THE INTERIM TECHNICAL REPORT

ALBANIA

Extension of EURISCO for Crop Wild Relatives (CWR) in situ data and preparation of pilot countries' data sets

Tirana , September 17, 2023

Executive Summary

Definition of a Crop Wild Relative

The term **Crop wild relatives** (CWR) can be defined, for example, as all taxa, which are within the same genus as the crop. 'A crop wild relative is a wild plant taxon that has an indirect use derived from its relatively close genetic relationship to a crop; this relationship is defined in terms of the CWR belonging to gene pools 1 or 2, or taxon groups 1 to 4 of the crop' (Maxted et al. 2006).

Albania is known for a diversity of rich biological landscape. At the origin of this diversity lie geographical location, geological factors, pedologic, hydrological , landscape and climate .The high diversity of ecosystems and habitats (ecosystems marine , coastal lagoon sites wetlands , the delta of rivers, sand dunes, lakes , rivers , bush pronounced Mediterranean , deciduous , coniferous and mixed meadows and pastures subalpine and alpine ecosystems of the high mountains), offers a rich variety of rich plant, mainly Mediterranean, which is best reflected in the network of protected areas of the country. The majority of the country territory is hilly and mountainous. The coastal lowlands have typically Mediterranean climate, while highlands have continental climate. Due to the climate and territory variability, the country is very rich in terms of flora and many different crops are grown.

The agricultural sector is very important for the economy as it provides employment for more than half of the active labour force in the country. The vast majority of farms are small (< 2 ha) and their production is in part for self-consumption and in part marketed. In general, farmers cultivate a mixture of annual and perennial crops, such as wheat, maize, bean, vegetables, alfalfa, fruit trees, olives etc.

Studies made about Albanian Flora have identified that there are about 3 250 species of plants in the country, from 11 000 types of plants that are in Europe (or 29.5%), with a density of 113 kinds per 1 000 km2 of land area. From such diversified vegetation, more than 300 species are aromatic and/or medicinal plants, which constitute an important natural economic resource that it is not used completely and properly yet. Aromatic and/or medicinal flora of Albanian lands is

distinguished not only for its diversity of populations within species, but also for their high content of aromatical and pharmacological substance.

Although the country is very rich in plant genetic resources, it should be noted that the interest and attention to the conservation and sustainable use of these resources took off in the '90s. Following the establishment of the National Genebank in 1998, significant efforts have been undertaken to identify, collect and conserve plant genetic resources for food and agriculture. Nevertheless, these resources, which are the base of food security, still face serious problems and threats that require continued surveillance as well as national and international coordinated efforts. As per the preservation of plant genetic resources for food and agriculture (PGRFA) in Albania, the greatest efforts have been dedicated to ex-situ conservation, undertaken by the National Albanian Genebank, which is under responsibility of the Agricultural University of Tirana, and five Agricultural Technology Transfer Centres (ATTCs), under the responsibility of the Ministry of Agriculture Rural Development and Water Administration (MARDWA).

Despite these achievements, it is considered that quite a large diversity of PGRFA in Albania has not been taken care of. Indeed, the situation of PGRFA occurring in-situ appears quite problematic. Albania ranks third in the world as per concentration of priority crop wild relatives (CWR) and national parks and protected areas cover more than 80,000 hectares. Nevertheless, the management plans of these areas do not address the management of CWR and wild food plants (WFP), two very important gene-pool, which represent a major source of adaptive diversity particularly at risk if not adequately preserved.

Crop wild relatives (CWR) and wild harvested plant species (WHP) constitute an important element of the nation's plant genetic resources (PGR) available for utilization. Our survey's result suggests that there is an urgent need to identify and effectively conserve crop wild relatives. While increased habitat conservation will be important to conserve most species, those that are predicted to undergo strong range size reductions should be a priority for collecting and inclusion in our genebank.

Contents

1. Introduction and Background

1.1 Ecogeography of Albania

Albania is a country in Southeast Europe which borders Montenegro to the northwest, Kosovo to the northeast, North Macedonia to the east, and Greece to the south and southeast. It has a coast on the Adriatic Sea to the west and on the Ionian Sea to the southwest. The country has a total area of 28,748 km², with a population of about 2.87 million people. The majority of the country territory is hilly and mountainous. The coastal lowlands have typically Mediterranean climate, while highlands have a continental climate. Due to the climate and territory variability, the country is very rich in terms of flora and many different crops are grown.

Albania is a small Mediterranean country is terrestrial, divided as such:

- 25 % plains
- 47 % hills
- 28 % mountains

The remainder of the territory, with a surface of 1 348 km2, is represented by watermark. The boundary of Albania is 1 094 km, of which 657 km are ground boundary, 316 km marine boundary, 48 km fluvial boundary, and 72 km are lake Boundary. Albania is a Mediterranean country; it is only 72 km from the Apennine peninsula (the nearest point is Otranto Channel).The length of Albania (North-South) is 340 km and the width (East-West) is 148 km. To the North and Northwest Albania is bounded by Montenegro, to the Northeast it is bounded by Kosovo, to the East it is bounded by the North Macedonia, and to the South and Southeast it is bounded by Greece (Fig 1).

Fig.1. MAP of Albania

Albania is mainly a mountainous country: mountains and hills occupy 76.6% of its territory. The average altitude of Albania is 708 m above sea level. Mountains dominate there with an average height below 2 000 m and lower than 1 000 m. The highest peak is Korabi with 2 751 m, which is located in Albanian Alps. Mountains occupy the entire Northern and inner parts and forestry areas of Albania, while plains lie mainly along the Adriatic coasts from Hani Hotit in the North to Vlora and Delvina valley in the South. Plains of an altitude of more than 800 m are found in Korca valley (see fig 2). Albania has over 150 rivers and streams that flow through its territory to the Adriatic and Ionian seas. Valleys primarily stretch from the North to the West.

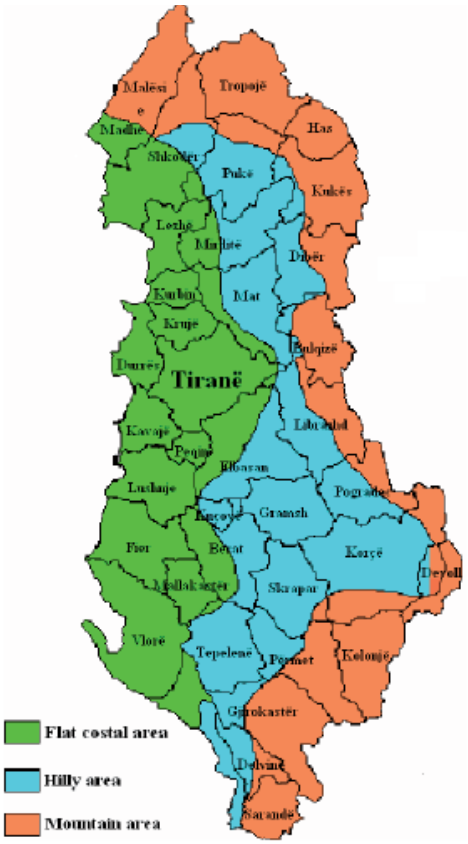

Fig.2 Agro-ecologic zones of Albania

Albania occupies an overall land area of 2 875 000 ha, of which 699 000 ha (24% of the total land area) are agricultural lands; 1 041 000 ha (36%) forests; 423 000 ha (15%) meadows and pastures and 712 000 ha (25%) other land areas (urban areas, non-productive lands, internal waters, etc). Arable land covers an amount of 578 000 ha (82.69% of agricultural lands) and 121 000 ha (17.31%) are with fruit trees and vineyards. The average agricultural land per capita is therefore below 0.2 ha, which is the smallest throughout Europe.

According to the relief map, agricultural lands consist of the following:

- 304 000 ha (43.3%) are fields
- 239 000 ha (34.0%) hilly land
- 159 000 ha (22.7%) mountainous land

Albania benefits from a Mediterranean climate, characterized by mild winters with abundant precipitation and hot and dry summers. The total annual precipitation is about 1500 mm. The country has relatively abundant fresh water resources (seven main rivers run from east to west).

Albania, owning to its very suitable geographic Mediterranean position, to its land features and variable relief and also to its very changeable climate, is characterized by a rich ecosystem of diversified flora. It has a considerable number of primitive cultivars and native populations and wild species. Primitive cultivars and native populations are mainly cultivated in farmers' gardens in the most remote mountain villages of the country.

Despite its small size, Albania holds a rich biological diversity and flora. This is due to its geographical position in the Mediterranean region and in the Balkan Peninsula and to the varied types of landscape (Paparasito et al. 1988). Albanian Flora includes about 3,300 plant species or about 30% of European Flora (Paparasito et al. 1988), of which 30 are endemic species and about 180 sub-endemic species (Vangjeli et al. 1995).

1.2 Plant Genetic Resources for Food and Agriculture of Albania

Currently, about 7000 plant species are used worldwide. This figure does not include ornamental plants and shrubs. Since the beginning of agriculture nearly 10 thousand years ago, it has been possible to create a huge diversity of varieties and specific regional ecotypes from cultivated species. Since ancient times, people have also used a considerable number of wild species for food and raw material. Management of pastures and forests is based on the wild species, and in this context a lot of wild species have great usage values. As a result, genetic resources are economically and ecologically important.

Out of the 3,330 plant species existing in Albania, it is estimated that about 700 species are considered as plant genetic resources for food and agriculture. Currently, about 15 arable species, 15 forage species, 35 vegetable species, and 20 fruit-tree species are cultivated in the country. In addition to these agricultural species, medicinal and aromatic plants (MAPs), which widely occur in the country, comprise an important natural economic resource which is not

widely and sustainably exploited. More than 300 species of MAPs belong to the Albanian flora that occur in the wild. They are important natural and economic resources of the country. About 182 of these species are rather widespread and many of them are harvested and exported.

The preservation of biodiversity and natural variation within species has become a global concern. Natural variation is essential to the evolutionary process and the long-term survival of species. Land conversion resulting in habitat loss, fragmentation, and degradation is the most significant factor responsible for the endangerment of species in Albania. Lands have been, and continue to be, converted for commercial, touristic and residential purposes. Old landraces and obsolete cultivars represent a national heritage that must be conserved for future generations. On the other hand, wild species, which are related to ancestral forms of cultivated crops (crop wild relatives, CWRs), are a valuable genepool for plant breeding, or for direct introduction as a new crop (Guarino et al. 1995).

Although the country is very rich in plant genetic resources, it should be noted that the interest and attention to the conservation and sustainable use of these resources took off in the '90s. Following the establishment of the National Genebank in 1998, significant efforts have been undertaken to identify, collect and conserve plant genetic resources for food and agriculture. Nevertheless, these resources, which are the base of food security, still face serious problems and threats that require continued monitoring as well as national and international coordinated efforts.

In regard to the preservation of plant genetic resources for food and agriculture (PGRFA) in Albania, the greatest efforts have been dedicated to *ex-situ* conservation, undertaken by the National Genebank, which is under responsibility of the Agricultural University of Tirana, and five Agricultural Technology Transfer Centres (ATTCs), under the responsibility of the Ministry of Agriculture Rural Development and Water Administration (MARDWA).

The Albanian National inventory of base collections includes a total of 4105 accessions. Out of these, 3219 accessions are maintained as seeds under long-term conservation at the National Genebank, and the remaining 886 accessions are conserved in the field collection (614 by the National Genebank and 272 by ATTC Vlora). Working collections of about 8000 seed accessions of mainly wheat, bean and vegetables, are maintained at ATTC Lushnja.

2 Identify priority taxa and populations of CWR

After we signed the contract between our Institutions (Bioversity International and Agricultural University of Tirana), we started the work based on the scope of work of this project.

Identifying national priority taxa (species) and populations (specific groups or geographic areas) of crop wild relatives (CWR) is an important step in their conservation and management.

Actually in Albania we don't have any national priority taxa list of CWR.

First of all, we organized the meeting with the Head of Albannia GenBank , and based on this priority, we have prepared the working plan.

2.1 Assemble a Multidisciplinary stacheholder of PGR in Albania:

- We organized a round table with all of experts from various fields such as botany (experts from the Natural Sciences Museum of Albania), ecology, agriculture, genetics, and conservation (experts from Albanian Gen Bank, form Agricultural University of Tirana, from Environment Ministry and experts for the different NGO that worked with PGR) to form a team that can collectively assess and prioritize CWR.

- We agreed for the importance of this national priority taxa of CWR in Albania and also we have prepared and working plan as below:

2.2 Compile Existing Data:

- We started the work to Compile Existing Data from the different institutions related to PGR.

- We gathered and reviewed existing data sources, including herbarium collections, research publications, government reports, and databases related to wild relatives of crops. This data provided valuable insights into the distribution and diversity of CWR in our country.

2.3 Consult Existing Red Lists:

- At the same time we checked this priority list with our National red list, if there are national red lists or conservation assessments that have already identified threatened or priority CWR species. These lists served as a starting point for our assessment.

2.4 Identify Crop Species and Their Relatives:

- Based on the above steps being complete, we created a list of important crop species grown wild in Albania and we identified their known wild relatives.

- We have consulted with the taxonomic experts of the Natural Sciences Museum of Albania and also with existing literature to confirm relationships.

2.5 Define Criteria for Prioritization:

- At the same time we established a set of criteria for prioritizing CWR taxa and populations for Albania. These criteria included factors like genetic diversity, rarity, ecological importance, potential for crop improvement.

We have evaluated the threats facing CWR populations, including habitat loss, climate change, invasive species, and overharvesting. Prioritize populations that are most at risk.

We have compiled the results into a draft-list of national priority CWR taxa and populations. This list was well-documented and include justifications for each priority.

On the end of this processed, we organized a second roundtable with all stakeholders as well with other stakeholders who may have traditional knowledge about CWR and their importance.

2.6 Prepare the national database structure

Creating a national database for CWR is a complex undertaking, and it is essential to involve experts and stakeholders at every stage of development. Additionally, it should be a flexible system that can evolve to accommodate new data and emerging research needs.

Preparing a national database structure for crop wild relatives (CWR) involves careful planning and organization to ensure efficient data collection, management, and accessibility. With e close cooperation with the experts of our national GenBank we have prepared the steps that helped us to create a structured database for CWR at the national level.

The experts of GenBank choose a database platform that can be incorporated into the database structure of our national genbank.

The experts selected a PostgreSQL data management software and also created a structured database schema that defines the tables, fields, and relationships necessary to store CWR data. Consider including tables for taxonomic information, geographic data and conservation status. They have developed data entry protocols and guidelines to ensure consistency and quality of data input. Standardize data fields, use controlled vocabularies or taxonomies, and implement data validation checks where possible.

The have developed a user-friendly data entry forms that guide users through the process of entering data accurately. At the same they have developed a system that allow regularly review and update the database structure and data collection protocols to adapt to changing needs and emerging technologies.

2.7 Developed in the darft of CWR web page

On the frame of this project, we have developed in the web page of National AGB, a draft page of CWR, where are included sub folders as: about CWR_al, CWR per crops, Inventory of CWR_al and Accessibility on CWR and their respective information and data. **https://qrgj.org/cwr/**

The experts of Albanian Gen bank are continuing the work for data import (transferring the data of our priority list of CWR to this database).

We hope that ever thing will be read till the end of this year…

3. Identifying the national network of data providers

We identified key public and private institutions for the organization of a national network of data providers. Based on the scope of the activities for the project with a strong cooperation with a head of Albanian Genbank, we have started the work to identify the national data providers of CWIR in Albania

Identifying key public and private institutions for the organization of a national network of data providers for crop wild relatives (CWR) was one of the important key issue activity for us.

These providers play a crucial role in collecting, managing, and sharing data related to CWR.

Some years ago Albanian Genbank Established a National Coordination Body with representatives from relevant government agencies, research institutions, conservation organizations, and other stakeholders. This body will be responsible for coordinating the network.

Based in our goals for organizing the network of data providers, the first activitiy was the organizing of the meeting with the member of our national coordination body to identify the national data provider of CWR.

3.1 Identifying and Engage Stakeholders:

We have identified all potential stakeholders, including government agencies as, academic institutions, botanic gardens, NGOs, farmers' organizations, and private sector partners.

We developed a working plan for engaging these stakeholders and encouraging their participation. On this working plan we have included the protocols for data collection, including information about CWR species.

4. Collecting and organizing the data for the national list of CWR

Creating a National List of Crop Wild Relatives (CWR) involved systematic data collection and organization. We have identified the target crops and their associated CWR. We involved different stakeholders, including botanists, agronomists, geneticists, researcher of AGB.

We have started the collected data on CWR while using:

1. The National Herbarium records: Access and analyze existing herbarium collections for CWR specimens.

2. Literature review: Review scientific publications, botanical records, and research articles

For Standardize collected data to ensure consistency, we used internationally recognized botanical nomenclature and data formats. We developed a data template or schema that includes key information such as scientific name, common name, location, etc.

We have a plan to share our CWR data https://qrgj.org/cwr/ of gene banks website.

4.1 Establishing a CWR inventory for Albania

CWR face the same threats as all other wild plant species. Widespread changes in land use, increasing intensification of agriculture, threats from invasive species, overexploitation and desertification are highlighted as the key threats to botanical diversity (Ford-Lloyd et al. 2011; Bilz et al 2011). These factors are also compounded by the ever mounting pressure that global climate change is likely to put on plant species distributions (Jarvis et al, 2008); Thuiller et al, 2005). Genetic erosion occurs as a result of these factors through population decline and hybridisation with alien species. If no action was taken to halt the rate of genetic erosion in CWR species then they would inevitably lose their value as a natural resource for crop improvement. The loss of potentially useful genetic resources in this way could compromise future food security. The importance of CWR as genetic resources and the threats that face them has been recognised by international and regional policies such as the Convention on Biological Diversity (UNEP, 1992), the Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture (FAO, 1996), the International Treaty on Plant

Genetic Resources for Food and Agriculture (FAO 2001) and the Updated Global Strategy for Plant Conservation (CBD, 2010). The Updated Global Strategy for Plant Conservation outlines targets to conserve 70% of the genetic diversity of crops, their wild relatives and other species of socio-economic use by 2020. The European Strategy for Plant Conservation (Planta Europa, 2008) also makes recommendations for the establishment of genetic reserves in Europe and making an assessment of ex situ holdings in order to fill gaps in conserved diversity.

The risk of losing potentially valuable genetic resources for feeding an ever growing population under increasing climatic strain has stimulated action to be taken in Europe.

The current Protected Area System (PAs) covers some 6% of Albania's area, including 13 national parks (56,440 ha), 204 nature monuments (4.780 ha), 26 managed nature reserves (42.958 ha), 5 protected landscapes/seascapes (29.873 ha) and 4 resource managed reserves (18.200 ha), classified according to IUCN protected area designation criteria. In addition, there have been new designations of PAs and NPs over the last decade and today their surface has increased to 166,691 ha, 16.6 % of the total forest area. Out of these four are strictly PAs (14.500 ha).

The Strategy of Biodiversity, outlined and approved by the Government in 2000, has proposed to increase the number and size of Albania's representative network of PAs with an increase in the total area to 435,600 ha, approximately 15% of the country´s territory, with 180,000 ha of NPs. This is more than double the current PAs area, reaching the European accepted norm of 15% of land area.

Table 1. Protected area in Albania

Category	No of Protected area	Area in ha
I (Strict Nature Reserves/Scientific reserves)	2	4800
II (National Parks	16	210501
III (Natural Monuments)	6	
IV(Regional Natural Park)	22	127180
V (Protected Landscape)	5	95864

VI (Protected Area of Managed Natural Resources)	4	18245
Total Protected Areas		**98180**

Albania has recently made significant progress in expanding the network of protected areas from 5.2% of the country's territory66 in 2005 to 16% in 2014

4.2 The priority CWR species in Albania

Before priority CWR species can be selected it is logical that a total list of CWR species that may occur within the country is established as an inventory list of national CWR diversity. A filtered version of the Crop Wild Relative Catalogue for Europe and the Mediterranean to include only taxa reported from Albania was used to provide a foundation from which a list of priority genera could be selected for harmonization with a list of Albanian flora. The catalogue is inclusive of all CWR taxa of potential value for agriculture as a whole, not just food and fodder production, and thus the Albanian inventory captures the same CWR groups.

The draft checklist of 472 CWR taxa was taxonomically based in the Flora of Albania . The status and synonyms of the unclear taxa were checked with the Albanian Flora volums. Nationally threatened or protected subspecies, are added in it... Native, archaeophyte, neophyte and alien species were included in the checklist. The final CWR checklist for Albania has 472 CWR taxa (of 86 genera and/or 470 species; 36 family).

Table 2. List of 86 Genus of CWR and WFP in Albania

1	Abelmoschus	29	Crepis	58	Opuntia
2	Abies	30	Dactylis	59	Phalaris
3	Aegilops	31	Daucus	60	Phleum
4	Agrostis	32	Dioscorea	61	Pimpinella
5	Allium	33	Diospyros	62	Pistacia
6	Amelanchier	34	Diplotaxis	63	Pisum
7	Arbutus	35	Festuca	64	Poa
8	Arctostaphylos	36	Ficus	65	Prunus
9	Asparagus	37	Foeniculum	66	Punica
10	Astragalus	38	Fragaria	67	Pyrus
11	Atriplex	39	Hordeum	68	Raphanus

12	Avena	40	Juglans	69	Ribes
13	Barbarea	41	Juniperus	70	Rosa
14	Bellis	42	Lactuca	71	Rorippa
15	Berberis	43	Laurus	72	Rorippa
16	Beta	44	Lathyrus	73	Rubus
17	Brassica	45	Lens	74	Rumex
18	Carum	46	Lepidium	75	Sambucus
19	Castanea	47	Linum	76	Salsola
20	Celtis	48	Lolium	77	Sinapis
21	Ceratonia	49	Lotus	78	Solanum
22	Cichorium	50	Lupinus	79	Sorbus
23	Citrullus	51	Malus	80	Trifolium
24	Colchicum	52	Medicago	81	Trisetum
25	Coriandrum	53	Melilotus	82	Triticum
26	Cornus	54	Mespilus	83	Tilia
27	Coryllus	55	Myrtus	84	Vaccinium
28	Crataegus	56	Olea	85	Vicia
		57	Onobrychis	86	Vitis

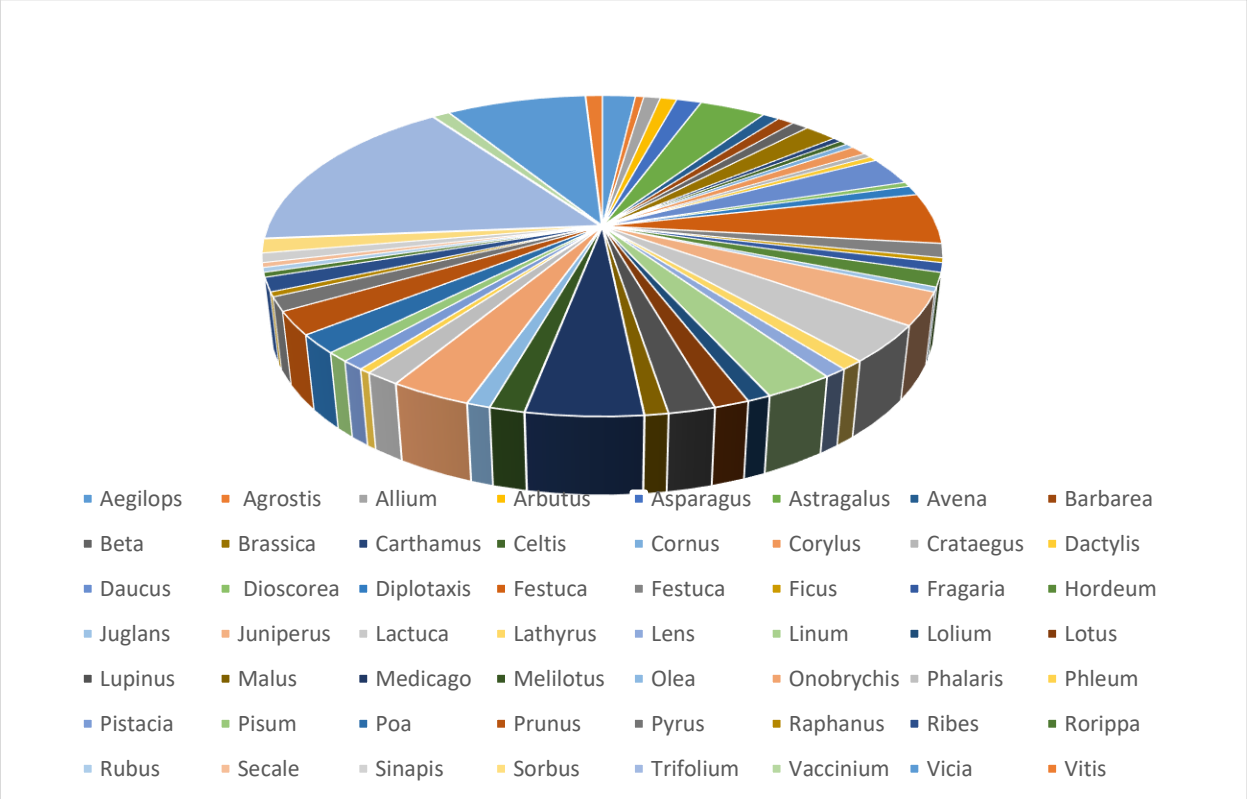

Fig. 3 CWR species or WFP in Albania

The priority CWR list for Albania was derived principally from the CWR catalogue for Europe and the Mediterranean rather than the Albanian flora. The decision was made to utilise the CWR Catalogue on the basis on the Albanian Flora. **(table of the list of Albania**). The CWR priority list for Albania has been produced to specifically address the food production system within Albania and Europe, as well as making consideration for crops of economic importance.

A recent assessment of global CWR priority taxa listed 1,667 taxa globally. The number of CWR priority differed from the national CWR strategy (81 taxa) and this can be attributed to differing methodologies and data availability. The study also shows Albania to be of global importance by the number of CWR taxa per unit area of country. This emphasises the importance for systematic action to be taken for CWR conservation within the country. A total of 472 taxa were selected through objective and subjective reasoning to arrive at a list of priority CWRs for Albania that are most likely to meet a future requirement for genetic resources based on the production of crops within both Albania and Europe.

4.3 Collections CWR stored in Albanian Gen Bank

Table 3. Collections CWR stored in Albanian Gen Bank

ALBANIA NATIONAL INVENTORY for CWR or WFP : Accessions summary by genus:		
Nr	Genus	Accessions
1	*Aegilops*	34
2	*Hordeum*	2
3	*Arbutus*	1
4	*Corylus*	14
5	*Crataegus*	2
6	*Juglans*	36
7	*Juniperus*	5
8	*Malus*	12
9	*Olea europea*	36
10	*Rubus ulmifolius*	1
11	*Pistacia lentiscus*	6
12	*Vaccinium*	11
13	*Prunus*	66
14	*Punica*	7

15	*Pyrus*	15
16	*Vitis vinifera sylvestris*	6
	Total	254

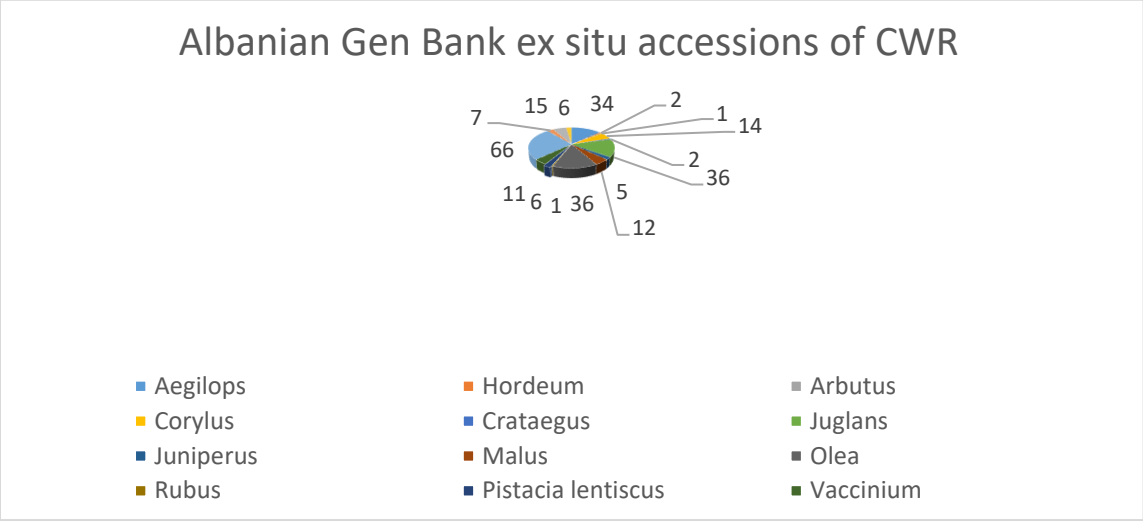

Fig.2 Albanian Gen Bank ex situ accessions of CWR

4.4 Threatened CWR species in Albania

The draft checklist of 472 CWR taxa found 36 species (of 19 genera) in different threatend status as ilustrated in fig. 4

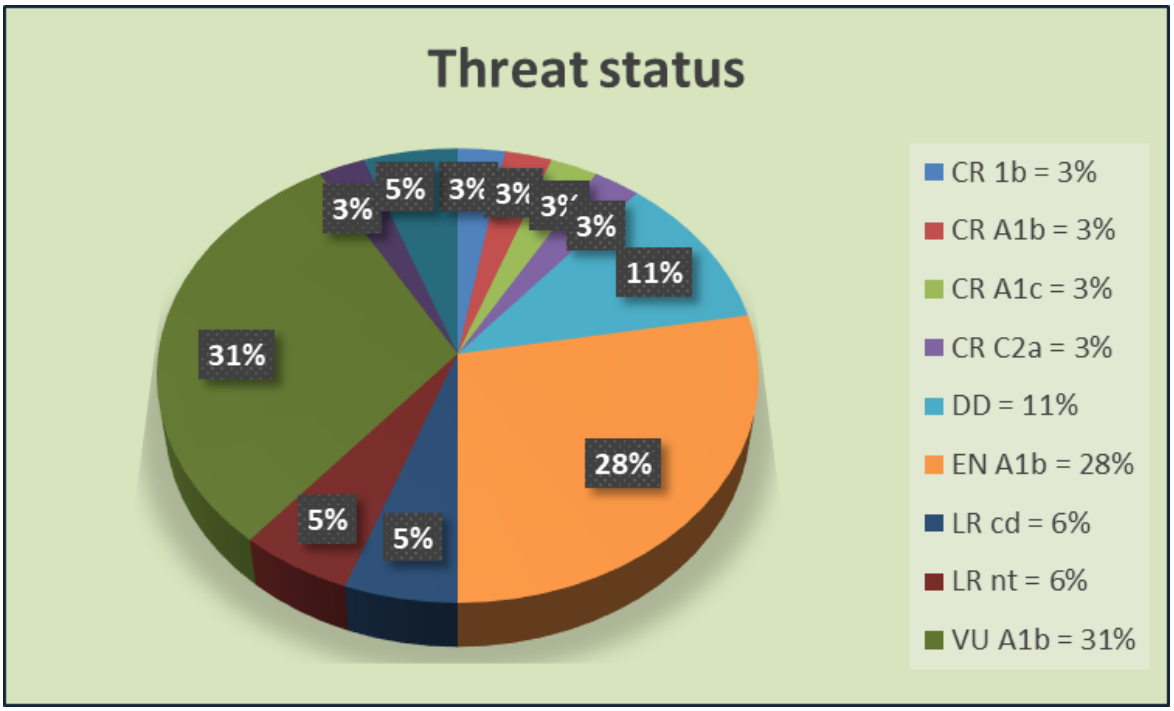

Fig. 4 The threated status of the CWR in Albania

5. Provide the data of National CWR list to EURISCO

From October to the end of December 2023, we will provide the data from your National Crop Wild Relatives (CWR) list to EURISCO (European Genetic Resources Search Catalog.

6. Annex

Table 4: priority CWR species of Albania

No	TAXON	GENUS	SPECIES	SPAUTHOR	STATUS	FAMILY
1	*Abelmoschus esculentus*	*Abelmoschus*	*esculentus*	(L.) Moench		Malvaceae
2	*Abies alba*	*Abies*	*alba*	Mill.		Pinaceae
3	*Aegilops geniculata*	*Aegilops*	*geniculata*	Roth		Graminaceae
4	*Aegilops neglecta*	*Aegilops*	*neglecta*	Req.		Graminaceae
5	*Aegilops triuncialis*	*Aegilops*	*triuncialis*	L.		Graminaceae
6	*Aegilops uniaristata*	*Aegilops*	*uniaristata*	Vis.		Graminaceae
7	*Agrostis canina*	*Agrostis*	*canina*	L.		Graminaceae
8	*Agrostis capilaris*	*Agrostis*	*capilaris*	L.		Graminaceae
9	*Agrostis castellana*	*Agrostis*	*castellana*	Boiss. et Reuter		Graminaceae
10	*Agrostis gigantea*	*Agrostis*	*gigantea*	Roth		Graminaceae
11	*Agrostis rupestris*	*Agrostis*	*rupestris*	All.		Graminaceae
12	*Agrostis stolonifera*	*Agrostis*	*stolonifera*	L.		Graminaceae
13	*Allium ampeloprasum*	*Allium*	*ampeloprasum*	L.		Liliaceae
14	*Allium atropurpureum*	*Allium*	*atropurpureum*	Waldst. et Kit.		Liliaceae
15	*Allium carinatum*	*Allium*	*carinatum*	L.		Liliaceae
16	*Allium cepa*	*Allium*	*cepa*	L.		Liliaceae
17	*Allium cupani*	*Allium*	*cupani*	Raf.		Liliaceae
18	*Allium dalmaticum*	*Allium*	*dalmaticum*	A. Kerner		Liliaceae
19	*Allium flavum*	*Allium*	*flavum*	L.		Liliaceae
20	*Allium margaritaceum*	*Allium*	*margaritaceum*	S. S.		Liliaceae
21	*Allium moschatum*	*Allium*	*moschatum*	L.		Liliaceae
22	*Allium paniculatum*	*Allium*	*paniculatum*	L.		Liliaceae
23	*Allium porrum*	*Allium*	*porrum*	L.		Liliaceae
24	*Allium pulchellum*	*Allium*	*pulchellum*	Don		Liliaceae

25	*Allium sativum*	*Allium*	*sativum*	L.		Liliaceae
26	*Allium saxatilis*	*Allium*	*saxatilis*	M.B.		Liliaceae
27	*Allium sibiricum*	*Allium*	*sibiricum*	L.		Liliaceae
28	*Allium sphaerocephalum*	*Allium*	*sphaerocephalum*	L.		Liliaceae
29	*Allium ursinum*	*Allium*	*ursinum*	L.		Liliaceae
30	*Allium vineale*	*Allium*	*vineale*	L.		Liliaceae
31	*Amelanchier ovalis*	*Amelanchier*	*ovalis*	Med.		Rosaceae
32	*Arbutus andrachne*	*Arbutus*	*andrachne*	L.	VU A2b	Ericaceae
33	*Arbutus unedo*	*Arbutus*	*unedo*	L.		Ericaceae
34	*Arctostaphylos alpinus*	*Arctostaphylos*	*alpinus*	(L.) Spreng.	LR cd	Ericaceae
35	*Arctostaphylos uva-ursi*	*Arctostaphylos*	*uva-ursi*	(L.) Spreng.	VU A2b	Ericaceae
36	*Asparagus acutifolius*	*Asparagus*	*acutifolius*	L.		Liliaceae
37	*Asparagus maritumus*	*Asparagus*	*maritumus*	Mill.		Liliaceae
38	*Asparagus plumosus*	*Asparagus*	*plumosus*	Baker		Liliaceae
39	*Asparagus sprengeri*	*Asparagus*	*sprengeri*	Regel		Liliaceae
40	*Asparagus tenuifolius*	*Asparagus*	*tenuifolius*	Lam.		Liliaceae
41	*Astragalus angustifolius*	*Astragalus*	*angustifolius*	Lam.		Leguminosae
42	*Astragalus autranii*	*Astragalus*	*autranii*	Bald.		Leguminosae
43	*Astragalus baldaccii*	*Astragalus*	*baldaccii*	Deg.	CR A1b	Leguminosae
44	*Astragalus creticus*	*Astragalus*	*creticus*	Lam.		Leguminosae
45	*Astragalus depressus*	*Astragalus*	*depressus*	L.		Leguminosae
46	*Astragalus exscapus*	*Astragalus*	*exscapus*	L.		Leguminosae
47	*Astragalus fialae*	*Astragalus*	*fialae*	Deg.	DD	Leguminosae
48	*Astragalus glyccyphyllos*	*Astragalus*	*glyccyphyllos*	L.		Leguminosae
49	*Astragalus hamosus*	*Astragalus*	*hamosus*	L.		Leguminosae
50	*Astragalus monspessulanus*	*Astragalus*	*monspessulanus*	L.		Leguminosae
51	*Astragalus onobrychis*	*Astragalus*	*onobrychis*	L.		Leguminosae
52	*Astragalus parnassi*	*Astragalus*	*parnassi*	Boiss.		Leguminosae
53	*Astragalus purpureus*	*Astragalus*	*purpureus*	Lam.		Leguminosae
54	*Astragalus sericophyllus*	*Astragalus*	*sericophyllus*	Griseb.		Leguminosae
55	*Astragalus sirinicus*	*Astragalus*	*sirinicus*	Ten.		Leguminosae

56	*Astragalus spruneri*	*Astragalus*	*spruneri*	Boiss.		Leguminosae
57	*Astragalus vesicarius*	*Astragalus*	*vesicarius*	L.		Leguminosae
58	*Atriplex hastata*	*Atriplex*	*hastata*	L.		Chenopodiaceae
59	*Atriplex hortensis*	*Atriplex*	*hortensis*	L.		Chenopodiaceae
60	*Atriplex patula*	*Atriplex*	*patula*	L.		Chenopodiaceae
61	*Atriplex rosea*	*Atriplex*	*rosea*	L.		Chenopodiaceae
62	*Atriplex tatarica*	*Atriplex*	*tatarica*	L.		Chenopodiaceae
63	*Avena barbata*	*Avena*	*barbata*	Pott		Graminaceae
64	*Avena byzantina*	*Avena*	*byzantina*	Koch		Graminaceae
65	*Avena fatua*	*Avena*	*fatua*	L.		Graminaceae
66	*Avena sativa*	*Avena*	*sativa*	L.		Graminaceae
67	*Avena sterilis*	*Avena*	*sterilis*	L.		Graminaceae
68	*Barbarea balcana*	*Barbarea*	*balcana*	Panč.	EN A1b	Cruciferae
69	*Barbarea bracteosa*	*Barbarea*	*bracteosa*	Guss.		Cruciferae
70	*Barbarea longirostris*	*Barbarea*	*longirostris*	Vel.		Cruciferae
71	*Barbarea vulgaris*	*Barbarea*	*vulgaris*	R.Br.	VU A1b	Cruciferae
72	*Bellis annua*	*Bellis*	*annua*	L.		Compositae
73	*Bellis perennis*	*Bellis*	*perennis*	L.		Compositae
74	*Bellis sylvestris*	*Bellis*	*sylvestris*	Cyr.		Compositae
75	*Berberis vulgaris*	*Berberis*	*vulgaris*	L.	CR C2a	Berberidaceae
76	*Beta vulgaris*	*Beta*	*vulgaris*	L.		Chenopodiaceae
77	*Beta vulgaris L. var. rapacea*	*Beta*	*vulgaris L. var. rapacea*	Heget.		Chenopodiaceae
78	*Beta vulgaris L. var. saccharifera*	*Beta*	*vulgaris L. var. saccharifera*	Hort.		Chenopodiaceae
79	*Brassica incana*	*Brassica*	*incana*	Ten.	VU A1b	Cruciferae
80	*Brassica napus*	*Brassica*	*napus*	(L.)DC.		Cruciferae
81	*Brassica nigra*	*Brassica*	*nigra*	(L.) Koch.		Cruciferae
82	*Brassica oleracea*	*Brassica*	*oleracea*	L.		Cruciferae
83	*Brassica rapa*	*Brassica*	*rapa*	L.		Cruciferae
84	*Carum carvi*	*Carum*	*carvi*	L.		Umbrelliferae
85	*Carum heldreichii*	*Carum*	*heldreichii*	Boiss.		Umbrelliferae
86	*Carum multiflorum*	*Carum*	*multiflorum*	(S.S.) Boiss.		Umbrelliferae

87	*Carum rigidulum*	*Carum*	*rigidulum*	(Viv.) Koch et DC.		Umbrelliferae
88	*Castanea sativa*	*Castanea*	*sativa*	Mill.		Fagaceae
89	*Celtis australis*	*Celtis*	*australis*	L.		Ulmaceae
90	*Celtis caucasica*	*Celtis*	*caucasica*	Willd.		Ulmaceae
91	*Ceratonia siliqua*	*Ceratonia*	*siliqua*	L.		Leguminosae
92	*Cichorium intibus*	*Cichorium*	*intibus*	L.		Compositae
93	*Citrullus vulgaris*	*Citrullus*	*vulgaris*	Schrad.		Cucurbitaceae
94	*Colchicum autumnale*	*Colchicum*	*autumnale*	L.	EN A1b	Liliaceae
95	*Colchicum cupanil*	*Colchicum*	*cupanil*	Guss.	EN A1b	Liliaceae
96	*Colchicum hungaricum*	*Colchicum*	*hungaricum*	Janka		Liliaceae
97	*Colchicum lingulatum*	*Colchicum*	*lingulatum*	Boiss. et Sprun.	EN A1b	Liliaceae
98	*Colchicum pieperianum*	*Colchicum*	*pieperianum*	Markgraf	EN A1b	Liliaceae
99	*Coriandrum sativum*	*Coriandrum*	*sativum*	L.		Umbrelliferae
100	*Cornus mas*	*Cornus*	*mas*	L.		Cornaceae
101	*Cornus sanguinea*	*Cornus*	*sanguinea*	L.		Cornaceae
102	*Coryllus avellana*	*Coryllus*	*avellana*	L.		Betulaceae
103	*Coryllus colurna*	*Coryllus*	*colurna*	L.	EN A1b	Betulaceae
104	*Crataegus heldreichii*	*Crataegus*	*heldreichii*	Boiss.	LR cd	Rosaceae
105	*Crataegus laciniata*	*Crataegus*	*laciniata*	Ucria		Rosaceae
106	*Crataegus monogyna*	*Crataegus*	*monogyna*	Jacq.		Rosaceae
107	*Crataegus nigra*	*Crataegus*	*nigra*	Waldst. et Kit.		Rosaceae
108	*Crataegus pentagyna*	*Crataegus*	*pentagyna*	Waldst. et Kit.		Rosaceae
109	*Crepis rubra*	*Crepis*	*rubra*	L.		Compositae
110	*Dactylis glomerata*	*Dactylis*	*glomerata*	L.		Graminaceae
111	*Daucus broteri*	*Daucus*	*broteri*	Ten.		Umbrelliferae
112	*Daucus carota*	*Daucus*	*carota*	L.		Umbrelliferae
113	*Daucus guttatus*	*Daucus*	*guttatus*	Sibth. et Sm.		Umbrelliferae
114	*Daucus sativus*	*Daucus*	*sativus*	(Hoffm.) Rochl.		Umbrelliferae
115	*Dioscorea balcanica*	*Dioscorea*	*balcanica*	Kos.		Dioscoreaceae
116	*Diospyros kaki*	*Diospyros*	*kaki*	L.		Ebenceae
117	*Diospyros lotus*	*Diospyros*	*lotus*	L.		Ebenceae

118	*Diplotaxis muralis*	*Diplotaxis*	*muralis*	DC.	Cruciferae
119	*Diplotaxis tenuifolia*	*Diplotaxis*	*tenuifolia*	DC.	Cruciferae
120	*Festuca amethystina*	*Festuca*	*amethystina*	L.	Graminaceae
121	*Festuca arundinacea*	*Festuca*	*arundinacea*	Schreb.	Graminaceae
122	*Festuca callieri*	*Festuca*	*callieri*	(Hack.) Mgf.	Graminaceae
123	*Festuca dalmatica*	*Festuca*	*dalmatica*	(Hack.) Richt.	Graminaceae
124	*Festuca duriuscula*	*Festuca*	*duriuscula*	L.	Graminaceae
125	*Festuca elatior*	*Festuca*	*elatior*	L.	Graminaceae
126	*Festuca fallax*	*Festuca*	*fallax*	Thuill.	Graminaceae
127	*Festuca gigantea*	*Festuca*	*gigantea*	(L.) Vill.	Graminaceae
128	*Festuca halleri*	*Festuca*	*halleri*	All.	Graminaceae
129	*Festuca heterophyla*	*Festuca*	*heterophyla*	Lam.	Graminaceae
130	*Festuca montana*	*Festuca*	*montana*	M.B.	Graminaceae
131	*Festuca poaeformis*	*Festuca*	*poaeformis*	Host	Graminaceae
132	*Festuca pseudovina*	*Festuca*	*pseudovina*	Hack.	Graminaceae
133	*Festuca pungens*	*Festuca*	*pungens*	Kit.	Graminaceae
134	*Festuca rubra*	*Festuca*	*rubra*	L.	Graminaceae
135	*Festuca spadicea*	*Festuca*	*spadicea*	L.	Graminaceae
136	*Festuca sulcata*	*Festuca*	*sulcata*	Hack.	Graminaceae
137	*Festuca supina*	*Festuca*	*supina*	Schur.	Graminaceae
138	*Festuca valida*	*Festuca*	*valida*	(Uechtr.) Penzes	Graminaceae
139	*Festuca violacea*	*Festuca*	*violacea*	Gaud.	Graminaceae
140	*Festuca xanthima*	*Festuca*	*xanthima*	Roem. et Schult.	Graminaceae
141	*Ficus carica*	*Ficus*	*carica*	L.	Moraceae
142	*Foeniculum vulgare*	*Foeniculum*	*vulgare*	Mill.	Umbrelliferae
143	*Fragaria moschata*	*Fragaria*	*moschata*	Duch.	Rosaceae
144	*Fragaria vesca*	*Fragaria*	*vesca*	L.	Rosaceae
145	*Fragaria viridis*	*Fragaria*	*viridis*	Duch.	Rosaceae
146	*Hordeum bulbosum*	*Hordeum*	*bulbosum*	L.	Graminaceae
147	*Hordeum crinitum*	*Hordeum*	*crinitum*	(Schreb.) Desf.	Graminaceae
148	*Hordeum distichon*	*Hordeum*	*distichon*	L.	Graminaceae

149	*Hordeum leporinum*	*Hordeum*	*leporinum*	Link		Graminaceae
150	*Hordeum maritimum*	*Hordeum*	*maritimum*	With.		Graminaceae
151	*Hordeum murinum*	*Hordeum*	*murinum*	L.		Graminaceae
152	*Hordeum vulgare*	*Hordeum*	*vulgare*	L.		Graminaceae
153	*Juglans regia*	*Juglans*	*regia*	L.	EN A1b	Juglandaceae
154	*Juniperus communis*	*Juniperus*	*communis*	L.	VU A1b	Cupressaceae
155	*Juniperus foetidissima*	*Juniperus*	*foetidissima*	Willd.	EN A1b	Cupressaceae
156	*Juniperus macrocarpa*	*Juniperus*	*macrocarpa*	S. S.	VU A1b	Cupressaceae
157	*Juniperus nana*	*Juniperus*	*nana*	Willd.	CR 1b	Cupressaceae
158	*Juniperus oxycedrus*	*Juniperus*	*oxycedrus*	L.	VU A1b	Cupressaceae
159	*Juniperus phoenicea*	*Juniperus*	*phoenicea*	L.	EN A1b	Cupressaceae
160	*Lactuca aurea*	*Lactuca*	*aurea*	(Schultz Bip) Stebbins		Compositae
161	*Lactuca graeca*	*Lactuca*	*graeca*	Boiss.	DD	Compositae
162	*Lactuca perennis*	*Lactuca*	*perennis*	L.		Compositae
163	*Lactuca quercina*	*Lactuca*	*quercina*	L.		Compositae
164	*Lactuca saligna*	*Lactuca*	*saligna*	L.		Compositae
165	*Lactuca sativa*	*Lactuca*	*sativa*	L.		Compositae
166	*Lactuca serriola*	*Lactuca*	*serriola*	L.		Compositae
167	*Lactuca viminea*	*Lactuca*	*viminea*	(L.) J. et C. Presl		Compositae
168	*Lathyrus alpestris*	*Lathyrus*	*alpestris*	(Waldst. et Kit.) Kit.		Leguminosae
169	*Lathyrus annuus*	*Lathyrus*	*annuus*	L.		Leguminosae
170	*Lathyrus aphaca*	*Lathyrus*	*aphaca*	L.		Leguminosae
171	*Lathyrus bauhinii*	*Lathyrus*	*bauhinii*	Genty		Leguminosae
172	*Lathyrus cicera*	*Lathyrus*	*cicera*	L.		Leguminosae
173	*Lathyrus clymenum*	*Lathyrus*	*clymenum*	L.		Leguminosae
174	*Lathyrus digitatus*	*Lathyrus*	*digitatus*	(Bieb.) Fiori		Leguminosae
175	*Lathyrus grandiflorus*	*Lathyrus*	*grandiflorus*	Sibth. et Sm.		Leguminosae
176	*Lathyrus hirsutus*	*Lathyrus*	*hirsutus*	L.		Leguminosae
177	*Lathyrus incospicus*	*Lathyrus*	*incospicus*	L.		Leguminosae
178	*Lathyrus latifolius*	*Lathyrus*	*latifolius*	L.		Leguminosae
179	*Lathyrus laxiflorus*	*Lathyrus*	*laxiflorus*	(Desf.) O. Kuntze		Leguminosae

180	*Lathyrus montanus*	*Lathyrus*	*montanus*	Bernh.		Leguminosae
181	*Lathyrus niger*	*Lathyrus*	*niger*	(L.) Bernh.		Leguminosae
182	*Lathyrus nissolia*	*Lathyrus*	*nissolia*	L.		Leguminosae
183	*Lathyrus ochrus*	*Lathyrus*	*ochrus*	(L.) DC.		Leguminosae
184	*Lathyrus palustris*	*Lathyrus*	*palustris*	L.		Leguminosae
185	*Lathyrus pannonicus*	*Lathyrus*	*pannonicus*	(Jacq.) Garcke		Leguminosae
186	*Lathyrus pratensis*	*Lathyrus*	*pratensis*	L.		Leguminosae
187	*Lathyrus sativus*	*Lathyrus*	*sativus*	L.		Leguminosae
188	*Lathyrus setifolius*	*Lathyrus*	*setifolius*	L.		Leguminosae
189	*Lathyrus sphaericus*	*Lathyrus*	*sphaericus*	Retz.		Leguminosae
190	*Lathyrus sylvestris*	*Lathyrus*	*sylvestris*	L.		Leguminosae
191	*Lathyrus tuberosus*	*Lathyrus*	*tuberosus*	L.		Leguminosae
192	*Lathyrus venetus*	*Lathyrus*	*venetus*	(Mill.) Wohlf.		Leguminosae
193	*Lathyrus vernus*	*Lathyrus*	*vernus*	(L.) Bernh.		Leguminosae
194	*Laurus nobilis*	*Laurus*	*nobilis*	L.	EN A1b	Lauraceae
195	*Lens culinaris*	*Lens*	*culinaris*	Med.		Leguminosae
196	*Lens ervoides*	*Lens*	*ervoides*	(Bring.) Grande		Leguminosae
197	*Lepidium campestre*	*Lepidium*	*campestre*	R.Br.		Cruciferae
198	*Lepidium graminifolium*	*Lepidium*	*graminifolium*	L.		Cruciferae
199	*Lepidium latifolium*	*Lepidium*	*latifolium*	L.		Cruciferae
200	*Lepidium perfoliatum*	*Lepidium*	*perfoliatum*	L.		Cruciferae
201	*Lepidium ruderale*	*Lepidium*	*ruderale*	L.		Cruciferae
202	*Lepidium virginicum*	*Lepidium*	*virginicum*	L.		Cruciferae
203	*Linum austriacum*	*Linum*	*austriacum*	L.		Linaceae
204	*Linum bienne*	*Linum*	*bienne*	Mill.		Linaceae
205	*Linum capitatum*	*Linum*	*capitatum*	Kit.		Linaceae
206	*Linum catharticum*	*Linum*	*catharticum*	L.		Linaceae
207	*Linum elegans*	*Linum*	*elegans*	Sprun.		Linaceae
208	*Linum flavum*	*Linum*	*flavum*	L.		Linaceae
209	*Linum hirsutum*	*Linum*	*hirsutum*	L.		Linaceae
210	*Linum hologynum*	*Linum*	*hologynum*	Reichenb.		Linaceae

211	*Linum maritimum*	*Linum*	*maritimum*	L.		Linaceae
212	*Linum nervosum*	*Linum*	*nervosum*	Waldst. et Kit.		Linaceae
213	*Linum nodiflorum*	*Linum*	*nodiflorum*	L.		Linaceae
214	*Linum perenne*	*Linum*	*perenne*	L.		Linaceae
215	*Linum pubescens*	*Linum*	*pubescens*	Banks et Solander		Linaceae
216	*Linum spathulatum*	*Linum*	*spathulatum*	(Halascy et Bald.) Halascy		Linaceae
217	*Linum strictum*	*Linum*	*strictum*	L.		Linaceae
218	*Linum tauricum*	*Linum*	*tauricum*	Willd.		Linaceae
219	*Linum tenuifolium*	*Linum*	*tenuifolium*	L.		Linaceae
220	*Linum trigynum*	*Linum*	*trigynum*	L.		Linaceae
221	*Linum ussitatissimum*	*Linum*	*ussitatissimum*	L.		Linaceae
222	*Lolium multiflorum*	*Lolium*	*multiflorum*	Lam.		Graminaceae
223	*Lolium perenne*	*Lolium*	*perenne*	L.		Graminaceae
224	*Lolium rigidum*	*Lolium*	*rigidum*	Gaud.		Graminaceae
225	*Lolium temulentum*	*Lolium*	*temulentum*	L.		Graminaceae
226	*Lotus alpinus*	*Lotus*	*alpinus*	(DC.) Schleicher		Leguminosae
227	*Lotus angustissimus*	*Lotus*	*angustissimus*	L.		Leguminosae
228	*Lotus corniculatus*	*Lotus*	*corniculatus*	L.		Leguminosae
229	*Lotus edulis*	*Lotus*	*edulis*	L.		Leguminosae
230	*Lotus ornithopodioides*	*Lotus*	*ornithopodioides*	L.		Leguminosae
231	*Lotus palustris*	*Lotus*	*palustris*	Willd.		Leguminosae
232	*Lotus preslii*	*Lotus*	*preslii*	Ten.		Leguminosae
233	*Lotus stenodon*	*Lotus*	*stenodon*	(Boiss. et Heldr.) Heldr.		Leguminosae
234	*Lotus tenuis*	*Lotus*	*tenuis*	Waldst. et Kit.		Leguminosae
235	*Lotus uliginosus*	*Lotus*	*uliginosus*	Schkuhr		Leguminosae
236	*Lupinus albus*	*Lupinus*	*albus*	L.		Leguminosae
237	*Lupinus micranthus*	*Lupinus*	*micranthus*	Guss.		Leguminosae
238	*Lupinus varius*	*Lupinus*	*varius*	L.		Leguminosae
239	*Malus dasyphylla*	*Malus*	*dasyphylla*	Borkh.		Rosaceae
240	*Malus domestica*	*Malus*	*domestica*	Borkh.		Rosaceae
241	*Malus fiorentina*	*Malus*	*fiorentina*	(Zuccagni) C.K. Schneider	DD	Rosaceae

242	*Malus sylvestris*	*Malus*	*sylvestris*	Mill.	Rosaceae
243	*Medicago aculeata*	*Medicago*	*aculeata*	Gaertn.	Leguminosae
244	*Medicago arabica*	*Medicago*	*arabica*	(L.) Huds.	Leguminosae
245	*Medicago carstiensis*	*Medicago*	*carstiensis*	Jacq.	Leguminosae
246	*Medicago coronata*	*Medicago*	*coronata*	(L.) Bartal.	Leguminosae
247	*Medicago falcata*	*Medicago*	*falcata*	L.	Leguminosae
248	*Medicago littoralis*	*Medicago*	*littoralis*	Rohde	Leguminosae
249	*Medicago lupulina*	*Medicago*	*lupulina*	L.	Leguminosae
250	*Medicago marina*	*Medicago*	*marina*	L.	Leguminosae
251	*Medicago minima*	*Medicago*	*minima*	(L.) Bartal.	Leguminosae
252	*Medicago orbicularis*	*Medicago*	*orbicularis*	(L.) Bartal.	Leguminosae
253	*Medicago polymorpha*	*Medicago*	*polymorpha*	L.	Leguminosae
254	*Medicago prostrata*	*Medicago*	*prostrata*	Jacq.	Leguminosae
255	*Medicago rigidula*	*Medicago*	*rigidula*	(L.) All.	Leguminosae
256	*Medicago sativa*	*Medicago*	*sativa*	L.	Leguminosae
257	*Medicago turbinata*	*Medicago*	*turbinata*	(L.) All.	Leguminosae
258	*Melilotus alba*	*Melilotus*	*alba*	Med.	Leguminosae
259	*Melilotus altissima*	*Melilotus*	*altissima*	Thuill.	Leguminosae
260	*Melilotus elegans*	*Melilotus*	*elegans*	Salzm.	Leguminosae
261	*Melilotus indica*	*Melilotus*	*indica*	(L.) All.	Leguminosae
262	*Melilotus italica*	*Melilotus*	*italica*	(L.) Lam.	Leguminosae
263	*Melilotus neapolitana*	*Melilotus*	*neapolitana*	Ten.	Leguminosae
264	*Melilotus officinalis*	*Melilotus*	*officinalis*	(L.) Pallas	Leguminosae
265	*Melilotus sulcata*	*Melilotus*	*sulcata*	Desf.	Leguminosae
266	*Mespilus germanica*	*Mespilus*	*germanica*	L.	Rosaceae
267	*Myrtus communis*	*Myrtus*	*communis*	L.	Myrtaceae
268	*Olea europaea*	*Olea*	*europaea*	L.	Oleaceae
269	*Olea oleaster*	*Olea*	*oleaster*	Hoffm. et Link	Oleaceae
270	*Onobrychis aequidentata*	*Onobrychis*	*aequidentata*	(Sibth. et Sm.) D'Urv.	Leguminosae
271	*Onobrychis alba*	*Onobrychis*	*alba*	(Waldst. et Kit.) Desv.	Leguminosae
272	*Onobrychis arenaria*	*Onobrychis*	*arenaria*	(Kit.) DC.	Leguminosae

273	*Onobrychis caput-galli*	*Onobrychis*	*caput-galli*	Lam.	Leguminosae
274	*Onobrychis montana*	*Onobrychis*	*montana*	DC.	Leguminosae
275	*Onobrychis oxydonta*	*Onobrychis*	*oxydonta*	Boiss.	Leguminosae
276	*Onobrychis viciifolia*	*Onobrychis*	*viciifolia*	Scop.	Leguminosae
277	*Opuntia ficus-indica*	*Opuntia*	*ficus-indica*	(L.) Mill.	Cactaceae
278	*Phalaris aquatica*	*Phalaris*	*aquatica*	L.	Graminaceae
279	*Phalaris arundinacea*	*Phalaris*	*arundinacea*	L.	Graminaceae
280	*Phalaris brachystachys*	*Phalaris*	*brachystachys*	Link	Graminaceae
281	*Phalaris canariensis*	*Phalaris*	*canariensis*	L.	Graminaceae
282	*Phalaris coerulescens*	*Phalaris*	*coerulescens*	Desf.	Graminaceae
283	*Phalaris paradoksa*	*Phalaris*	*paradoksa*	L.	Graminaceae
284	*Phleum alpinum*	*Phleum*	*alpinum*	L.	Graminaceae
285	*Phleum echinatum*	*Phleum*	*echinatum*	Host	Graminaceae
286	*Phleum hirsutum*	*Phleum*	*hirsutum*	Honckeny	Graminaceae
287	*Phleum montanum*	*Phleum*	*montanum*	Koch	Graminaceae
288	*Phleum paniculatum*	*Phleum*	*paniculatum*	Huds.	Grossulariaceae
289	*Phleum phleoides*	*Phleum*	*phleoides*	(L.) Karsten	Graminaceae
290	*Phleum pratense*	*Phleum*	*pratense*	L.	Graminaceae
291	*Phleum subulatum*	*Phleum*	*subulatum*	(Savi) Ascer. et Grebn	Graminaceae
292	*Pimpinella anisum*	*Pimpinella*	*anisum*	L.	Umbrelliferae
293	*Pimpinella peregrina*	*Pimpinella*	*peregrina*	L.	Umbrelliferae
294	*Pimpinella saxifraga*	*Pimpinella*	*saxifraga*	L.	Umbrelliferae
295	*Pimpinella serbica*	*Pimpinella*	*serbica*	(Vis.) Bentham et Hooker fil.	Umbrelliferae
296	*Pimpinella tragium*	*Pimpinella*	*tragium*	Vill.	Umbrelliferae
297	*Pistacia lentisceus*	*Pistacia*	*lentisceus*	L.	Anacardiaceae
298	*Pistacia terebinthus*	*Pistacia*	*terebinthus*	L.	Anacardiaceae
299	*Pisum sativum*	*Pisum*	*sativum*	L.	Leguminosae
300	*Poa alpina*	*Poa*	*alpina*	L.	Graminaceae
301	*Poa annua*	*Poa*	*annua*	L.	Graminaceae
302	*Poa badensis*	*Poa*	*badensis*	Haenke	Graminaceae
303	*Poa bulbosa*	*Poa*	*bulbosa*	L.	Graminaceae

304	*Poa cenisia*	*Poa*	*cenisia*	All.		Graminaceae
305	*Poa chaixii*	*Poa*	*chaixii*	Vill.		Graminaceae
306	*Poa compressa*	*Poa*	*compressa*	L.		Graminaceae
307	*Poa media*	*Poa*	*media*	Schur.		Graminaceae
308	*Poa molinerii*	*Poa*	*molinerii*	Balbis		Graminaceae
309	*Poa nemoralis*	*Poa*	*nemoralis*	L.		Graminaceae
310	*Poa pratensis*	*Poa*	*pratensis*	L.		Graminaceae
311	*Poa pumila*	*Poa*	*pumila*	Host		Graminaceae
312	*Poa trivialis*	*Poa*	*trivialis*	L.		Graminaceae
313	*Poa versicolor*	*Poa*	*versicolor*	Besser		Graminaceae
314	*Prunus armeniaca*	*Prunus*	*armeniaca*	L.		Rosaceae
315	*Prunus avium*	*Prunus*	*avium*	L.	VU A1b	Rosaceae
316	*Prunus cerasifera*	*Prunus*	*cerasifera*	Ehrh.		Rosaceae
317	*Prunus cerasus*	*Prunus*	*cerasus*	L.		Rosaceae
318	*Prunus cocomilia*	*Prunus*	*cocomilia*	Ten.		Rosaceae
319	*Prunus domestica*	*Prunus*	*domestica*	L.		Rosaceae
320	*Prunus dulcis*	*Prunus*	*dulcis*	(Mill.) D.A. Webb		Rosaceae
321	*Prunus laurocerasus*	*Prunus*	*laurocerasus*	L.		Rosaceae
322	*Prunus mahaleb*	*Prunus*	*mahaleb*	L.		Rosaceae
323	*Prunus padus*	*Prunus*	*padus*	L.		Rosaceae
324	*Prunus persica*	*Prunus*	*persica*	(L.) Batsch		Rosaceae
325	*Prunus prostrata*	*Prunus*	*prostrata*	Labill.		Rosaceae
326	*Prunus spinosa*	*Prunus*	*spinosa*	L.		Rosaceae
327	*Prunus webbii*	*Prunus*	*webbii*	(Spach) Vierh.	VU A1b	Rosaceae
328	*Punica granatum*	*Punica*	*granatum*	L.		Punicaceae
329	*Pyrus amygdaliformis*	*Pyrus*	*amygdaliformis*	Vill.		Rosaceae
330	*Pyrus communis*	*Pyrus*	*communis*	L.		Rosaceae
331	*Pyrus elaeagrifolia*	*Pyrus*	*elaeagrifolia*	Pallas		Rosaceae
332	*Pyrus pyraster*	*Pyrus*	*pyraster*	Burgsd.		Rosaceae
333	*Raphanus raphanistrum*	*Raphanus*	*raphanistrum*	L.		Cruciferae
334	*Raphanus sativus*	*Raphanus*	*sativus*	L.		Cruciferae

335	*Ribes alpinum*	*Ribes*	*alpinum*	L.		Grossulariaceae
336	*Ribes petreum*	*Ribes*	*petreum*	Wulf.		Grossulariaceae
337	*Ribes rubrum*	*Ribes*	*rubrum*	L.		Grossulariaceae
338	*Ribes uva-crispa*	*Ribes*	*uva-crispa*	L.		Grossulariaceae
339	*Rorippa amphibia*	*Rorippa*	*amphibia*	(L.) Besser		Cruciferae
340	*Rorippa austriaca*	*Rorippa*	*austriaca*	(Crantz) Besser		Cruciferae
341	*Rorippa lippizensis*	*Rorippa*	*lippizensis*	(Wulf.) Reichenb.		Cruciferae
342	*Rorippa prolifera*	*Rorippa*	*prolifera*	(Heuff.) Neilr.		Cruciferae
343	*Rorippa pyrenaica*	*Rorippa*	*pyrenaica*	(Lam.) Reichenb.		Cruciferae
344	*Rorippa sylvestris*	*Rorippa*	*sylvestris*	(L.) Besser		Cruciferae
345	*Rosa canina*	*Rosa*	*canina*	L.		Rosaceae
346	*Rubus caesius*	*Rubus*	*caesius*	L.		Rosaceae
347	*Rubus hirtus*	*Rubus*	*hirtus*	Waldst. et Kit.		Rosaceae
348	*Rubus idaeus*	*Rubus*	*idaeus*	L.		Rosaceae
349	*Rubus saxatilis*	*Rubus*	*saxatilis*	L.		Rosaceae
350	*Rubus serpens*	*Rubus*	*serpens*	Weihe		Rosaceae
351	*Rubus thyrsoideus*	*Rubus*	*thyrsoideus*	Wimm.		Rosaceae
352	*Rubus tomentosus*	*Rubus*	*tomentosus*	Borkh.		Rosaceae
353	*Rubus ulmifolius*	*Rubus*	*ulmifolius*	Schott		Rosaceae
354	*Rumex acetosa*	*Rumex*	*acetosa*	L.		Polygonaceae
355	*Rumex longifolius*	*Rumex*	*longifolius*	DC.		Polygonaceae
356	*Salsola kali*	*Salsola*	*kali*	L.		Chenopodiaceae
357	*Salsola soda*	*Salsola*	*soda*	L.		Chenopodiaceae
358	*Sambucus ebulus*	*Sambucus*	*ebulus*	L.		Caprifoliaceae
359	*Sambucus nigra*	*Sambucus*	*nigra*	L.	VU A1b	Caprifoliaceae
360	*Sambucus racemosa*	*Sambucus*	*racemosa*	L.	VU A1b	Caprifoliaceae
361	*Sinapis alba*	*Sinapis*	*alba*	L.		Cruciferae
362	*Sinapis arvensis*	*Sinapis*	*arvensis*	L.		Cruciferae
363	*Sinapis pubescens*	*Sinapis*	*pubescens*	L.		Cruciferae
364	*Solanum dulcamara*	*Solanum*	*dulcamara*	L.		Solanaceae
365	*Solanum nigrum*	*Solanum*	*nigrum*	L.		Solanaceae

366	*Sorbus aria*	*Sorbus*	*aria*	(L.) Crantz		Rosaceae
367	*Sorbus aucuparia*	*Sorbus*	*aucuparia*	L.		Rosaceae
368	*Sorbus chamaemespilus*	*Sorbus*	*chamaemespilus*	(L.) Crantz		Rosaceae
369	*Sorbus domestica*	*Sorbus*	*domestica*	L.		Rosaceae
370	*Sorbus graeca*	*Sorbus*	*graeca*	(Spach) Kotschy		Rosaceae
371	*Sorbus torminalis*	*Sorbus*	*torminalis*	(L.) Crantz		Rosaceae
372	*Sorbus umbellata*	*Sorbus*	*umbellata*	(Desf.) Fritsch		Rosaceae
373	*Tilia parvifolia*	*Tilia*	*parvifolia*	Ehrh.		Tiliaceae
374	*Tilia platyphyllos*	*Tilia*	*platyphyllos*	Scop.	CR A1c	Tiliaceae
375	*Tilia tomentosa*	*Tilia*	*tomentosa*	Moench		Tiliaceae
376	*Trifolium alexandrinum*	*Trifolium*	*alexandrinum*	L.		Leguminosae
377	*Trifolium alpestre*	*Trifolium*	*alpestre*	L.		Leguminosae
378	*Trifolium angustifolium*	*Trifolium*	*angustifolium*	L.		Leguminosae
379	*Trifolium arvense*	*Trifolium*	*arvense*	L.		Leguminosae
380	*Trifolium aurantiacum*	*Trifolium*	*aurantiacum*	Boiss. et Sprun.		Leguminosae
381	*Trifolium aureum*	*Trifolium*	*aureum*	Poll.		Leguminosae
382	*Trifolium badium*	*Trifolium*	*badium*	Schreb.		Leguminosae
383	*Trifolium campestre*	*Trifolium*	*campestre*	Schreb.		Leguminosae
384	*Trifolium cherleri*	*Trifolium*	*cherleri*	L.		Leguminosae
385	*Trifolium constantinopolitanum*	*Trifolium*	*constantinopolitanum*	Ser.		Leguminosae
386	*Trifolium dalmaticum*	*Trifolium*	*dalmaticum*	Vis.		Leguminosae
387	*Trifolium diffusum*	*Trifolium*	*diffusum*	Ehrh.		Leguminosae
388	*Trifolium dubium*	*Trifolium*	*dubium*	Sibth.		Leguminosae
389	*Trifolium echinatum*	*Trifolium*	*echinatum*	Bieb.		Leguminosae
390	*Trifolium fragiferum*	*Trifolium*	*fragiferum*	L.		Leguminosae
391	*Trifolium glomeratum*	*Trifolium*	*glomeratum*	L.		Leguminosae
392	*Trifolium hirtum*	*Trifolium*	*hirtum*	All.		Leguminosae
393	*Trifolium hybridum*	*Trifolium*	*hybridum*	L.		Leguminosae
394	*Trifolium incarnatum*	*Trifolium*	*incarnatum*	L.		Leguminosae
395	*Trifolium lappaceum*	*Trifolium*	*lappaceum*	L.		Leguminosae
396	*Trifolium leucanthum*	*Trifolium*	*leucanthum*	Bieb.		Leguminosae

397	*Trifolium medium*	*Trifolium*	*medium*	L.		Leguminosae
398	*Trifolium michelianum*	*Trifolium*	*michelianum*	Sav		Leguminosae
399	*Trifolium micranthum*	*Trifolium*	*micranthum*	Viv.		Leguminosae
400	*Trifolium mutabile*	*Trifolium*	*mutabile*	Portenschl.		Leguminosae
401	*Trifolium nervulosum*	*Trifolium*	*nervulosum*	Boiss. et Heldr.		Leguminosae
402	*Trifolium nigrescens*	*Trifolium*	*nigrescens*	Viv.		Leguminosae
403	*Trifolium noricum*	*Trifolium*	*noricum*	Wulf.		Leguminosae
404	*Trifolium ochroleucon*	*Trifolium*	*ochroleucon*	Huds.		Leguminosae
405	*Trifolium pallescens*	*Trifolium*	*pallescens*	Schreb.		Leguminosae
406	*Trifolium pallidum*	*Trifolium*	*pallidum*	Waldst. et Kit.		Leguminosae
407	*Trifolium pannonicum*	*Trifolium*	*pannonicum*	Jacq.		Leguminosae
408	*Trifolium parnassi*	*Trifolium*	*parnassi*	Boiss. et Sprun.	DD	Leguminosae
409	*Trifolium patens*	*Trifolium*	*patens*	Schreb.		Leguminosae
410	*Trifolium patulum*	*Trifolium*	*patulum*	Tausch		Leguminosae
411	*Trifolium phleoides*	*Trifolium*	*phleoides*	Pourr.		Leguminosae
412	*Trifolium physodes*	*Trifolium*	*physodes*	Stev.		Leguminosae
413	*Trifolium pignantii*	*Trifolium*	*pignantii*	Faunché et Chaub.		Leguminosae
414	*Trifolium pilczii*	*Trifolium*	*pilczii*	Adam.	LR nt	Leguminosae
415	*Trifolium pratense*	*Trifolium*	*pratense*	L.		Leguminosae
416	*Trifolium purpureum*	*Trifolium*	*purpureum*	Loisel.		Leguminosae
417	*Trifolium repens*	*Trifolium*	*repens*	L.		Leguminosae
418	*Trifolium resupinatum*	*Trifolium*	*resupinatum*	L.		Leguminosae
419	*Trifolium rubens*	*Trifolium*	*rubens*	L.		Leguminosae
420	*Trifolium scabrum*	*Trifolium*	*scabrum*	L.		Leguminosae
421	*Trifolium speciosum*	*Trifolium*	*speciosum*	Willd.		Leguminosae
422	*Trifolium squamosum*	*Trifolium*	*squamosum*	L.		Leguminosae
423	*Trifolium squarrosum*	*Trifolium*	*squarrosum*	L.		Leguminosae
424	*Trifolium stellatum*	*Trifolium*	*stellatum*	L.		Leguminosae
425	*Trifolium striatum*	*Trifolium*	*striatum*	L.		Leguminosae
426	*Trifolium strictum*	*Trifolium*	*strictum*	L.		Leguminosae
427	*Trifolium subterraneum*	*Trifolium*	*subterraneum*	L.		Leguminosae

428	*Trifolium suffocatum*	*Trifolium*	*suffocatum*	L.		Leguminosae
429	*Trifolium tenuifolium*	*Trifolium*	*tenuifolium*	Ten.		Leguminosae
430	*Trifolium thalii*	*Trifolium*	*thalii*	Vill.		Leguminosae
431	*Trifolium tomentosum*	*Trifolium*	*tomentosum*	L.		Leguminosae
432	*Trifolium trichopterum*	*Trifolium*	*trichopterum*	Pančˇ.		Leguminosae
433	*Trifolium velenovskyi*	*Trifolium*	*velenovskyi*	Vand.		Leguminosae
434	*Trifolium vesiculosum*	*Trifolium*	*vesiculosum*	Savi		Leguminosae
435	*Trifolium wettsteinii*	*Trifolium*	*wettsteinii*	Dörfl. et Hayek	LR nt	Leguminosae
436	*Trisetum flavescens*	*Trisetum*	*flavescens*	P. B.		Graminaceae
437	*Triticum dicoccum*	*Triticum*	*dicoccum*	Schrank		Graminaceae
438	*Triticum durum*	*Triticum*	*durum*	Desf.		Graminaceae
439	*Triticum monococcum*	*Triticum*	*monococcum*	L.		Graminaceae
440	*Triticum turgidum*	*Triticum*	*turgidum*	L.		Graminaceae
441	*Triticum vulgare*	*Triticum*	*vulgare*	Vill.		Graminaceae
442	*Vaccinium myrtillus*	*Vaccinium*	*myrtillus*	L.	VU A1b	Ericaceae
443	*Vaccinium uliginosum*	*Vaccinium*	*uliginosum*	L.	VU A1b	Ericaceae
444	*Vaccinium vitis-idaea*	*Vaccinium*	*vitis-idaea*	L.	VU A1c	Ericaceae
445	*Vicia bithynica*	*Vicia*	*bithynica*	L.		Leguminosae
446	*Vicia cassubica*	*Vicia*	*cassubica*	L.		Leguminosae
447	*Vicia cracca*	*Vicia*	*cracca*	L.		Leguminosae
448	*Vicia dalmatica*	*Vicia*	*dalmatica*	A. Kerner		Leguminosae
449	*Vicia ervilia*	*Vicia*	*ervilia*	(L.) Willd.		Leguminosae
450	*Vicia faba*	*Vicia*	*faba*	L.		Leguminosae
451	*Vicia grandiflora*	*Vicia*	*grandiflora*	Scop.		Leguminosae
452	*Vicia hirsuta*	*Vicia*	*hirsuta*	(L.) S. F. Gray		Leguminosae
453	*Vicia hybrida*	*Vicia*	*hybrida*	L.		Leguminosae
454	*Vicia incana*	*Vicia*	*incana*	Gouan		Leguminosae
455	*Vicia lathyroides*	*Vicia*	*lathyroides*	L.		Leguminosae
456	*Vicia lutea*	*Vicia*	*lutea*	L.		Leguminosae
457	*Vicia melanops*	*Vicia*	*melanops*	Sibth. et Sm.		Leguminosae
458	*Vicia narbonensis*	*Vicia*	*narbonensis*	L.		Leguminosae

459	*Vicia ochroleuca*	*Vicia*	*ochroleuca*	Ten.	Leguminosae
460	*Vicia onobrychioides*	*Vicia*	*onobrychioides*	L.	Leguminosae
461	*Vicia pannonica*	*Vicia*	*pannonica*	Crantz	Leguminosae
462	*Vicia peregrina*	*Vicia*	*peregrina*	L.	Leguminosae
463	*Vicia pisiformis*	*Vicia*	*pisiformis*	L.	Leguminosae
464	*Vicia sativa*	*Vicia*	*sativa*	L.	Leguminosae
465	*Vicia sepium*	*Vicia*	*sepium*	L.	Leguminosae
466	*Vicia sylvatica*	*Vicia*	*sylvatica*	L.	Leguminosae
467	*Vicia tenuifolia*	*Vicia*	*tenuifolia*	Roth	Leguminosae
468	*Vicia tenuissima*	*Vicia*	*tenuissima*	(Bieb.) Schinz et Thell.	Leguminosae
469	*Vicia tetrasperma*	*Vicia*	*tetrasperma*	(L.) Schreb.	Leguminosae
470	*Vicia villosa*	*Vicia*	*villosa*	Roth	Leguminosae
471	*Vitis labrusca*	*Vitis*	*labrusca*	L.	Vitaceae
472	*Vitis sylvestris*	*Vitis*	*sylvestris*	Gmel.	Vitaceae