

Altai Botanical Garden, Kazakhstan

Rare and Red Data Book Plants of the Kazakhstan Altai

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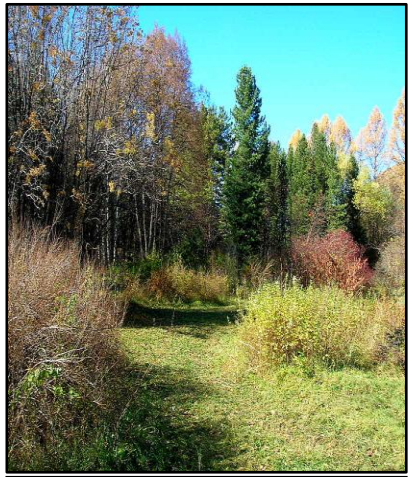
2026

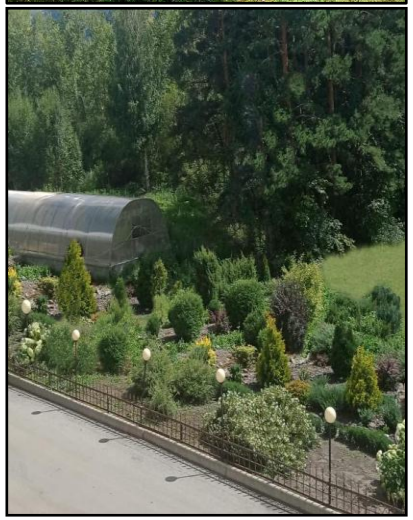
HISTORICAL BACKGROUND

- The Altai Botanical Garden was organized by the Resolution of the Presidium of the KAZFAN USSR dated January 7, 1935, No. ½.
- Based on the Decree of the Government of the Republic of Kazakhstan dated November 10, 2007 No. 1074, the Altai Botanical Garden was included in the list of specially protected natural areas.
- The area of the botanical garden is 156 hectares.











PURPOSE OF ACTIVITY

- **conducting fundamental, applied, and innovative research in the fields of plant introduction and botany to generate new knowledge regarding the value of plants;**

- **organizing and implementing the management regime for a specially protected natural area in accordance with the legislation of the Republic of Kazakhstan;**

- **developing scientific foundations for plant conservation (in situ and ex situ) and managing plant resources..**





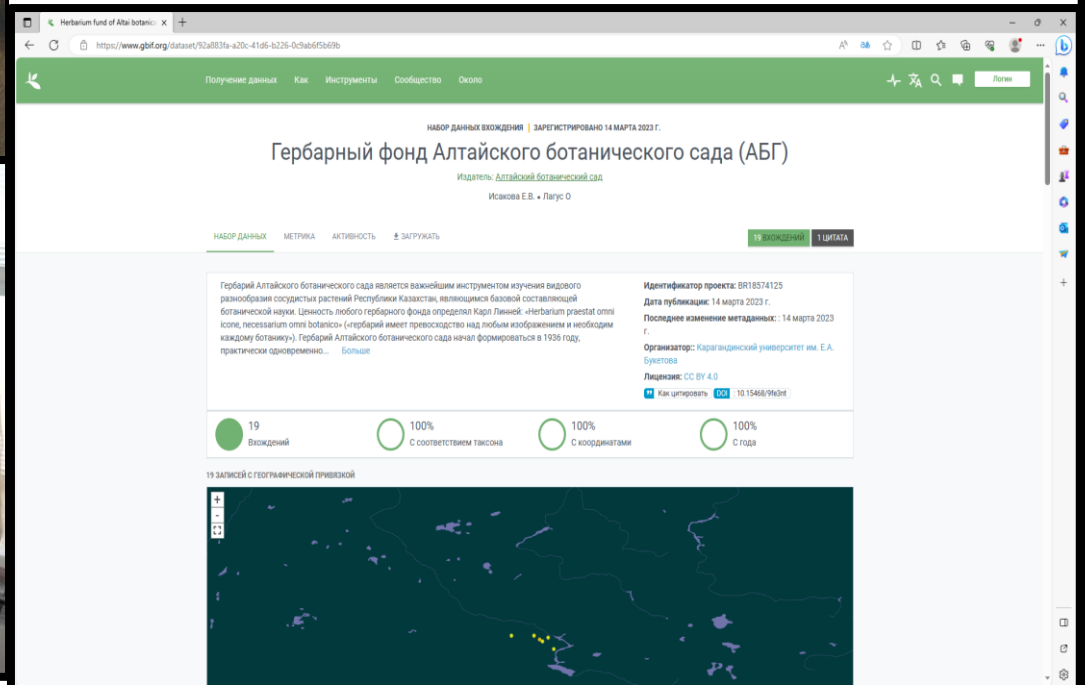

ABG Herbarium Collection

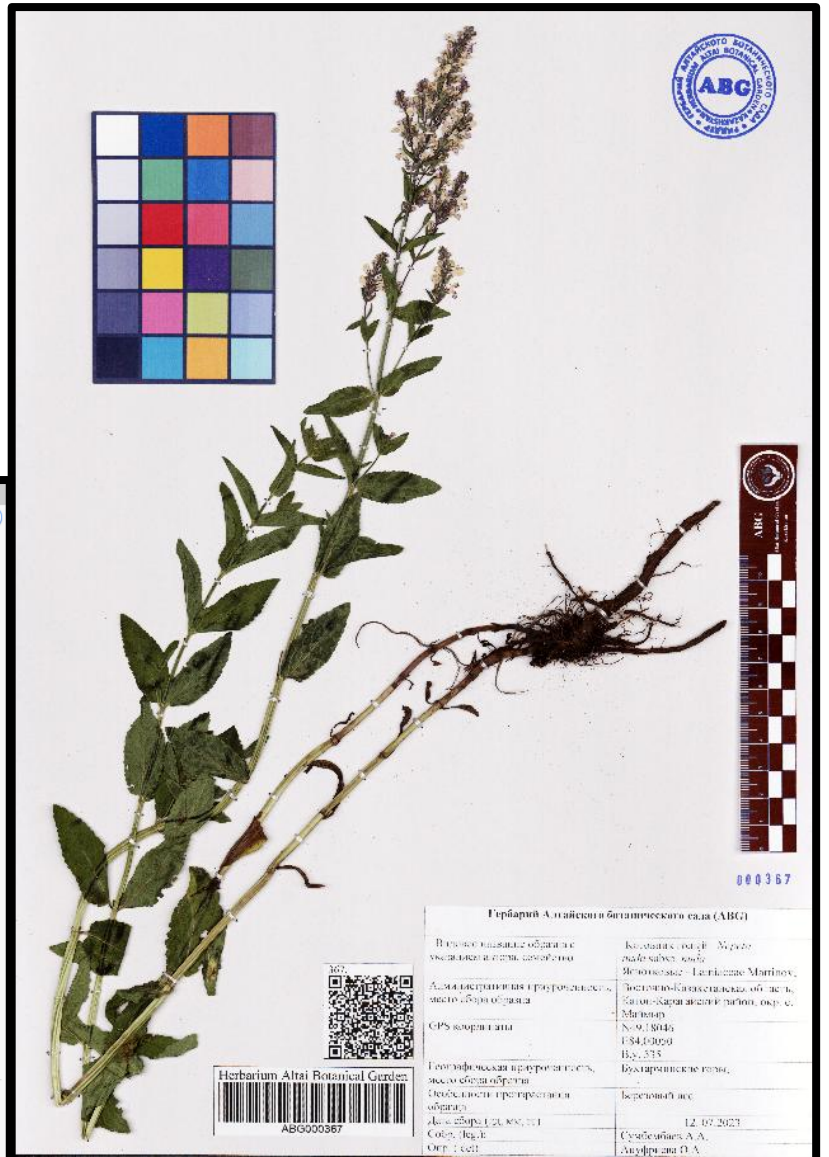




IPT account on the GBIF website ABG000001

more than 30,000 herbarium sheets





PATENTS 2020–2025

Breeder's Certificate of the Republic of Belarus No. 0008001 for the **Bergenia crassifolia** cultivar "YURIY KOTUKHOV"



Patent for a breeding achievement:
No. 0005297. Bergenia crassifolia
Variety: PODAROK ALTAYA





РЕСПУБЛИКА БЕЛАРУСЬ

МИНИСТЕРСТВО СЕЛЬСКОГО ХОЗЯЙСТВА И ПРОДОВОЛЬСТВИЯ
ГУ «ГОСУДАРСТВЕННАЯ ИНСПЕКЦИЯ ПО ИСПЫТАНИЮ И ОХРАНЕ СОРТОВ РАСТЕНИЙ»

СВИДЕТЕЛЬСТВО
селекционера

№ 0008001

Настоящее свидетельство выдано селекционеру (ам): Белоусовой Наталье Леонидовне, Луниной И.М.

на сорт Бадан толстолистный (культура) ЮРИЙ КОТУХОВ (наименование сорта)

по заявке № 2023246 с датой приоритета 16.01.2023

Заявителем (ями) которого является (ются) ГНУ "ЦЕНТРАЛЬНЫЙ БОТАНИЧЕСКИЙ САД НАН БЕЛАРУСИ" (БЕЛАРУСЬ)

В соответствии с приказом ГУ «Государственная инспекция по испытанию и охране сортов растений» Республики Беларусь от 29.12.2023 № 83

Зарегистрировано в книге учета и выдачи свидетельств № 6247

М.П.

Директор В.А. Бейня

PATENTS 2020–2025



Variety Patent
(breeding achievement)
No. 1027 Sea buckthorn
(*Hippophae rhamnoides*)
'Yubileynaya' variety



Variety Patent
(breeding achievement)
No. 1139 Sea buckthorn
(*Hippophae rhamnoides*)
'Shetlastinka' variety



Patent for a variety
(breeding achievement)
No. 1140 Sea buckthorn
(*Hippophae rhamnoides*)
variety
Pamyati Baitulina



Patent for a variety
(breeding achievement)
No. 1226 Sea buckthorn
'Äsem'



Variety Patent
(Breeding Achievement)
No. 1227 Sea Buckthorn
(*Hippophae rhamnoides*)
Feyerverk



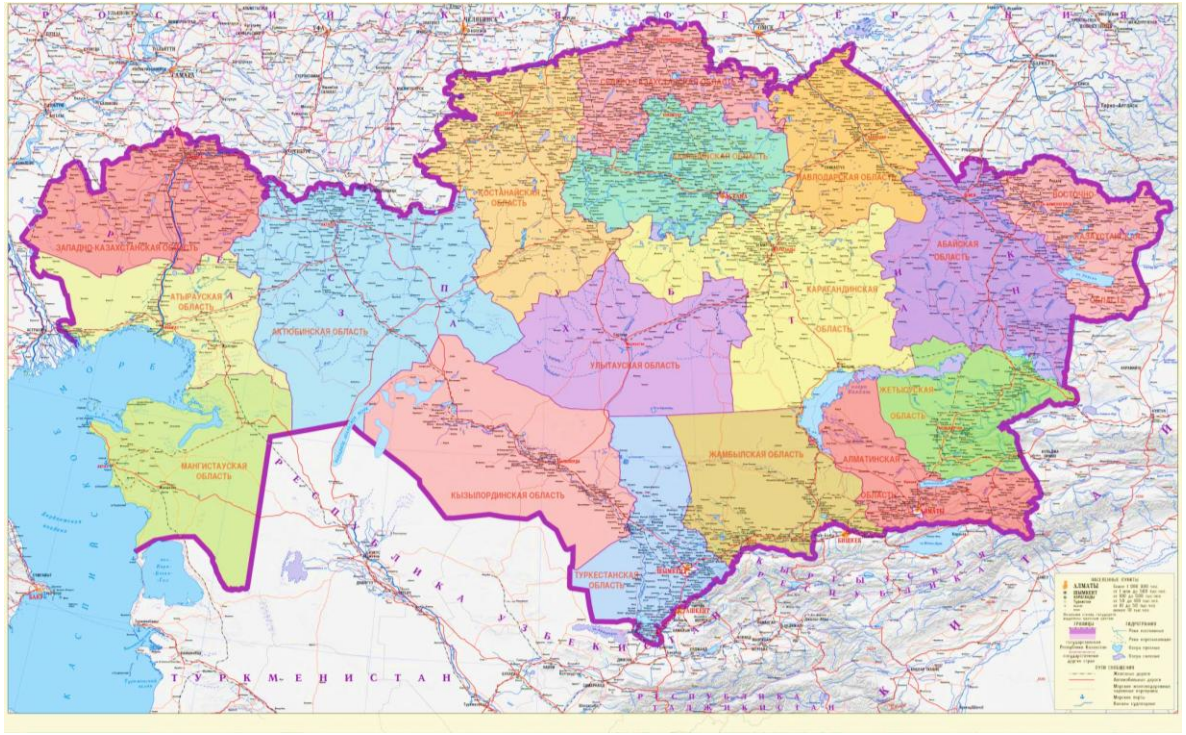


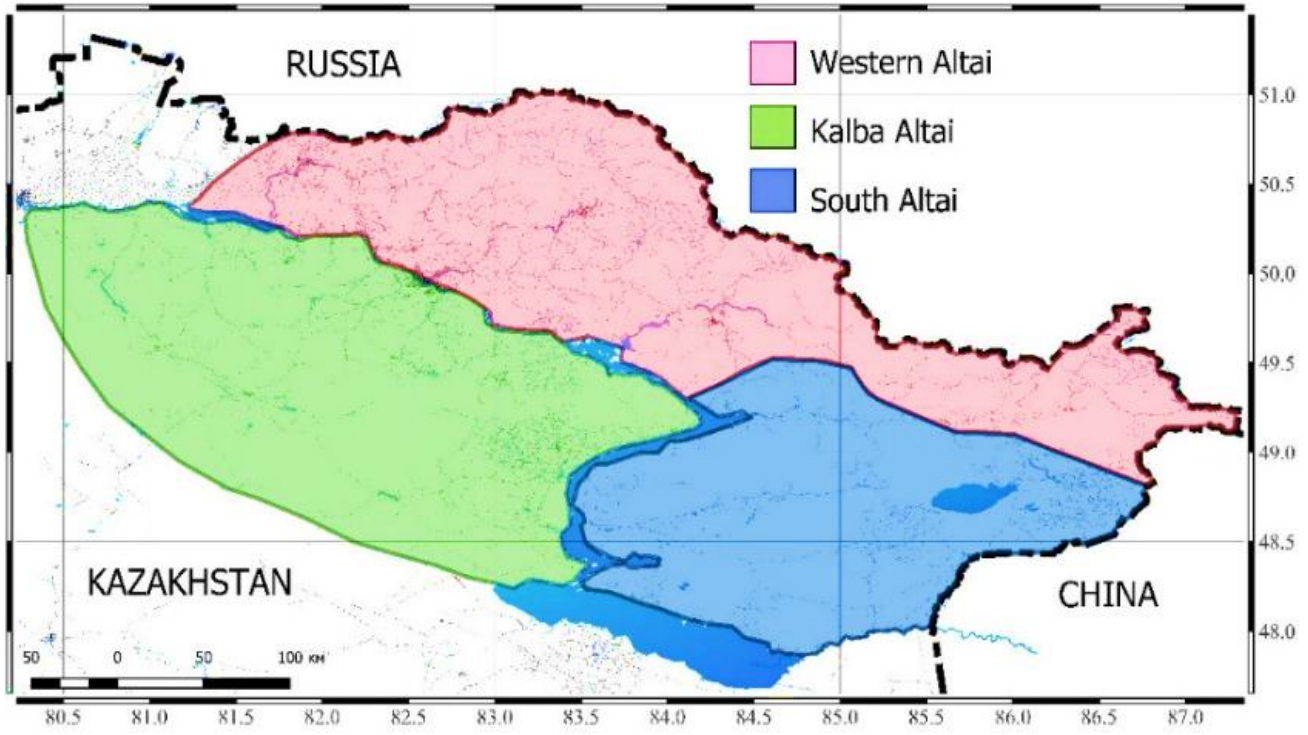




Geographical Distribution in Kazakhstan
Floristic Division of Eastern Kazakhstan

- **22. Altai (Kazakhstan Altai)**
- **12. Zaysan (Northern Zaysan region)**

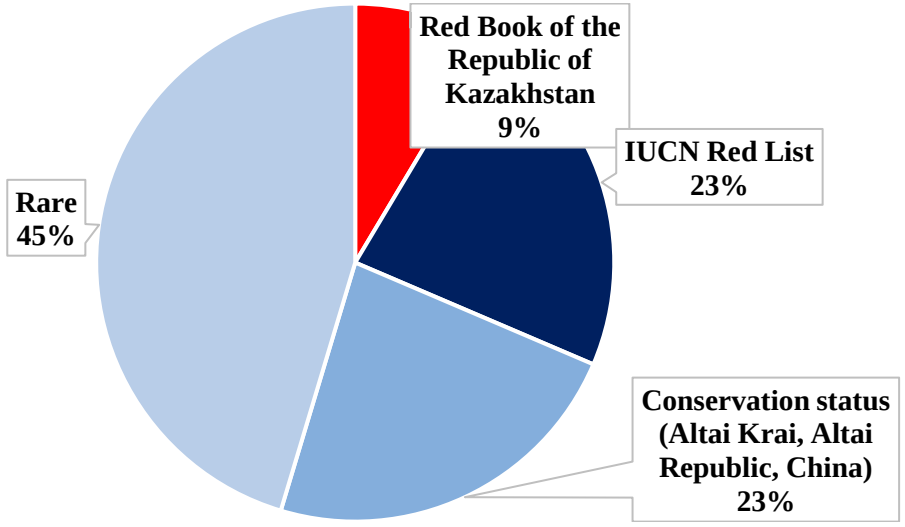




FLORA OF THE KAZAKHSTAN ALTAI

2,465 plant species, comprising 693 genera and 131 families

230 rare and endangered species were recorded, including 73 strict endemics for Kazakhstan Altai



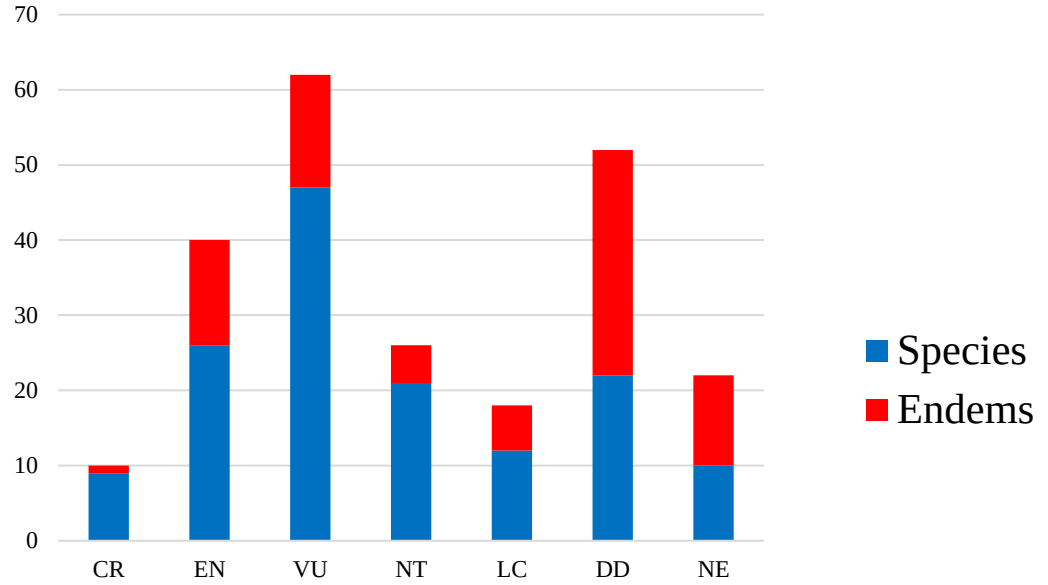






RARE SPECIES OF THE KAZAKHSTAN ALTAI ACCORDING TO THE IUCN SCALE

CR: Critically Endangered – 10 species,
EN: Endangered – 40 species,
VU: Vulnerable – 62 species,
NT: Near Threatened – 26 species,
LC: Least Concern – 18 species,
DD: Data Deficient – 52 species (30 endemics),
NE: Not Evaluated – 22 species (12 endemics).





Cystopteris diaphana (Bory) Blasdell



Erythronium sibiricum (Fisch. & C.A. Mey.) Krylov



Gagea altaica Schischk. et Sumnev

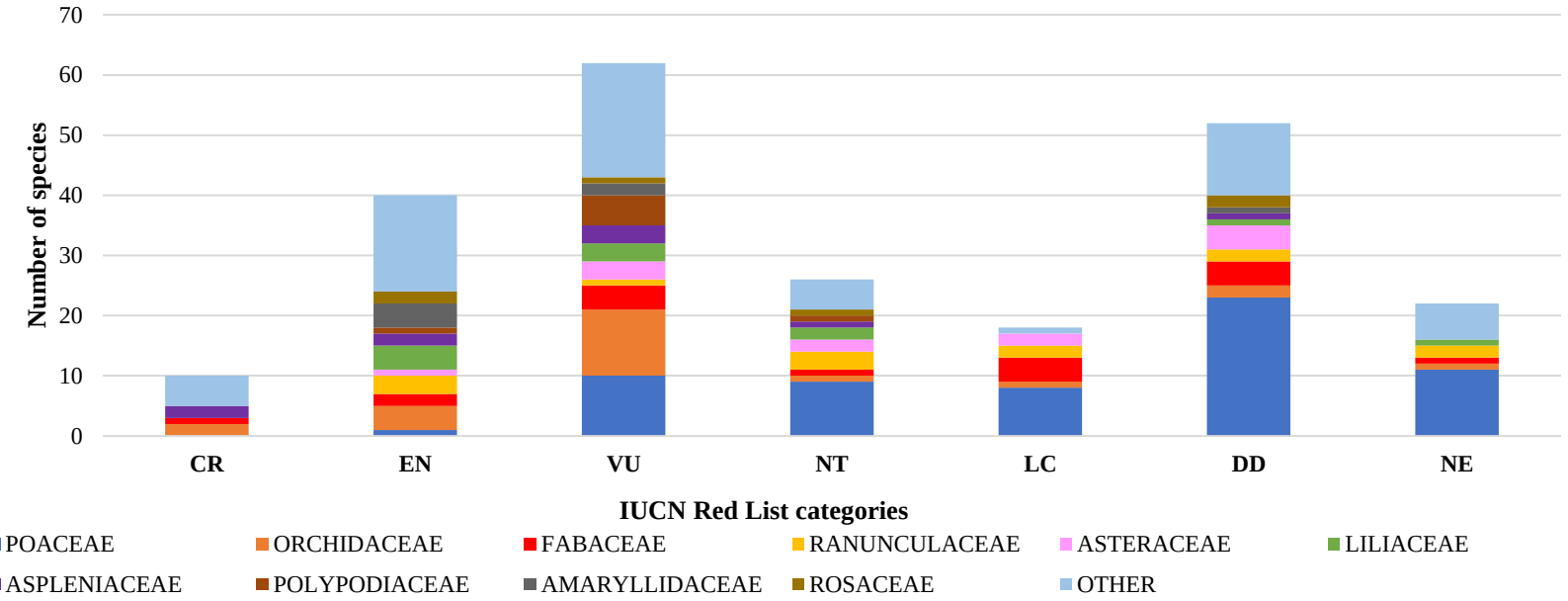


Iris ludwigii Maxim.

Leading Families of Rare Plants of the Kazakhstan Altai

Poaceae - DD (37%) and NE (18%);

Orchidaceae -VU (51%) and EN (19%)





Tulipa altaica Pall. ex Spreng.



Allium ivasczenkoae Kotukhov



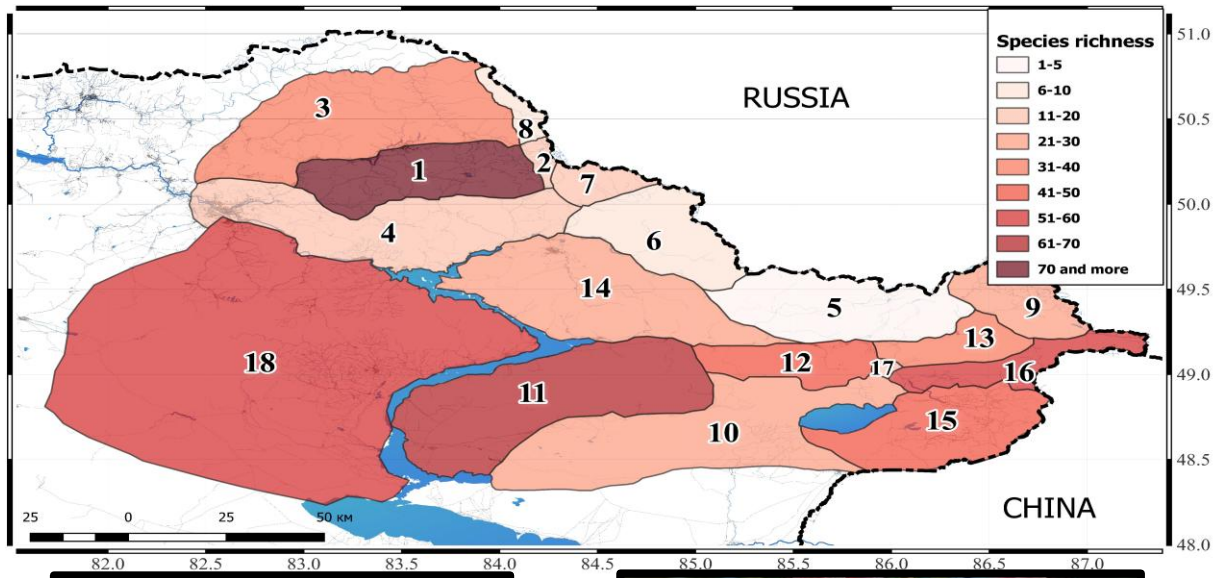
Trollius lilacinus Bunge

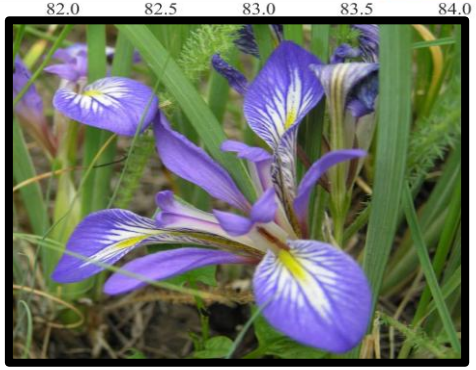


Adonis vernalis L.

Distribution of Rare and Endemic Plant Species Across the Mountain Ranges of the Kazakh Altai

rare and endangered species



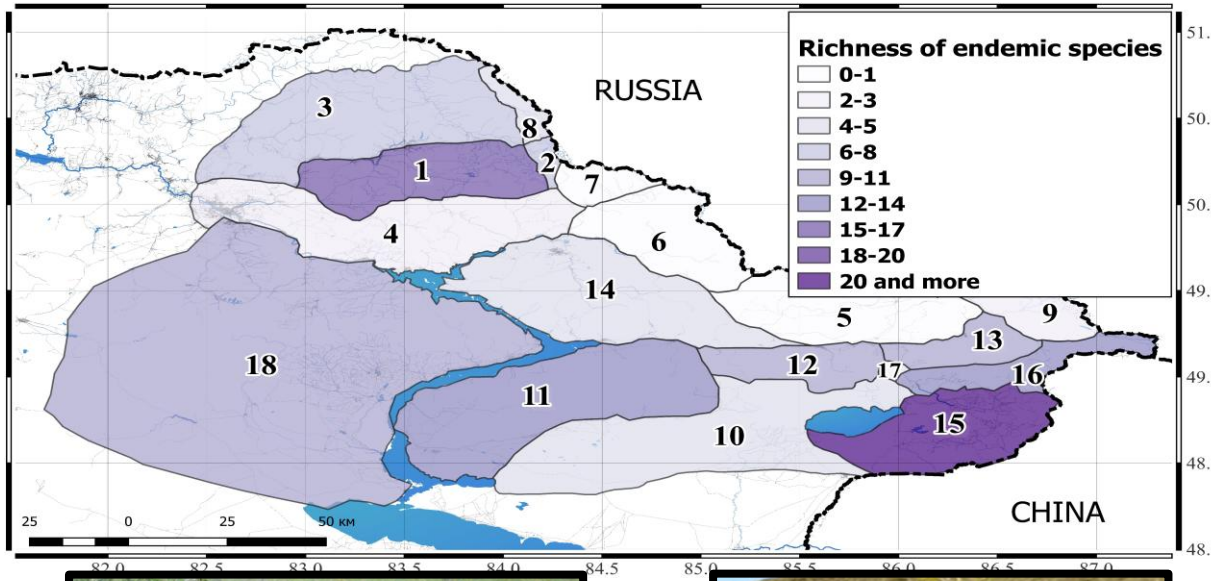


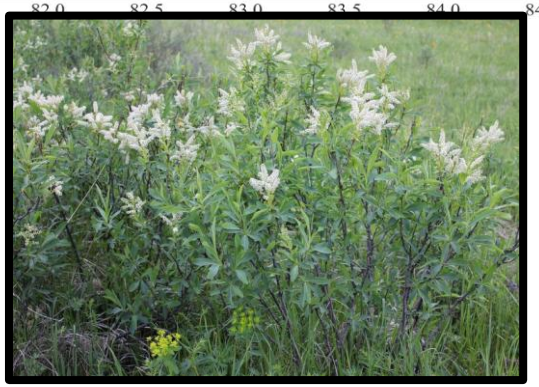
Iris ludwigii Maxim.



Lilium martagon L.

rare endemic species





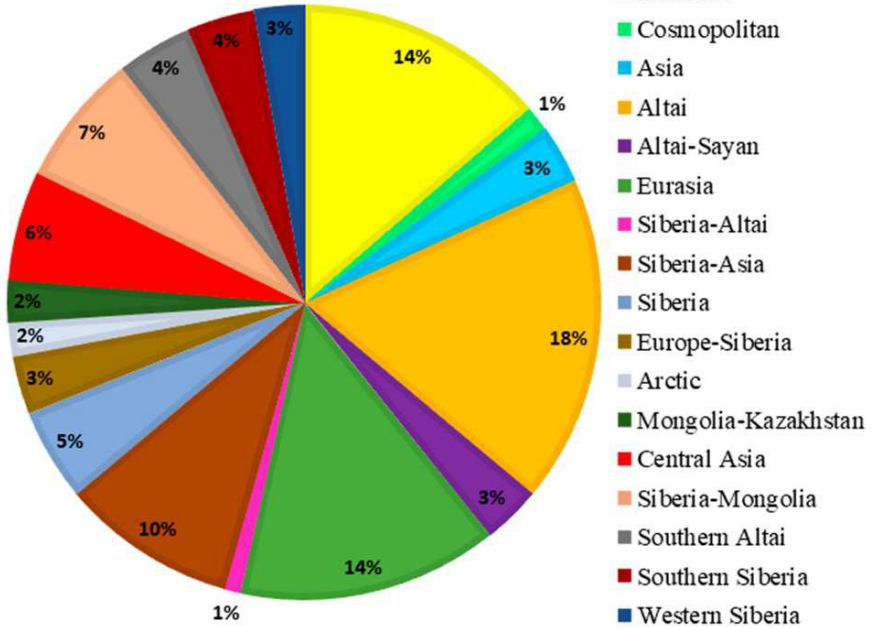
Sibiraea altaiensis L.



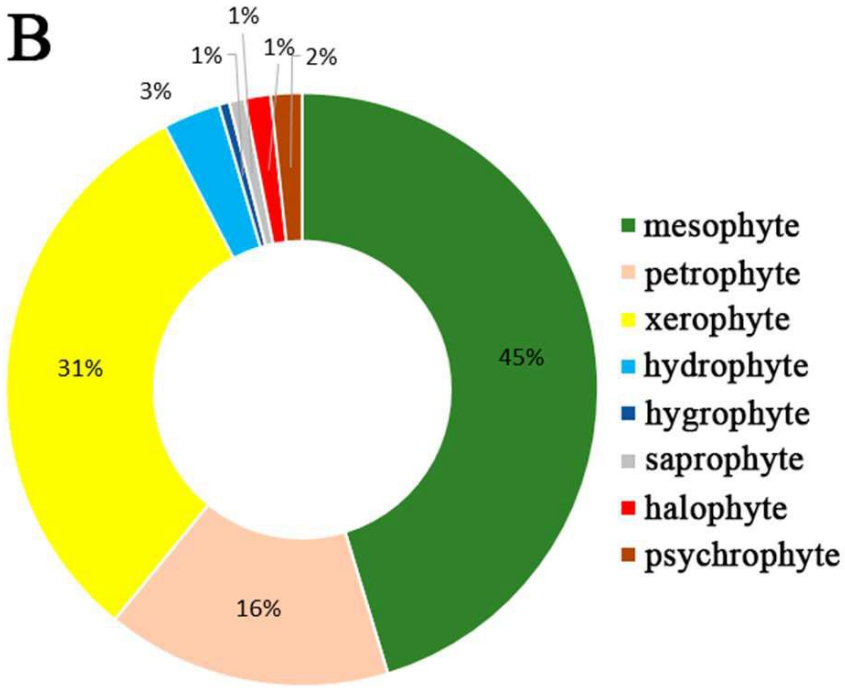
Echinops saissanicus (B. Keller) Bobrov

Ecological and Geographical Affiliation of Rare Species in the Kazakhstan Altai

A



B





Cymbaria daurica L.



Petasites rubellus (J.F. Gmel.) J. Toman

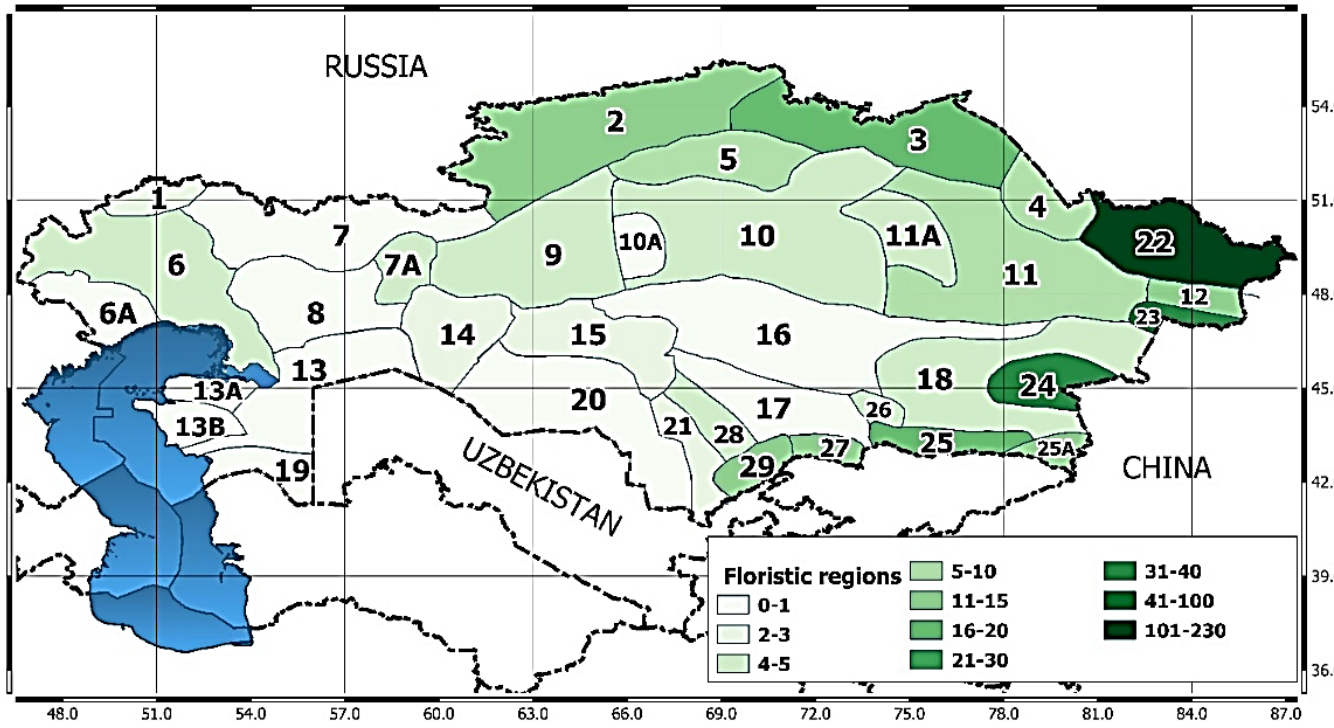


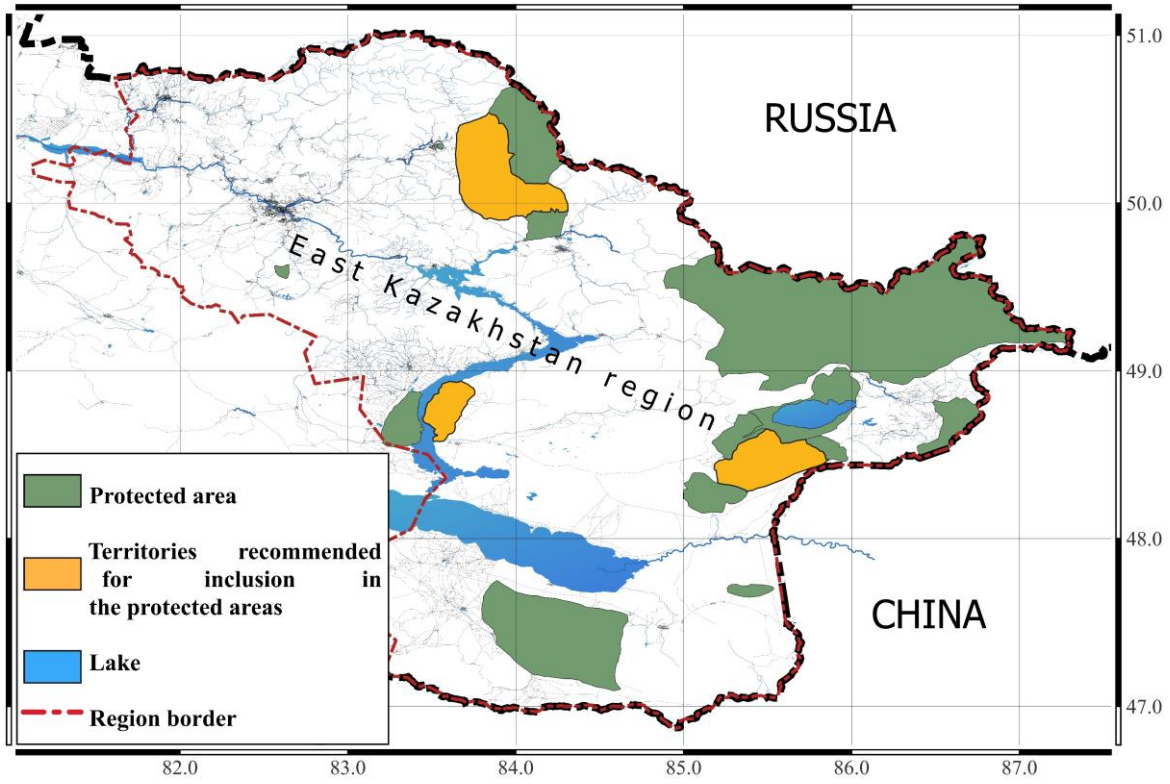
Rhodiola rosea L.



Packera heterophylla (Fisch.) E. Wiebe

Distribution and Concentration of Rare and Endangered Species of the Kazakhstan Altai within the Floristic Regions of Kazakhstan





1. Spurs of the General Syrt; 2. Tobol-Ishim; 3. Irtysh; 4. Semipalatinsk pinery; 5. Kokchetav; 6. Caspian; 6a. Bukeyev; 7. Aktobe; 7A. Mugodzhary; 8. Emba; 9. Turgai; 10. Western upland; 10a. Ulutau; 11. East upland; 11a. Karkaraly; 12. Zaysan; 13. Northern Ust-Urt; 13A. Buzachi; 13B. Mangyshlak; 14. Aral; 15. Kzyl Orda; 16. Betpak-Dala; 17. Muyunkum; 18. Balkhash-Alakol; 19. South Ust-Urt; 20. Kzyl-Kum; 21. Turkestan; 22. Altai; 23. Tarbagatai; 24. Dzungarian Alatau; 25. Ile Kungei Alatau; 25A. Ketmen Terskey Alatau; 26. Chu-Ili mountains; 27. Kyrgyz Alatau; 28. Karatau; 29. Western Tien Shan.

CR: Critically Endangered



Botrychium lunaria (L.) Sw.



Spiranthes australis (R.Br.) Lindl.



Asplenium trichomanes L.



Fritillaria meleagroides Patrin ex Schult. & Schult.f.



Cymbaria daurica L.



Cypripedium ×ventricosum Sw.

EN: Endangered



Drosera rotundifolia L.



Dryopteris cristata A. Gray



Rhododendron dauricum L.



Epipogium aphyllum Sw.



Allium microdictyon Prokh.



Lilium martagon L.



Rhodiola quadrifida (Pall.) Fisch. & C.A. Mey.

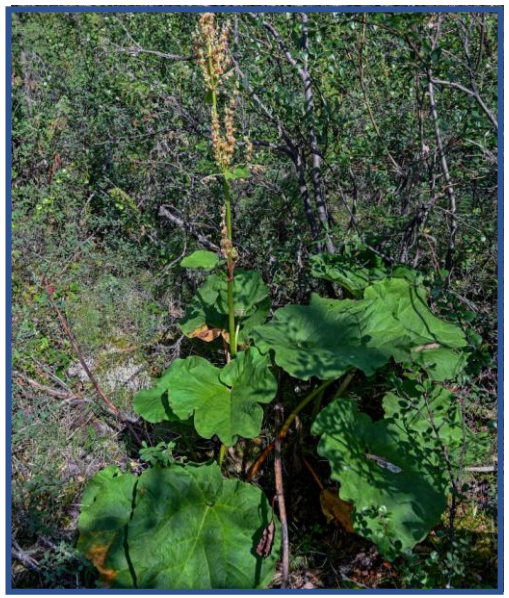


Adonis vernalis L.

VU: Vulnerable



Tulipa heteropetala Ledeb.



Rheum compactum L.



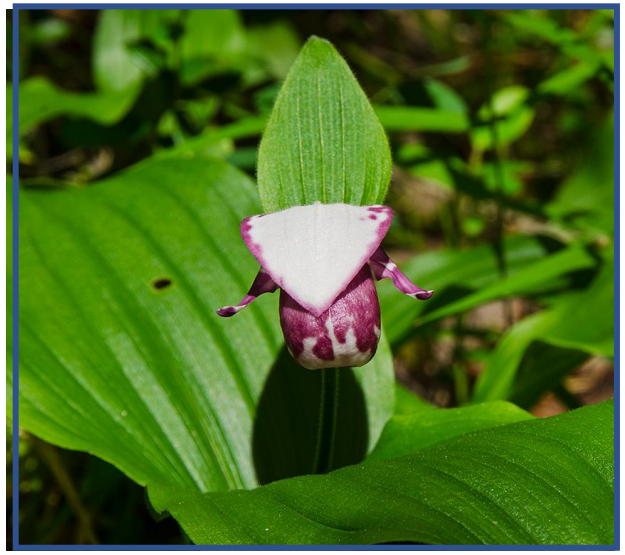
Tulipa uniflora (L.) Besser ex Baker



Huperzia selago (L.) Bernh. ex Schrank



Daphne mezereum L.



Cypripedium guttatum Sw.



Rhodiola algida (Ledeb.) Fisch. et C.A. Mey.



Goodyera repens R. Br.

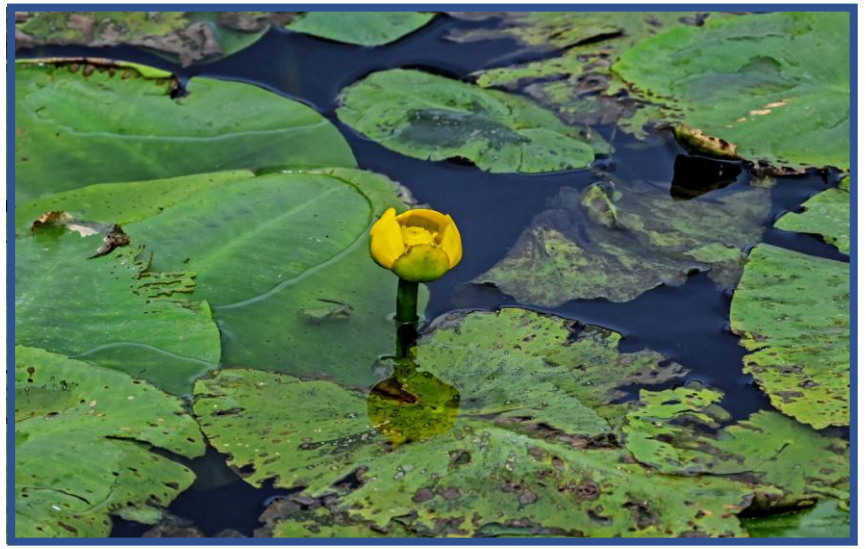
NT: Near Threatened



Spiraea alpina Pall.



Gagea altaica Schischk. et Sumnev



Nuphar lutea (L.) Sm.



Lonicera pallasii Ledeb.



Orchis militaris L.



Campanula rotundifolia L.

LC: Least Concern



Coeloglossum viride (L.) Hartm.



Tulipa altaica Pall. ex Spreng.



Alcea froloviana (Litv.) Iljin



Allium ledebourianum Schult.



Vaccinium uliginosum L.



Lycopodium annotinum L.



Cystopteris sudetica A. Braun



Dactylorhiza maculata Soó

DD: Data Deficient



Artemisia amoena Poljakov



Woodsia heterophylla Schmakov



Dactylorhiza sibirica Efimov



Bupleurum bicaule Helm



Hedysarum theinum Krasnob.



Ribes graveolens Bunge

NE: Not Evaluated



Erysimum kotuchovii D.A. German



Dactylorhiza salina Soó



Carex sylvatica Huds.



Achnatherum sibiricum (L.) Keng ex Tzvelev



Tanacetum kelleri (Krylov & Plotn.) Takht.


Thank you for your attention!