

INDEX SEMINUM 2024-2025



DENVER BOTANIC
GARDENS

ON THE COVER

Cirsium funkiae Ackerf.

Cirsium funkiae, funky thistle or Funk's thistle, first described in 2022, is native to the Rocky Mountains of central Colorado to northern New Mexico. It is found in alpine meadows and scree above 10,500 feet elevation.

Photo credit: Brooke Palmer

Warming in alpine regions over recent decades is outpacing the average global warming rate, making alpine plants particularly vulnerable to climate change. Because high-elevation species are adapted to low temperatures and deep snowpack, even small shifts in temperature can have major consequences on phenology, reproduction and survival. Given the threats, conservation action is desperately needed to safeguard our alpine treasures.

Denver Botanic Gardens and Betty Ford Alpine Gardens recently launched the [North American Alpine Plant Conservation Atlas](#), a new website showcasing alpine plant species in North America, conservation statuses, ecology, and a map of all alpine areas across the continent. This milestone supports the [North American Botanic Garden Strategy for Alpine Plant Conservation](#) and is made possible by the Institute of Museum and Library Services ([MA-255890-OMS-24](#)). [Learn more.](#)

This year's list includes many species found in the alpine areas of Colorado.

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ABOUT DENVER BOTANIC GARDENS

Denver Botanic Gardens is situated at Latitude 39°43'55.4"N, Longitude 104°57'36.5"W, at an elevation of 5,277 feet (1,609 meters) above sea level. The Gardens includes 24 acres of display and collections including a tropical conservatory, rock alpine garden, Japanese garden, native plant gardens and water gardens.

INTERNATIONAL PLANT EXCHANGE NETWORK (IPEN)

Denver Botanic Gardens is a member of IPEN with code KHD.

The IPEN number consists of four elements:

1. Country of origin (abbreviation according to [ISO 3166-1alpha-2](#), "XX" for unknown origin)
2. Restrictions of transfer ("1" if there exists a restriction, "0" if no restrictions).
3. Garden codes can be found on [Botanic Gardens Conservation International](#) website.
4. Identification number (accession number from originating IPEN member garden)

For example, **US-0-KHD-060654**

US: Plant material originates from the United States
0: There are no restrictions of transfer
KHD: Denver Botanic Gardens' IPEN code
060654: Our accession number

GARDENS NAVIGATOR

We invite you to learn more about the selections provided through this year's *Index Seminum* through our [Gardens Navigator website](#).

SEED OF CULTIVATED PLANTS

Seeds were collected from cultivated gardens at Denver Botanic Gardens York Street, other regional public gardens or from the personal gardens of horticulture staff.

ORDER #	SCIENTIFIC NAME	IPEN #	COLLECTION OR SOURCE DATA
Source is Denver Botanic Gardens' Living Collections, unless otherwise noted			
AIZOACEAE			
1	<i>Chasmatophyllum musculinum</i> (Haw.) Dinter & Schwantes	XX-0-KHD-241147	2025
2	<i>Delosperma ashtonii</i> L. Bolus	XX-0-KHD-161114	2025
APIACEAE			
3	<i>Perideridia gairdneri</i> (Hook. & Arn.) Mathias	XX-0-KHD-253226	Yampa River Botanic Park, 2025
ASPARAGACEAE			
4	<i>Nolina lindheimeriana</i> (Schelle) Wats.	XX-0-KHD-184167	2025
5	<i>Nolina texana</i> S.Watson	XX-0-KHD-163934	2025
ASTERACEAE			
6	<i>Brickellia californica</i> (Torr. & A.Gray) A.Gray	US-0-KHD-980441	ex Colorado: Baca County, 2024
7	<i>Hymenoxys hoopesii</i> (A.Gray) Bierner	XX-0-KHD-253224	Yampa River Botanic Park, 2025
8	<i>Palafoxia rosea</i> (Bush) Cory.	XX-0-KHD-243581	2025
9	<i>Senecio atratus</i> Greene	XX-0-KHD-243610	Mike Kintgen Steamboat Garden, 2024
10	<i>Townsendia glabella</i> A.Gray	US-0-KHD-190517	ex Colorado: Archuleta County, 2024
BRASSICACEAE			
11	<i>Draba rigida</i> Willd.	XX-0-KHD-253129	Betty Ford Alpine Garden, 2025
CARYOPHYLLACEAE			
12	<i>Eremogone congesta</i> (Nutt.) Ikonn.	XX-0-KHD-253222	Yampa River Botanic Park, 2205
13	<i>Saponaria</i> × <i>suendermannii</i> Fritsch	XX-0-KHD-171101	2024

SEED OF CULTIVATED PLANTS

ORDER #	SCIENTIFIC NAME	IPEN #	COLLECTION OR SOURCE DATA
CHENOPODIACEAE			
14	<i>Krascheninnikovia lanata</i> (Pursh) A.Meeuse & A.Smit.	US-0-KHD-990253	ex Colorado: Pawnee National Grassland, 2024
CRASSULACEAE			
15	<i>Sempervivum ciliosum</i> Craib	XX-0-KHD-243709	Mike Kintgen Denver Garden, 2204
16	<i>Sempervivum grandiflorum</i> Haw.	XX-0-KHD-253254	Mike Kintgen Steamboat Garden, 2025
FABACEAE			
17	<i>Hedysarum boreale</i> Nutt.	XX-0-KHD-253133	Brooke Palmer home garden, 2025
18	<i>Lupinus argenteus</i> Pursh	XX-0-KHD-243508	ex Yampa River Botanic Park, 2024
GENTIANACEAE			
19	<i>Gentiana affinis</i> Griseb.	XX-0-KHD-132614	2024
20	<i>Gentiana parryi</i> Engelm.	XX-0-KHD-243507	Yampa River Botanic Park, 2024
GERANIACEAE			
21	<i>Geranium richardsonii</i> Fisch. & Trautv.	XX-0-KHD-002486	2025
IRIDACEAE			
22	<i>Iris missouriensis</i> Nutt.	XX-0-KHD-243491	Jim Borland's home garden, 2024
LAMIACEAE			
23	<i>Monarda fistulosa</i> L.	XX-0-KHD-253225	Yampa River Botanic Park, 2025
PAPAVERACEAE			
24	<i>Corydalis aurea</i> Willd.	US-0-KHD-253118	Mike Bone home garden: ex Colorado: San Luis Valley, 2025
25	<i>Glaucium fimbrilligerum</i> Boiss.	UZ-0-KHD-243558	ex Surxondaryo Region: Sangaradak, 2024

SEED OF CULTIVATED PLANTS

ORDER #	SCIENTIFIC NAME	IPEN #	COLLECTION OR SOURCE DATA
PLANTAGINACEAE			
26	<i>Penstemon pseudospectabilis</i> M.E. Jones	XX-0-KHD-252819	Cindy Newlander home garden, 2025
27	<i>Penstemon</i> 'Sally's Surprise'	XX-0-KHD-242932	2024
28	<i>Penstemon tubaeformis</i> Nutt.	XX-0-KHD-252821	Cindy Newlander home garden, 2025
29	<i>Penstemon venustus</i> Douglas ex Lindl.	XX-0-KHD-252820	Cindy Newlander home garden, 2025
POACEAE			
30	<i>Festuca brachyphylla</i> J.A. Schultes ex J.A. & J.H. Schultes	XX-0-KHD-253253	Mike Kintgen Denver garden, 2025
POLYGONACEAE			
31	<i>Eriogonum annuum</i> Nutt.	XX-0-KHD-253160	Mike Kintgen Denver garden, 2025
PRIMULACEAE			
32	<i>Anagallis monelli</i> L. ssp. <i>monelli</i>	XX-0-KHD-253218	Kendrick Lake Park, Lakewood, Colorado, 2025



Pedicularis groenlandica Retz. (Brooke Palmer)

SEED OF CULTIVATED PLANTS

ORDER #	SCIENTIFIC NAME	IPEN #	COLLECTION OR SOURCE DATA
RANUNCULACEAE			
33	<i>Delphinium geyeri</i> Greene	US-0-KHD-192455	ex Colorado: Weld County, 2025
ROSACEAE			
34	<i>Cercocarpus montanus</i> Raf.	XX-0-KHD-043080	2025
35	<i>Dryas</i> × <i>suendermannii</i> Kellerer ex Sünd.	XX-0-KHD-194774	2024
36	<i>Holodiscus discolor</i> (Pursh) Maxim. var. <i>dumosus</i> (S.Watson) Maxim. ex J.M.Coult	XX-0-KHD-951411	2025
37	<i>Malus ioensis</i> (Wood) Britt. var. <i>texana</i> Rehd.	XX-0-KHD-032351	2025
38	<i>Sorbus scopulina</i> Greene	XX-0-KHD-811595	2025
SAXIFRAGACEAE			
39	<i>Telesonix jamesii</i> (Torr.) Raf.	XX-0-KHD-192971	2025
SOLANACEAE			
40	<i>Fabiana australis</i> Alaria	XX-0-KHD-023671	2024
41	<i>Fabiana australis</i> Alaria	XX-0-KHD-152367	2025



Chaenactis douglasii var. *alpina* A.Gray (Brooke Palmer)

WILD COLLECTED SEEDS

ORDER #	SCIENTIFIC NAME	IPEN #	COLLECTION OR SOURCE DATA
APIACEAE			
42	<i>Ligusticum porteri</i> J.M. Coult. & Rose	US-0-KHD-243764	Routt County: Mill Creek Valley. Aspen forest. ca 2514 ft. 2024.
ASTERACEAE			
43	<i>Arnica parryi</i> Gray	US-0-KHD-242332	Routt County: Mill Creek Valley. Mesic meadow. ca 2470 m. 2024.
44	<i>Artemisia tridentata</i> Nutt.	US-0-KHD-242332	Grand County: Troublesome Creek. Badlands/sagebrush. 2365 m. 2025.
45	<i>Chaenactis douglasii</i> (Hook.) Hook. & Arn. var. <i>alpina</i> A.Gray	US-0-KHD-253116	Lake County: Dyer's Amphitheater. Alpine scree boulder field. 3627 m. 2025.
46	<i>Cirsium funkiae</i> Ackerfield & D.J. Keil, Sp. Nov.	US-0-KHD-251878	Lake County: Dyer's Amphitheater. Alpine scree. 3685 m. 2025.
47	<i>Helianthella quinquenervis</i> (Hook.) A.Gray	US-0-KHD-251998	Routt County: Mill Creek Valley. Aspen forest. ca 2514 m. 2024.
48	<i>Helianthella quinquenervis</i> (Hook.) A.Gray	US-0-KHD-243762	Lake County: Dyer's Amphitheater. Alpine, dry rocky hill. 3561 m. 2025.
49	<i>Hymenoxys grandiflora</i> (Torr. & A.Gray) K.L. Parker	US-0-KHD-252011	Lake County: Dyer's Amphitheater. Alpine, dry rocky slope. 3675 m. 2025.
50	<i>Hymenoxys hoopesii</i> (A.Gray) Bierner	US-0-KHD-252006	Routt County: Mill Creek Valley. Meadow. ca 2514 m. 2024.
51	<i>Pyrrocoma crocea</i> (A.Gray) Greene	US-0-KHD-243763	Routt County: Mill Creek Valley. Dry bank of pond. ca 2473 m. 2025.
52	<i>Senecio atratus</i> Greene	US-0-KHD-252356	Lake County: Dyer's Amphitheater. Alpine, dry rocky mountainside. 3654 m. 2025.
53	<i>Senecio bigelovii</i> A.Gray	US-0-KHD-252009	Routt County: Mill Creek Valley. Wet meadow along creek. ca 2473 m. 2025.
54	<i>Tetradymia canescens</i> DC.	US-0-KHD-252357	Grand County: Troublesome Creek. Badlands/sagebrush. Loamy sand. 2365 m. 2025.
CARYOPHYLLACEAE			
55	<i>Silene acaulis</i> (L.) Jacq.	US-0-KHD-252007	Lake County: Dyer's Amphitheater. Alpine, dry rocky exposed ridge. 3677 m. 2025.
CYPERACEAE			
56	<i>Carex chalciolepis</i> Holm	US-0-KHD-252008	Lake County: Dyer's Amphitheater. Alpine, dry rocky mountainside. 3663 m. 2025.

WILD COLLECTED SEEDS

ORDER #	SCIENTIFIC NAME	IPEN #	COLLECTION OR SOURCE DATA
FABACEAE			
57	<i>Trifolium dasyphyllum</i> Torr. & A.Gray	US-0-KHD-251879	Lake County: Dyer's Amphitheater. Alpine talus. 3672 m. 2025.
GENTIANACEAE			
58	<i>Gentiana parryi</i> Engelm.	US-0-KHD-260151	Routt County: Mill Creek Valley. ca 2514 m. 2024.
OROBANCHACEAE			
59	<i>Castilleja miniata</i> Douglas ex Hooker	US-0-KHD-252361	Routt County: Mill Creek Valley. Seasonally moist meadow. ca 2476 m. 2025.
60	<i>Castilleja occidentalis</i> Torrey	US-0-KHD-252003	Lake County: Dyer's Amphitheater. Alpine, dry grassy hill. 3673 m. 2025.
61	<i>Castilleja septentrionalis</i> Lindl.	US-0-KHD-242328	Routt County: Mill Creek Valley. Seasonally moist meadow. ca 2472 m. 2024.
62	<i>Pedicularis bracteosa</i> Benth.	US-0-KHD-252012	Lake County: Dyer's Amphitheater. Alpine wet meadow. 3683 m. 2025.
63	<i>Pedicularis groenlandica</i> Retz.	US-0-KHD-242330	Routt County: Mill Creek Valley. Moist opening in willows along creek. ca 2472 m. 2024.
64	<i>Pedicularis groenlandica</i> Retz.	US-0-KHD-252000	Lake County: Dyer's Amphitheater. Alpine wet meadow. 3683 m. 2025.
65	<i>Pedicularis groenlandica</i> Retz.	US-0-KHD-252355	Routt County: Mill Creek Valley. Moist gravel bar of stream. ca 2473 m. 2025.
66	<i>Pedicularis procera</i> A.Gray	US-0-KHD-252360	Routt County: Mill Creek Valley. Seasonally moist meadow. 2474 m. 2025.
PLANTAGINACEAE			
67	<i>Penstemon hallii</i> A.Gray	US-0-KHD-252005	Lake County: Dyer's Amphitheater. Alpine, dry rocky slope. 3677 m. 2025.
68	<i>Penstemon rydbergii</i> A.Nels.	US-0-KHD-242331	Routt County: Mill Creek Valley. Seasonally moist meadow. ca 2473 m. 2024.
69	<i>Penstemon rydbergii</i> A.Nels.	US-0-KHD-252358	Routt County: Mill Creek Valley. Moist meadow at edge of willows. ca 2475 m. 2025.
70	<i>Penstemon whippleanus</i> A.Gray	US-0-KHD-252004	Lake County: Dyer's Amphitheater. Alpine, dry rocky slope. 3677 m. 2025.
POLEMONIACEAE			
71	<i>Polemonium confertum</i> A.Gray	US-0-KHD-252001	Lake County: Dyer's Amphitheater. Alpine, rocky slope below rock outcropping. 3701 m. 2025.

WILD COLLECTED SEEDS

ORDER #	SCIENTIFIC NAME	IPEN #	COLLECTION OR SOURCE DATA
POLYGONACEAE			
72	<i>Bistorta vivipara</i> (L.) Delarb.	US-0-KHD-252002	Lake County: Dyer's Amphitheater. Alpine wet meadow. 3678 m. 2025.
73	<i>Eriogonum umbellatum</i> Torr. var. <i>majus</i> Hook.	US-0-KHD-243730	Routt County: Mill Creek Valley. Sagebrush steppe. ca 2514 m. 2024.
74	<i>Eriogonum umbellatum</i> Torr. var. <i>majus</i> Hook.	US-0-KHD-252353	Routt County: Mill Creek Valley. Dry slope with sagebrush and <i>Ericameria parryi</i> . ca 2472 m. 2025.
RANUNCULACEAE			
75	<i>Aquilegia coerulea</i> E.James	US-0-KHD-243679	Routt County: Mill Creek Valley. Aspen forest. ca 2514 m. 2024.
76	<i>Aquilegia coerulea</i> E.James	US-0-KHD-252010	Lake County: Dyer's Amphitheater. Alpine boulder field. 3614 m. 2025.
77	<i>Caltha chionophila</i> Greene	US-0-KHD-251999	Lake County: Dyer's Amphitheater. Alpine wet meadow. 3685 m. 2025.
78	<i>Clematis hirsutissima</i> Pursh	US-0-KHD-252354	Routt County: Mill Creek Valley. Sagebrush hillside with scattering of aspen. ca 2488 m. 2025.

All collections from United States: Colorado unless otherwise noted.
Detailed collection data will be provided with shipped seeds or upon request.



Dryas hookeriana Juz. on Bison Peak, Lost Creek Wilderness, Colorado (Jen Toews)

GENERAL INFORMATION

PLEASE NOTE:

- Seeds of some species are in short supply and will be distributed in order of request.
- Seeds are the result of open pollination and may be hybridized.
- We give no warranty as to the quality, productiveness or any other matter for seeds we supply.
- Species are chosen for their performance in Denver, Colorado's climate; we cannot speak to qualities such as invasiveness in other climates, but we request any data pertaining to invasiveness of these species in other region to be communicated to Denver Botanic Gardens for future reference. We will not knowingly distribute seed to places where a taxon has been identified as invasive.
- Please note if a phytosanitary certificate is required for importing into your country.

Seeds from cultivated plants collected by Mike Bone, Mike Kintgen, Cindy Newlander and Brooke Palmer. Seeds from the wild collected by Katie Ashley, Mike Bone, Emily Griffoul, Mike Kintgen, Brooke Palmer, and Jen Toews. Seed requests fulfilled and data tracked by Gardens volunteers Barry Levene and Gary Waggoner. Catalog coordinated by Cindy Newlander and Brooke Palmer.

SOURCES FOR NOMENCLATURE

Plant names and family arrangement are based on data found in [Kew's Plants of the World Online](#), [World Flora Online](#), [The Flora of North America](#), and [Flora of Colorado, Second Edition](#) by Jennifer Ackerfield.

CLIMATE DATA FOR DENVER:

Lowest temperature recorded (1921-2024)	-25° F/-3.9° C (Dec. 22, 1990)
Highest temperature recorded (1921-2024)	105° F/40.6° C (June 28, 2018)
Average high temperature June	83.5° F/28.6° C
Average low temperature June	53.7° F/12.1° C
Average high temperature December	44.8° F/7.1° C
Average low temperature December (from National Weather Service, weather.gov , 1990-2025)	18.6° F/-7.4° C
Annual precipitation (2025)	12.06 inches/30.6 cm
Average precipitation (2007-2025)	16.74 inches/42.5 cm
Denver Botanic Gardens weather station	