteraceae	0, 3, 5, 7, 8, 9, 21
1250	<i>Tragopogon porrifolius</i> L. subsp. <i>porrifolius</i>	Asteraceae	0
1251	<i>Trifolium angustifolium</i> L.	Fabaceae	0
1252	<i>Trifolium arvense</i> L.	Fabaceae	
1253	<i>Trifolium bocconeii</i> Savi	Fabaceae	
1254	<i>Trifolium campestre</i> Schreb. subsp. <i>campestre</i>	Fabaceae	0, 25
1255	<i>Trifolium cherleri</i> L.	Fabaceae	0
1256	<i>Trifolium fragiferum</i> L. var. <i>fragiferum</i>	Fabaceae	0

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
1210	44	Yes			
1211	29, 41, 43	Yes			
1212	30, 41, 43, 44	Yes			
1213	41			Alg-Mor-Tun	
1214	41				AR
1215	30, 41, 43	Yes			
1216	29, 30, 31, 32, 35, 38, 41, 42, 43, 44	Yes	P01661664		AR
1217					
1218				Alg-Tun	R
1219	30, 32, 34, 35, 38, 41, 42, 43	Yes			
1220	30, 41, 42, 43	Yes			
1221	43			Alg	R
1222	29, 30, 31, 32, 35, 38, 41, 42, 43, 44	Yes			
1223	41, 43				
1224	41, 43		BC-Tremols-974587		
1225	31, 32, 35, 42, 43	Yes			R
1226	30, 41, 42, 43, 44	Yes			
1227		Yes			
1228	41				
1229	43			Alg-Mor-Tun	
1230	30, 43	Yes			
1231	30, 31, 42, 43	Yes	MPU004586		AR
1232	32, 34, 35				
1233	30				RR
1234	41				
1235	29, 32, 33, 35, 38, 41, 43	Yes	MPU004591	Alg-Mor-Tun	
1236	41			Alg	RR
1237				Alg	R
1238	38, 40, 41, 43			Alg-Mor	AR
1239	41, 43, 44		MPU007796	Alg-Tun	AR
1240				Alg-Tun	
1241	40, 41, 42, 43				
1242	43				
1243	36, 42, 43				R
1244	37, 38, 41, 42, 43	Yes			
1245	30, 41				R
1246	41, 43	Yes			
1247	29, 41, 43				R
1248	41				
1249	41, 43				R
1250	41, 43, 44	Yes			R
1251	41, 43				
1252	40, 41, 43				
1253	41				
1254	30, 41, 42, 43	Yes			
1255	41, 43				
1256	41				

No	Taxa names	Families	References for the historical data (1854-1965) <sup>1</sup>
1257	<i>Trifolium glomeratum</i> L.	Fabaceae	0
1258	<i>Trifolium hirtum</i> All.	Fabaceae	
1259	<i>Trifolium lappaceum</i> L.	Fabaceae	
1260	<i>Trifolium ligusticum</i> Balb. ex Loisel.	Fabaceae	
1261	<i>Trifolium micranthum</i> Viv.	Fabaceae	0
1262	<i>Trifolium nigrescens</i> Viv. subsp. <i>nigrescens</i>	Fabaceae	
1263	<i>Trifolium ochroleucon</i> L. subsp. <i>ochroleucon</i>	Fabaceae	0, 5, 7, 8
1264	<i>Trifolium pallidum</i> Waldst. & Kit.	Fabaceae	0
1265	<i>Trifolium pratense</i> L. subsp. <i>pratense</i>	Fabaceae	0, 9
1266	<i>Trifolium repens</i> L. subsp. <i>repens</i>	Fabaceae	0, 15, 25
1267	<i>Trifolium resupinatum</i> L. var. <i>resupinatum</i>	Fabaceae	0
1268	<i>Trifolium scabrum</i> L.	Fabaceae	0
1269	<i>Trifolium squarrosum</i> L. subsp. <i>squarrosum</i>	Fabaceae	0
1270	<i>Trifolium stellatum</i> L.	Fabaceae	
1271	<i>Trifolium striatum</i> L.	Fabaceae	0, 5
1272	<i>Trifolium subterraneum</i> L.	Fabaceae	0
1273	<i>Trifolium tomentosum</i> L.	Fabaceae	
1274	<i>Trigonella gladiata</i> M. Bieb.	Fabaceae	0, 2
1275	<i>Tripodion tetraphyllum</i> (L.) Fourr.	Fabaceae	0, 9
1276	<i>Triisetum flavescens</i> (L.) P. Beauv. subsp. <i>flavescens</i>	Poaceae	0, 2, 9, 25
1277	<i>Tuberaria guttata</i> (L.) Fourr.	Cistaceae	
1278	<i>Tulipa sylvestris</i> subsp. <i>australis</i> (Link) Pamp.	Liliaceae	0, 9, 12, 25
1279	<i>Tulipa sylvestris</i> subsp. <i>primulina</i> (Baker) Maire & Weiller	Liliaceae	0
1280	<i>Turgenia latifolia</i> (L.) Hoffm.	Apiaceae	0
1281	<i>Turritis glabra</i> L.	Brassicaceae	0, 8, 9
1282	<i>Tussilago farfara</i> L.	Asteraceae	0, 3, 5, 8, 21
1283	<i>Ulex parviflorus</i> Pourr.	Fabaceae	
1284	<i>Ulmus minor</i> Mill. subsp. <i>minor</i>	Ulmaceae	25
1285	<i>Umbilicus horizontalis</i> (Guss.) DC.	Crassulaceae	0
1286	<i>Umbilicus intermedius</i> Boiss.	Crassulaceae	2
1287	<i>Umbilicus patens</i> Pomel	Crassulaceae	2
1288	<i>Umbilicus rupestris</i> (Salisb.) Dandy	Crassulaceae	0, 5, 9, 28
1289	<i>Urospermum dalechampii</i> (L.) Scop. ex F.W.Schmidt	Asteraceae	
1290	<i>Urtica dioica</i> L. subsp. <i>dioica</i>	Urticaceae	0, 28
1291	<i>Urtica membranacea</i> Poir. ex Savigny	Urticaceae	0
1292	<i>Urtica urens</i> L.	Urticaceae	
1293	<i>Valeriana calcitrapae</i> L.	Caprifoliaceae	0
1294	<i>Valeriana calycina</i> (Maire) Christenh. & Byng	Caprifoliaceae	2, 7, 8, 15, 18
1295	<i>Valeriana carinata</i> (Loisel.) Christenh. & Byng	Caprifoliaceae	0
1296	<i>Valeriana coronata</i> (L.) Mill.	Caprifoliaceae	
1297	<i>Valeriana dentata</i> (L.) All.	Caprifoliaceae	
1298	<i>Valeriana discoidea</i> (L.) Willd.	Caprifoliaceae	0
1299	<i>Valeriana eriocarpa</i> (Desv.) Christenh. & Byng	Caprifoliaceae	0, 5
1300	<i>Valeriana graciliflora</i> (Fisch. & C.A. Mey.) Byng & Christenh.	Caprifoliaceae	0, 9
1301	<i>Valeriana heterocarpa</i> (Pomel) Christenh. & Byng	Caprifoliaceae	0
1302	<i>Valeriana locusta</i> L.	Caprifoliaceae	0, 18
1303	<i>Valeriana maroccana</i> (Rouy) Christenh. & Byng	Caprifoliaceae	0, 5, 21

No	References for the current data (1988-2024) <sup>1</sup>	iNaturalist observations <sup>2</sup>	Herbaria specimens <sup>3</sup>	Endemicity type	Rarity form
1257	41, 42, 43				
1258	30				RR
1259	41, 43				
1260	41				R
1261					AR
1262	43				
1263	31, 41, 43	Yes			
1264					
1265	38, 41, 43	Yes			AR
1266	38, 41, 43	Yes			
1267	29, 41, 43	Yes			
1268	43	Yes			
1269	41, 43				
1270	30, 40, 41, 42, 43	Yes			
1271					
1272		Yes			
1273	41, 43				
1274	41, 43				
1275	41				
1276	31, 33, 38, 40, 43	Yes	MPU001456		
1277	41				
1278	29, 30, 31, 36, 41, 43	Yes			
1279				Alg-Mor	R
1280					
1281	42, 43		ENSA1073		AR
1282	41, 43, 44				R
1283	41				AR
1284	36, 37, 41, 43, 44	Yes			
1285	43	Yes			
1286					
1287				Alg-Mor-Tun	
1288	29, 30, 34, 36, 37, 41, 42, 43, 44	Yes			
1289	41, 43	Yes			
1290	41, 43, 44	Yes			
1291	43	Yes			
1292	41, 43	Yes			
1293	30, 43	Yes			
1294	43		MPU017620	Alg	RR
1295					
1296	43				
1297	43				R
1298			BC-Tremols-960364		
1299					
1300	30, 31, 41, 43	Yes			
1301				Alg-Mor	
1302	43	Yes	BC-137870		
1303					RR